



RESPONDENT'S TRANSMITTAL LETTER TO LEVY COUNTY ITB NO. 2021 014

Respondent:

Perma-Fix of Florida, Inc.
1940 NW 67th Place
Gainesville, FL 32653-1692

Point of Contact:

Kevin Schmuggerow
Vice President Southeast Operations
1940 NW 67th Place
Gainesville, FL 32653-1692
Mobile: (404) 989-1665
Email: kschmuggerow@perma-fix.com



Levy County ITB No. 2021_014
Perma-Fix Proposal Number 2021-0598

Alicia Tretheway, Procurement Coordinator/ADA Coordinator
Levy County Board Of County Commission
310 School Street
Bronson, Florida 32621
(352) 486-5218 Ext. 2

Subject: ITB No. 2021_014 – Hazardous Waste Disposal Contract

Dear Ms. Tretheway:

Perma-Fix of Florida, Inc., is pleased to submit this proposal for the Hazardous Waste Disposal Contract for Levy County. Our fully permitted hazardous waste Treatment, Storage, and Disposal Facility (TSDF) in Gainesville, FL, and our dedicated professional staff will ensure that Levy County is provided with safe and reliable hazardous waste collection, transportation, and disposal services.

Perma-Fix hereby acknowledges the contents of this proposal are true and accurate. Perma-Fix has the resources and capabilities necessary to meet the insurance, bonding, licensing and performance requirements of this request for proposal and has not been involved in any litigation within the past five (5) years for any reasons related to the performance of our services. Perma-Fix of Florida further acknowledges their intent to execute a contractual agreement with Levy County in the event our proposal is selected as most advantageous to the County.

The primary contact for this proposal is Kevin Schmuggerow.

Perma-Fix appreciates the opportunity to be considered for this project. Please do not hesitate to contact me if you have any questions regarding this proposal.

Best Regards,

A handwritten signature in blue ink that reads "Kevin F. Schmuggerow".

Kevin Schmuggerow
Vice President Southeast Operations

(404) 989-1665 - Mobile
kschmuggerow@perma-fix.com - Email

ATTACHMENT A – BID PROPOSAL SCHEDULE OF PRICING

Unit pricing per the form(s) provide in ITB No. 2021_014 are attached.

ATTACHMENT "A" BID PROPOSAL SCHEDULE OF PRICING

The bidder shall submit pricing for all unit prices shown below. These prices shall be for disposal at a facility meeting the qualifications in the bid documents.

These unit prices shall be used to calculate total prices for each line item. These total prices shall then be used to calculate a total bid price for bid award purposes. This total bid price shall constitute the cost portion of the determination of bid award.

* Hours considered for payment for the project manager, field chemists and all other transporter personnel shall be for time spent at the event/project/station cleanout only. Travel time, overtime, overnight stay, etc., shall not be considered for payment due.

	<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
1. *Project Manager – Cost Per Hour	\$ <u>125.00</u>	43 Hours	\$ <u>5,375.00</u>
2. *Field Chemist – Cost Per Hour	\$ <u>20.00</u>	400 Hours	\$ <u>8,000.00</u>
3. *Other – Provide One Cost Only - Cost per hour i.e., drivers, equipment operators, Traffic control personnel, chemical technicians, Others.	\$ <u>65.00</u>	56 Hours	\$ <u>3,640.00</u>
4. Unit Cost for Empty Drums			
a. 49 CFR approved containers (includes lid, gasket, ring and bolt)			
5-gallon plastic removable head 1h2	\$ <u>25.00</u>	1	\$ <u>25.00</u>
5-gallon steel removable head 1A2	\$ <u>25.00</u>	1	\$ <u>25.00</u>
20-gallon fiber removable head 1G2	\$ <u>30.00</u>	1	\$ <u>30.00</u>
30-gallon steel removable head 1A2	\$ <u>75.00</u>	1	\$ <u>75.00</u>
30-gallon steel non-removable head 1A1	\$ <u>75.00</u>	1	\$ <u>75.00</u>
55-gallon steel removable head 1A2	\$ <u>85.00</u>	1	\$ <u>85.00</u>
55-gallon steel non-removable head 1A1	\$ <u>85.00</u>	1	\$ <u>85.00</u>
85-gallon over pack steel 1A2	\$ <u>250.00</u>	1	\$ <u>250.00</u>
85-gallon over pack plastic 1A2	\$ <u>150.00</u>	1	\$ <u>150.00</u>

All Lab pack pricing listed below shall include all costs incurred including the cost of the container, packaging, materials, labels and transportation charges.

All bulk pricing listed below shall include all costs incurred including packaging materials, labels and transportation charges, with exception of the cost of the container.

		Est. Annual	Total
	<u>Unit Price</u>	<u>Quantity</u>	<u>Price</u>
5.			
a1.	Absorbents w/Characteristic Hazardous Waste, Exceeding Treatment Standards		
	30-gallon	1	<u>\$ 100.00</u>
	55-gallon	2	<u>\$ 600.00</u>
a2.	Absorbents w/Petroleum Contamination		
	30-gallon	1	<u>\$ 100.00</u>
	55-gallon	4	<u>\$ 600.00</u>
b1.	Adhesives/Caulking Compounds – Bulk In Containers – Flammable/Non-Flammable		
	30-gallon	1	<u>\$ 100.00</u>
	55-gallon	1	<u>\$ 375.00</u>
c1.	Aerosols – Mixture – Bulk		
	30-gallon	1	<u>\$ 100.00</u>
	55-gallon	4	<u>\$1,200.00</u>
d1.	Analysis Cost for Unknowns TCLP	1	<u>\$ 250.00</u>
d2.	Analysis Cost for Unknowns Field ID	1	<u>\$ 35.00</u>
e1.	Asbestos Containing Materials – Bulk		
	5-gallon	1	<u>\$ 50.00</u>
	20-gallon	1	<u>\$ 75.00</u>
	30-gallon	1	<u>\$ 100.00</u>
	55-gallon	1	<u>\$ 200.00</u>
Batteries			
f1.	Lead Acid Battery (car battery) per unit	0	<u>\$ 0.00</u>
f2.	Dry Cell/Alkaline Batteries – Bulk		
	5-gallon	1	<u>\$ 50.00</u>
	20-gallon	1	<u>\$ 75.00</u>
	30-gallon	1	<u>\$ 100.00</u>

	<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
55-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
f3. Nickel – Cadmium Batteries – Bulk			
5-gallon	<u>\$ 85.00</u>	1	<u>\$ 85.00</u>
20-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon	<u>\$ 350.00</u>	1	<u>\$ 350.00</u>
f4. Button Batteries, Mercury – Bulk			
5-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
20-gallon	<u>\$ 175.00</u>	1	<u>\$ 175.00</u>
30-gallon	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
f5. Lithium Batteries – Bulk			
5-gallon	<u>\$ 150.00</u>	2	<u>\$ 300.00</u>
20-gallon	<u>\$ 175.00</u>	1	<u>\$ 175.00</u>
30-gallon	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
f6. Gel Cell Lead Acid Batteries – Bulk			
5-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
20-gallon	<u>\$ 90.00</u>	1	<u>\$ 90.00</u>
30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
g1. Chlorinated Solvents			
5-gallon lab pack	<u>\$ 30.00</u>	1	<u>\$ 30.00</u>
20-gallon lab pack	<u>\$ 40.00</u>	1	<u>\$ 40.00</u>
30-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
55-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
g2. Chlorinated Solvents – Bulk			
30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
h1. Corrosive Liquids Acidic			
5-gallon lab pack	<u>\$ 50.00</u>	3	<u>\$ 150.00</u>
20-gallon lab pack	<u>\$ 75.00</u>	4	<u>\$ 300.00</u>
30-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon lab pack	<u>\$ 300.00</u>	4	<u>\$1,200.00</u>

		<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
h2.	Corrosive Liquids Acidic - Bulk			
	30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
	55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
h3.	Corrosive Liquids Alkaline			
	5-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
	20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
	30-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
	55-gallon lab pack	<u>\$ 250.00</u>	4	<u>\$1,000.00</u>
h4.	Corrosive Liquids Alkaline – Bulk			
	30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
	55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
h5.	Corrosive Solids			
	5-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
	20-gallon lab pack	<u>\$ 65.00</u>	4	<u>\$ 260.00</u>
	30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon lab pack	<u>\$ 150.00</u>	4	<u>\$ 600.00</u>
h6.	Corrosive Solids – Bulk			
	30-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
	85-gallon	<u>\$ 350.00</u>	1	<u>\$ 350.00</u>
i1.	Cyanides			
	5-gallon lab pack	<u>\$ 200.00</u>	2	<u>\$ 400.00</u>
	20-gallon lab pack	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
	30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
	55-gallon lab pack	<u>\$ 350.00</u>	1	<u>\$ 350.00</u>
j1.	Dioxins – Household Quantities			
	5-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
	20-gallon lab pack	<u>\$ 100.00</u>	2	<u>\$ 200.00</u>
	30-gallon lab pack	<u>\$ 125.00</u>	1	<u>\$ 125.00</u>
	55-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
j2.	Dioxins – Bulk Price Per Pound	<u>\$ 20.00</u>	1	<u>\$ 20.00</u>
k1.	Fertilizers - Bulk			
	30-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon	<u>\$ 150.00</u>	5	<u>\$ 750.00</u>

	<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
11. Flammable Liquids – Bulk < 1 inch solids, BTU Value> 10,000			
30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
55-gallon	<u>\$ 175.00</u>	1	<u>\$ 175.00</u>
12. Flammable Liquids – Bulk > 1 inch but < 6 inches' solids, BTU Value > 10,000			
30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
55-gallon	<u>\$ 175.00</u>	5	<u>\$ 875.00</u>
13. Flammable Liquids – Bulk < 18 inches' solids, BTU Value> 5,000			
30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
14. Flammable Liquids – Bulk Soft Sludge's, BTU Value > 5,000 pourable			
30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
15. Flammable Liquids – Consolidation/Inc.			
5-gallon lab pack	<u>\$ 30.00</u>	1	<u>\$ 30.00</u>
20-gallon lab pack	<u>\$ 40.00</u>	1	<u>\$ 40.00</u>
30-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
55-gallon lab pack	<u>\$ 95.00</u>	1	<u>\$ 95.00</u>
16. Flammable Liquids – Fuels Blending			
5-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
20-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
30-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon lab pack	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
17. Flammable Liquids – Incineration			
5-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
55-gallon lab pack	<u>\$ 125.00</u>	2	<u>\$ 250.00</u>
18. Flammable Solids			
5-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
55-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>

	<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
l9. Flammables Solids – Bulk			
30-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
Fluorescent Tubes			
m1. Straight, includes supplying storage boxes per linear foot	<u>\$ 1.00</u>	1	<u>\$ 1.00</u>
m2. Compact, includes supplying storage boxes per unit	<u>\$ 1.00</u>	1	<u>\$ 1.00</u>
n1. Isocyanates			
5-gallon lab pack	<u>\$ 150.00</u>	4	<u>\$ 600.00</u>
20-gallon lab pack	<u>\$ 175.00</u>	1	<u>\$ 175.00</u>
30-gallon lab pack	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon lab pack	<u>\$ 450.00</u>	1	<u>\$ 450.00</u>
o1. Liquids Containing Polychlorinated Biphenyls			
5-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
20-gallon lab pack	<u>\$ 175.00</u>	1	<u>\$ 175.00</u>
30-gallon lab pack	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
o2. Liquids Containing Polychlorinated Biphenyls Bulk			
30-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
o3. Solids Containing Polychlorinated Biphenyls			
5-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
20-gallon lab pack	<u>\$ 125.00</u>	1	<u>\$ 125.00</u>
30-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
o4. Solids Containing Polychlorinated			
30-gallon	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon	<u>\$ 400.00</u>	1	<u>\$ 400.00</u>
p1. Maneb, Preparations			
5-gallon lab pack	<u>\$ 40.00</u>	4	<u>\$ 160.00</u>
20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
30-gallon lab pack	<u>\$ 110.00</u>	1	<u>\$ 110.00</u>
55-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>

	<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
q1. Mercury Metallic, Liquid			
5-gallon lab pack	<u>\$ 250.00</u>	3	<u>\$ 750.00</u>
20-gallon lab pack	<u>\$ 275.00</u>	1	<u>\$ 275.00</u>
30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
55-gallon lab pack	<u>\$ 325.00</u>	1	<u>\$ 325.00</u>
q2. Mercury Containing Compounds, Liquids			
5-gallon lab pack	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
20-gallon lab pack	<u>\$ 275.00</u>	1	<u>\$ 275.00</u>
30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
55-gallon lab pack	<u>\$ 325.00</u>	1	<u>\$ 325.00</u>
q3. Mercury Containing Compounds, Solids			
5-gallon lab pack	<u>\$ 250.00</u>	2	<u>\$ 500.00</u>
20-gallon lab pack	<u>\$ 275.00</u>	1	<u>\$ 275.00</u>
30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
55-gallon lab pack	<u>\$ 325.00</u>	1	<u>\$ 325.00</u>
q4. Mercury Containing Solutions < 260mg/liter 11g			
5-gallon lab pack	<u>\$ 250.00</u>	2	<u>\$ 500.00</u>
20-gallon lab pack	<u>\$ 275.00</u>	1	<u>\$ 275.00</u>
30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
55-gallon lab pack	<u>\$ 325.00</u>	1	<u>\$ 325.00</u>
q5. Mercury Solutions > 260mg/liter 11g			
5-gallon lab pack	<u>\$250.00</u>	1	<u>\$ 250.00</u>
20-gallon lab pack	<u>\$ 275.00</u>	1	<u>\$ 275.00</u>
30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$300.00</u>
55-gallon lab pack	<u>\$ 325.00</u>	1	<u>\$325.00</u>
q6. Mercury Debris Thermometers, Thermostats, Switches			
5-gallon lab pack	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
20-gallon lab pack	<u>\$ 275.00</u>	1	<u>\$ 275.00</u>
30-gallon lab pack	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
55-gallon lab pack	<u>\$325.00</u>	1	<u>\$ 325.00</u>
r1. Naphthalene, Refined			
5-gallon lab pack	<u>\$ 50.00</u>	1	<u>\$ 50.00</u>
20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
55-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>

	<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
s1. Organic Peroxides Liquid, Type E			
5-gallon lab pack	<u>\$ 50.00</u>	3	<u>\$ 150.00</u>
20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
55-gallon lab pack	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
t1. Oxidizer Liquids			
5-gallon lab pack	<u>\$ 100.00</u>	2	<u>\$ 200.00</u>
20-gallon lab pack	<u>\$ 125.00</u>	1	<u>\$ 125.00</u>
30-gallon lab pack	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon lab pack	<u>\$ 450.00</u>	1	<u>\$ 450.00</u>
t2. Oxidizer Liquids – Bulk			
30-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
55-gallon	<u>\$ 500.00</u>	1	<u>\$ 500.00</u>
t3. Oxidizer Solids			
5-gallon lab pack	<u>\$ 50.00</u>	4	<u>\$ 200.00</u>
20-gallon lab pack	<u>\$ 100.00</u>	4	<u>\$ 400.00</u>
30-gallon lab pack	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon lab pack	<u>\$ 550.00</u>	1	<u>\$ 550.00</u>
t4. Oxidizer Solids – Bulk			
30-gallon	<u>\$ 200.00</u>	1	<u>\$ 200.00</u>
55-gallon	<u>\$ 550.00</u>	1	<u>\$ 550.00</u>
u1. Paint in Cans – Bulk Oil Base Containers less than 1 gallon			
30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
u2. Paint, Oil Base – Bulk < 1 inch solids			
30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
u3. Paint, Oil Base – Bulk > 1 but < 6 inches' solids			
30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
u4. Paint, Oil Base – Bulk < 18 inches' solids			
30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
55-gallon	<u>\$ 150.00</u>	8	<u>\$ 1,200.00</u>

		<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
u5.	Paint, Latex – Bulk < 1 inch solids			
	30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
	55-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
u6.	Paint, Latex – Bulk > 1 but < 6 inches' solids			
	30-gallon	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
	55-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
u7.	Paint, Latex – Bulk < 18 inches' solids			
	30-gallon	<u>\$75.00</u>	1	<u>\$ 75.00</u>
	55-gallon	<u>\$ 100.00</u>	20	<u>\$2,000.00</u>
v1.	Poison Liquids – Bulk			
	5-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	20-gallon lab pack	<u>\$ 125.00</u>	2	<u>\$ 250.00</u>
	30-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
	55-gallon lab pack	<u>\$ 300.00</u>	2	<u>\$ 600.00</u>
v2.	Poison Liquids – Bulk			
	30-gallon	<u>\$150.00</u>	1	<u>\$ 150.00</u>
	55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
v3.	Poison Solids			
	5-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	20-gallon lab pack	<u>\$ 125.00</u>	1	<u>\$ 125.00</u>
	30-gallon lab pack	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
	55-gallon lab pack	<u>\$ 300.00</u>	4	<u>\$1,200.00</u>
v4.	Poison Solids – Bulk			
	30-gallon	<u>\$ 150.00</u>	1	<u>\$ 150.00</u>
	55-gallon	<u>\$ 300.00</u>	1	<u>\$ 300.00</u>
w1.	Reactive Liquids Price Per Pound	<u>\$ 20.00</u>	1	<u>\$ 20.00</u>
w2.	Reactive Solids Price Per Pound	<u>\$ 10.00</u>	22	<u>\$ 220.00</u>
x1.	Roofing Tars/Coatings – Bulk Non-Asbestos in Containers			
	30-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon	<u>\$ 250.00</u>	2	<u>\$ 500.00</u>

		<u>Unit Price</u>	<u>Est. Annual Quantity</u>	<u>Total Price</u>
x2.	Roofing Tars/Coatings – Bulk with Asbestos in Containers			
	30-gallon	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon	<u>\$ 250.00</u>	1	<u>\$ 250.00</u>
y1.	Sodium Sulfide, Solutions			
	5-gallon lab pack	<u>\$ 50.00</u>	2	<u>\$ 100.00</u>
	20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
	30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon lab pack	<u>\$300.00</u>	1	<u>\$ 300.00</u>
z1.	Used Oil – Bulk Price Per Gallon	<u>\$ 1.00</u>	0	<u>\$ 0.00</u>
z2.	Used Oil – Bulk Price Per Gallon > 50% Water	<u>\$ 2.00</u>	0	<u>\$ 0.00</u>
z3.	Used Oil – Bulk Price Per Gallon Contaminated (Hazardous Waste)	<u>\$ 10.00</u>	0	<u>\$ 0.00</u>
z4.	Used Oil Filters – Bulk Uncrushed			
	55-gallon	<u>\$ 150.00</u>	0	<u>\$ 0.00</u>
aa1.	Used Antifreeze – Bulk Non-Regulated			
	55-gallon	<u>\$ 150.00</u>	0	<u>\$ 0.00</u>
aa2.	Used Antifreeze – Bulk Containing Lead			
	55-gallon	<u>\$ 300.00</u>	0	<u>\$ 0.00</u>
bb1.	Zinc Phosphide			
	5-gallon lab pack	<u>\$ 50.00</u>	3	<u>\$ 150.00</u>
	20-gallon lab pack	<u>\$ 75.00</u>	1	<u>\$ 75.00</u>
	30-gallon lab pack	<u>\$ 100.00</u>	1	<u>\$ 100.00</u>
	55-gallon lab pack	<u>\$ 400.00</u>	1	<u>\$ 400.00</u>

Total Price for Bid Award Purposes: \$ 66547.00
Total of Unit Prices
Pages 20 through 29


Bid prices shall be firm for the contract period. Please list any substitutions if any, on a separate page.

Name of Business: Perma-Fix of Florida, Inc.

Contact Person: Kevin Schmuggerow, VP Southeast Ops.

Email Address: kschmuggerow@perma-fix.com

Date: 09/28/2021

Authorized Signature: 

(Remainder of Page Intentionally Left Blank)



ATTACHMENT B – CERTIFICATE OF INSURANCE

Proof of insurance is attached in the amounts and types prescribed in ITB No. 2021_014.

**CERTIFICATE OF LIABILITY INSURANCE**

DATE (MM/DD/YYYY)

9/22/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Commercial Lines - (404) 923-3700 USI Insurance Services LLC 1 Concourse Parkway NE, Suite 700 Atlanta, GA 30328	CONTACT NAME: Gail Rapa PHONE (A/C, No, Ext): 470-875-0345 E-MAIL ADDRESS: gail.rapa@usi.com	FAX (A/C, No):
	INSURER(S) AFFORDING COVERAGE	
INSURED Perma- Fix of Florida, Inc 1940 N.W. 67th Place Gainesville, FL 32653	INSURER A: Greenwich Insurance Company	NAIC # 22322
	INSURER B: XL Insurance America, Inc.	24554
	INSURER C: Indian Harbor Insurance Company	36940
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES

CERTIFICATE NUMBER: 15435750

REVISION NUMBER: See below

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR Deductible: none GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			GEC300046307	9/1/2021	9/1/2022	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			AEC004445107 Liability ded: none MCS-90 included	9/1/2021	9/1/2022	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			UEC004445207 (Umb coverage is n/a to Prof/Poll & Poll Leg Liab)	9/1/2021	9/1/2022	EACH OCCURRENCE \$ 10,000,000 AGGREGATE \$ 10,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WEC300046607	9/1/2021	9/1/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution and Remediation Legal Liability (Claims-Made)			PEC004445407	9/1/2021	9/1/2022	\$15M Each Claim / Aggregate

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Bid ITB_2021_014

If required by written contract with the Named Insured the following applies:

Levy County, a political subdivision of the State of Florida, its elected officials, officers, employees, agents, and volunteers are included as additional insureds under the General Liability, Auto Liability, Umbrella, Contractor's Pollution Liability, and Pollution & Remediation Liability coverage;

Coverage afforded to Additional Insured under GL, Auto, Umbrella, and Contractor's Pollution Liability coverage parts applies on a primary and non-contributory basis;

CERTIFICATE HOLDER

LEVY COUNTY BOARD OF COUNTY COMMISSIONERS
 PROCUREMENT DEPARTMENT
 P.O. BOX 310
 310 SCHOOL ST.
 BRONSON, FL 32621

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD 25 (2016/03)

(This certificate replaces certificate# 15435444 issued on 9/21/2021)

Certificate of Insurance (Con't)

OTHER Coverage

INSR LTR	TYPE OF INSURANCE	ADDL INSR	WVD SUBR	POLICY NUMBER	EFFECTIVE DATE (MM/DD/YY)	EXPIRATION DATE (MM/DD/YY)	LIMIT
C	Professional and Contractor's			PEC004445507	9/1/2021	9/1/2022	\$15M Each Claim / Aggregate
	Pollution Legal Liability			Prof Liab - Claims-Made			\$100,000 Ded. Per Claim
				CPL - Occurrence			

Additional Remarks Schedule (Continued from Page 1)

30 day notice of cancellation to certificate holder (except 10 days for non-payment) applies under GL, Auto, WC and Umbrella policies;

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – SCHEDULED PERSON OR ORGANIZATION

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location(s) Of Covered Operations
Any person or organization where required by written contract provided that such contract was executed prior to the date of loss.	All Locations as required per written contract.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

C. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is the amount of insurance:

1. Required by the contract or agreement; or

2. Available under the applicable Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

ENDORSEMENT #

This endorsement, effective 12:01 a.m., 09-01-2021, forms a part of
Policy No. GEC3000463-07 issued to Perma-Fix Environmental Services, Inc.
by Greenwich Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY INSURANCE CLAUSE ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS COVERAGE PART

It is agreed that to the extent that insurance is afforded to any Additional Insured under this policy, this insurance shall apply as primary and not contributing with any insurance carried by such Additional Insured, as required by written contract.

All other terms and conditions of this policy remain unchanged.

ENDORSEMENT #006

This endorsement, effective 12:01 a.m., September 1, 2021, forms a part of
Policy No. AEC004445107 issued to PERMA-FIX ENVIRONMENTAL SERVICES, INC.
by XL Insurance America, Inc.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

AUTOMATIC ADDITIONAL INSURED

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM
AUTO DEALERS COVERAGE FORM

- A. **COVERED AUTOS LIABILITY COVERAGE, Who Is An Insured**, is amended to include as an "insured" any person or organization you are required in a written contract to name as an additional insured, but only for "bodily injury" or "property damage" otherwise covered under this policy caused, in whole or in part, by the negligent acts or omissions of:
1. You, while using a covered "auto"; or
 2. Any other person, except the additional insured or any employee or agent of the additional insured, operating a covered "auto" with your permission;

Provided that:

- a. The written contract is in effect during the policy period of this policy;
 - b. The written contract was signed by you and executed prior to the "accident" causing "bodily injury" or "property damage" for which liability coverage is sought; and
 - c. Such person or organization is an "insured" solely to the extent required by the contract, but in no event if such person or organization is solely negligent.
- B. The Limits of Insurance provided for the Additional Insured shall not be greater than those required by contract and, in no event shall the Limits of Insurance set forth in this policy be increased by the contract.
- C. **General Conditions, Other Insurance** is amended as follows:

Any coverage provided hereunder shall be excess over any other valid and collectible insurance available to the additional insured whether such insurance is primary, excess, contingent or on any other basis unless the contract specifically requires that this policy be primary.

All terms, conditions, exclusions and limitations of this policy shall apply to the liability coverage provided to any additional insured, and in no event shall such coverage be enlarged or expanded by reason of the contract.

All other terms and conditions of this policy remain unchanged.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY AND NONCONTRIBUTORY – OTHER INSURANCE CONDITION

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

A. The following is added to the **Other Insurance Condition** in the Business Auto Coverage Form and the **Other Insurance – Primary And Excess Insurance Provisions** in the Motor Carrier Coverage Form and supersedes any provision to the contrary:

This Coverage Form's Covered Autos Liability Coverage is primary to and will not seek contribution from any other insurance available to an "insured" under your policy provided that:

1. Such "insured" is a Named Insured under such other insurance; and
2. You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to such "insured".

B. The following is added to the **Other Insurance Condition** in the Auto Dealers Coverage Form and supersedes any provision to the contrary:

This Coverage Form's Covered Autos Liability Coverage and General Liability Coverages are primary to and will not seek contribution from any other insurance available to an "insured" under your policy provided that:

1. Such "insured" is a Named Insured under such other insurance; and
2. You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to such "insured".

ENDORSEMENT #007

This endorsement, effective 12:01 a.m., September 1, 2021, forms a part of Policy No. AEC004445107 issued to PERMA-FIX ENVIRONMENTAL SERVICES, INC. by XL Insurance America, Inc.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION NOTIFICATION TO OTHERS ENDORSEMENT

In the event coverage is cancelled for any statutorily permitted reason, other than nonpayment of premium, advanced written notice will be mailed or delivered to person(s) or entity(ies) according to the notification schedule shown below:

Name of Person(s) or Entity(ies)	Mailing Address:	Number of Days Advanced Notice of Cancellation:
ANY PERSON(S) OR ENTITY(IES) REQUIRING BY WRITTEN CONTRACT THAT THE NAMED INSURED PROVIDE ADVANCED WRITTEN NOTICE OF CANCELLATION. THE PERSON OR ENTITY MUST BE LISTED ON A SPREADSHEET FROM THE BROKER THAT INCLUDES THE PERSON'S OR ENTITY'S NAME AND VALID MAILING ADDRESS. THIS SPREADSHEET MUST BE RECEIVED BY THE COMPANY WITHIN FIVE DAYS OF THE COMPANY'S REQUEST TO THE BROKER. OTHERWISE, THE COMPANY WILL BEAR NO RESPONSIBILITY FOR ADVANCED WRITTEN NOTICE OF CANCELLATION.	THE PERSON OR ENTITY MUST BE LISTED ON A SPREADSHEET FROM THE BROKER THAT INCLUDES THE PERSON'S OR ENTITY'S NAME AND A VALID MAILING ADDRESS.	30

All other terms and conditions of the Policy remain unchanged.

ENDORSEMENT

This endorsement, effective 12:01 a.m., 09-01-2021 forms a part of
Policy No. GEC3000463-07 issued to Perma-Fix Environmental Services, Inc.
by Greenwich Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION NOTIFICATION TO OTHERS ENDORSEMENT

In the event coverage is cancelled for any statutorily permitted reason, other than nonpayment of premium, advanced written notice will be mailed or delivered to person(s) or entity(ies) according to the notification schedule shown below:

Name of Person(s) or Entity(ies)	Mailing Address:	Number of Days Advanced Notice of Cancellation:
Any person(s) or entity (ies) requiring by written contract that the Named Insured provide advanced written notice of cancellation.	The person or entity must be	30

All other terms and conditions of the Policy remain unchanged.

ENDORSEMENT #031

This endorsement, effective 12:01 a.m., September 1, 2021, forms a part of Policy No. PEC004445407 issued to PERMA-FIX ENVIRONMENTAL SERVICES, INC. by Indian Harbor Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED DEFINITION MODIFICATION

This endorsement modifies insurance provided under the following:

POLLUTION AND REMEDIATION LEGAL LIABILITY POLICY

It is agreed that this Policy is amended as follows:

SECTION III - DEFINITIONS, A. **Additional Insured**, is deleted in its entirety and replaced with the following:

A. Additional Insured means:

1. any person or entity endorsed onto this Policy as an **Additional Insured**;
2. all of your first mortgagees for loans on **Your Location**; or
3. any person or entity, as required by a written contract or agreement signed by the **First Named Insured** or **Additional Named Insured**, provided that such written contract or agreement is signed by the **First Named Insured** or **Additional Named Insured** prior to the commencement of the **Pollution Condition**.

Coverage for such **Additional Insured** only applies for:

- a. a **Pollution Condition** on, at, under or migrating from **Your Location**;
- b. the person's, entity's or mortgagee's liability, to the extent permitted by law, arising out of the **First Named Insured's** or **Additional Named Insured's** ownership, occupation, development, operation, maintenance, financing or use of **Your Location**; and
- c. only if the person, entity or mortgagee is named in a suit as a co-defendant with the **First Named Insured** or **Additional Named Insured**, alleging that the person or entity is liable on the basis described in Subsection A.3.b. immediately above,

If coverage is required by a written contract or agreement, under Subsection A.3. referenced above, the most we will pay on behalf of the **Additional Insured** is the lesser of: (i) the amount of insurance required by the written contract or agreement; or (ii) the amount of insurance available under the applicable Limit of Liability set forth in Item (4) of the Declarations. Coverage shall not increase the applicable Limit of Liability set forth in Item (4) of the Declarations.

All other terms and conditions remain the same.

ENDORSEMENT #014

This endorsement, effective 12:01 a.m., September 1, 2021, forms a part of Policy No. UEC004445207 issued to PERMA-FIX ENVIRONMENTAL SERVICES, INC. by Indian Harbor Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION NOTIFICATION TO OTHERS ENDORSEMENT

In the event coverage is cancelled for any statutorily permitted reason, other than nonpayment of premium, advanced written notice will be mailed or delivered to person(s) or entity(ies) according to the notification schedule shown below:

Name of Person(s) or Entity(ies)	Mailing Address:	Number of Days Advanced Notice of Cancellation:
Any person(s) or entity (ies) requiring by written contract that the Named Insured provide advanced written notice of cancellation.	The person or entity must be listed on a spreadsheet from the broker that includes the person's or entity's name and a valid mailing address. This spreadsheet must be received by the company within five days of the company's request to the broker. Otherwise, the company will bear no liability or responsibility for such advanced written notice of cancellation.	30

All other terms and conditions of the Policy remain unchanged.

Umbrella Primary and Non-contributory

(M) **Other Insurance**

If **other insurance** applies to damages covered by this policy, this policy will apply excess of such **other insurance**. However, this provision will not apply:

- (1) If the **other insurance** is written to be excess of this policy.
- (2) With respect to Insuring Agreement A only, if you have agreed in a written contract with another person or organization that this policy shall be primary and non-contributory with such other person or entity's coverage, but only with respect to damages arising out of insured operations or work on your behalf performed under such written contract. When this Paragraph (2) applies, the coverage available to the other person or organization will be the lesser of the policy's Limits of Insurance or the minimum limits required by such written contract. In that case, **other insurance** of that person or organization will apply as excess and not contribute prior to the insurance afforded by this policy.
- (3) Nothing in this Condition (M) shall make this policy subject to the terms, conditions and limitations of such **other insurance**.

(N) **Premium**

- (1) The **first named insured** shall be responsible for payment of all premiums when due.
- (2) The premium for this policy shall be computed on the basis set forth in Declarations Item 6. At the beginning of the **policy period**, the **first named insured** must pay us the Premium shown in Declarations Item 6.
- (3) When this policy expires or is cancelled, we will compute the earned premium for the time this policy was in force. If this policy is subject to audit adjustment, the actual exposure base will be used to compute the earned premium. If the earned premium is greater than the original premium paid, you will promptly pay us the difference. If the earned premium is less than the original premium paid, we will return the difference to you. But in any event, we shall retain the Minimum Premium as shown in Declarations Item 6 for each twelve (12) months of the **policy period**.

(O) **Separation of Insureds**

Except with respect to the Limits of Insurance of this policy and rights or duties specifically assigned to you, this insurance applies as if each **insured** were the only **insured**, and separately to each **insured** against whom **claim** is made or **suit** is brought.

(P) **Transfer of Rights of Recovery**

- (1) If any **insured** has the right to recover all or part of any payment we have made under this policy, those rights are transferred to us. You must do nothing after **loss** to impair these rights and must help us enforce them. If, prior to the time of an **occurrence**, you and the insurer of **scheduled underlying insurance** waive any right of recovery against a specific person or organization for injury or damage as required under an **insured contract**, we also will waive any rights it may have against such person or organization.
- (2) Any recoveries shall be applied as follows:
 - (a) Any person or organization, including you, that has paid an amount in excess of the applicable Limits of Insurance of this policy will be reimbursed first.

ENDORSEMENT #

This endorsement, effective 12:01 a.m., forms a part of
Policy No. WEC3000466-07 issued to Perma-Fix Environmental Services, Inc.
by Greenwich Insurance Company.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

CANCELLATION NOTIFICATION TO OTHERS ENDORSEMENT

This endorsement modifies insurance provided under the following:

WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE POLICY

In the event coverage is cancelled for any statutorily permitted reason, other than nonpayment of premium, advanced written notice will be mailed or delivered to person(s) or entity(ies) according to the notification schedule shown below:

Name of Person(s) or Entity(ies)	Mailing Address:	Number of Days Advanced Notice of Cancellation:
Any person(s) or entity(ies) requiring by written contract that the Named Insured provide advanced written notice of cancellation.	The person or entity must be listed on a separate spreadsheet from the broker that includes the person's or entity's name and a valid mailing address. This spreadsheet must be received by the company within five days of the company's request to the broker. Otherwise, the company will bear no liability or responsibility for such advanced written notice of cancellation.	30

All other terms and conditions of the Policy remain unchanged.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.

(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective
Insured
Perma-Fix Environmental Services, Inc.
Insurance Company
Greenwich Insurance Company

Policy No. WEC3000466-07
Endorsement No. Premium Included
Countersigned by _____

USDOT Number: _____ Date Received: _____

Please note, the expiration date as stated on this form relates to the process for renewing the Information Collection Request for this form with the Office of Management and Budget. This requirement to collect information as requested on this form does not expire. For questions, please contact the Office of Registration and Safety Information, Registration, Licensing, and Insurance Division.

A Federal Agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2126-0008. Public reporting for this collection of information is estimated to be approximately 2 minutes per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Motor Carrier Safety Administration, MC-RRA, Washington, D.C. 20590.



United States Department of Transportation
Federal Motor Carrier Safety Administration

Endorsement for Motor Carrier Policies of Insurance for Public Liability
under Sections 29 and 30 of the Motor Carrier Act of 1980

FORM MCS-90

Issued to Perma-Fix Environmental Services, Inc. of Georgia
(Motor Carrier name) (Motor Carrier state or province)

Dated at 12:00 midnight on this 1st day of September, 2021

Amending Policy Number: AEC004445107 Effective Date: September 01, 2021

Name of Insurance Company: XL Insurance America, Inc

Countersigned by: 
(authorized company representative)

The policy to which this endorsement is attached provides primary or excess insurance, as indicated for the limits shown (check only one):

- This insurance is primary and the company shall not be liable for amounts in excess of \$ 1,000,000 CSL for each accident.
- This insurance is excess and the company shall not be liable for amounts in excess of \$ _____ for each accident in excess of the underlying limit of \$ _____ for each accident.

Whenever required by the Federal Motor Carrier Safety Administration (FMCSA), the company agrees to furnish the FMCSA a duplicate of said policy and all its endorsements. The company also agrees, upon telephone request by an authorized representative of the FMCSA, to verify that the policy is in force as of a particular date. The telephone number to call is: (800) 688-1840.

Cancellation of this endorsement may be effected by the company or the insured by giving (1) thirty-five (35) days notice in writing to the other party (said 35 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof of notice), and (2) if the insured is subject to the FMCSA's registration requirements under 49 U.S.C. 13901, by providing thirty (30) days notice to the FMCSA (said 30 days notice to commence from the date the notice is received by the FMCSA at its office in Washington, DC).

Filings must be transmitted online via the Internet at <http://www.fmcsa.dot.gov/urs>.

(continued on next page)

DEFINITIONS AS USED IN THIS ENDORSEMENT

Accident includes continuous or repeated exposure to conditions or which results in bodily injury, property damage, or environmental damage which the insured neither expected nor intended.

Motor Vehicle means a land vehicle, machine, truck, tractor, trailer, or semitrailer propelled or drawn by mechanical power and used on a highway for transporting property, or any combination thereof.

Bodily Injury means injury to the body, sickness, or disease to any person, including death resulting from any of these.

Property Damage means damage to or loss of use of tangible property.

Environmental Restoration means restitution for the loss, damage, or destruction of natural resources arising out of the accidental discharge, dispersal, release or escape into or upon the land, atmosphere, watercourse, or body of water, of any commodity transported by a motor carrier. This shall include the cost of removal and the cost of necessary measures taken to minimize or mitigate damage to human health, the natural environment, fish, shellfish, and wildlife.

Public Liability means liability for bodily injury, property damage, and environmental restoration.

The insurance policy to which this endorsement is attached provides automobile liability insurance and is amended to assure compliance by the insured, within the limits stated herein, as a motor carrier of property, with Sections 29 and 30 of the Motor Carrier Act of 1980 and the rules and regulations of the Federal Motor Carrier Safety Administration (FMCSA).

In consideration of the premium stated in the policy to which this endorsement is attached, the insurer (the company) agrees to pay, within the limits of liability described herein, any final judgment recovered against the insured for public liability resulting from negligence in the operation, maintenance or use of motor vehicles subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 regardless of whether or not each motor vehicle is specifically described in the policy and whether or not such negligence occurs on any route or in any territory authorized to be served by the insured or elsewhere. Such insurance as is afforded, for public liability, does not apply to injury to or death of the insured's employees while engaged in the course of their employment, or property transported by the insured, designated as cargo. It is understood and agreed that no condition, provision, stipulation, or limitation contained in the policy, this endorsement, or any other endorsement thereon,

or violation thereof, shall relieve the company from liability or from the payment of any final judgment, within the limits of liability herein described, irrespective of the financial condition, insolvency or bankruptcy of the insured. However, all terms, conditions, and limitations in the policy to which the endorsement is attached shall remain in full force and effect as binding between the insured and the company. The insured agrees to reimburse the company for any payment made by the company on account of any accident, claim, or suit involving a breach of the terms of the policy, and for any payment that the company would not have been obligated to make under the provisions of the policy except for the agreement contained in this endorsement.

It is further understood and agreed that, upon failure of the company to pay any final judgment recovered against the insured as provided herein, the judgment creditor may maintain an action in any court of competent jurisdiction against the company to compel such payment.

The limits of the company's liability for the amounts prescribed in this endorsement apply separately to each accident and any payment under the policy because of anyone accident shall not operate to reduce the liability of the company for the payment of final judgments resulting from any other accident.

(continued on next page)

SCHEDULE OF LIMITS — PUBLIC LIABILITY

Type of carriage	Commodity transported	January 1, 1985
(1) For-hire (in interstate or foreign commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Property (nonhazardous)	\$750,000
(2) For-hire and Private (in interstate, foreign, or intrastate commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Hazardous substances, as defined in 49 CFR 171.8 , transported in cargo tanks, portable tanks, or hopper-type vehicles with capacities in excess of 3,500 water gallons; or in bulk Division 1.1, 1.2, and 1.3 materials, Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; in bulk Division 2.1 or 2.2; or highway route controlled quantities of a Class 7 material, as defined in 49 CFR 173.403 .	\$5,000,000
(3) For-hire and Private (in interstate or foreign commerce, in any quantity; or in intrastate commerce, in bulk only; with a gross vehicle weight rating of 10,001 or more pounds).	Oil listed in 49 CFR 172.101 ; hazardous waste, hazardous materials, and hazardous substances defined in 49 CFR 171.8 and listed in 49 CFR 172.101 , but not mentioned in (2) above or (4) below.	\$1,000,000
(4) For-hire and Private (In interstate or foreign commerce, with a gross vehicle weight rating of less than 10,001 pounds).	Any quantity of Division 1.1, 1.2, or 1.3 material; any quantity of a Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; or highway route controlled quantities of a Class 7 material as defined in 49 CFR 173.403 .	\$5,000,000

*The schedule of limits shown does not provide coverage. The limits shown in the schedule are for information purposes only.

USDOT Number: _____ Date Received: _____

Please note, the expiration date as stated on this form relates to the process for renewing the Information Collection Request for this form with the Office of Management and Budget. This requirement to collect information as requested on this form does not expire. For questions, please contact the Office of Registration and Safety Information, Registration, Licensing, and Insurance Division.

A Federal Agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2126-0008. Public reporting for this collection of information is estimated to be approximately 2 minutes per response, including the time for reviewing instructions, gathering the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Motor Carrier Safety Administration, MC-RRA, Washington, D.C. 20590.



United States Department of Transportation
Federal Motor Carrier Safety Administration

Endorsement for Motor Carrier Policies of Insurance for Public Liability
under Sections 29 and 30 of the Motor Carrier Act of 1980

FORM MCS-90

Issued to Perma-Fix Environmental Services, Inc. of Georgia
(Motor Carrier name) (Motor Carrier state or province)

Dated at 12:00 midnight on this 1st day of September, 2021

Amending Policy Number: UEC004445207 Effective Date: September 01, 2021

Name of Insurance Company: Indian Harbor Insurance Co

Countersigned by: 
(authorized company representative)

The policy to which this endorsement is attached provides primary or excess insurance, as indicated for the limits shown (check only one):

- This insurance is primary and the company shall not be liable for amounts in excess of \$ _____ for each accident.
- This insurance is excess and the company shall not be liable for amounts in excess of \$ 4,000,000 for each accident in excess of the underlying limit of \$ 1,000,000 for each accident.

Whenever required by the Federal Motor Carrier Safety Administration (FMCSA), the company agrees to furnish the FMCSA a duplicate of said policy and all its endorsements. The company also agrees, upon telephone request by an authorized representative of the FMCSA, to verify that the policy is in force as of a particular date. The telephone number to call is: (800) 688-1840.

Cancellation of this endorsement may be effected by the company or the insured by giving (1) thirty-five (35) days notice in writing to the other party (said 35 days notice to commence from the date the notice is mailed, proof of mailing shall be sufficient proof of notice), and (2) if the insured is subject to the FMCSA's registration requirements under 49 U.S.C. 13901, by providing thirty (30) days notice to the FMCSA (said 30 days notice to commence from the date the notice is received by the FMCSA at its office in Washington, DC).

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Accident includes continuous or repeated exposure to conditions or which results in bodily injury, property damage, or environmental damage which the insured neither expected nor intended.

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Bodily Injury means injury to the body, sickness, or disease to any person, including death resulting from any of these.

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In consideration of the premium stated in the policy to which this endorsement is attached, the insurer (the company) agrees to pay, within the limits of liability described herein, any final judgment recovered against the insured for public liability resulting from negligence in the operation, maintenance or use of motor vehicles subject to the financial responsibility requirements of Sections 29 and 30 of the Motor Carrier Act of 1980 regardless of whether or not each motor vehicle is specifically described in the policy and whether or not such negligence occurs on any route or in any territory authorized to be served by the insured or elsewhere. Such insurance as is afforded, for public liability, does not apply to injury to or death of the insured's employees while engaged in the course of their employment, or property transported by the insured, designated as cargo. It is understood and agreed that no condition, provision, stipulation, or limitation contained in the policy, this endorsement, or any other endorsement thereon,

or violation thereof, shall relieve the company from liability or from the payment of any final judgment, within the limits of liability herein described, irrespective of the financial condition, insolvency or bankruptcy of the insured. However, all terms, conditions, and limitations in the policy to which the endorsement is attached shall remain in full force and effect as binding between the insured and the company. The insured agrees to reimburse the company for any payment made by the company on account of any accident, claim, or suit involving a breach of the terms of the policy, and for any payment that the company would not have been obligated to make under the provisions of the policy except for the agreement contained in this endorsement.

It is further understood and agreed that, upon failure of the company to pay any final judgment recovered against the insured as provided herein, the judgment creditor may maintain an action in any court of competent jurisdiction against the company to compel such payment.

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(2) For-hire and Private (in interstate, foreign, or intrastate commerce, with a gross vehicle weight rating of 10,001 or more pounds).	Hazardous substances, as defined in 49 CFR 171.8 , transported in cargo tanks, portable tanks, or hopper-type vehicles with capacities in excess of 3,500 water gallons; or in bulk Division 1.1, 1.2, and 1.3 materials, Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; in bulk Division 2.1 or 2.2; or highway route controlled quantities of a Class 7 material, as defined in 49 CFR 173.403 .	\$5,000,000
(3) For-hire and Private (in interstate or foreign commerce, in any quantity; or in intrastate commerce, in bulk only; with a gross vehicle weight rating of 10,001 or more pounds).	Oil listed in 49 CFR 172.101 ; hazardous waste, hazardous materials, and hazardous substances defined in 49 CFR 171.8 and listed in 49 CFR 172.101 , but not mentioned in (2) above or (4) below.	\$1,000,000
(4) For-hire and Private (In interstate or foreign commerce, with a gross vehicle weight rating of less than 10,001 pounds).	Any quantity of Division 1.1, 1.2, or 1.3 material; any quantity of a Division 2.3, Hazard Zone A, or Division 6.1, Packing Group I, Hazard Zone A material; or highway route controlled quantities of a Class 7 material as defined in 49 CFR 173.403 .	\$5,000,000

*The schedule of limits shown does not provide coverage. The limits shown in the schedule are for information purposes only.

ATTACHMENTS C and F – HAZARDOUS WASTE PERMITS/LICENSES

United States of America – Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Hazardous Materials Certificate of Registration 2021-2022

Florida Department of Environmental Protection
Hazardous Waste Transporter Certificate of Approval

Florida Department of Environmental Protection
Facility Permit Identification Number: FLD 980 711 071
Operating Permit Number: 17680-012-HO
Alachua County, Gainesville, Florida

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION**



**HAZARDOUS MATERIALS
CERTIFICATE OF REGISTRATION
FOR REGISTRATION YEAR(S) 2021-2022**

Registrant: PERMA-FIX OF FLORIDA INC

ATTN: David D Fendelander
1940 NW 67TH PLACE
GAINESVILLE, FL 32653

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 050621550110D Effective: July 1, 2021 Expires: June 30, 2022

HM Company ID: 40048

Record Keeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

- (1) A copy of the registration statement filed with PHMSA; and
- (2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, PHH-52, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, telephone (202) 366-4109.



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

March 24, 2021

David Fendelander
Perma-Fix Of Florida Inc
1940 NW 67th Place
Gainesville, FL 32653

Re: Florida Hazardous Waste Transporter Approval

Dear David Fendelander:

Your Florida Hazardous Waste Transporter Approval Certificate is enclosed. The terms and conditions of approval are specified in Sections 62-730.170 and 62-730.171 of Chapter 62-730, Florida Administrative Code, <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=62-730>. Please note the following.

1. You must demonstrate proof of liability coverage on an annual basis, even if your insurance policy is issued on a multi-year basis. If no changes in status or insurance coverage have occurred, you can meet this requirement by submitting a certificate of liability coverage form.
2. A copy of your insurance policy, together with any endorsements, must be maintained at your principal place of business.
3. Your insurer can not terminate your coverage until 30 days after filing written notice with DEP, by Certified mail, that your policy has expired or has been canceled.
4. Any changes to the information specified on your approval certificate will render it null and void. It is your responsibility to advise DEP of any changes in liability coverage or status.
5. A copy of the Department approval shall be carried in each vehicle transporting hazardous waste for the transportation company.
6. RENEWAL DATE: If you are also a registered used oil handler, you must submit the 8700-12FL – Florida Notification of Regulation Waste Activity [Form 62-730.900(1)(b)] and evidence of casualty/liability insurance by **March 1** of each year, with your annual used oil registration. If you are not a registered used oil handler, you must submit these documents by **September 1** of each year.

David Fendelander

March 24, 2021

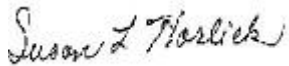
Page Two

This letter does not authorize you to operate a hazardous waste transfer facility. Please refer to Form 8700-12FL, page 2, item 7(e) for a list of all the required documents that must be submitted.

If you are currently operating an authorized transfer facility, you must maintain records of incoming and outgoing hazardous waste shipments. These records must include generator names and manifest numbers, and, unless otherwise approved by the Department, must be maintained at the transfer facility in accordance with Rule 62-730.171, 7(6), F.A.C.

If you have any questions, please contact me at 850/245-8778.

Sincerely,

A handwritten signature in cursive script that reads "Susan L. Horlick".

Susan Horlick
Environmental Specialist III
Hazardous Waste Regulation Section

SH

Enclosures: Hazardous Waste Transporter Approval Certificate
Insurance Verification



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

HAZARDOUS WASTE TRANSPORTER
CERTIFICATE OF APPROVAL

This is to certify that the carrier specified below has been approved as a hazardous waste transporter in Florida. The terms and conditions of this certificate require that the holder comply with all applicable portions of Chapter 62-730, Florida Administrative Code. This certificate shall be rendered null and void if any information contained within becomes obsolete. The certificate shall remain valid through the expiration date specified below.

TRANSPORTER: Perma-Fix Of Florida Inc

FACILITY ID NO: FLD980711071

FACILITY ADDRESS: 1940 NW 67th Pl
Gainesville, FL 32653-1649

EXPIRATION DATE: June 30, 2022

APPROVED TRANSFER FACILITY: NO

APPROVAL ISSUED BY: Susan L Horlick _____ DATE: March 24, 2021
Susan Horlick
Environmental Specialist III
Hazardous Waste Regulation Section
850/245-8778



8700-12FL - FLORIDA NOTIFICATION OF REGULATED WASTE ACTIVITY

DEP Waste Management Division-HWRS, MS4560
2600 Blair Stone Rd. Tallahassee, FL 32399-2400
(850) 245-8707

RECEIVED
Florida Department of Environmental Protection
Date Received:
Permitting & Compliance
Assistance Program

EPA ID: F L D 9 8 0 7 1 1 0 7 1
Please use the instructions document to complete this form
* mandatory fields

1. Reason for Submittal: (all submitters must complete pages 1 and 2 and sign page 7. Pages 3 through 6 - complete as applicable)
Mark 'X' in the correct box*:
To obtain a new EPA ID number (for hazardous waste, universal waste, used oil activities, or PCW activities).
To provide updated information for an EPA ID number (to update status and facility identification information).
To provide the final information for an EPA ID number (closing). (see instructions—must complete pages 1, 2, 3, 7)
To obtain new or updating an EPA ID number for conducting Electronic Manifest Broker activities.
Submitting new or revised notification for Part A for permitted facilities.
FL Registration(s)
[X] UW Mercury (see page 4)
[X] HW Transporter (see page 5)
[X] Used Oil (see page 6)

2. Facility or Business Name*:
Perma-Fix of Florida, Inc

3. Facility Physical Location Information: (No P.O. Boxes)
Physical Street Address*: 1940 NW 67th Place
City or Town: Gainesville State: FL Zip Code: 32653
County*: Alachua Country (if not USA)*:

4. Facility or Business Mailing Address:
[X] Same address as # 3 above or*:
City or Town*: State*: Zip/Postal Code*: Country (if not USA):

5. Facility North American Industry Classification System (NAICS) Code(s)*: (at least 5 digits)
A. 5 6 2 2 1 1 (required) B.
C. D.

6. Facility or Business RCRA Contact Person: [X] Same address as # 3 above or:
First Name*: Randy Last Name*: Self Title*: General Manager
Phone Number*: 352-395-1368 Extension*: Fax*:
E-Mail*: rself@perma-fix.com
Street or P.O. Box (or same address box is checked)*:
City or Town*: State*: Zip Code*: Country (if not USA):

RCRA Hazardous Waste Status Notification or Out of Business Notification		EPA ID No.* FLD980711071	
7. Real Property (FL Land) Owner of the Facility's Physical Location (List additional owners in the comments section.)			
Name of Owner*: <p style="text-align: center;">Perma-Fix of Florida</p>		Date became Owner*: ___/___/___ <input type="checkbox"/> New Owner mm dd yy	
Street or P.O. Box (or same address box is checked)*: <p style="text-align: center;">3</p>		Phone Number*:	
City or Town*:	State*:	Zip Code*:	Country (if not USA):
E-Mail*:			
Owner Type*: <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> Other _____			
Comments:			
8. Facility Operator (List additional Operators in the comments section). Same address as # ___ above or:			
Name of Operator*:		Date became Operator*: ___/___/___ <input type="checkbox"/> New Operator mm dd yy	
Street or P.O. Box (or same address box is checked)*:		Phone Number*:	
City or Town*:	State*:	Zip Code*:	Country (if not USA):
E-Mail*:			
Operator Type*: <input type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> County <input type="checkbox"/> Other _____			
Comments:			
9. RCRA Hazardous Waste Activities at this Facility: (Mark 'X' in all that apply):			
(1) Generator of Hazardous Waste			
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (This does not include Universal Waste or Used Oil)			
If YES, Choose only one of the following three categories.			
<input checked="" type="checkbox"/> a. Large Quantity Generator (LQG):			
- Generates in any calendar month (includes quantities imported by importer site) 1,000 kilograms or greater per month (kg/mo) (2,200 lbs/mo.) of non-acute hazardous waste; or			
- Generates in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lbs/mo) of acute hazardous waste; or			
- Generates in any calendar month, or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material.			
<input type="checkbox"/> b. Small Quantity Generator (SQG):			
- Generates in any calendar month greater than 100kg/mo but less than 1,000 kg/mo (>220 to <2,200 lbs.) of non-acute hazardous waste and/or 1 kg (2.2 lbs) or less of acute hazardous waste and/or no more than 100 kg (220 lbs) of any acute hazardous spill cleanup material.			
<input type="checkbox"/> c. Very Small Quantity Generator (VSQG):			
- Generates in any calendar month 100 kg/mo or less (220 lbs.) of non-acute hazardous waste and/or 1 kg (2.2 lbs) or less of acute hazardous waste.			
In addition, indicate other generator activities that apply.			
<input type="checkbox"/> d. Short-Term Generator (one-time, not on-going)			
<input checked="" type="checkbox"/> e. Mixed Waste (hazardous and radioactive) Generator			
<input checked="" type="checkbox"/> f. United States Importer of hazardous waste			
<input type="checkbox"/> g. LQG notifying of VSQG Hazardous Waste Under Control of the Same Person pursuant to 40 CFR 262.17(f). (Addendum A Required)			
<input type="checkbox"/> h. Episodic: Not lasting more than 60 days: <input type="checkbox"/> SQG <input type="checkbox"/> LQG (Addendum B Required)			
<input type="checkbox"/> i. Electronic Manifest Broker, as defined in 40 CFR 260.10, electing to use EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator.			

9. RCRA Hazardous Waste Activities at this Facility continued: (Mark 'X' in all that apply):

For Items 3 through 9, mark 'X' in all that apply.

- (2) **Treater, Storer, or Disposer of Hazardous Waste** (at your facility—Choose Only One) Note: A hazardous waste permit may be required for this activity.
 - a. Operating Commercial TSD
 - b. Operating Non-Commercial TSD
 - c. Non-Operating: Postclosure or Corrective Action Permit or Order (HSWA, etc.)
- (3) **Recycler of Hazardous Waste** (at your facility)
 - Specify: Commercial Non-Commercial
 - Specify: Stores prior to recycling Does not store prior to recycling.
 - Note: A permit maybe required for storage prior to recycling.
- (4) **Exempt Boiler and/or Industrial Furnace**
 - a. Small Quantity On-site Burner Exemption
 - b. Smelting, Melting, and Refining Furnace Exemption
- (5) **Person Authorized to Manage Very Small Quantity Waste Generated at Other Facilities**
Choose this management activity ONLY if you attach EITHER a copy of your application for such authorization OR the authorization you received from FDEP.
- (6) **Receives Hazardous Waste from Off-Site**
- (7) **Underground Injection Control**
- (8) **Recognized Trader**— Mark all that apply
 - a. Importer
 - b. Exporter
- (9) **Importer/ Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR subpart G**— Mark all that apply
 - a. Importer
 - b. Exporter

10. Waste Codes for Federally Regulated Hazardous Wastes*: List the waste codes of the Federal hazardous wastes handled at your facility. List them in the order they are presented in the regulations (e.g., D001, D003, F007, K019, P012, U112). Hazardous waste transporters must list codes routinely or usually transported. Use comments or an additional page if more spaces are needed.

¹ D001	² D002	³ D003	⁴ D004	⁵ D005	⁶ D006	⁷ D007
⁸ D008	⁹ D009	¹⁰ D010	¹¹ D011	¹² D012	¹³ D013	¹⁴ D014
¹⁵ D015	¹⁶ D016	¹⁷ D017	¹⁸ D018	¹⁹ D019	²⁰ D020	²¹ D021

11. Other Status Changes (If no longer handling waste or closed, items 9 and 10 should be left blank and items 12-16 skipped):

(A) Central Accumulation Area (CAA) or Facility Closed:

- Central Accumulation Area (CAA)
- Facility Closed (Complete this section only if all business activities at this facility have ceased.)

(B) Closure Dates:

- (1) Expected closure date _____ (date in mm/dd/yyyy)
- (2) Requesting new closure date _____ (date in mm/dd/yyyy)
- (3) Date of closure: _____ (date in mm/dd/yyyy)
 - a. In compliance with the closure performance standards in 40 CFR 262.17(a)(8)
 - b. Not in compliance with the closure performance standards in 40 CFR 262.17(a)(8)

(C) Property Tax Default

(D) Petition for Bankruptcy Protection

12. Universal Waste (UW) Activities (Mark 'X' and complete all that apply) :

A. Federal Notification

Federally Defined Large Quantity Handler (LQH) = Generate/Accumulate: 5,000 kg (11,000 lb) or more of any combination of UW accumulated (at any one time)

Accumulates: a. UW Batteries b. Pesticides c. Pharmaceuticals

d. Mercury Containing Devices e. Mercury Containing Lamps

Destination Facility for UW Note: For this activity, a facility must treat, dispose, or recycle a UW. A permit is required for storage prior to recycling.

B. Florida Universal Pharmaceutical Waste (UPW): one-time notification

Pharmaceuticals LQH = 5,000 kg or more of Universal Pharmaceutical Waste (UPW) accumulated (at any one time)

Pharmaceuticals Acute LQH = more than 1 kg (2.2 lb) of acutely hazardous ("P-listed") pharmaceutical waste (UPW) accumulated (at any one time)

Reverse Distributor of Universal Pharmaceutical Waste (UPW) (must be permitted with the Florida Department of Business and Professional Regulation [DBPR])

Florida Universal Pharmaceutical Waste (UPW) Transporter

C. Florida Annual Mercury Handler Registration:

For-hire transporters, transfer facilities, handlers, reclamation and recovery facilities of Mercury-Containing Lamps and Devices operating in the State of Florida are required to register annually with the Department using this section of the form [Chapter 62-737, F.A.C.]. A one-time fee of \$1,000 is required for first time registration as a Large Quantity for-hire Handler of Mercury-Containing Lamps and Devices as detailed in 62-737.400(3)(a)3., F.A.C. (please contact FDEP first).

If you only generate lamps and/or devices or manage pharmaceuticals, do not register or complete the information below.

(1) This form is being submitted as a Florida Registration of Universal Waste Mercury Transporter/Handler for-hire Activities

1st Annual Registration Annual Renewal One-time \$1,000 fee for Mercury for-hire first time LQH registration is attached

<input checked="" type="checkbox"/> For-hire Transporter of Universal Waste Mercury-Containing Lamps or Devices	Annual Registration Required
<input checked="" type="checkbox"/> For-hire Transfer Facility of Universal Waste Mercury-Containing Lamps or Devices	
<input checked="" type="checkbox"/> Mercury-Containing Devices (thermostats, etc.) SQH = less than 100 kg accumulated by for-hire handler	
<input checked="" type="checkbox"/> Mercury-Containing Lamps SQH = less than 2,000 kg (8,000 lamps) accumulated by for-hire handler	
<input type="checkbox"/> Mercury-Containing Devices LQH = 100 kg (220 lb) or more accumulated at any one time by for-hire handler	Annual Registration + one-time \$1,000 fee+ More Requirements (contact FDEP)
<input type="checkbox"/> Mercury-Containing Lamps LQH = 2,000 kg (4400 lbs/8,000 lamps) or more accumulated by for-hire handler	

(2) Mercury Recovery and/or Reclamation Facility (A hazardous waste permit is required for this activity)

1st Annual Registration Annual Renewal

Annual Registration Required

Briefly Describe your Universal Waste Activities: We use Drum Top Bulb Crusher(s).

Perma-Fix of Florida is a universal lamp and device transporter and transfer facility. We collect lamps and devices from customers, return them to the facility and make larger shipments to destination facilities.

13. Other State Regulated Waste Activities: Petroleum Contact Water (PCW) Recovery Transport [62-740 F.A.C.]

Note: A water facility permit may be required for this activity. An annual report is required for a recovery facility pursuant to Rule [62-740.300(5)] F.A.C.

14. HW Transporter Activities: (Mark 'X' and complete all that apply if you need to register your HW Transporter activities)

Transporters of and Transfer Facilities for Hazardous Waste in the State of Florida are required to register and annually renew their registration. Evidence of casualty/liability insurance pursuant to 62-730.170(2)(a) is required as part of this registration. Transporters and transfer facilities may only begin operations after receiving approval from the Department.

Generators who transport waste only within the boundaries of their facility should NOT register in box 14.A below.

A. HW Transporter Registration Information (must be completed annually and when this information changes)

This form is: Initial Registration Renewal Notification of changes Cancel Registration

1. For own waste only

2. For commercial purposes

3. Both commercial and own waste

4. Transportation Mode Air Rail Highway Water Other - specify _____

B. HW Transfer Facility Registration Information (must be completed annually and when this information changes)

This facility is a Hazardous Waste Transfer Facility: (as listed in Item 3) Storage Volume _____

This form is: Initial Registration Renewal Notification of changes Cancel Registration

Note: Hazardous Waste transfer facilities must comply with the requirements of Rule 62-730.171, F.A.C., and Rule 62-730.182, F.A.C.

The Transfer Facility records required under the provisions of Rule 62-730.171(6) , F.A.C., are kept at (check one):

Our mailing (business) address The site (facility) address

Please enter the EPA ID Number of the HW Transporter who carries the insurance for this Transfer Facility:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Please see 14.C for additional items to be submitted for registration of a Hazardous Waste Transfer Facility [Rule 62-730.171(3), Florida Administrative Code (F.A.C.):]

C. The following items are required to be submitted with the initial notification for a transfer facility and any changed items must be submitted with any subsequent submission [Rule 62-730.171(3), Florida Administrative Code (F.A.C.):] :

Certification by a responsible corporate officer of the transporter facility that the proposed location satisfies the criteria of Section 403.7211(2), Florida Statutes (F.S.) [Rule 62-730.171(3)(a)1., F.A.C.]

Evidence of the transporter facility's financial responsibility [Rule 62-730.171(3)(a)3., F.A.C.]

A brief general description of the transfer facility operations [Rule 62-730.171(3)(a)4., F.A.C.]

A copy of the facility closure plan [Rule 62-730.171(3)(a)5., F.A.C.]

A copy of the contingency and emergency plan [Rule 62-730.171(3)(a)6., F.A.C.]

A map or maps of the transfer facility [Rule 62-730.171(3)(a)7., F.A.C.]

15. Eligible Academic Entities with Laboratories—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262 Subpart K

1. Opting into or currently operating under 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

See the item-by-item instructions for definitions of types of eligible academic entities. Mark all that apply:

a. College or University

b. Teaching Hospital that is owned by or has a formal written affiliation agreement with a college or university

c. Non-profit Institute that is owned by or has a formal written affiliation agreement with a college or university

2. Withdrawing from 40 CFR Part 262 Subpart K for the management of hazardous wastes in laboratories

16. Used Oil and Used Oil Filter Activities: (Mark 'X' and complete all that apply)

Transporters (exemptions in 40 CFR 279.40(a)(1-4)), transfer facilities, processors, off-specification burners, and/or marketers **must annually register** with the Department using this form. An annual \$100 registration fee is required for all, except used oil (UO) Processors and collection centers.

This form is: Initial Registration Renewal Notification of changes Cancel Registration

- If applicable, a check or money order, in the amount of \$100, payable to Florida Department of Environmental Protection is enclosed. UO Collection Centers must check 16.(2) of this form (not as a registration).

(1) Used Oil Transporter - mark 'X' in all that apply: (occurring in Florida)

a. Transporter (off-site) and noncontiguous locations

b. Transfer Facility

(2) Collection Center (From businesses, no more than 55 gal per shipment)

(3) Used Oil Processor (A permit is required.)

(4) Used Oil Re-refiner (A permit is required.)

(5) Off-Specification Used Oil Burner
 Utility Boiler Industrial Boiler Industrial Furnace

(6) Used Oil Fuel Marketer On-Spec Off-Spec

(7) Used Oil Filter Management (must annually register)

a. Transporter

b. Transfer Facility

c. Processor (Annual Report Required)

d. End User (see instructions for definition)

(8) The records required under the provisions of Rule 62-710.510, FAC, are kept at (check one):

Our mailing (business) address (as listed in Item 4)

The site (facility) address (as listed in Item 3)

(9) Used Oil Transporters: (Exemptions in 40 CFR 279.40(a)(1-4))

- ALL registered UO transporters must submit an annual report except generators transporting UO from noncontiguous operations within their own company.
- UO transporters transporting off-site over public highways only within their own company must submit proof of insurance.
- UO transporters transporting more than 500 gallons/year must submit proof of insurance annually, and must sign and certify this submission as a certified used oil transporter in section 19 (except those exempted by Rule 62-710.600(1), F.A.C.).

The used oil annual report is attached

Evidence of Liability Insurance pursuant to 62-710.600(2)(e), F.A.C. is attached.

17. Notification of Hazardous Secondary Material (HSM) Activity

(1) Notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), or (27). (Addendum C Required)

(2) Notifying under 40 CFR 260.43(a)(4)(iii) that the product of your recycling process has levels of hazardous constituents that are not comparable to or unable to be compared to a legitimate product or intermediate but that the recycling is still legitimate. (Addendum C Required)

Required signature page

EPA ID No.*

FLD980711071

18. Comments (attach a page if more space is needed):

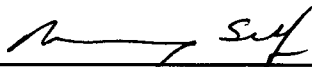
See attachment A from Facility Part B permit for list of additional waste codes handled at the facility.

19. Certification: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for known violations.

I certify as a Used Oil Transporter that I am familiar with the applicable Florida and Federal laws and rules governing used oil transportation and have an annual and new employee training program in place covering the applicable used oil rules. Evidence of financial responsibility is demonstrated by the Used Oil Transporter Certificate of Liability Insurance, DEP form 62-730.900(5)(a), F.A.C..

Signature of owner, operator, or an authorized representative:

Date Signed (mm-dd-yyyy):



02-08-2021

Print Name (First, Middle Initial, Last):

Title:

Randy Self

General Manager

Organization:

Used Oil

Perma-Fix of Florida, Inc.

Email:

rself@perma-fix.com

Signature of owner, operator, or an authorized representative:

Date Signed (mm-dd-yyyy):

Print Name (First, Middle Initial, Last):

Title:

Organization:

Used Oil

Email:

If the person that filled in this form is not the Facility Contact or Operator, please complete the information below:

(Name of person completing this form)

(Phone Number)

(E-mail Address)

Mail original completed form to: Department of Environmental Protection For assistance call: 850-245-8707
2600 Blair Stone Road, Mail Station 4560
Tallahassee, Florida 32399-2400

**STATE OF FLORIDA
CERTIFICATE OF LIABILITY INSURANCE
HAZARDOUS WASTE TRANSPORTER AND USED OIL HANDLER**

1. XL Insurance America, Inc.
(Name of Insurer)

(the "Insurer"), of 505 Eagleview Blvd, Suite 100, Exton, PA, 19341-0636
(Address of Insurer)

hereby certifies that it has issued liability insurance covering bodily injury and property damage including environmental restoration for sudden accidental occurrences to

Perma-Fix of Florida, Inc.
(Name of Insured)

(the "Insured"), of 1940 NW 67th Place, Gainesville, FL 32653
(Physical Address of Insured)

in connection with the insured's obligation to demonstrate financial responsibility under Florida Administrative Code Rule 62-710.600(2) and 62-730.170. The coverage applies at:

<u>EPA/DEP I.D. No.</u>	<u>Name</u>	<u>Physical Address</u>
FLD 98071107	Perma-Fix of Florida, Inc.	1940 NW 67th Place, Gainesville, FL 32653

(If coverage is for multiple facilities, identify each facility insured.)

This insurance is primary and the company shall not be liable for amounts in excess of \$ 1,000,000 for each accident, exclusive of legal defense costs. The coverage is provided under policy number AEC004445106, issued on 09/01/2020.
(date)

The effective date of said policy is 09/01/2020 and the expiration date of said policy is 09/01/2021.
(date)

This insurance is excess and the company shall not be liable for amounts in excess of \$ _____ for each accident in excess of the underlying limit of \$ _____ for each accident, exclusive of legal defense costs. The coverage is provided under policy number _____, issued on _____ . The effective date of said policy is _____ and the expiration date of said policy is _____ .
(date) (date)

Mail original completed form to: Department of Environmental Protection For assistance call: 850-245-8707
2600 Blair Stone Road, Mail Station 4560
Tallahassee, Florida 32399-2400

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:
- (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
 - (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer.
 - (c) Whenever requested by the Secretary (or designee) of the Florida Department of Environmental Protection (FDEP), the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.
 - (d) Cancellation of the insurance, whether by the Insurer or the Insured and any other termination of the insurance (e.g., expiration, non-renewal), will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Secretary of the FDEP as evidenced by certified mail return receipt.
 - (e) The Insurer shall not be liable for the payment of any judgment or judgments against the Insured for claims resulting from accidents which occur after the termination of the insurance described herein, but such termination shall not affect the liability of the Insurer for the payment of any such judgment or judgments resulting from accidents which occur during the time the policy is in effect.

I hereby certify that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one of more States including Florida.



Digitally signed by: A003013
DN: CN = A003013 email = Joseph.Catanese@axaxl.com
Date: 2020.09.16 09:45:49 -04'00'

(Signature of Authorized Representative of Insurer)

Joseph S. Catanese

(Typed name)

Vice President

(Title)

Authorized Representative of

XL Insurance America, Inc.

(Name of Insurer)

505 Eagleview Blvd, Suite 100, Exton, PA, 19341-0636

(Address of Representative)



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

June 3, 2020

Mr. Kevin Schmuggerow
Vice President Southeast Operation
1940 NW 67th Place
Gainesville, Florida, 32653
kschmuggerow@perma-fix.com

RE: **Perma-Fix of Florida, Inc.**
EPA ID Number: FLD 980 711 071
Operating Permit: 17680-012-HO
Alachua County, Gainesville, Florida

Dear Mr. Schmuggerow:

Enclosed is Permit Number 17680-012-HO for the operation of a hazardous waste treatment and storage facility, and the replacement of one treatment unit. This permit is being issued pursuant to Section 403.722, Florida Statutes (F.S.), and Chapters 62-4, 62-160, 62-730, and 62-780, Florida Administrative Code (F.A.C.).

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68, F.S. by the filing of a notice of appeal under Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days after this order is filed with the Clerk of the Department.

If you have any questions, please contact Bradley Buselli by telephone at (850) 245-8989 or by e-mail at bradley.buselli@floridadep.gov.

Sincerely,

A handwritten signature in blue ink that reads "Michell Mason Smith".

Michell Mason Smith, Environmental Administrator
Hazardous Waste Program & Permitting

Mr. Kevin Schmuggerow
Page 2 of 2
June 3, 2020

Enclosure

cc (w/ Enclosure):

Brian Bastek, EPA Region 4, bastek.brian@epa.gov
Carlos Merizalde, EPA Region 4, merizalde.carlos@epa.gov
Pam Cosgrove, DEP Northeast District, pamela.cosgrove@floridadep.gov
Cheryl Mitchell, DEP Northeast District, cheryl.l.mitchell@floridadep.gov
Dan Cain, Perma-Fix, dcain@perma-fix.com
Bill Kelly, Trihydro, bkelly@trihydro.com
Annie Dziergowski, U.S. Fish & Wildlife Service, annie_dziergowski@fws.gov
Florida Fish & Wildlife Conservation Planning Services,
FWCConservationPlanningServices@myfwc.com



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE:
PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA 32653

I.D. NUMBER: FLD 980 711 071
PERMIT NUMBER: 17680-012-HO
DATE OF ISSUE: JUNE 3, 2020
EXPIRATION DATE: JUNE 8, 2025

ATTENTION:
MR. KEVIN SCHMUGGEROW
VICE PRESIDENT

COUNTY: ALACHUA
PROJECT: OPERATION OF A HAZARDOUS WASTE
TREATMENT AND STORAGE FACILITY AND
REPLACEMENT OF ONE TREATMENT UNIT

Pursuant to authorization obtained by the Florida Department of Environmental Protection (FDEP) under the Resource Conservation and Recovery Act [42 United States Code (U.S.C.) 6901, *et seq.*, commonly known as RCRA] and the Hazardous and Solid Waste Amendments of 1984 (HSWA), this permit is issued under the provisions of Section 403.722 Florida Statutes (F.S.), and Chapters 62-4, 62-160, 62-730, 62-777 and 62-780 Florida Administrative Code (F.A.C.). This permit replaces expired permit 17680-011-HO. The above-named Permittee is hereby authorized to perform the work or operate the facility shown on the application dated December 11, 2019 and supplemented by additional information dated March 25, 2020, that are incorporated herein and collectively referred to as the "permit application." The permit application also includes any approved drawing(s), plans, and other documents that are specifically identified and incorporated by reference. Solid waste management units (SWMUs) and areas of concern (AOCs) identified to date are listed in Appendix A. The RCRA-regulated units, permitted units or permitted activities are specifically described as follows:

1. To operate one (1) enclosed container storage area, located in the Treatment and Operations Building (TOB), as illustrated in the permit application, and/or subsequent revisions, and shown in Attachment D of this Permit. The TOB container storage area contains seven (7) zones for storage of hazardous waste in containers meeting D.O.T. specifications and in size of 718 gallons (B-25 box) or less. The permit authorizes the storage of a maximum volume of 35,200 gallons of hazardous waste in the TOB storage area. The container storage area includes a containment system that consists of concrete curbing at least 4 inches high to prevent run-off. Exhaust and fugitive emissions from treatment operations within the TOB must be treated through an air pollution control system consisting of a regenerative thermal oxidizer (RTO)/HEPA filter system. The hazardous waste codes for treatment permitted in the TOB and waste permitted to be stored in this area are listed in Attachment A of this Permit.

2. The following hazardous waste treatment units are located in the TOB. The following treatment must be conducted in the TOB:
 - a. PF-I process (treatment in containers) as described in the permit application and/or subsequent revisions. The PF-I process is a two-step process for the permanent stabilization and/or solidification of hazardous and mixed waste conducted primarily in 55-gallon drums.
 - b. Existing PF-II process (miscellaneous treatment unit) as described in the permit application and/or subsequent revisions. The PF-II process consists of thermal desorption and/or chemical oxidation/reduction in a treatment unit. The existing PF-II treatment equipment is planned to be replaced with continuous PF-II treatment equipment and feed preparation equipment in the TOB as described in the permit application and/or subsequent revisions.
 - c. Lab Pack decommissioning as described in the permit application and/or subsequent revisions.
 - d. Fuel blending activity as described in the permit application and/or subsequent revisions.
 - e. Mercury amalgamation as described in the permit application and/or subsequent revisions.
 - f. Non-elementary neutralization as described in the permit application and/or subsequent revisions (Appendix I-E).
 - g. Deactivation process as described in the permit application and/or subsequent revisions.
 - h. Treatment using a Drum Rotator as described in the permit application and/or subsequent revisions.
 - i. Oxidation/reduction treatment in containers.
 - j. Solvent Recycling as described in Condition 10 below.
3. The existing PF-II treatment equipment is planned to be replaced with newly constructed, continuous PF-II treatment equipment and feed preparation equipment in the TOB as described in the permit application and/or subsequent revisions (Appendix II-I-1). This proposed treatment process will replace the existing PF-II process described in item 2.b. above. Specific conditions for these changes are noted in Part II Subpart B.5 of this Permit.
4. To operate a container storage area, located in the Processing and Storage Building (PSB), illustrated in the permit application and/or subsequent revisions, and in Attachment E of this Permit. The PSB container storage area contains three (3) zones for storage of hazardous waste in containers meeting D.O.T. specifications and in size of 718 gallons (B-25 box) or less. The permit authorizes the storage of a maximum volume of 72,105 gallons of hazardous waste in the PSB storage area. The storage area is covered and has a containment system consisting of 6-inch wide concrete curbing at least 2.5 inches high and two sumps to prevent both run-on and run-off. The hazardous waste codes for the waste permitted to be stored in this area are listed in Attachment A of this Permit.
5. To conduct the following hazardous waste activities located in the PSB:
 - a. Fuel-blending operations including phase separation treatment, decanting and bulking in this area, as described in the permit application and/or subsequent revisions.
 - b. Lab Pack decommissioning as described in the permit application and/or subsequent revisions.

- c. Storage and bulking of chemotherapy and pharmaceutical waste as described in the permit application and/or subsequent revisions.
 - d. Chemical precipitation, chemical reduction, neutralization, filtration, flocculation and physical treatment (i.e., sorting and segregation) in containers as described in the permit application and/or subsequent revisions.
 - e. Tank storage as described in condition 6 below.
 - f. Non-elementary neutralization and chemical extraction as described in in the permit application and/or subsequent revisions (Appendix I-E).
6. To operate a 3,000-gallon horizontal, aboveground storage tank illustrated in the permit application and/or subsequent revisions and in Attachment E of this Permit. The storage tank is used for the accumulation and storage of radioactive mixed waste containing ethanol, toluene and xylene that is generated from Liquid Scintillation Vial (LSV) processing. This tank is located within secondary containment inside the PSB.
 7. To operate one (1) hazardous waste container treatment unit for hazardous waste debris treatment in the LSV Processing and Waste Storage Warehouse, described in the permit application and/or subsequent revisions. The unit is comprised of an approximately 250-gallon stainless steel portable vat, equipped with an emission control hood. This unit is located within the 5-3/4" x 6" concrete curbing containment of the LSV Processing Area within the LSV Processing and Waste Storage Warehouse. In certain cases, debris treatment may be performed in the TOB area. Exhaust and fugitive emissions from debris treatment operations within the LSV area will be treated through an air pollution control system consisting of HEPA filters and a regenerative thermal oxidizer. The hazardous waste codes for treatment permitted in the LSV Processing Area are listed in Attachment A of this Permit.
 8. To operate a container storage area, located in the LSV Processing and Waste Storage Warehouse, described in the permit application and/or subsequent revisions, and in Attachment C of this Permit. The LSV container storage area stores hazardous waste in containers meeting D.O.T specifications and in size of 718 gallons (B-25 box) or less. The permit authorizes the storage of a maximum volume of 54,340 gallons of hazardous waste in the LSV Processing and Waste Storage Warehouse area. The storage area is covered and has a containment system consisting of at least 2.75" high x 5.5" concrete curbing and rollover berms. The hazardous waste codes for the waste permitted to be stored in this area are listed in Attachment A of this Permit.
 9. To conduct the additional following hazardous waste activities located in the LSV / Waste Storage Warehouse:
 - a. LSV Processing as described in the permit application and/or subsequent revisions.
 - b. Repackaging as described in the permit application and/or subsequent revisions.
 - c. Chemical extraction, physical extraction and micro-encapsulation including debris treatment as described in the permit application and/or subsequent revisions.
 - d. Lab Pack decommissioning as described in the permit application and/or subsequent revisions.

- e. Solid Waste Management as described in the permit application and/or subsequent revisions.
 - f. Miscellaneous Waste Storage and Transfer as described in the permit application and/or subsequent revisions.
 - g. Fuel Blending as described in permit application and/or subsequent revisions.
 - h. Mercury Amalgamation as described in the permit application and/or subsequent revisions.
 - i. Non-elementary neutralization as described in the permit application and/or subsequent revisions (Appendix I-E).
 - j. Treatment using a drum rotator as described in the permit application and/or subsequent revisions.
 - k. Deactivation of D003 waste as described in the permit application and/or subsequent revisions.
 - l. Solvent Recycling as described in Condition 10 below.
10. To conduct proposed solvent recycling activities, exempt from RCRA permitting requirements per 40 CFR 261.6(c)(1), as described in Part 1 Section D.2.1 and Part II.R of the revised permit application. A distillation unit was purchased in 1997 for a one-time operation and has not been used since that time. The distillation unit has been retained at the facility and will be located in either the LSV radioactive control area (RCA) or the TOB RCA. The emissions from this unit are subject to Subpart AA and would be managed through the air pollution control equipment at either location.

The Permittee is required to investigate any releases of contaminants to the environment at the facility regardless of the time at which waste was placed in a unit and to take appropriate corrective action for any such releases. Pursuant to 40 Code of Federal Regulations (CFR) 260.10 [as adopted by reference in Subsection 62-730.020(1), F.A.C.], the corrective action requirements of this RCRA permit extend to all property under control of the Permittee (see Attachment A, a map of the property boundaries of the land under the Permittee's control) and to all contamination that originated from discharges at the property under control of the Permittee.

This permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this permit are accurate. Any inaccuracies found in this information or information submitted as required by this permit may be grounds for termination or modification of this permit in accordance with Section 403.727(3)(a) F.S. and Rule 62-730.290, F.A.C., and potential enforcement action.

The facility is located at 1940 NW 67th Place, Gainesville, Florida.

The following documents were used in the preparation of this permit:

1. Permit # 17680-011-HO and all documents references therein, issued May 27, 2015.
2. Permit Application dated December 11, 2019.
3. Request for Additional Information (RAI) dated December 30, 2019.
4. Responses to RAI / Supplemental Information dated March 25, 2020.

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PART I – GENERAL AND STANDARD CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The Permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Sections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the Permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The Permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the Permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. This permit or a copy thereof shall be kept at the work site of the permitted activity. In the event that there is no building or reasonable repository for such a copy at the work site, an alternate location must be approved by the Department in writing.
8. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted for the activities below. Reasonable time may depend on the nature of the concern being investigated.

- a. Have access to and copy any records that must be kept under conditions of the permit.
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit.
 - c. Sample or monitor any substances or parameters at any time or location reasonably necessary to assure compliance with this permit or Department rules.
9. The conditions in this permit shall take precedence over the permit application documents where there are differences between those documents and the permit conditions.
10. In accepting this permit, the Permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of the permitted activity which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted activity arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
11. The Permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the Permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
12. The Permittee shall comply with the following notification and reporting requirements:
- a. If for any reason the Permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Department's RCRA Manager with the following information:
 - (1) A description of and cause of noncompliance.
 - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
 - b. The Permittee will report any event requiring emergency response or noncompliance that may endanger human health or the environment from fires and explosions or releases of hazardous waste that may endanger public drinking water supplies. The Permittee will report to the Department's RCRA Manager verbally within 24 hours and provide a written report of the incident to the Hazardous Waste Program & Permitting Section at the address in Part I.15 or by alternate means (*e.g.*, e-mail) as approved by the Department, within five calendar days. It is the responsibility of the Permittee to ensure receipt of the written report. The Department of Environmental Protection's 24-hour emergency telephone number is (850) 413-9911 or (800) 320-0519. During normal business hours, the Hazardous Waste Program & Permitting

Section in Tallahassee may be contacted at 850-245-8707, or the DEP District Office may be contacted at (904) 256-1700 (Jacksonville).

- (1) The verbal report shall include the following information:
 - (a) The name, address, I.D. number, e-mail address, and telephone number of the facility and its owner or operator.
 - (b) The date, time, and type of incident.
 - (c) The identity and quantity of materials involved.
 - (d) The extent of any injuries.
 - (e) An assessment of actual or potential hazards.
 - (f) The estimated quantity and disposition of recovered materials.
- (2) The written report shall include all of the information in the verbal report and the following information:
 - (a) A description and cause of the noncompliance.
 - (b) If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- c. Within 15 calendar days of discovery per Part V.A.1.b, the Permittee shall notify the Department' RCRA Manager in writing of any newly discovered release(s) of contaminant(s) to the environment resulting in a de Minimis cleanup (Part V.A.4) or a suspected new AOC(s) and/or SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means.
 - (1) The notification shall include, at a minimum, the location of the release, AOC or SWMU (hereinafter referred to collectively as "site"), and all relevant information (*e.g.*, location of site(s) on a map of appropriate scale; general dimensions of affected area; media affected; hazardous constituents released; and magnitude of release).
 - (2) The Department may conduct, or require that the Permittee conduct, confirmatory sampling in order to determine whether contamination is present (Part V.A.3). The Department will notify the Permittee in writing of the final determination as to the status of the newly discovered or suspected site.
 - (3) Depending upon the type of discovery, notification requirements of Part I.12.b may also be required.
- d. The Permittee shall comply with the "Notices" provisions of Rules 62-780.220, F.A.C., and 62-730.225, F.A.C.
 - (1) Prior to performing field activities.
 - (2) When contamination beyond the facility boundary is confirmed by laboratory analysis.
 - (3) When a Temporary Point of Compliance (TPOC) is established beyond the boundary of the source property in conjunction with monitored natural attenuation or active remediation.
 - (4) When a fifth-year update to the status of a TPOC is issued.

- (5) By placing warning signs at facilities where there may be a risk of exposure to the public of environmental media contaminated with hazardous waste.
 - e. The Permittee shall give written notice to the Department's RCRA manager at least 15 days prior to physical alterations or additions to the facility that could affect activities covered by this permit. The notice shall include a summary description of the project, an evaluation of the effect it will have on: the operation of a hazardous waste facility, postclosure care, the ability to investigate contamination at or from a contaminated site, and an evaluation of the effect it might have on the known or suspected contamination.
 - f. Operating and Postclosure Permittees that generate hazardous waste, and all HSWA Corrective Action Permittees that are also a large quantity generator (LQG) of hazardous waste, shall submit a Biennial Report covering facility activities during the previous calendar year by March 1 of each even numbered year pursuant to Chapter 62-730, F.A.C.
13. The Permittee shall comply with the following recordkeeping requirements:
- a. Upon request, the Permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The Permittee shall hold all information required by the permit at the facility or other location designated by this permit. This includes records of all monitoring information (including all calibration and maintenance records and all original recordings for continuous monitoring instrumentation); copies of all reports; records of all data used to complete the permit application; and all monitoring data required by 40 CFR Part 264 and Part IV and when applicable, Part VI of this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. Any Remedial Action Plan as applicable for each contaminated site and associated cost estimate(s) shall be held until a Site Rehabilitation Cleanup Order is issued.
 - c. Records of monitoring information shall include all required items in Chapter 62-160, F.A.C., and the following information:
 - (1) The date, exact place, and time of sampling or measurements.
 - (2) The person responsible for performing the sampling or measurements.
 - (3) The dates that analyses were performed.
 - (4) The person responsible for performing the analyses.
 - (5) The analytical techniques or methods used.
 - (6) The results of such analyses.
 - d. If the Permittee generates hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced to comply with land disposal restrictions (40 CFR Part 268 and Rule 62-730.183, F.A.C.) for at least three years from the date that the waste which is the subject of such documentation was last sent to an on-property or off-property facility for treatment, storage, or disposal, or until remedial activity is completed, whichever date is later. These periods may be extended by request of the Department at any

time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

14. Within the timeframe requested by the Department, the Permittee shall furnish any information required by law which is needed to determine compliance with the permit. If the Department's request does not include a timeframe, the time of response is 30 days. If the Permittee becomes aware that the relevant facts were not submitted or were incorrect in the permit application or any report submitted to the Department, such facts or information shall be corrected promptly.
15. Except as otherwise specifically provided in this permit, all submittals in response to permit conditions shall be provided as described below. Submittals may be directed to alternative addresses (*i.e.* electronic submittal) and will not require a permit modification. Technical submittals (*e.g.* workplans, reports) provided in digital format must be in optical media format (Cd or DVD) or through a secured internet port (*i.e.* username/password encryption) when one is available.

Environmental Administrator
Hazardous Waste Program and Permitting, M.S. 4560
Department of Environmental Protection
2600 Blair Stone Road, Tallahassee, Florida 32399-2400

In addition to copies sent to Hazardous Waste Program and Permitting in Tallahassee, submittals in response to postclosure or operating permit conditions shall be sent to:

Waste & Air Resource Program Administrator
Department of Environmental Protection – Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

16. All documents submitted pursuant to the conditions of this permit shall be accompanied by a cover letter stating the name and date of the document submitted, the number(s) of the Part(s) and Condition(s) of the permit affected, the E.P.A. I.D. number, and the permit number and project name of the permit involved.
17. All documents proposing modifications to the approved permit and involving the practice of engineering must be submitted to the Department for review and be signed, sealed, and certified by a Professional Engineer registered in the State of Florida, in accordance with Chapter 471, F.S., and Subsection 62-730.220(9), F.A.C. All submittals incorporating interpretation of geological data shall be signed and sealed by a Professional Geologist registered in the State of Florida in accordance with Chapter 492, F.S., and Subsection 62-730.220(10), F.A.C.
18. All work plans, reports, schedules and other documents ("submittals") required by this permit are subject to approval by the Department prior to implementation. The Department will review the submittals and respond in writing. Upon written approval by the Department, the Permittee shall implement all work plans, reports and schedules as

provided in the approved submittal. If the Department disapproves a submittal, the Department will do one of the following:

- a. The Department will notify the Permittee in writing of the reason(s) why the submittal does not contain information adequate to support the conclusion, alternative, plan, proposal or recommendation, or why the conclusion, alternative, plan, proposal or recommendation is not supported by the applicable criteria. In this case, the Permittee shall submit a revised submittal within 60 days of receipt of the Department's disapproval unless an alternative deadline is approved in writing by the Department.
 - b. The Department will revise the submittal, or approve the submittal with conditions, and notify the Permittee of the revisions or conditions. In the case of work plans, the Department may notify the Permittee of the start date of the schedule within the revised or conditionally approved work plan.
19. The Permittee shall revise "Part I – General" of the Application for a Hazardous Waste Facility Permit [DEP Form 62-730.900(2)(a)] and submit the revised form to the Department within 30 days of any changes in the Part I information. Changes in the Part I information may also require changes to the Department's 8700-12FL form.
20. The Permittee may claim that any information required to be submitted by this permit is confidential in accordance with Chapter 403.73, F.S.
21. This permit is transferable only upon written Department approval in accordance with Rule 62-4.120 and Subsection 62-730.290(6), F.A.C., as applicable. The Permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. Before transferring ownership or operation of this facility during the term of this permit, the Permittee must notify the new owner or operator in writing of the requirements of 40 CFR Part 264 and Chapter 62-730, F.A.C.
22. The following conditions apply to renewal, modification and revocation of this permit:
- a. The Permittee shall submit a complete application for the renewal of this permit a minimum of 180 calendar days before the expiration of the permit. The permit renewal application shall be submitted in accordance with Rules 62-4 and 62-730, F.A.C.
 - b. The Department may modify, revoke, reissue, or terminate for cause this permit in accordance with Chapters 62-4 and 62-730, F.A.C.
 - c. The Permittee may submit any permit modification to the Department for approval. The filing of a request for a permit modification, revocation, reissuance, termination, notification of planned changes, or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.
 - d. The Permittee shall submit the application for a permit renewal or modification to the addresses in Part I.15.
 - (1) The Permittee shall submit a fee with the permit renewal or modification application that meets the requirements of Rule 62-730.293, F.A.C. A

Permittee choosing to pay the fee on an annual basis shall submit the annual fee payment no later than the anniversary date of permit issuance.

- (2) The Permittee shall submit a copy of the cover letter accompanying the permit renewal or modification application and the fee to the following address:

Florida Department of Environmental Protection
Hazardous Waste Program and Permitting
Post Office Box 3070, Tallahassee, Florida 32315-3070

- (3) The Permittee shall also submit notification of fee submittal, or notification of annual fee submittal, to the addresses in Part I.15.a., or by an alternate means (*e.g.*, e-mail) as approved by the Department.
- (4) The permit renewal or modification application fee may alternately be submitted electronically. If the Permittee intends to submit the application fee electronically, the Permittee shall obtain instructions from the Department on the proper procedures, and shall follow such instructions in making the electronic submittal. Notification per Part I.22.d.(3) is still required.
- e. The timeframes for permit review begin on the date when the Department has received both the permit renewal or modification application and the application fee.
- f. If the Permittee allows this permit to expire prior to Department acceptance of the certification of postclosure and termination of all corrective action, the Permittee must reapply for a permit in accordance with DEP Form 62-730.900(2), F.A.C.
- g. Any request to modify a permit for the treatment, storage, or disposal of hazardous waste generated off-site shall include an evaluation of the applicability of, and Permittee's compliance with, the siting criteria of Section 403.7211, F.S., and Rule 62-730.182, F.A.C.

23. If and when the Permittee intends to transfer parcels to third parties, the Permittee may remove a parcel from the Facility covered by this permit, and the Department will approve the removal of the parcel so long as the parcel never contained a contaminated site, or so long as any contamination associated with the contaminated site has been addressed to the satisfaction of the Department. The Department will approve the transfer or removal of a parcel in writing.

- a. The satisfaction of the Department may be conditioned on a sale with certain legal restrictions on the future use and/or remedial activity requirements on the parcel being transferred.
- b. Following the legal transfer of the property, a permit modification request to transfer the parcel from the permit must be made per Part I.22 within 30 days. A new facility map denoting the current property boundary and new property boundary legal description shall be submitted with the permit modification request.
- c. Even though a parcel is no longer defined as part of the facility as a result of the permit modification (using the minor modification requirements of Subsection 62-730.290(4), F.A.C.), in the event that a previously unknown contaminated site is found on the parcel, and such contamination resulted from activities which occurred prior to the sale, the Permittee will be responsible for any corrective action along with

any other persons who may have legal responsibility for the contamination (see Part V.A.1.b. regarding discovery of a new SWMU).

24. The following conditions apply to land disposal (placement) of hazardous wastes:
- a. 40 CFR Part 268 and Rule 62-730.183, F.A.C., identify hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage, or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR Part 268. Where the Permittee has applied for an extension, waiver, or variance under 40 CFR Part 268, the Permittee shall comply with all restrictions on land disposal under this Part pending final written approval of such application.
 - b. Waste identified in 40 CFR Part 268 Subpart C may not be placed in a land disposal unit without treatment unless the requirements of 40 CFR Part 268 Subparts C and/or D are met.
 - c. The storage of hazardous wastes restricted from land disposal in 40 CFR Part 268 is prohibited unless the requirements of 40 CFR Part 268 Subpart E are met.
25. The Permittee is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-property access is denied or revoked.
- a. The Permittee shall use all reasonable efforts, including but not limited to correspondence, telephone calls, personal contacts, drafting and redrafting agreements, and payment of a fee, to obtain access to real property necessary for work to be performed in the implementation of this permit.
 - b. If necessary access cannot be obtained by the Permittee, or if obtained, is revoked by owners or entities controlling access to the properties to which access is necessary, the Permittee shall notify the Department within five business days of such refusal or revocation. The Department may at any time thereafter seek to obtain such access as is necessary to implement the terms of this permit.
 - c. The Permittee shall reimburse the Department for any expenses that the Department is ordered to pay, or that the Department incurs in connection with its efforts to obtain necessary access to said property. The Permittee shall pay these sums to the Department, or arrange a payment schedule with the Department, within 30 days of demand by the Department. Payments shall be performed in accordance to Part I.22.d.
26. The Permittee shall maintain compliance with 40 CFR Part 264, Subpart H - Financial Requirements and Subsection 62-730.180(6), F.A.C. Financial assurance shall be based on estimates of the costs to close the facility and to implement postclosure care and/or corrective action (including the assessment phase and interim measures - collectively referred to hereinafter as "remedial activities") for a continuing (rolling) period of 30 years, unless this period is shortened or increased by the Department in a permit renewal or modification. Federal and State of Florida facilities are exempt from financial assurance requirements.

- a. The cost estimates must be based on the cost to the owner or operator of hiring a third party to conduct remedial activities.
- b. The Permittee shall include cost estimates with every work plan required by this permit. Cost estimates are subject to review and written approval by the Department
- c. In the event the total cost estimate for all remedial activities exceeds the amount provided by Permittee, the financial assurance instrument(s) must be increased accordingly within 60 days of the exceedance, or, for those facilities using a financial test, in the next scheduled submittal.
- d. If the cost estimate increase causes the inability of the facility to provide financial assurance through its currently selected mechanism, alternate financial assurance must be provided within 60 days.
- e. All submittals relating to financial assurance shall be submitted to the following address. Where financial institutions allow digital submissions, alternate submittal mechanisms may be used without requiring a permit modification.

Financial Assurance
Hazardous Waste Program and Permitting, M.S. 4560
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

27. Any dispute resolution will be conducted in accordance with Chapter 120, F.S. (Administrative Procedure Act), Chapter 28-106, F.A.C., and the Department's existing rules and procedures.

PART II – OPERATING CONDITIONS

Part II Subpart A – General Operating Conditions

1. The Permittee shall comply with those sections of 40 CFR Part 124 specified in Subsection 62-730.200(3), F.A.C., 40 CFR Parts 260 through 268, and 40 CFR Part 270 as adopted in Chapter 62-730, F.A.C., until all hazardous waste permitting operations have ceased and the facility has been closed and released from postclosure care requirements and all facility-wide corrective action requirements.
2. The Permittee shall comply with the manifest requirements of 40 CFR 264.71 and 264.72. All manifests, both electronic and paper, must be submitted to EPA's Hazardous Waste Electronic Manifest (e-Manifest) System. The Permittee must document the reconciliation of any manifest discrepancies.
3. The Permittee shall comply with the import and export provisions of 40 CFR 262 Subpart H, the notification requirements of 40 CFR 264.12, and maintain all applicable records for Department inspection.
4. The owner or operator of a facility that is authorized by the Department to receive hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping.

- a. The Permittee that receives hazardous waste from an off-site source shall comply with the following notification and reporting requirements:
 - (1) Unmanifested Waste Report: The Permittee shall submit an Unmanifested Waste Report to the Department within 15 days of receipt of unmanifested waste.
 - (2) Manifest Discrepancy Report: If a significant discrepancy in a manifest is discovered, the Permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the Permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.
5. Sampling and analysis of permitted and new hazardous wastes shall be conducted in accordance with the Waste Analysis Plan of the permit application.
 - a. The Permittee is liable for waste profiles supplied by generators.
 - b. Prior to acceptance of new waste codes, a permit modification per Condition I.22 is required. The need for a substantial modification should be evaluated using the criteria in Subsection 62-730.182(4), F.A.C.
6. The Permittee shall comply with 40 CFR 264.17, 264.176, and 264.198, with respect to ignitable and reactive wastes. The Permittee shall comply with 40 CFR 264.17, 264.177 and 264.199, with respect to incompatible wastes.
7. If this facility has suspected or confirmed environmental contamination where there may be a risk of exposure to the public, then upon direction from the Department the Permittee must comply with the warning sign requirements of Section 403.7255, F.S. and Rule 62-780.220, F.A.C. The Permittee is responsible for supplying, installing and maintaining the warning signs.
8. The Permittee shall comply with the security provisions of 40 CFR 264.14 and the facility security provisions of the permit application.
9. Facility personnel must successfully complete the approved training program indicated in the permit application, within six months of employment or assignment to a facility or to a new position at the facility. Verification of this training must be kept with the personnel training records and maintained at the facility. Personnel shall not work unsupervised until training has been completed. The training must be reviewed by facility personnel at least annually. The Permittee shall maintain an updated list of personnel handling hazardous waste and their respective job titles at the facility.
10. The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
11. The Permittee shall comply with the following conditions concerning preparedness and prevention:

- a. At a minimum, the Permittee shall have the equipment available at the facility which is described in the Prevention and Preparedness Plan (PPP) of the permit application. The Permittee shall visually inspect and maintain the facility emergency and safety equipment (40 CFR 264.32) listed in the PPP, in accordance with 40 CFR 264.15, 40 CFR 264.33 and the permit application, during permitted activities. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, in accordance with the requirements of 40 CFR 264.15(c). A schedule for the inspection of the facility emergency and safety equipment must be maintained in the operating record of the facility. Changes, additions, or deletions to the schedule must be approved in writing by the Department.
 - b. The Permittee shall maintain immediate access to an internal communications or alarm system, fire protection equipment, spill control equipment and decontamination equipment.
 - c. The Permittee shall maintain arrangements with State and local authorities as required by 40 CFR 264.37, and with local medical facilities and emergency response personnel. If State or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record. Authorities/facilities include local fire and police departments, sheriff's office, state police, hospitals, ambulance services and emergency medical technicians, and state and local emergency response centers.
 - d. The Permittee shall maintain aisle space, as required pursuant to 40 CFR 264.35, to allow the unobstructed movement of personnel, fire protection, and emergency response equipment to any area of the facility.
12. The Permittee shall comply with the following conditions concerning the Contingency Plan (CP):
- a. The Permittee shall immediately carry out the provisions of the permit application, and follow the emergency procedures described by 40 CFR 264.56, whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment. The Permittee shall give proper notification if an emergency situation arises and, within five calendar days, must submit to the Department's RCRA Manager a written report which includes all information required in Condition I.12.b.
 - b. The Permittee shall comply with the requirements of 40 CFR 264.53. Electronic copies of the CP must be submitted to the authorities/facilities in Condition II.A.11.c., provided the entity has the capability to receive electronic submittals.
 - c. Within seven calendar days of meeting any criterion listed in 40 CFR 264.54(a), (b) or (c), the Permittee shall amend the plan and submit the amended plan for Department approval. Any other changes to the plan must be submitted to the Department within seven days of the change. Amendments to the plan must be approved in writing by the Department. All approved amendments or plans must be distributed to the State and local authorities in Condition II.A.11.c.
 - d. The Permittee shall comply with the requirements of 40 CFR 264.55, concerning the emergency coordinator.

- e. The Permittee shall perform at a minimum, an annual review of the Contingency Plan to ensure that it is up to date and contains current information. The date of review should be noted in the written operating record at the facility.
13. The Permittee shall develop and maintain a Waste Minimization Program Plan. The Permittee shall maintain copies of the certification required by this Condition in the facility operating record for a minimum of three years. The Permittee must certify, no less often than annually, the following:
 - a. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable.
 - b. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee, which minimizes the present and future threat to human health and the environment.
 14. The Permittee shall keep a written operating record at the facility that includes the following:
 - a. The results of any waste analysis.
 - b. Copies of hazardous waste manifests for three years. For e-manifests, this condition is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, provided such copies are readily available for viewing and production if requested by the Department inspector.
 - c. The results of inspections.
 - d. The closure plan, postclosure plan, and remedial action (corrective measures) plans as applicable for each contaminated site, along with cost estimates for each plan.
 - e. Inspections of emergency and safety equipment.
 - f. Biennial reports.
 - g. Personnel training records.
 - h. The Waste Minimization Program Plan and annual certification of waste minimization.
 - i. The description and quantity of each hazardous waste received or generated.
 - j. The location and quantity of each hazardous waste within the facility.
 - k. Notices to generators as specified in 40 CFR 264.12(b).
 - l. A log of dates of operations and unusual events.
 - m. A summary report and details of incidents that require implementation of the contingency plan.
 - n. The date of annual review of the Contingency Plan.
 - o. Monitoring and test data for 40 CFR 264 Subparts AA, BB, and CC requirements.
 - p. Documentation that local officials have refused to enter into preparedness prevention arrangements with the Permittee, when applicable.

Part II Subpart B – Specific Operating Conditions

Part II Subpart B.1-Miscellaneous Treatment Units

1. The Permittee shall conduct the Perma-Fix I® Process (PF-I) and Perma-Fix II® Process (PF-II) treatment in accordance with specifications and procedures described in the permit application and/or subsequent revisions.
2. The Permittee shall not treat in the PF-II process more than 3,000 pounds on any single day. The maximum quantity of hazardous waste treated in any single batch shall not exceed 85 gallons for the existing PF-II process.
3. The Permittee is allowed to treat, in the PF-II reactor vessel, wastes contaminated with the volatile organic hazardous constituents up to the maximum concentrations, listed in Table 1 in the Air Toxic Modeling Report dated August 2005 and Table 1 Proposed Waste Codes in the Substantial Modification Demonstration dated December 2009. The waste codes permitted for treatment are listed in Table 1 of Appendix II-A-4 of the permit application and/or subsequent revisions and Attachment A of this Permit.
4. The Permittee shall only conduct hazardous debris treatment, as described in Appendix I.H. of the permit application and/or subsequent revisions. Also, the Permittee shall capture all solids and liquid residuals generated from the debris treatment activities inside the primary containment vat unit and manage them as described in the permit application and/or subsequent revisions.
5. The Permittee is allowed to treat only hazardous debris with the waste codes listed in Attachment A of this Permit. Also, the extent of treatment shall achieve compliance with 40 CFR 268.45.
6. The Permittee shall not conduct hazardous debris treatment with any equipment that the facility uses in the LSV Process. Furthermore, the Permittee shall not commingle any non-liquid waste from the hazardous debris unit into the LSV Process.
7. The Permittee shall comply with waste compatibility requirements of 40 CFR 264.17(b).
8. All treatment of the hazardous waste shall be conducted by qualified trained personnel, experienced in handling such material. [40 CFR 264.16]
9. The Permittee shall verify and record in the operating records, that the Air Emission Control System (AECS) is engaged and operating properly prior to performing any hazardous waste or hazardous debris treatment activities, including opening, loading or unloading waste containers. Additionally, the Permittee shall verify and record in the operating records that the Treatment and Operations Building (TOB) is under negative pressure prior to performing PF-II treatment. The AECS shall remain in operation and the primary chamber temperature be maintained at 1,300°F to 1,500°F while treatment operations are conducted.
10. The Permittee shall remove treated waste and other residues from the treatment unit(s) and ancillary equipment, and decontaminate the equipment, in accordance with the deactivation and decontamination procedures described in Appendix I-F of the permit application and/or subsequent revisions.

11. The Permittee shall not store more than twenty (20) drums, 55-gallons or less in size, in the TOB processing area at any time, as listed in Part II, Table II-7 of the permit application and/or subsequent revisions. The Permittee is authorized to store wastes in totes, B-12 containers, or B-25 containers in the TOB processing area in a single stack as long as these containers do not significantly affect the capacity of secondary containment in the TOB processing area (e.g., containers provided with legs/supports). The Permittee shall remove all treated waste and treatment residues from the treatment areas of the TOB and hazardous debris unit areas within twenty-four (24) hours of completion of the treatment event. Furthermore, staging of waste containers for treatment in the treatment areas of the TOB or hazardous debris unit area will be limited to twenty-four (24) hours prior to beginning treatment. The Permittee shall not store any waste in the treatment unit areas for a period greater than forty-eight (48) hours, including treatment time.
12. The Permittee shall maintain a written record of the date, time, and number of all waste containers being transferred in and out of the TOB treatment area or hazardous debris unit treatment area and shall record this information in the facility operating record.
13. The Permittee shall provide adequate fire protection to ensure confinement and control of any fire resulting from operation, as specified in the Contingency Plan of the permit application, and/or subsequent revisions.
14. The Permittee shall maintain an operational record describing treatment activities for PF-I, PF-II and Debris treatment processes. The operational record shall be kept as part of the operating records for a period of 3 years and shall include the following information:
 - a. Description and quantity of each hazardous waste received and treated at the unit(s) and dates of treatment;
 - b. Concentration of volatile organic hazardous constituents for each waste stream placed in the PF-II reactor vessel, pursuant to the Specific Condition 3 of this Part. The Permittee may use generator knowledge (e.g., land ban notifications) or analytical data for the purpose of this record keeping requirement;
 - c. List of personnel present during each treatment operation on a given day;
 - d. Operating conditions of the Air Emission Control System including flow rate and temperature recorded once per day during treatment operation after the proposed PF-II process is implemented. Until then, the Regenerative Thermal Oxidizer (RTO) temperature will be recorded on a daily basis on each day treatment is performed; and
 - e. Details of any problems discovered during inspections conducted pursuant the Specific Conditions 15 and 16 of this Part and details of remedial actions taken.
15. The Permittee shall conduct internal inspections of the PF-II reactor vessel and accumulator tank, as specified in the permit application and/or subsequent revisions, for the existing process. The Permittee shall also inspect the thermal oxidizer and calibrate the temperature in the primary chamber at least once a year, in accordance with 40 CFR 264.1088. The Permittee shall conduct an internal inspection of the proposed PF-II reactor vessel at least once a year unless the reactor vessel is out of service. In that case, the reactor vessel shall be inspected prior to being returned to service.

16. The Permittee shall conduct inspections of the miscellaneous unit(s) on each day treatment is conducted in accordance with the permit application and/or subsequent revisions for the existing PF-II process. Inspection of the proposed PF-II process will be conducted on each day treatment is performed, in accordance with the permit application and/or subsequent revisions. If a significant deterioration of the concrete pad, joint sealant material or protective coating (due to accidental spills) is noted in these inspections, the Permittee shall re-evaluate the need for a more resistant protective coating or seal material. All the inspection reports including corrective actions must be recorded and kept as part of the operating records [40 CFR 264.15].
17. The Permittee shall implement appropriate remedial actions for the problems discovered during the inspections conducted pursuant to the Specific Condition 15 and 16 of this Part. For problems that cannot be remedied within forty-eight (48) hours, the Permittee shall notify the Department within three (3) working days and follow up with a written report within fourteen (14) days of discovering such problems. The report must include descriptions of the remedy actions taken. The Permittee shall cease operation of the miscellaneous treatment unit until completion of the necessary repairs.
18. The Permittee shall provide a written report to the Department within thirty (30) days of removing any component of the PF-II treatment unit or its ancillary equipment from service and shall include a description of the decontamination procedures. The Permittee shall follow the facility Closure Plan, Appendix II-K-1 (and Section K of Part II) of the permit application and/or subsequent revisions, for the decontamination procedures.

Part II Subpart B.2-Container Storage Areas/Units

1. The Permittee is allowed to store the wastes listed in Attachment A of this permit only in the Processing and Storage Building (PSB), Treatment and Operations Building (TOB), and in the Liquid Scintillation Vial (LSV) Processing and Waste Storage Warehouse. Containers must conform to D.O.T. requirements. If a container holding hazardous waste is not in good condition, or begins to leak, the waste shall be transferred to another container that is in good condition [40 CFR 264.171] or it will be over-packed. Containers shall be kept closed, except when adding or removing waste and be handled in a manner that will not allow the containers to rupture or leak [40 CFR 264.173].
2. The Permittee shall not store any hazardous waste which is not listed in Specific Condition 1 of this Part. Non-hazardous waste, or raw materials/products are authorized to be stored in the permitted container storage areas as long as the total storage does not exceed the permitted capacity.
3. The Permittee shall not store, in a single container, chemical constituents above the quantities listed in the third column "Maximum Container Quantity (lbs)" of Attachment B. The attachment was developed from Tables 5 and 8 from the "Final Report Offsite Consequence Analysis and Air Modeling" dated January 2006 and from Tables 5 and 8 from the "Substantial Modification Demonstration" revised March 2010. If a constituent was present in both tables the more restrictive data, (i.e. the small number in the "amount released" column) was listed in Attachment B of this Permit.

4. The Permittee shall use only those containers made of or lined with materials which will not react with and are otherwise compatible with the waste to be stored in them [40 CFR 264.172].
5. The Permittee shall conduct daily, visual inspections of the permitted container storage area for each working day, to detect leakage in the hazardous waste areas or their associated loading/unloading zones [40 CFR 264.174]. Inspections shall be documented on a weekly basis, at a minimum in accordance with 40 CFR 264.174. If, in spite of the inspections, a significant deterioration of the concrete pad or joint sealant material is noted, the Permittee shall re-evaluate the need for a protective coating or more resistant seal material.
6. The Permittee shall remove spilled or leaked waste and accumulated precipitation from the secondary containment areas in as timely a manner as is necessary to prevent overflow of the secondary containment, per the requirements of 40 CFR 264.175.
7. The Permittee shall comply with the waste compatibility requirements of 40 CFR 264.177 as indicated in the permit application and/or subsequent revisions.
8. The Permittee shall comply with the following conditions concerning operation of the PSB, TOB, and LSV container storage areas:
 - a. The Permittee shall maintain and operate the facility as required by 40 CFR 264.175 and in accordance with the permit application and/or subsequent revisions.
 - b. The Permittee shall store a maximum of 35,200 gallons of waste in containers in sizes up to 718 gallons (B-25 box) or less, in the TOB storage area as shown in the permit application and/or subsequent revisions. The containers shall meet D.O.T. specifications.
 - c. The Permittee shall store a maximum of 72,105 gallons of waste in containers and in sizes up to 718 gallons (B-25 box) or less, in the PSB storage area as shown in the permit application and/or subsequent revisions. The containers shall meet D.O.T. specifications.
 - d. The Permittee shall store a maximum of 54,340 gallons in containers in sizes up to 718 gallons (B-25 box) or less, in the LSV Processing and Waste Storage Warehouse, as shown in the permit application. The containers shall meet D.O.T. specifications.
 - e. The Permittee must place the drums on standard pallets when they are single stacked. The Permittee must use pallets and banding when drums are double stacked, except for the storage inside the chemotherapy and pharmaceutical wastes in the Cage in the PSB.
 - f. For storage of drums larger than fifty-five gallons, the Permittee shall not place more than three (3) drums per pallet and shall not stack them more than two high.
9. The Permittee shall keep all containers and associated equipment used for the fuel blending and phase separation activities inside the secondary containment area of the PSB.

10. All fuel blending and phase separation activities shall be conducted by qualified personnel experienced in handling such material. [40 CFR 264.16].
11. The Permittee shall maintain a written record for tracking the date and quantity of all waste processed in the fuel blending and phase separation activities and include quantity of waste solvent transferred out of the LSV 3000-gallon storage tank for use in the fuel blending operation. This information shall be entered in the facility operating record.

Part II Subpart B.3-Tanks

1. The Permittee is allowed to operate one (1) Aboveground Storage Tank (AST) in accordance with the design plans and specifications in the permit application and/or subsequent revisions.
2. The Permittee is authorized to store only radioactive mixed waste in the AST that is generated from the Liquid Scintillation Vials (LSV) process wastes as described in the permit application and/or subsequent revisions.
3. The Permittee shall store a maximum of 3,000 gallons of waste in the tank.
4. The Permittee shall notify the Department when the volume of waste stored in the tank reaches ninety-five (95) percent capacity of the tank, i.e., 2,850 gallons. An electronic notification is acceptable.
5. The Permittee shall not place ignitable or reactive waste in the tank system unless the waste is stored in such a way that it is protected from any material or conditions that may cause the waste to ignite or react. [40 CFR 264.198(a)]
6. The Permittee shall comply with the protective distance requirements for the tank placement as set forth in The Florida Fire Prevention Code (January 2015) and any subsequent revisions [40 CFR 264.198(b)].
7. The Permittee shall handle incompatible wastes in accordance with the requirements of 40 CFR 264.199, by not introducing hazardous waste into the tank system, which previously held incompatible waste or material, until the tank system is adequately decontaminated.
8. For new tank components which may be required by the repair options of 40 CFR 264.196(f), the Permittee must submit a written assessment, reviewed and certified by an independent professional engineer registered in the State of Florida, which attests to the component's structural integrity. This assessment shall meet the requirements of 40 CFR 264.192.
9. The Permittee shall prevent the release of hazardous waste or hazardous constituents to the environment. The secondary containment system shall be maintained according to the permit and/or subsequent revisions and shall comply with the requirements of 40 CFR 264.193, including the requirements set forth below:

- a. All new components shall have secondary containment as required by parts (b) and (c) of this condition prior to being placed into service.
 - b. Pursuant to 40 CFR 264.193, the secondary containment system shall be:
 - (1) Maintained to prevent any migration of wastes or accumulated liquid to the soil, groundwater or surface waters;
 - (2) Capable of detecting and collecting releases and run-on until the collected material is removed;
 - (3) Lined with materials compatible with the waste to be stored and have sufficient structural strength to sustain the stresses induced by a failure of the primary containment system as well as other stresses, which may be induced by the environment;
 - (4) Placed on a foundation or base capable of providing support to the secondary containment system;
 - (5) Provided with a leak detection system designed and operated to detect failure of either the primary or secondary containment structures or the presence of any release within 24 hours;
 - (6) Sloped or otherwise designed and operated to drain or remove liquids resulting from leaks, spills, or precipitation; and
 - (7) Designed and operated, to contain 110% of the capacity of the largest tank within its boundary.
 - c. Ancillary equipment shall be provided with secondary containment, except as provided for in 40 CFR 264.193(f).
10. Pursuant to the general operating requirements of 40 CFR 264.194, the Permittee shall:
- a. Not place hazardous wastes in the tank system if the possibility exists that this may cause the tank system to fail;
 - b. Use appropriate controls and practices to prevent spills and overflows;
 - c. Follow the operating procedures described in the permit application and/or subsequent revisions; and
 - d. Comply with the requirements of 40 CFR 264.196 if a leak or spill occurs from the storage tank system.
11. The Permittee shall inspect the tank system in accordance with the permit application and/or subsequent revisions, as required by 40 CFR 264.195.
12. The Permittee shall follow the procedures outlined in the permit application and/or subsequent revisions and satisfy the requirements of 40 CFR 264.196 when a tank system or secondary containment system produces a leak or spill, or is determined to be unfit for use. As required by 40 CFR 264.196, these requirements shall include following items:
- a. Cessation of use; prevention of flow or addition of waste;
 - b. Removal of waste from tank system or secondary containment system;

- c. Containment of visible releases to the environment;
- d. Notifications, reports;
- e. Provision of secondary containment, repair or closure; and
- f. Certification of major repairs.

13. The Permittee shall decontaminate any ancillary equipment including pumps, pipes and valves, within thirty (30) days of removing it from service or if the Permittee fails to repair the ancillary equipment within that time. The decontamination shall be in accordance with the closure plan in the permit and/or subsequent revisions and entered into the facility operating record.
14. The facility shall provide a written report to the Department within forty-five (45) days of removing the AST unit or ancillary equipment from service and shall include a description of the decontamination procedures.

Part II Subpart B.4-Air Emissions Standards

1. The Permittee shall inspect, maintain and operate all the facility and equipment including tanks, pumps, compressors, pressure relief devices, flanges and valves as described in Sections R and S of Part II of the permit application and/or subsequent revisions, in accordance with 40 CFR 264 - Subpart AA and BB requirements.
2. The Permittee shall operate the facility in accordance with 40 CFR 264 – Subpart CC requirements.
3. The Permittee shall keep, as part of its operating records, results of inspections, monitoring reports, repairs, and other documents required by 40 CFR 264 Subparts AA, BB, and CC for a minimum of three years.
4. The Permittee shall submit a report of noncompliance, if applicable, with the exemption provisions of 40 CFR 264, Subpart CC outlined at 40 CFR 264.1082(c)(1) or (c)(2) within fifteen (15) calendar days of becoming aware of such noncompliance [40 CFR 264.1090(a)].

Part II Subpart B.5-Construction Requirements

1. The Permittee is authorized to construct/replace the PF-II treatment process as described in the permit application. The Permittee will initiate partial closure activities as provided for under the facility Closure Plan, Appendix II-K-1 (and Section K of Part II in the permit application) for the closure of the existing PF-II treatment process.
2. Within thirty (30) days of completion of construction of any new storage or treatment unit, the Permittee shall submit to the Department by certified mail or hand delivery, a certification signed by both the Permittee and an independent professional engineer registered in the State of Florida, stating the construction has been completed in accordance with the design parameters specified in the permit application and/or subsequent revisions. The Certification shall include as-built drawings and a report

describing any changes made during construction, with the seal and signature of a professional engineer registered in the State of Florida.

3. The Permittee may begin to operate constructed storage and/or treatment unit(s) twenty (20) days after submitting the as-built certification, required pursuant Specific Condition 2 of this Part, unless the Department notifies the Permittee not to begin operation.
4. The closure cost for the facility will be revised after construction of the continuous PF-II process equipment prior to its operation.

Part II Subpart C – Closure Conditions

1. The Permittee shall close any storage or treatment unit in a manner that minimizes or eliminates, to the extent necessary to protect human health and the environment, postclosure escape of hazardous waste, hazardous waste constituents, hazardous waste decomposition products, contaminated leachate or run-off to the groundwater, surface waters, or to the atmosphere (40 CFR Part 264.111).
2. The Permittee shall have a written Closure Plan as required by 40 CFR 264.112(a). The Closure Plan and all revisions to the plan must be kept at the facility until closure is completed, certified in accordance with 40 CFR 264.115, and accepted by the Department.
3. Modifications to the approved Closure Plan shall be in accordance with the requirements of 40 CFR 264.112(c) and Rule 62-730.290, F.A.C.
4. The Permittee shall notify the Department within seven calendar days of any determination that actions undertaken as part of closure or associated monitoring programs no longer satisfy the requirements set forth in this permit. If the Department determines that a modification of the permit is required, the Permittee shall, within 60 calendar days of notice by the Department, submit an application for a permit modification in accordance with Part II.C.3.
5. Within 90 days after receiving the final volume of hazardous waste or upon notification by the Department that closure of a unit is required, the owner or operator must treat or remove from the unit all hazardous waste.
6. The Permittee shall complete closure activities within 180 days after notification to the Department of closure and in accordance with the closure schedule in the permit application. Any changes in the time allowed for closure activities or reporting requirements shall require prior written Department approval. At least 30 calendar days prior to initiating physical closure activities, the Permittee shall prepare and submit a Closure Activities Report.
 - a. The Closure Activities Report will be in columnar format (*i.e.* a table or spreadsheet) with columns for “closure activity,” “schedule date,” and “completed date.”
 - b. The Closure Activities Report shall be maintained and updated by the Permittee throughout the closure period, with copies submitted monthly to the Department, unless an alternate submittal schedule is approved by the Department in writing.

Each report must be submitted to the Department by the tenth day of each month for the preceding month until the acceptance of physical closure by the Department. These reports can be submitted electronically.

- c. Any deviation from the schedule or described tasks shall be fully documented in the Closure Activities Report.
7. The Permittee shall notify the Department 45 days prior to the date on which the Permittee expects to begin partial or final closure of a unit(s).
8. The Permittee shall properly decontaminate or dispose of all equipment, structures, and residues used during or resulting from the closure activities.
9. The Permittee shall manage all hazardous wastes, residues, sludges, spilled or leaked waste, or contaminated liquids and soils removed during closure of the unit(s) in accordance with the applicable provisions of 40 CFR Parts 260 through 268, including the manifest requirements. A copy of each manifest required as a result of closure activities shall be submitted to the Department with the Closure Certification.
10. The Permittee shall provide opportunities for site inspections by the Department by informing the Department at least seven days in advance of any major physical closure activity (*e.g.*, unit decontamination or removal, cap installation, soil sampling, soil removal, etc.).
11. Within 30 days of determining that all contaminated soil cannot be practically removed or decontaminated, the Permittee shall notify the Department of such determination. Within 90 days of the determination the Permittee shall submit an application for permit modifications to close the facility as a landfill (land disposal unit) and perform postclosure care as required by 40 CFR 264.
12. Within 60 calendar days of the completion of closure, the Permittee shall submit to the Department, by certified mail or hand delivery, a Closure Certification Report signed by the Permittee and an independent Professional Engineer registered in the State of Florida, stating that the unit has been closed in compliance with the Closure Plan and the conditions of this permit. The Closure Certification must be based on the Professional Engineer's own observation and knowledge of the closure activities. The Closure Certification Report must include, but not be limited to the following:
 - a. Environmental sampling data to verify closure activities.
 - b. Decontamination data.
 - c. Copies of manifests or other appropriate shipping documents for removal of all hazardous wastes and all contaminated residues.
 - d. A description of final closure activities.
 - e. A final Closure Activities Report (Condition II.C.6 of this Subpart).
13. Within 30 calendar days of submitting a Closure Certification Report for a land disposal unit, including a land disposal unit identified under Part II.C.11, the Permittee shall submit to the Department and to the local zoning authority, or the authority with jurisdiction over local land use, a survey plat indicating the type, location, and quantity of hazardous wastes disposed of within the unit with respect to permanently surveyed

benchmarks in accordance with 40 CFR 264.116. For hazardous wastes disposed of before January 12, 1981 the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of the Permittee's knowledge and in accordance with any existing records. This notice is in addition to the requirement to execute a formal land use control (*e.g.*, a restrictive covenant) in order to obtain a site rehabilitation completion order based on restricted exposure risk assumptions under Chapter 62-780, F.A.C.

PART III – POSTCLOSURE CONDITIONS

1. Not applicable at this time.

PART IV – ENVIRONMENTAL MONITORING CONDITIONS

1. Not applicable at this time.

PART V – CORRECTIVE (REMEDIAL) ACTION CONDITIONS

Part V Subpart A – General Corrective Action Conditions

1. The Conditions of this Part apply to the following:
 - a. The SWMUs and AOCs identified in Appendix A.
 - b. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means. As used in this Part, the terms “discover”, “discovery”, or “discovered” refer to the following:
 - (1) The date the Permittee visually observes evidence of a new SWMU or AOC.
 - (2) The date the Permittee visually observes evidence of a previously unidentified release of contaminant(s) to the environment.
 - (3) The date the Permittee receives information from a credible source of the presence of a new release of contaminant(s) to the environment.
 - c. Contamination that has migrated beyond the facility boundary, if applicable.
2. The Permittee shall comply with the notification requirements for the discovery of a new SWMU in Part I.12.c.
3. Upon notification by the Department, the Permittee shall prepare and submit a Confirmatory Sampling (CS) Work Plan for known, suspected, or newly discovered sites. The Work Plan shall be submitted within 60 calendar days of notification by the Department unless the notification letter establishes a different time frame.
 - a. The CS Work Plan shall include schedules for implementation and completion of specific actions necessary to determine whether or not contamination has occurred in any potentially affected media. In order to partly or wholly satisfy the CS requirement, previously existing data may be submitted with the work plan for the Department's consideration.

- b. In accordance with the schedule in the approved CS Work Plan, or no later than 60 calendar days after Department's written approval of a CS Work Plan, the Permittee shall submit a Confirmatory Sampling Report identifying those sites that are contaminated and those sites that are not contaminated. The CS Report shall include an analysis of the analytical data to support all determinations. Based on the results of the CS Report, the Department will determine the need for further investigation at sites covered in the CS Report and notify the Permittee in writing.
4. De Minimis discharge is a release of a contaminant(s) that is removed from the soil, sediment, surface water, and groundwater to cleanup target levels or background concentrations within 30 days of discovery of the release. If the Permittee intends to treat a discharge under the De Minimis discharge provision of Rule 62-780.550 or Rule 62-780.560 F.A.C., the Permittee must meet the notification requirements of Part I.12.c and inform the Department's RCRA Manager that a De Minimis action is underway. A De Minimis Remediation Report must be submitted to the Department within 90 days of discovery of the release. The report must include a description of all actions taken in response to the discharge and the information required by the Interim Source Removal Report pursuant to Subsection 62-780.500(6)(a), F.A.C.
5. If contamination is confirmed by the Confirmatory Sampling Report, the Department will notify the Permittee to commence site rehabilitation in accordance with Rule 62-730.225 and Chapter 62-780, F.A.C., for all SWMUs and/or AOCs ("contaminated sites") identified in the notification. The Permittee shall commence and complete site assessment in the manner and within the time limits set forth in Rule 62-780.600, F.A.C., unless the notification letter specifically establishes a different time frame to commence or complete site assessment. An alternative schedule can be implemented with written Department approval.
6. The Permittee shall conduct Emergency Response Actions in accordance with Subsections 62-730.225 and 62-780.500, F.A.C. The Permittee may, or upon notification by the Department, shall conduct an Interim Source Removal action in accordance with Subsections 62-730.225 and 62-780.500 F.A.C. for any release, SWMUs, or AOCs determined necessary to minimize or prevent further migration of contaminants or to limit human or environmental exposure to contaminants.
7. If the Department or the Permittee at any time determines that any approved work plan no longer satisfies the requirements of Rule 62-730.225 or Chapter 62-780, F.A.C. or this permit for prior or continuing releases of contaminant(s) to the environment, the Permittee shall submit an amended work plan to the Department within 60 calendar days of such determination.

PART VI – REMEDY SELECTION AND IMPLEMENTATION

Part VI Subpart A – General Remedy Selection and Implementation Conditions

1. Within 90 calendar days of Department approval of a Site Assessment Report or Site Assessment Report Addendum the Permittee shall submit a Remedial Action Plan developed in accordance with Chapters 62-780 and 62-730, F.A.C. Remedial Action

Plans may be performance based, including remediation options to be implemented based on changing conditions at the site.

2. The Permittee shall apply for a permit modification in accordance with Part I.22. of this permit within 30 days of a Department approved final remedy unless an alternative permit modification schedule has been approved by the Department. Final approval of remedial action which is achieved through interim measures shall be in accordance with this condition.
3. The Remedial Action Plan shall include a provision for the Permittee to submit periodic Remedial Action Status Reports in accordance with Subsection 62-780.700(12), F.A.C. The intent to implement a different approved remedy in a performance based Remedial Action Plan can be provided in the Remedial Action Status Report. Proposals to modify a previously approved remedy in a performance based Remedial Action Plan can be provided in the Remedial Action Status Report and implemented with written Department approval. The Remedial Action Status Reports may be combined with any Environmental Monitoring Report required by Part IV.
4. When site rehabilitation (remedial action) is complete, the Permittee shall submit to the Department a Site Rehabilitation Completion Report in accordance with Subsection 62-780.750(6), F.A.C. Site Rehabilitation Completion Reports can be part of a combined document with the Remedial Action Status Report.
5. For site rehabilitation involving the cleanup of groundwater contaminated by a release from a designated regulated unit, the Permittee must demonstrate that the concentration of constituents of concern remain below cleanup goals for three consecutive years after active remediation has ceased as per 40 CFR 264.100(f).
6. When appropriate, the Department will approve completion of site rehabilitation by inclusion in a permit renewal, permit modification, or separate Site Rehabilitation Completion Order.

Part VI Subpart B – Selected Remedies

7. Not applicable at this time.

APPENDIX A - SUMMARY OF FACILITY SITES - SOLID WASTE MANAGEMENT UNITS (SWMUs) AND AREAS OF CONCERN (AOC)

A.1 List of SWMUs / AOCs requiring Confirmatory Sampling				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified as requiring Confirmatory Sampling at this time pursuant to this permit.				

A.2 List of SWMUs / AOCs requiring a Site Assessment (a/k/a RCRA Facility Investigation [RFI]) or a Risk Assessment				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified at this time as requiring a Site or Risk Assessment.				

A.3 List of SWMUs / AOCs requiring a Remedial Action Plan or Natural Attenuation with Monitoring Plan (a/k/a RCRA Corrective Measures Study [CMS])				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified at this time requiring a Remedial Action Plan or a Natural Attenuation with Monitoring Plan.				

A.4 List of SWMUs / AOCs implementing a Remedial Action Plan or Natural Attenuation Monitoring Plan (a/k/a Corrective Measures Implementation [CMI])				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified at this time undergoing a Remedial Action Plan or a Natural Attenuation with Monitoring Plan.				

A.5 List of SWMUs / AOCs at which Site Rehabilitation Completion Determinations With Controls have been made		
SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
There are no units identified at this time at which Site Rehabilitation Completion Determinations with controls have been made.		

A.6 List of SWMUs / AOCs at which Site Rehabilitation Completion Determinations Without Controls have been made		
SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
SWMU 23	North Drainage Ditch	June 27, 1990 RFA; & NFA December 2, 2019 (formalized in Permit 17680-012-HO) for January 2017 Roll-Off Incident.

A.7 List of SWMUs / AOCs where No Further Action Determinations have been made based on no suspected or confirmed contamination (i.e. not 'contaminated sites' as defined by 62-780 F.A.C.)		
SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
SWMU 1 ^a	North Unloading Area	June 27, 1990 RFA
SWMU 2 ^a	South Unloading Area	June 27, 1990 RFA
SWMU 3	Temporary Holding Area	June 27, 1990 RFA
SWMU 5 ^c	Incoming Bulk Waste Transfer Station	June 27, 1990 RFA
SWMU 7	Tanker/Liquids Loading Station Within PSB	June 27, 1990 RFA
SWMU 8	Outdoor Staging Area	June 27, 1990 RFA
SWMU 9	LSV Processing Area, formerly Indoor Staging Area	June 27, 1990 RFA
SWMU 9a ^c	Roller Conveyors in LSV Processing Area	June 27, 1990 RFA
SWMU 9b ^c	Lift in LSV Processing Area	June 27, 1990 RFA
SWMU 9c ^c	In-Feed Hopper in LSV Processing Area	June 27, 1990 RFA
SWMU 9d ^c	Shaker Table in LSV Processing Area	June 27, 1990 RFA
SWMU 9e ^c	Crusher/Shredder in LSV Processing Area	June 27, 1990 RFA
SWMU 9f ^c	Rinse Basket Trough in LSV Processing Area	June 27, 1990 RFA
SWMU 9g ^c	Three Chamber Rinse in LSV Processing Area	June 27, 1990 RFA
SWMU 9h ^c	Drain Table in LSV Processing Area	June 27, 1990 RFA

SWMU 9i	LSF Holding Tanks in LSV Processing Area	June 27, 1990 RFA
SWMU 10	Processing Area Ventilation System-HEPA Filter	June 27, 1990 RFA
SWMU 11	Carbon Adsorption System	June 27, 1990 RFA
SWMU 12	LSF Pipe	June 27, 1990 RFA
SWMU 13 ^c	Packing Material Wastes Drum Holding Area	June 27, 1990 RFA
SWMU 14	Empty Drums Holding Area	June 27, 1990 RFA
SWMU 15 ^c	Crushed Glass/Plastic Vials Drum Holding Area	June 27, 1990 RFA
SWMU 16 ^c	Crushed Vials Final Drainage Station	June 27, 1990 RFA
SWMU 17 ^c	Drained Crushed Vials Drum Holding Area	June 27, 1990 RFA
SWMU 18	Gondolas (10)	June 27, 1990 RFA
SWMU 19 ^c	Dumping Trailers	June 27, 1990 RFA
SWMU 20	Waste Handling Routes	June 27, 1990 RFA
SWMU 21	North Retention Pond	June 27, 1990 RFA
SWMU 22	East Retention Pond	June 27, 1990 RFA
SWMU 24	East Drainage Ditch	June 27, 1990 RFA
SWMU 25 ^c	Former Glass/Plastic Shredder Unit	June 27, 1990 RFA
SWMU 26 ^c	Field Trailers Service Area	June 27, 1990 RFA
SWMU 27 ^c	PCB Drummed Waste Storage Area	June 27, 1990 RFA
SWMU 28 ^c	Freon Distillation Waste Collection Unit	June 27, 1990 RFA
SWMU 29 ^c	Sand and Grit Drum Storage Area	June 27, 1990 RFA
SWMU 30 ^{c, d}	Laboratory Wastes Accumulation Area	June 27, 1990 RFA
SWMU 31 ^{c, d}	Laboratory Specimens Storage Building	June 27, 1990 RFA
SWMU 32 ^{c, d}	PCB Decontamination Test Site	June 27, 1990 RFA

SWMU 33	Laboratory	June 27, 1990 RFA
SWMU 36	East Loading Dock	June 27, 1990 RFA
SWMU 37	Clothes Washing Room	June 27, 1990 RFA
SWMU 39	Freon Distillation Unit	June 27, 1990 RFA
SWMU 40 (formerly SWMUs 1 and 2)	North-South Unloading Area	June 27, 1990 RFA
AOC A	Spray Paint Booth Area	NFA/Permit 17680-009-HC, 9/15/06 & 17680-010-HC, 9/16/10
AOC B	Equipment Laydown and Temporary Storage Area	NFA/Permit 17680-009-HC, 9/15/06 & 17680-010-HC, 9/16/10
AOC C	Soil Mound Area ^e	NFA/Permit 17680-009-HC, 9/15/06 & 17680-010-HC, 9/16/10

^a Per October 28, 2000 VSI conducted Sept. 14 & 15, 2000, these two SWMUs were combined into SWMU-40.

^b Formerly used to denote a Permitted Unit; relocated to Table A.8 of this Appendix (see below), effective as of Permit 17680-012-HO issuance.

^c Unit Identified in Final RFA dated June 27, 1990; but determined to be no longer in use after Supplemental VSI conducted September 14 and 15, 2000 (dated October 28, 2000).

^d SWMU no longer part of Perma-Fix facility.

^e September 15, 2006 and September 16, 2010 permits and call it “Print Shop Area”. Supplemental VSI conducted September 14 and 15, 2000 (dated October 28, 2000) called it “Print Shop Area-Mound in northwest corner of site.”

A.8 List of SWMUs / AOCs designated as “Permitted Units” which will be closed under a closure plan (also includes the NFA Determinations criteria of Table A.7 above).

SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
SWMU 4	Container Storage Shed now known as Processing and Storage Building (PSB)	June 27, 1990 RFA; This permitted unit will be closed under a closure plan.
SWMU 6	3,000-Gallon Waste Liquids Tank	June 27, 1990 RFA; This permitted unit will be closed under a closure plan.
SWMU 9k	Grinder Crusher in LSV Processing Area	This unit will be closed under a closure plan.
SWMU 9m	Fines Removal System (FRS) in LSV Processing Area	This unit will be closed under a closure plan.
SWMU 34	Treatment and Operations Building (TOB), formerly West Warehouse	This permitted unit will be closed under a closure plan.

SWMU 35	Liquid Scintillation Vial (LSV) Warehouse, formerly East Warehouse	This permitted unit will be closed under a closure plan.
SWMU 38	Treatment Operations Building (TOB) Loading Ramp	This permitted unit will be closed under a closure plan.
SWMU 41	LSV Hazardous Waste Storage Area	This permitted unit will be closed under a closure plan.
SWMU 42	PCB Commercial Storage Area	This EPA permitted storage unit will be closed under its own closure plan.

EXECUTION AND CLERKING

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Kimberly A. Walker, Program Administrator
Permitting & Compliance Assistance Program
2600 Blair Stone Road, MS 4550
Tallahassee, Florida 32399-2400

FILING AND ACKNOWLEDGMENT

FILED on this date pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

June 3, 2020

Date

ATTACHMENT A-PERMITTED WASTE CODES FOR STORAGE AND TREATMENT (EXCEPT FOR TANK STORAGE)

Permitted Waste Codes for Storage and Treatment (except for tank storage)											
D001	D039	K062	P030	P074	P122	U020	U060	U099	U140	U179	U221
D002	D040	K086	P031	P075	P123	U021	U061	U101	U141	U180	U222
D003	D041	K156	P033	P077	P127	U022	U062	U102	U142	U181	U223
D004	D042	K157	P034	P078	P128	U023	U063	U103	U143	U182	U225
D005	D043	K158	P036	P081	P185	U024	U064	U105	U144	U183	U226
D006	F001	K159	P037	P082	P188	U025	U066	U106	U145	U184	U227
D007	F002	K161	P038	P084	P189	U026	U067	U107	U146	U185	U228
D008	F003	K169	P039	P085	P190	U027	U068	U108	U147	U186	U234
D009	F004	K170	P040	P087	P191	U028	U069	U109	U148	U187	U235
D010	F005	K171	P041	P088	P192	U029	U070	U110	U149	U188	U236
D011	F006	K172	P042	P089	P194	U030	U071	U111	U150	U189	U237
D012	F007	P001	P043	P092	P196	U031	U072	U112	U151	U190	U238
D013	F008	P002	P044	P093	P197	U032	U073	U113	U152	U191	U239
D014	F009	P003	P045	P094	P198	U033	U074	U114	U153	U192	U240
D015	F010	P004	P046	P095	P199	U034	U075	U115	U154	U193	U243
D016	F011	P005	P047	P096	P201	U035	U076	U116	U155	U194	U244
D017	F012	P006	P048	P097	P202	U036	U077	U117	U156	U196	U246
D018	F019	P007	P049	P098	P203	U037	U078	U118	U157	U197	U247
D019	F020	P008	P050	P099	P204	U038	U079	U119	U158	U200	U248
D020	F021	P009	P051	P101	P205	U039	U080	U120	U159	U201	U249
D021	F022	P010	P054	P102	U001	U041	U081	U121	U160	U202	U271
D022	F023	P011	P056	P103	U002	U042	U082	U122	U161	U203	U278
D023	F026	P012	P057	P104	U003	U043	U083	U123	U162	U204	U279
D024	F027	P013	P058	P105	U004	U044	U084	U124	U163	U205	U280
D025	F028	P014	P059	P106	U005	U045	U085	U125	U164	U206	U328
D026	F032	P015	P060	P108	U006	U046	U086	U126	U165	U207	U353
D027	F034	P016	P062	P109	U007	U047	U087	U127	U166	U208	U359
D028	F035	P017	P063	P110	U008	U048	U088	U128	U167	U209	U364
D029	F037	P018	P064	P111	U009	U049	U089	U129	U168	U210	U367
D030	F038	P020	P065	P112	U010	U050	U090	U130	U169	U211	U372
D031	F039	P021	P066	P113	U011	U051	U091	U131	U170	U213	U373
D032	K001	P022	P067	P114	U012	U052	U092	U132	U171	U214	U387
D033	K048	P023	P068	P115	U014	U053	U093	U133	U172	U215	U389
D034	K049	P024	P069	P116	U015	U055	U094	U134	U173	U216	U394
D035	K050	P026	P070	P118	U016	U056	U095	U135	U174	U217	U395
D036	K051	P027	P071	P119	U017	U057	U096	U136	U176	U218	U404
D037	K052	P028	P072	P120	U018	U058	U097	U137	U177	U219	U409
D038	K061	P029	P073	P121	U019	U059	U098	U138	U178	U220	U410
											U411

ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8

Constituent	Waste Code	Maximum Container Quantity (lbs)
Allyl alcohol	P005	32
Thiophenol	P014	6,415
Dichloromethyl ether; Chloromethyl ether	P016	1.08
Bromoacetone	P017	46.5
Acetaldehyde, chloro-; Chloroacetaldehyde	P023	380
Benzyl chloride	P028	730
Aziridine; Ethyleneimine	P054	18.5
Fluorine	P056	16.1
Methane, isocyanato-; Methyl isocyanate	P064	0.25
Aziridine, 2-methyl-; 1,2-Propylenimine	P067	156
Methyl hydrazine	P068	9.3
2-Methylactonitrile; Acetone cyanohydrin	P069	195
Nickel carbonyl	P073	1.35
Nitrogen dioxide	P078	96
N-nitrosodimethylamine	P082	105
Parathion; Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	P089	11
Phosgene	P095	3
Phosphine	P096	4.9
Propargyl alcohol	P102	38
Tetraethyldithiopyrophosphate; Thiodiphosphoric acid, tetraethyl ester; Ethyl butyrate, TEDP	P109	10.5
Diphosphoric acid, tetraethyl ester; Tetraethyl pyrophosphate, TEPP	P111	5.5
Tetranitromethane	P112	17.8
Acetyl chloride	U006	0.32
Acrylic acid	U008	1,895
Acrylonitrile	U009	710
Benzenesulfonyl chloride	U020	1,105

ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8 (CONT.)

Constituent	Waste Code	Maximum Container Quantity (lbs)
Bis(2-chloroethoxy)methane	U024	235
Dichloroethyl ether; Ethane, 1,1'-oxybis [2-chloro-	U025	830
Carbon oxyfluoride; Carbonyl fluoride	U033	55.3
Trichloroacetaldehyde (Chloral)	U034	750
Epichlorohydrin, 1-chloro-2,3-epoxy propane	U041	1,007
Chloromethane (methyl chloride)	U045	2,000
Chloromethyl methyl ether (methyl chloromethyl ether)	U046	3.75
2-Chlorophenol	U048	523
1,2-Dibromo-3-chloropropane	U066	0.25
Ethylene dibromide (1,2-dibromomethane)	U067	4500
1,2-Benzenedicarboxylic acid, dibutyl ester; Dibutyl phthalate	U069	1,385
1,4-Dichloro-2-butene	U074	70
Dichlorodifluoromethane	U075	1,000,000
1,2-Dichloroethylene	U079	22,000
1,3-Dichloropropene	U084	125
1,2,3,4-Diepoxybutane; Diepoxybutane; 2,2-Bioxirane	U085	19
Diethyl phthalate	U088	6,636
Dimethylamine	U092	1,900
Cumene hydroperoxide	U096	6,122
Dimethylcarbamoyl chloride	U097	95
1,1-Dimethylhydrazine	U098	40.7
1,2-Dimethylhydrazine	U099	40.8
1,2-Benzenedicarboxylic acid, dimethyl ester; Dimethyl phthalate	U102	138
Dimethyl sulfate	U103	19
Di-n-octyl phthalate	U107	2,218
Ethyl acrylate	U113	1,970

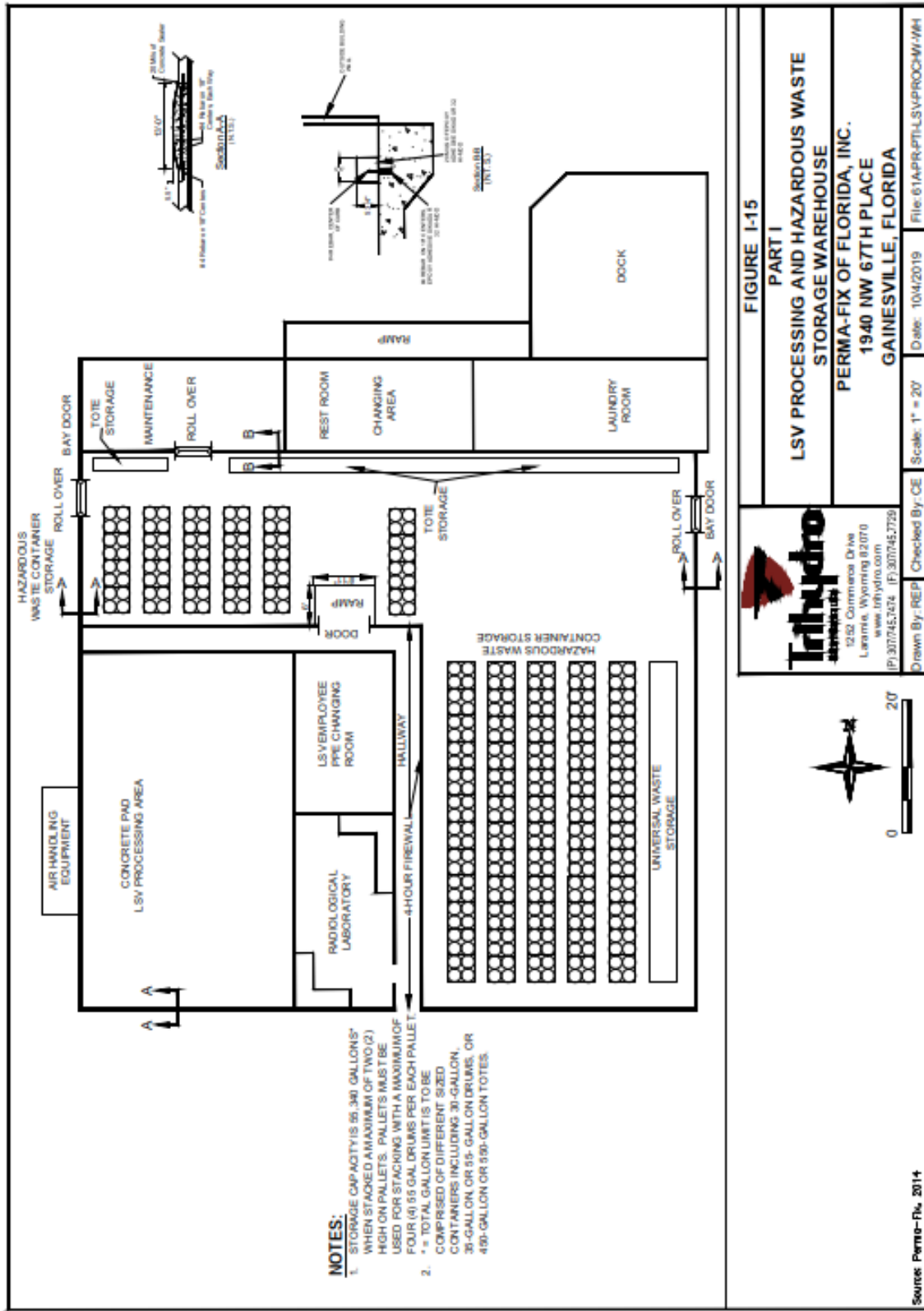
ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8 (CONT.)

Constituent	Waste Code	Maximum Container Quantity (lbs)
Ethylene oxide	U115	555
Ethyl methacrylate	U118	815
Formic acid	U123	64
Furfural	U125	391
Glycidylaldehyde	U126	8
Hydrazine	U133	32.2
Hydrogen fluoride	U134	108.8
Hydrogen sulfide	U135	104.5
Methane, iodo-; Methyl iodide	U138	5,100
Isosafrole	U141	6,696
Methacrylonitrile; Methylacrylonitrile	U152	280
Methyl Mercaptan; Thiomethanol; Methanethiol	U153	825
Methyl Chlorocarbonate; Methyl chloroformate	U156	5
Methyl methacrylate	U162	6,300
Paraldehyde	U182	710
Pentachloroethane	U184	8,900
1,3-Pentadiene	U186	2,000
2-Picoline	U191	5,638
n-Propylamine	U194	4,287
Toluene-2,4-di-isocyanate	U223	1.55
Toluene-2,6-di-isocyanate	U223	1.55
Bromoform (tribromomethane)	U225	75.1
Triethylamine	U404	65

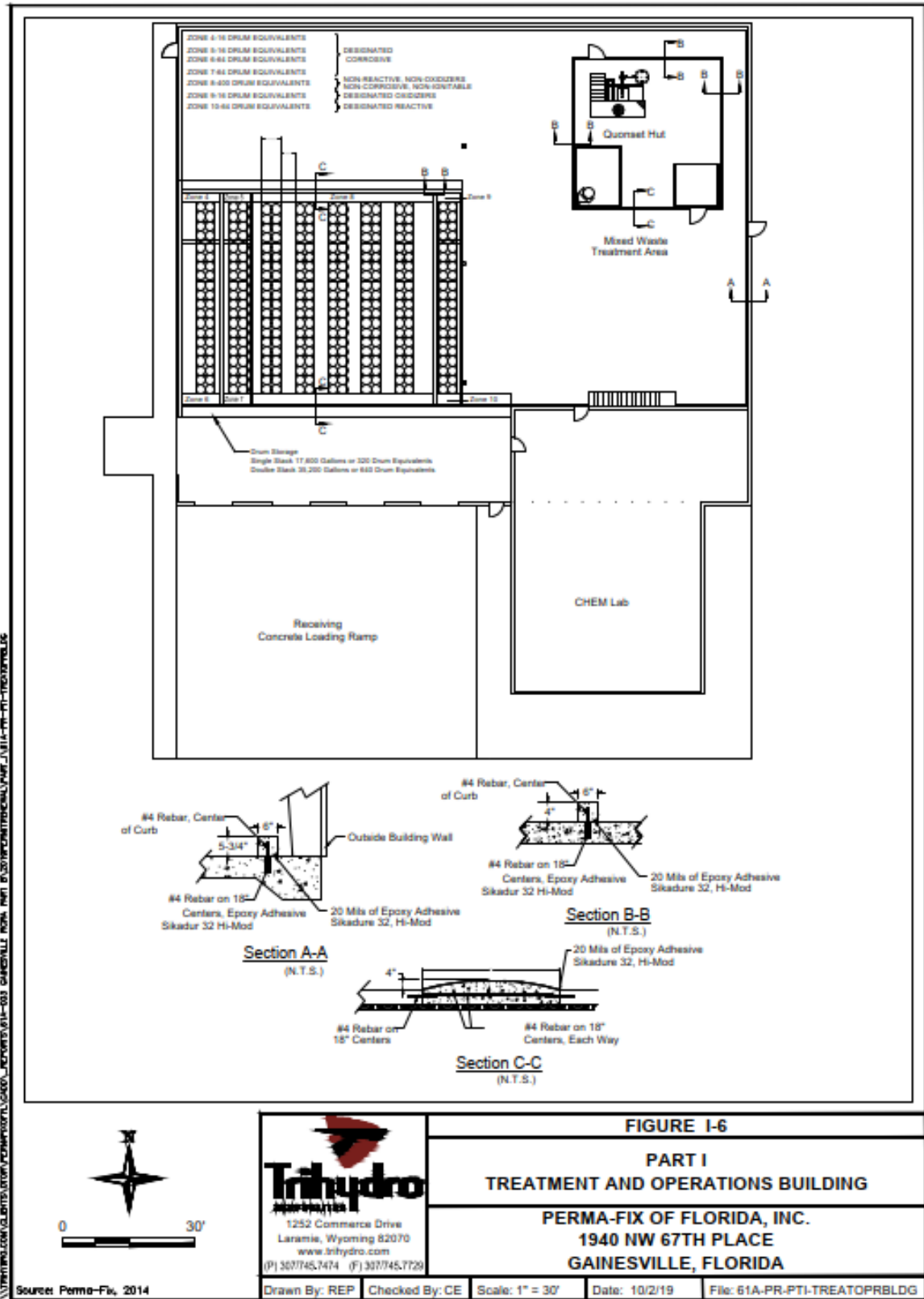
ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8 (CONT.)

Constituent	Waste Code	Maximum Container Quantity (lbs)
O-Chlorophenol (2-Chlorophenol)	K001	10,000
Ethyl Benzene	K048	10,000
Carbon Disulfide (Carbon bisulfide)	K049	7,000
Acetone	K086	3,600
Butyl Benzyl Phthalate	K086	2,750
Cyclohexanone	K086	3,175
Ethyl Acetate	K086	4,300
Methanol	K086	4,861
Methyl Ethyl Ketone (2-butanone, ethyl methyl ketone)	K086	3,300
Methyl Isobutyl Ketone (Hexone)	K086	3,100
Methylene Chloride	K086	10,000
N-Butyl Alcohol	K086	3,125
Nitrobenzene	K086	10,000
O-Dichlorobenzene (1,2-Dichlorobenzene)	K086	10,000
1,1,1-Trichloroethane (Methyl Chloroform)	K086	10,000
Trichloroethylene	K086	10,000
Acetonitrile	K156	1,475
Aniline	K156	10,000
Chlorobenzene (Benzene Chloride)	K156	4,000
Chloroform	K156	10,000
Pyridine	K156	3,375
Carbon Tetrachloride	K157	10,000
Ethyl Benzene	F037	2,750
<p>This attachment was generated from Tables 5 and 8 from the <i>Final Report Offsite Consequence Analysis and Air Modeling</i> dated January 2006 and <i>Substantial Modification Demonstration</i> dated December 2009. If a constituent was present in both tables the more restrictive data (<i>i.e.</i>, the smaller number in the “amount released” column) was listed in this table.</p>		

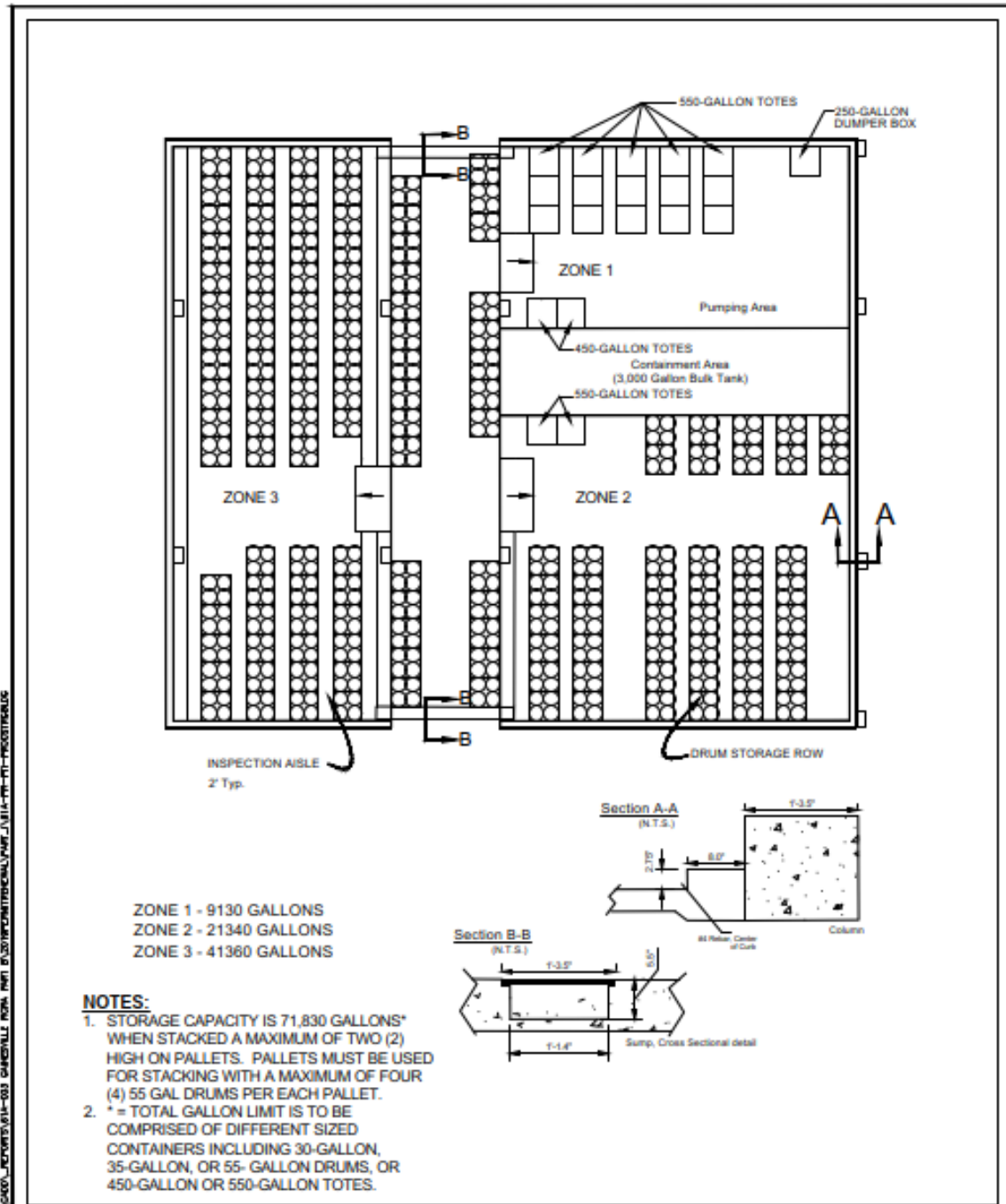
ATTACHMENT C-LSV PROCESSING AND WASTE STORAGE WAREHOUSE



ATTACHMENT D-TREATMENT AND OPERATIONS BUILDING

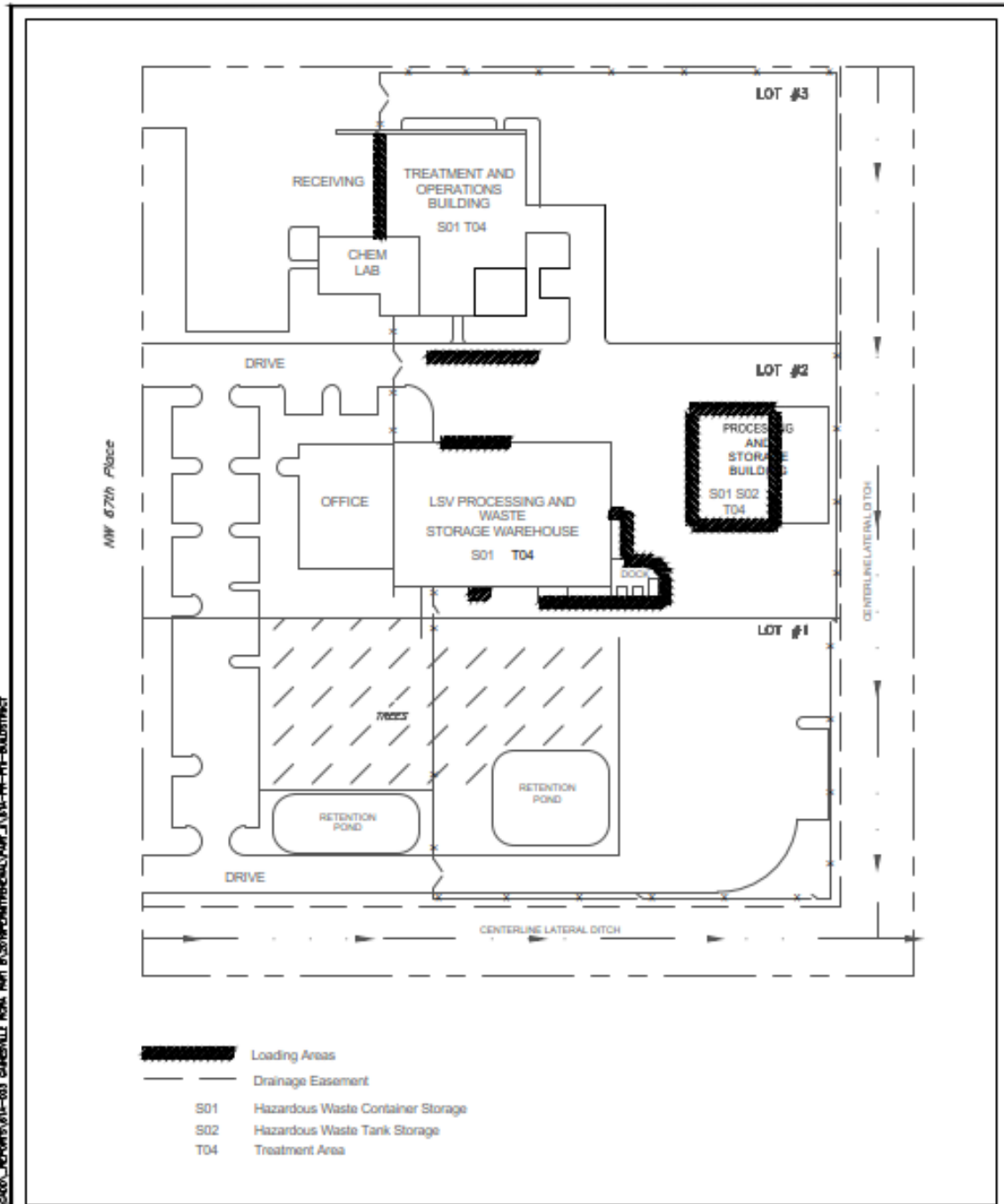


ATTACHMENT E-PROCESSING AND STORAGE BUILDING



	 1252 Commerce Drive Laramie, Wyoming 82070 www.trihydro.com (P) 307746.7474 (F) 307746.7729	FIGURE I-12	
		PART I PROCESSING AND STORAGE BUILDING PERMA-FIX OF FLORIDA, INC. 1940 NW 67TH PLACE GAINESVILLE, FLORIDA	
Source: Perma-Fix, 2014	Drawn By: REP	Checked By: CE	Scale: 1" = 20'
			Date: 10/3/19
			File: 61A-PR-PTI-PROCSTRGBLDG

ATTACHMENT F-BUILDINGS LAYOUT



 Loading Areas
 Drainage Easement
 S01 Hazardous Waste Container Storage
 S02 Hazardous Waste Tank Storage
 T04 Treatment Area



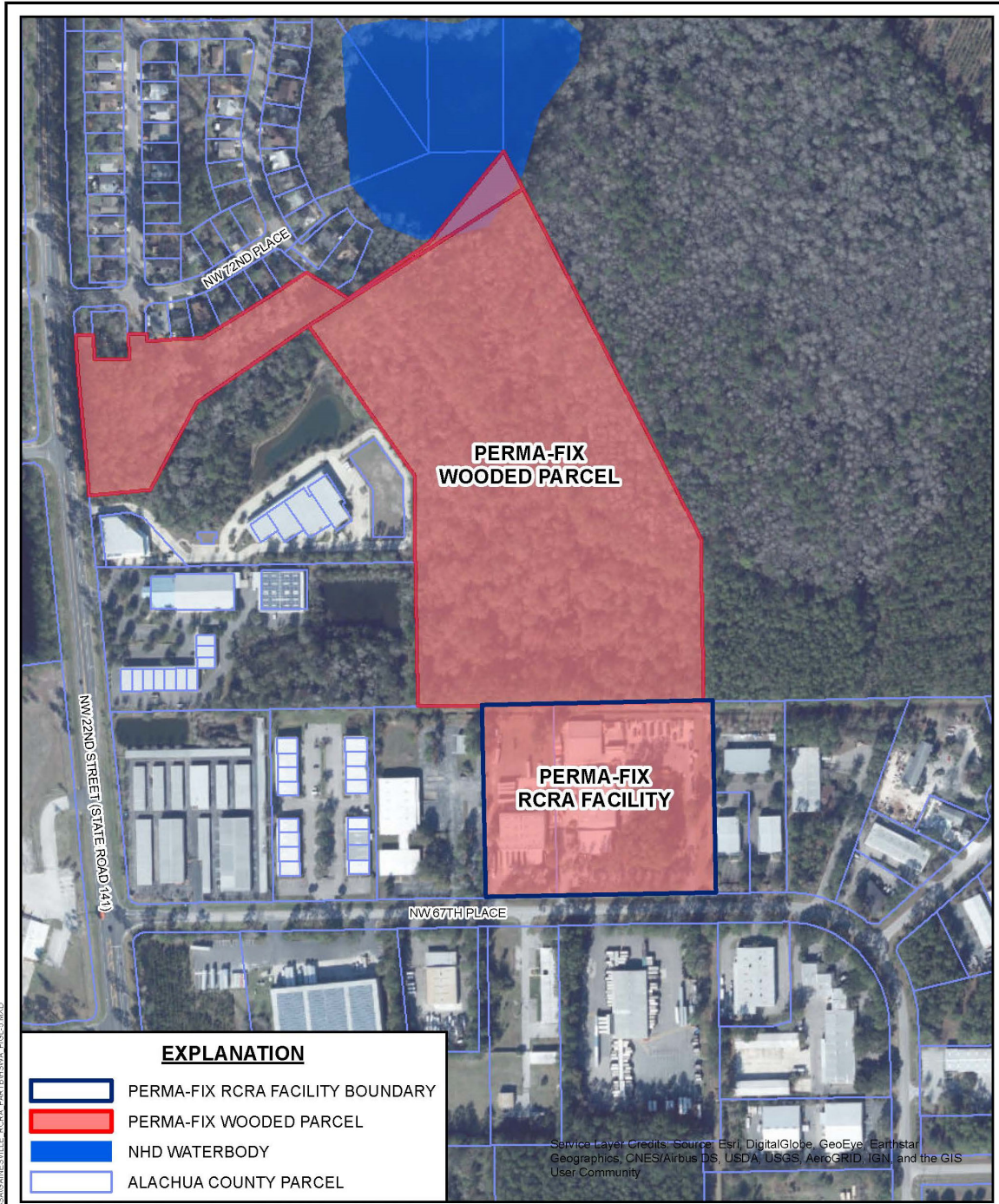

1252 Commerce Drive
 Laramie, Wyoming 82070
 www.trihydro.com
 (P) 307.745.7474 (F) 307.745.7729

FIGURE II-A-3
PART II
BUILDING AND OTHER STRUCTURES

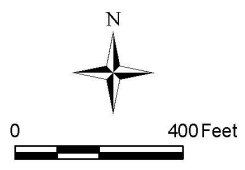
PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA

Source: Perma-Fix, 2014
 Drawn By: REP Checked By: CE Scale: 1" = 100' Date: 10/7/2019 File: 61A-PR-PTII-BUILDSTRUCT

ATTACHMENT G-PROPERTY



M:\OTR\PERMA-FIX\FIG1\SWAPPING\GAINESVILLE_SS\GAINESVILLE_RCRA_PART1\HSWA_FIG1-5.MXD



Trihydro
CORPORATION

1252 Commerce Drive
 Laramie, WY 82070
 www.trihydro.com
 (P) 307.745.7474 (F) 307.745.7729

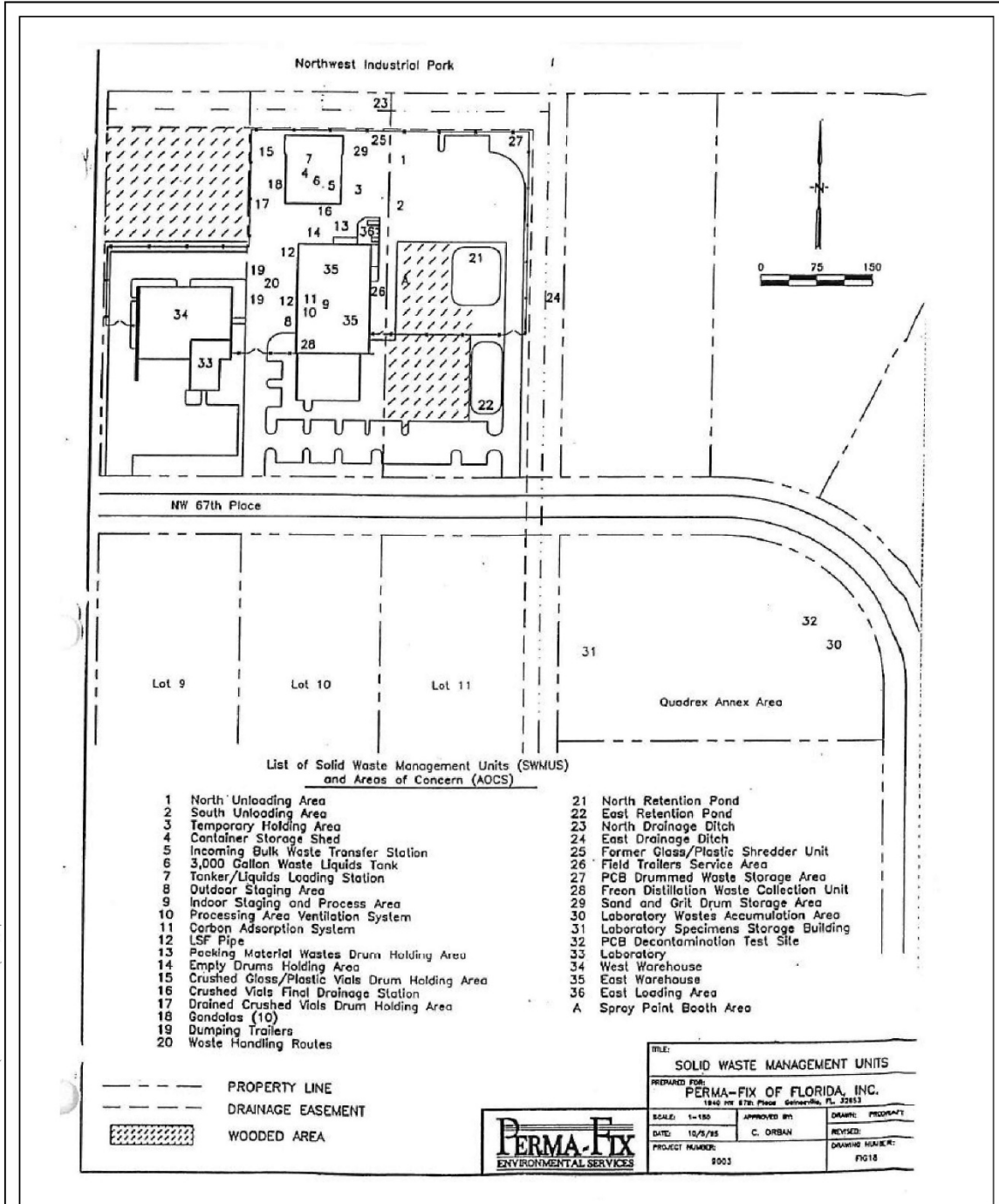
FIGURE I-5

PART I
PERMA-FIX FACILITY FOR HSWA PURPOSES

PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA

Drawn By: DH	Checked By: CE	Scale: 1" = 400'	Date: 11/9/19
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ATTACHMENT H-SWMU / AOC MAP



M:\CADD\PERMAFIX\GAINESVILLE\PROJECTS\61A-005 GAINESVILLE\DWG\61A-PR-PTII-SWMU-LOC.MXD

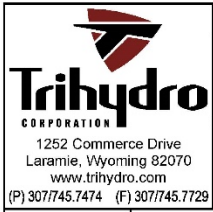


FIGURE II-Q-1

**PART II
SWMU LOCATION MAP**

**PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA**

Source: Perma-Fix, 2014 Drawn By: REP Checked By: CE Scale: NONE Date: 10/16/19 File: 61A-PR-PTII-SWMU-LOC.MXD

ATTACHMENT D – TANGIBLE NET WORTH

Perma-Fix of Florida, Inc., a subsidiary of Perma-Fix Environmental Services (PESI), is listed as such in the attached 2020 Annual Financial Report on Pages 6 and 7 of 136. The total current assets for PESI in 2019 and 2020 are listed on Page 42 of 136. The report is certified by our officers, including our Chief Executive Officer – Mark Duff, on Pages 126 and 127 of 136.

2020 ANNUAL REPORT



Dr. Centofanti, founder
of Perma-Fix, 1991



CELEBRATING 30 YEARS OF EXPERIENCE YOU CAN TRUST

1991-2021

TO OUR VALUED SHAREHOLDERS,

2020 was a transformative year for the Company, in which we achieved a number of important financial and operational milestones.

Most recently, we celebrated our 30th anniversary, reflecting our leadership in the field of nuclear and mixed waste treatment, nuclear services and health physics. Over these years, we have successfully developed and deployed solutions for a wide range of complex waste streams, while maintaining what we believe to be an impressive safety record. We operate four nuclear and mixed waste treatment facilities, housing some of the most advanced waste management technologies in the world. Through these facilities, we are able to provide comprehensive industrial, radioactive and mixed waste services nationwide. Our customers span government, industrial, medical and other commercial organizations across North America, Canada, and the European Union.

With total revenue for 2020 exceeding \$105 million, this is the best year we have reported since 2012, which was a period in time that was enhanced by the Obama-era stimulus program. Our 2020 EBITDA* performance of over \$5.1 million was our best since 2011. We generated solid revenue growth of 44% and achieved profitability for 2020 due to the steady expansion of our Services Segment in both the U.S. and Canada and our ability to maintain operations throughout the pandemic. The growth in our Services Segment was offset by weakness in our Treatment Segment, as previously disclosed, due in large part to the impact of the COVID-19 pandemic.

Looking ahead, we believe our sales pipeline for projects in the Services Segment remains robust. With hundreds of millions of dollars in bids currently submitted within the last quarter and awaiting award, we believe we have a 6-month forecast of over \$100 million in procurements and task orders to be bid.

We are rapidly advancing several initiatives within the Treatment Segment that we believe have the potential to significantly enhance our revenues, while establishing increased market share and large backlog for waste processing. In particular, we believe we are making continued progress at Hanford regarding contracting decisions and opportunities to leverage our advanced capabilities to solve large-scale waste management problems at the site. This includes our Test Bed Initiative, or TBI, which continues to offer a supplemental alternative to the U.S. Department of Energy to assist in the large waste tank disposition project at Hanford.

Although we continue to face some pandemic-related challenges, we remain optimistic about our growth strategy for 2021, which includes continued expansion of our plants and broadening our base of clients for nuclear services. We look forward to continuing our mission of ensuring a clean and safe environment for future generations. I would like to thank our shareholders, employees and Board of Directors for their ongoing support. We will keep you updated on our progress as developments unfold.

Sincerely,



Mark Duff
President and Chief Executive Officer



*See definition of EBITDA and adjusted EBITDA and reconciliation of the EBITDA and adjusted EBITDA numbers to income (loss) from continuing operations under GAAP and certain forward-looking statements in the "Corporate Information" section.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2020
or
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission File No. 1-11596

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
(Exact name of registrant as specified in its charter)

Delaware
State or other jurisdiction
of incorporation or organization

58-1954497
(IRS Employer Identification Number)

8302 Dunwoody Place, #250, Atlanta, GA
(Address of principal executive offices)

30350
(Zip Code)

(770) 587-9898
(Registrant's telephone number)

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$.001 Par Value	PESI	NASDAQ Capital Markets
Preferred Stock Purchase Rights		NASDAQ Capital Markets

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated Filer Non-accelerated Filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial standards provided pursuant to Section 13(a) of the Exchange Act

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the Registrant's voting and non-voting common equity held by nonaffiliates of the Registrant computed by reference to the closing sale price of such stock as reported by NASDAQ as of the last business day of the most recently completed second fiscal quarter (June 30, 2020), was approximately \$72,649,482). For the purposes of this calculation, all directors and executive officers of the Registrant (as indicated in Item 12) have been deemed to be affiliates. Such determination should not be deemed an admission that such directors and executive officers, are, in fact, affiliates of the Registrant. The Company's Common Stock is listed on the NASDAQ Capital Markets.

As of February 18, 2021, there were 12,165,734 shares of the registrant's Common Stock, \$.001 par value, outstanding.

Documents incorporated by reference: None

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

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PART II

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PART IV

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PART I

ITEM 1. BUSINESS

Company Overview and Principal Products and Services

Perma-Fix Environmental Services, Inc. (the Company, which may be referred to as we, us, or our), a Delaware corporation incorporated in December 1990, is an environmental and environmental technology know-how company.

The principal element of our business strategy consists of upgrading our facilities within our Treatment Segment to increase efficiency and modernize and expand treatment capabilities to meet the changing markets associated with the waste management industry. Within our Services Segment, we continue to revitalize and expand our business development programs to further increase competitive procurement effectiveness and broaden the market penetration within both the commercial and government sectors. The Company remains focused on expansion into both commercial and international markets to supplement government spending in the United States of America (“USA”), from which a significant portion of the Company’s revenue is derived. This includes new services, new customers and increased market share in our current markets.

Our majority-owned subsidiary, Perma-Fix Medical S.A. and its wholly-owned subsidiary, Perma-Fix Medical Corporation (“PFM Corporation” – a Delaware corporation) (together known as “PF Medical” or our “Medical Segment”) which is currently involved on a limited basis in the research and development (“R&D”) of the Company’s medical isotope production technology, has not generated any revenue and has substantially reduced R&D costs and activities due to the need for capital to fund these activities. The Company anticipates that the Medical Segment will not resume full R&D activities until the necessary capital is obtained through its own credit facility or additional equity raise, or obtains partners willing to provide funding for its R&D.

COVID-19 Pandemic

The spread of COVID-19 in early 2020 continues to result in significant volatility in the U.S. and international markets. We continue to closely monitor the impact of the COVID-19 pandemic on all aspects of our business. Since the start of the pandemic, we have experienced delays in waste shipment from certain customers within our Treatment Segment directly related to the impact of COVID-19 including generator shutdowns and limited sustained operations, along with other factors. However, we expect to see a gradual return in waste receipts from these customers starting in the first half of 2021 as they accelerate operations. Within our Services Segment, all of the projects that were previously shutdown in late March 2020 due to the pandemic recommenced starting in late June 2020 as stay-at-home orders and certain other restrictions resulting from the pandemic were lifted.

Since the outbreak of COVID-19, we have remained focused on keeping our employees working and, at the same time, focusing on protecting the health and wellbeing of our employees and the communities in which we operate while assuring the continuity of our business operations.

Our management team has proactively implemented our business continuity and safety plans and has taken a variety of measures to ensure the ongoing availability of our waste treatment and remediation services, while taking health and safety measures, including separating employee and customer contact, social distancing between employees, implementing enhanced cleaning and hygiene protocols in all of our facilities, and implementing remote work policies, when necessary.

The situation surrounding COVID-19 continues to remain fluid and volatile. The potential for a material impact on our business increases the longer COVID-19 impacts the level of economic activities in the United States and globally as our customers may further continue to delay waste shipments and projects may shut down again. For this reason, we cannot reasonably estimate with any degree of certainty the future impact COVID-19 may have on our results of operations, financial position, and liquidity during the next twelve months.

For a more detailed discussion of the impact of COVID-19 on the Company’s results of operations, please

see “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” – “Results of Operations” and “Liquidity and Capital Resources.”

Segment Information and Foreign and Domestic Operations and Sales

The Company has three reportable segments. In accordance with Financial Accounting Standards Board (“FASB”) ASC 280, “Segment Reporting”, we define an operating segment as:

- a business activity from which we may earn revenue and incur expenses;
- whose operating results are regularly reviewed by the chief operating decision maker (“CODM”) to make decisions about resources to be allocated and assess its performance; and
- for which discrete financial information is available.

TREATMENT SEGMENT reporting includes:

- nuclear, low-level radioactive, mixed (waste containing both hazardous and low-level radioactive waste), hazardous and non-hazardous waste treatment, processing and disposal services primarily through four uniquely licensed (Nuclear Regulatory Commission or state equivalent) and permitted (U.S. Environmental Protection Agency (“EPA”) or state equivalent) treatment and storage facilities as follow: Perma-Fix of Florida, Inc. (“PFF”), Diversified Scientific Services, Inc., (“DSSI”), Perma-Fix Northwest Richland, Inc. (“PFNWR”) and Oak Ridge Environmental Waste Operations Center (“EWOC” – See below for further information of this facility); and
- R&D activities to identify, develop and implement innovative waste processing techniques for problematic waste streams.

In 2020, we expanded our low-level radioactive waste processing and treatment capability within our Treatment Segment through the addition of our EWOC facility. The EWOC facility serves primarily as a multi-disciplinary equipment and component processing center for large component, size/volume reduction, sort/segregation, waste transload, and system operability testing. The ultimate objective of the facility will be receipt, preparation, packaging, and transportation of low-level radioactive waste to final disposal facilities (landfills, approved radiological waste repositories). Operations at the facility have been limited to date as we continue to complete transition of the site. No revenue was generated at EWOC in 2020.

For 2020, the Treatment Segment accounted for \$30,143,000, or 28.6%, of total revenue, as compared to \$40,364,000, or 54.9%, of total revenue for 2019. See “Dependence Upon a Single or Few Customers” for further details and a discussion as to our Segments’ contracts with government clients (domestic and foreign) or with others as a subcontractor to government clients.

SERVICES SEGMENT, which includes:

- Technical services, which include:
 - professional radiological measurement and site survey of large government and commercial installations using advanced methods, technology and engineering;
 - health physics services including health physicists, radiological engineers, nuclear engineers and health physics technicians support to government and private radioactive materials licensees;
 - integrated Occupational Safety and Health services including industrial hygiene (“IH”) assessments; hazardous materials surveys, e.g., exposure monitoring; lead and asbestos management/abatement oversight; indoor air quality evaluations; health risk and exposure assessments; health & safety plan/program development, compliance auditing and training services; and Occupational Safety and Health Administration (“OSHA”) citation assistance;
 - global technical services providing consulting, engineering (civil, nuclear, mechanical, chemical, radiological and environmental), project management, waste management, environmental, and decontamination and decommissioning (“D&D”) field, technical, and management personnel and services to commercial and government customers; and
 - waste management services to commercial and governmental customers.
- Nuclear services, which include:

- D&D of government and commercial facilities impacted with radioactive material and hazardous constituents including engineering, technology applications, specialty services, logistics, transportation, processing and disposal; and
- license termination support of radioactive material licensed and federal facilities over the entire cycle of the termination process: project management, planning, characterization, waste stream identification and delineation, remediation/demolition, final status survey, compliance demonstration, reporting, transportation, disposal and emergency response.
- A company owned equipment calibration and maintenance laboratory that services, maintains, calibrates, and sources (i.e., rental) health physics, IH and customized nuclear, environmental, and occupational safety and health (“NEOSH”) instrumentation.
- A company owned gamma spectroscopy laboratory for the analysis of oil and gas industry solids and liquids.

For 2020, the Services Segment accounted for \$75,283,000, or 71.4%, of total revenue, as compared to \$33,095,000, or 45.1%, of total revenue for 2019. See “Dependence Upon a Single or Few Customers” for further details and a discussion as to our Segments’ contracts with government clients (domestic and foreign) or with others as a subcontractor to government clients.

MEDICAL SEGMENT (see a discussion of our Medical Segment above under “Company Overview and Principal Products and Services”).

Our Treatment and Services Segments provide services to research institutions, commercial companies, public utilities, and governmental agencies (domestic and foreign), including the U.S. Department of Energy (“DOE”) and U.S. Department of Defense (“DOD”). The distribution channels for our services are through direct sales to customers or via intermediaries.

Our corporate office is located at 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350.

Foreign Revenue

Our consolidated revenue for 2020 and 2019 included approximately \$5,550,000, or 5.3%, and \$5,488,000, or 7.5%, respectively, from Canadian customers (including revenues generated by our Perma-Fix of Canada, Inc. (“PF Canada”) subsidiary).

Permits and Licenses

Waste management service companies are subject to extensive, evolving and increasingly stringent federal, state, and local environmental laws and regulations. Such federal, state and local environmental laws and regulations govern our activities regarding the treatment, storage, processing, disposal and transportation of hazardous, non-hazardous and radioactive wastes, and require us to obtain and maintain permits, licenses and/or approvals in order to conduct our waste activities. We are dependent on our permits and licenses discussed below in order to operate our businesses. Failure to obtain and maintain our permits or approvals would have a material adverse effect on us, our operations, and financial condition. The permits and licenses have terms ranging from one to ten years, and provided that we maintain a reasonable level of compliance, renew with minimal effort, and cost. We believe that these permit and license requirements represent a potential barrier to entry for possible competitors.

PFF, located in Gainesville, Florida, operates its hazardous, mixed and low-level radioactive waste activities under a Resource Conservation and Recovery Act (“RCRA”) Part B permit, Toxic Substances Control Act (“TSCA”) authorization, Restricted RX Drug Distributor-Destruction license, biomedical, and a radioactive materials license issued by the State of Florida.

DSSI, located in Kingston, Tennessee, conducts mixed and low-level radioactive waste storage and treatment activities under RCRA Part B permits and a radioactive materials license issued by the State of Tennessee Department of Environment and Conservation. Co-regulated TSCA Polychlorinated Biphenyl (“PCB”) wastes are also managed for PCB destruction under EPA Approval.

PFNWR, located in Richland, Washington, operates a low-level radioactive waste processing facility as well as a mixed waste processing facility. Radioactive material processing is authorized under radioactive materials licenses issued by the State of Washington and mixed waste processing is additionally authorized under a RCRA Part B permit with TSCA authorization issued jointly by the State of Washington and the EPA.

EWOC, located in Oak Ridge, Tennessee, operates a low-level radioactive waste material processing facility. Radioactive material processing is authorized under radioactive material licenses issued by the State of Tennessee Department of Environmental and Conservation, Division of radiological health.

The combination of RCRA Part B hazardous waste permits, TSCA authorizations, and radioactive material licenses held by the Company and its subsidiaries comprising our Treatment Segment is very difficult to obtain for a single facility and make this Segment unique.

We believe that the permitting and licensing requirements, and the cost to obtain such permits, are barriers to the entry of hazardous waste and radioactive and mixed waste activities as presently operated by our waste treatment subsidiaries. If the permit requirements for hazardous waste treatment, storage, and disposal (“TSD”) activities and/or the licensing requirements for the handling of low-level radioactive matters are eliminated or if such licenses or permits were made less rigorous to obtain, we believe such would allow companies to enter into these markets and provide greater competition.

Backlog

Our Treatment Segment maintains a backlog of stored waste, which represents waste that has not been processed. The backlog is principally a result of the timing and complexity of the waste being brought into the facilities and the selling price per container. At December 31, 2020, our Treatment Segment had a backlog of approximately \$7,631,000, as compared to approximately \$8,506,000 at December 31, 2019. Additionally, the time it takes to process waste from the time it arrives may increase due to the types and complexities of the waste we are currently receiving. We typically process our backlog during periods of low waste receipts, which historically has been in the first or fourth quarters.

Dependence Upon a Single or Few Customers

Our Treatment and Services Segments have significant relationships with the U.S and Canadian governmental authorities. A significant amount of our revenues from our Treatment and Services Segments are generated indirectly as subcontractors for others who are prime contractors to government authorities, particularly the U.S Department of Energy (“DOE”) and U.S. Department of Defense (“DOD”) or directly as the prime contractor to government authorities. The contracts that we are a party to with others as subcontractors to the U.S federal government or directly with the U.S federal government generally provide that the government may terminate or renegotiate the contracts on 30 days’ notice, at the government’s election. The contracts/task order agreements that we are a party to with Canadian governmental authorities generally provide that the government authorities may terminate the contracts/task order agreements at any time for any reason for convenience. Our inability to continue under existing contracts that we have with the U.S federal government and Canadian government authorities (directly or indirectly as a subcontractor) or significant reductions in the level of governmental funding in any given year could have a material adverse impact on our operations and financial condition.

We performed services relating to waste generated by government clients (domestic and foreign (primarily Canadian)), either indirectly for others as a subcontractor to government entities or directly as a prime contractor to government entities, representing approximately \$96,582,000, or 91.6%, of our total revenue during 2020, as compared to \$59,985,000, or 81.7%, of our total revenue during 2019.

Revenue generated by us as a subcontractor to a customer for a remediation project performed for a government entity (the “DOE”) within our Services Segment in 2020 and 2019 accounted for approximately \$41,011,000 or 38.9% and \$8,529,000 or 11.6% (included in revenues generated relating to government clients above) of our total revenue for 2020 and 2019, respectively. This remediation project included among other things, decontamination support of a building. As work progressed throughout stages of this project in 2020, additional contaminations were regularly discovered which resulted in approvals for

additional work to be performed under this project. This project is expected to be completed by the first half of 2021.

As our revenues are project/event based where the completion of one contract with a specific customer may be replaced by another contract with a different customer from year to year, we do not believe the loss of one specific customer from one year to the next will generally have a material adverse effect on our operations and financial condition.

Competitive Conditions

The Treatment Segment's largest competitor is EnergySolutions ("ES") which operates treatment facilities in Oak Ridge, TN and Erwin, TN and disposal facilities for low level radioactive waste in Clive, UT and Barnwell, SC. Waste Control Specialists ("WCS"), which has licensed disposal capabilities for low level radioactive waste in Andrews, TX, is also a competitor in the treatment market with increasing market share. These two competitors also provide us with options for disposal of our treated nuclear waste. The Treatment Segment treats and disposes of DOE generated waste largely at DOE owned sites. Our Treatment Segment currently solicits business primarily on a North America basis with both government and commercial clients; however, we continue to focus on emerging international markets for additional work.

Our Services Segment is engaged in highly competitive businesses in which a number of our government contracts and some of our commercial contracts are awarded through competitive bidding processes. The extent of such competition varies according to the industries and markets in which our customers operate as well as the geographic areas in which we operate. The degree and type of competition we face is also often influenced by the project specification being bid on and the different specialty skill sets of each bidder for which our Services Segment competes, especially projects subject to the governmental bid process. We also have the ability to prime federal government small business procurements (small business set asides). Based on past experience, we believe that large businesses are more willing to team with small businesses in order to be part of these often-substantial procurements. There are a number of qualified small businesses in our market that will provide intense competition that may provide a challenge to our ability to maintain strong growth rates and acceptable profit margins. For international business there are additional competitors, many from within the country the work is to be performed, making winning work in foreign countries more challenging. If our Services Segment is unable to meet these competitive challenges, it could lose market share and experience an overall reduction in its profits.

Certain Environmental Expenditures and Potential Environmental Liabilities

Environmental Liabilities

We have three remediation projects, which are currently in progress relating to our Perma-Fix of Dayton, Inc. ("PFD"), Perma-Fix of Memphis, Inc. ("PFM"), and Perma-Fix South Georgia, Inc. ("PFSG") subsidiaries, which are all included within our discontinued operations. These remediation projects principally entail the removal/remediation of contaminated soil and, in most cases, the remediation of surrounding ground water. These remediation activities are closely reviewed and monitored by the applicable state regulators.

At December 31, 2020, we had total accrued environmental remediation liabilities of \$854,000. At December 31, 2020, \$744,000 of the total accrued environmental liabilities was recorded as current.

The nature of our business exposes us to significant cost to comply with governmental environmental laws, rules and regulations and risk of liability for damages. Such potential liability could involve, for example, claims for cleanup costs, personal injury or damage to the environment in cases where we are held responsible for the release of hazardous materials; claims of employees, customers or third parties for personal injury or property damage occurring in the course of our operations; and claims alleging negligence or professional errors or omissions in the planning or performance of our services. In addition, we could be deemed a responsible party for the costs of required cleanup of properties, which may be contaminated by hazardous substances generated or transported by us to a site we selected, including properties owned or leased by us. We could also be subject to fines and civil penalties in connection with violations of regulatory requirements.

Research and Development (“R&D”)

Innovation and technical know-how by our operations is very important to the success of our business. Our goal is to discover, develop and bring to market innovative ways to process waste that address unmet environmental needs. We conduct research internally, and also through collaborations with other third parties. The majority of our research activities are performed as we receive new and unique waste to treat. Our competitors also devote resources to R&D and many such competitors have greater resources at their disposal than we do.

Governmental Regulation

Environmental companies, such as us, and their customers are subject to extensive and evolving environmental laws and regulations by a number of federal, state and local environmental, safety and health agencies, the principal of which being the EPA. These laws and regulations largely contribute to the demand for our services. Although our customers remain responsible by law for their environmental problems, we must also comply with the requirements of those laws applicable to our services. We cannot predict the extent to which our operations may be affected by future enforcement policies as applied to existing laws or by the enactment of new environmental laws and regulations. Moreover, any predictions regarding possible liability are further complicated by the fact that under current environmental laws we could be jointly and severally liable for certain activities of third parties over whom we have little or no control. Although we believe that we are currently in substantial compliance with applicable laws and regulations, we could be subject to fines, penalties or other liabilities or could be adversely affected by existing or subsequently enacted laws or regulations. The principal environmental laws affecting our customers and us are briefly discussed below.

The Resource Conservation and Recovery Act of 1976, as amended (“RCRA”)

RCRA and its associated regulations establish a strict and comprehensive permitting and regulatory program applicable to companies, such as us, that treat, store or dispose of hazardous waste. The EPA has promulgated regulations under RCRA for new and existing treatment, storage and disposal facilities including incinerators, storage and treatment tanks, storage containers, storage and treatment surface impoundments, waste piles and landfills. Every facility that treats, stores or disposes of hazardous waste must obtain a RCRA permit or must obtain interim status from the EPA, or a state agency, which has been authorized by the EPA to administer its program, and must comply with certain operating, financial responsibility and closure requirements.

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (“CERCLA,” also referred to as the “Superfund Act”)

CERCLA governs the cleanup of sites at which hazardous substances are located or at which hazardous substances have been released or are threatened to be released into the environment. CERCLA authorizes the EPA to compel responsible parties to clean up sites and provides for punitive damages for noncompliance. CERCLA imposes joint and several liabilities for the costs of clean up and damages to natural resources.

Health and Safety Regulations

The operation of our environmental activities is subject to the requirements of the OSHA and comparable state laws. Regulations promulgated under OSHA by the Department of Labor require employers of persons in the transportation and environmental industries, including independent contractors, to implement hazard communications, work practices and personnel protection programs in order to protect employees from equipment safety hazards and exposure to hazardous chemicals.

Atomic Energy Act

The Atomic Energy Act of 1954 governs the safe handling and use of Source, Special Nuclear and Byproduct materials in the U.S. and its territories. This act authorized the Atomic Energy Commission (now the Nuclear Regulatory Commission “USNRC”) to enter into “Agreements with states to carry out those regulatory functions in those respective states except for Nuclear Power Plants and federal facilities like the VA hospitals and the DOE operations.” The State of Florida Department of Health (with the USNRC oversight), Office of Radiation Control, regulates the licensing and radiological program of the PFF facility; the State of Tennessee (with the USNRC oversight), Tennessee Division of Radiological Health, regulates

licensing and the radiological program of the DSSI facility and the EWOC facility; and the State of Washington (with the USNRC oversight) Department of Health, regulates licensing and the radiological operations of the PFNWR facility.

Other Laws

Our activities are subject to other federal environmental protection and similar laws, including, without limitation, the Clean Water Act, the Clean Air Act, the Hazardous Materials Transportation Act and the TSCA. Many states have also adopted laws for the protection of the environment which may affect us, including laws governing the generation, handling, transportation and disposition of hazardous substances and laws governing the investigation and cleanup of, and liability for, contaminated sites. Some of these state provisions are broader and more stringent than existing federal law and regulations. Our failure to conform our services to the requirements of any of these other applicable federal or state laws could subject us to substantial liabilities which could have a material adverse effect on us, our operations and financial condition. In addition to various federal, state and local environmental regulations, our hazardous waste transportation activities are regulated by the U.S. Department of Transportation, the Interstate Commerce Commission and transportation regulatory bodies in the states in which we operate. We cannot predict the extent to which we may be affected by any law or rule that may be enacted or enforced in the future, or any new or different interpretations of existing laws or rules.

ITEM 1A. RISK FACTORS

The following are certain risk factors that could affect our business, financial performance, and results of operations. These risk factors should be considered in connection with evaluating the forward-looking statements contained in this Form 10-K, as the forward-looking statements are based on current expectations, and actual results and conditions could differ materially from the current expectations. Investing in our securities involves a high degree of risk, and before making an investment decision, you should carefully consider these risk factors as well as other information we include or incorporate by reference in the other reports we file with the Securities and Exchange Commission (the "Commission").

Risk Related to COVID-19

COVID-19 could result in material adverse effects on our business, financial position, results of operations and cash flows.

The extent of the impact of the COVID-19 pandemic on our business is uncertain and difficult to predict, as the responses to the pandemic continue to evolve rapidly. Since the latter part of the second quarter of 2020, all of the projects within our Services Segment that were previously shutdown have restarted as stay-at-home orders and certain other restrictions resulting from the pandemic were lifted. Within our Treatment Segment, we continue to experience delays in waste shipment from certain customers directly related to the impact of COVID-19 including generator shutdowns and limited sustained operations, along with other factors. However, we expect to see a gradual return in waste receipts from these customers starting in the first half of 2021 as they accelerate operations. COVID-19 disruption could have a material adverse effect on our business as our customers could curtail and reduce capital and overall spending.

The severity of the impact the COVID-19 pandemic on our business will depend on a number of factors, including, but not limited to, the duration and severity of the pandemic, the extent and severity of the impact on our customers, the impact on governmental programs and budgets, distribution of COVID-19 vaccines, the rate at which people are inoculated with the vaccines, and how quickly and to what extent normal economic and operating conditions resume, all of which are uncertain and cannot be predicted with any accuracy or confidence at this time. Our future results of operations and liquidity could be adversely impacted by continued delays in waste shipments and/or the recurrence of project work shut downs as well as potential partial/full shutdown of any of our facilities due to COVID-19.

Risks Relating to our Business and Operations

Failure to maintain our financial assurance coverage that we are required to have in order to operate our permitted treatment, storage and disposal facilities could have a material adverse effect on us.

We maintain finite risk insurance policies and bonding mechanisms which provide financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure of those facilities. We are required to provide and to maintain financial assurance that guarantees to the state that in the event of closure, our permitted facilities will be closed in accordance with the regulations. In the event that we are unable to obtain or maintain our financial assurance coverage for any reason, this could materially impact our operations and our permits which we are required to have in order to operate our treatment, storage, and disposal facilities.

If we cannot maintain adequate insurance coverage, we will be unable to continue certain operations.

Our business exposes us to various risks, including claims for causing damage to property and injuries to persons that may involve allegations of negligence or professional errors or omissions in the performance of our services. Such claims could be substantial. We believe that our insurance coverage is presently adequate and similar to, or greater than, the coverage maintained by other companies in the industry of our size. If we are unable to obtain adequate or required insurance coverage in the future, or if our insurance is not available at affordable rates, we would violate our permit conditions and other requirements of the environmental laws, rules, and regulations under which we operate. Such violations would render us unable to continue certain of our operations. These events would have a material adverse effect on our financial condition.

The inability to maintain existing government contracts or win new government contracts over an extended period could have a material adverse effect on our operations and adversely affect our future revenues.

A material amount of our Treatment and Services Segments' revenues are generated through various government contracts or subcontracts (domestic and foreign (primarily Canadian)). Our revenues from governmental contracts and subcontracts relating to governmental facilities within our segments were approximately \$96,582,000, or 91.6%, and \$59,985,000, or 81.7%, of our consolidated revenues for 2020 and 2019, respectively. Most of our government contracts or our subcontracts granted under government contracts are awarded through a regulated competitive bidding process. Some government contracts are awarded to multiple competitors, which increase overall competition and pricing pressure and may require us to make sustained post-award efforts to realize revenues under these government contracts. All contracts with, or subcontracts involving, the U.S federal government are terminable, or subject to renegotiation, by the applicable governmental agency on 30 days notice, at the option of the governmental agency. The contracts/task order agreements that we are a party to with Canadian governmental authorities generally provide that the government authorities may terminate the contracts/task order agreements at any time for any reason for convenience. If we fail to maintain or replace these relationships, or if a material contract is terminated or renegotiated in a manner that is materially adverse to us, our revenues and future operations could be materially adversely affected.

Our existing and future customers may reduce or halt their spending on hazardous waste and nuclear services with outside vendors, including us.

A variety of factors may cause our existing or future customers (including government clients) to reduce or halt their spending on hazardous waste and nuclear services from outside vendors, including us. These factors include, but are not limited to:

- accidents, terrorism, natural disasters or other incidents occurring at nuclear facilities or involving shipments of nuclear materials;
- failure of government to approve necessary budgets, or to reduce the amount of the budget necessary, to fund remediation sites, including DOE and DOD sites;
- civic opposition to or changes in government policies regarding nuclear operations;
- a reduction in demand for nuclear generating capacity; or
- failure to perform under existing contracts, directly or indirectly, with the government.

These events could result in or cause government clients to terminate or cancel existing contracts involving us to treat, store or dispose of contaminated waste and/or to perform remediation projects, at one or more of government sites. These events also could adversely affect us to the extent that they result in the reduction

or elimination of contractual requirements, lower demand for nuclear services, burdensome regulation, disruptions of shipments or production, increased operational costs or difficulties or increased liability for actual or threatened property damage or personal injury.

Economic downturns, reductions in government funding or other events beyond our control (such as the continued impact of COVID-19) could have a material negative impact on our businesses.

Demand for our services has been, and we expect that demand will continue to be, subject to significant fluctuations due to a variety of factors beyond our control, including, without limitation, economic conditions, reductions in the budget for spending to remediate federal sites due to numerous reasons including, without limitation, the substantial deficits that the federal government has and is continuing to incur, and/or the continued impact resulting from COVID-19. During economic downturns, large budget deficits that the federal government and many states are experiencing, and other events beyond our control, including, but not limited to the impact from COVID-19, the ability of private and government entities to spend on waste services, including nuclear services, may decline significantly. Our operations depend, in large part, upon governmental funding (for example, the annual budget of the DOE) or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flow.

The loss of one or a few customers could have an adverse effect on us.

One or a few governmental customers or governmental related customers have in the past, and may in the future, account for a significant portion of our revenue in any one year or over a period of several consecutive years. Because customers generally contract with us for specific projects, we may lose these significant customers from year to year as their projects with us are completed. Our inability to replace the business with other similar significant projects could have an adverse effect on our business and results of operations.

We are a holding company and depend, in large part, on receiving funds from our subsidiaries to fund our indebtedness.

Because we are a holding company and operations are conducted through our subsidiaries, our ability to meet our obligations depends, in large part, on the operating performance and cash flows of our subsidiaries.

Our Treatment Segment has limited end disposal sites to utilize to dispose of its waste which could significantly impact our results of operations.

Our Treatment Segment has limited options available for disposal of its nuclear waste. Currently, there are only three disposal sites, each site having different owners, for our low-level radioactive waste we receive from non-governmental sites, allowing us to take advantage of the pricing competition between the three sites. If any of these disposal sites ceases to accept waste or closes for any reason or refuses to accept the waste of our Treatment Segment, for any reason, we would have limited remaining site to dispose of our nuclear waste. With limited end disposal site to dispose of our waste, we could be subject to significantly increased costs which could negatively impact our results of operations.

Our operations are subject to seasonal factors, which cause our revenues to fluctuate.

We have historically experienced reduced revenues and losses during the first and fourth quarters of our fiscal years due to a seasonal slowdown in operations from poor weather conditions, overall reduced activities during these periods resulting from holiday periods, and finalization of government budgets during the fourth quarter of each year. During our second and third fiscal quarters there has historically been an increase in revenues and operating profits. If we do not continue to have increased revenues and profitability during the second and third fiscal quarters, this could have a material adverse effect on our results of operations and liquidity.

We are engaged in highly competitive businesses and typically must bid against other competitors to obtain major contracts.

We are engaged in highly competitive business in which most of our government contracts and some of our commercial contracts are awarded through competitive bidding processes. We compete with national, international (primarily Canada currently) and regional firms with nuclear and/or hazardous waste services practices, as well as small or local contractors. Some of our competitors have greater financial and other

resources than we do, which can give them a competitive advantage. In addition, even if we are qualified to work on a new government contract, we might not be awarded the contract because of existing government policies designed to protect certain types of businesses and under-represented minority contractors. Although we believe we have the ability to certify and bid government contract as a small business, there are a number of qualified small businesses in our market that will provide intense competition. For international business, which we continue to focus on, there are additional competitors, many from within the country the work is to be performed, making winning work in foreign countries more challenging. Competition places downward pressure on our contract prices and profit margins. If we are unable to meet these competitive challenges, we could lose market share and experience an overall reduction in our profits.

We bear the risk of cost overruns in fixed-price contracts. We may experience reduced profits or, in some cases, losses under these contracts if costs increase above our estimates.

Our revenues may be earned under contracts that are fixed-price or maximum price in nature. Fixed-price contracts expose us to a number of risks not inherent in cost-reimbursable contracts. Under fixed price and guaranteed maximum-price contracts, contract prices are established in part on cost and scheduling estimates which are based on a number of assumptions, including assumptions about future economic conditions, prices and availability of labor, equipment and materials, and other exigencies. If these estimates prove inaccurate, or if circumstances change such as unanticipated technical problems, difficulties in obtaining permits or approvals, changes in laws or labor conditions, weather delays, cost of raw materials, our suppliers' or subcontractors' inability to perform, and/or other events beyond our control, such as the impact of the Coronavirus, cost overruns may occur and we could experience reduced profits or, in some cases, a loss for that project. Errors or ambiguities as to contract specifications can also lead to cost-overruns.

Adequate bonding is necessary for us to win certain types of new work and support facility closure requirements.

We are often required to provide performance bonds to customers under certain of our contracts, primarily within our Services Segment. These surety instruments indemnify the customer if we fail to perform our obligations under the contract. If a bond is required for a particular project and we are unable to obtain it due to insufficient liquidity or other reasons, we may not be able to pursue that project. In addition, we provide bonds to support financial assurance in the event of facility closure pursuant to state requirements. We currently have a bonding facility but, the issuance of bonds under that facility is at the surety's sole discretion. Moreover, due to events that affect the insurance and bonding markets generally, bonding may be more difficult to obtain in the future or may only be available at significant additional cost. There can be no assurance that bonds will continue to be available to us on reasonable terms. Our inability to obtain adequate bonding and, as a result, to bid on new work could have a material adverse effect on our business, financial condition and results of operations.

If we cannot maintain our governmental permits or cannot obtain required permits, we may not be able to continue or expand our operations.

We are a nuclear services and waste management company. Our business is subject to extensive, evolving, and increasingly stringent federal, state, and local environmental laws and regulations. Such federal, state, and local environmental laws and regulations govern our activities regarding the treatment, storage, recycling, disposal, and transportation of hazardous and non-hazardous waste and low-level radioactive waste. We must obtain and maintain permits or licenses to conduct these activities in compliance with such laws and regulations. Failure to obtain and maintain the required permits or licenses would have a material adverse effect on our operations and financial condition. If any of our facilities are unable to maintain currently held permits or licenses or obtain any additional permits or licenses which may be required to conduct its operations, we may not be able to continue those operations at these facilities, which could have a material adverse effect on us.

Risks Related to Laws and Regulations

As a government contractor, we are subject to extensive government regulation, and our failure to comply with applicable regulations could subject us to penalties that may restrict our ability to conduct our business.

Our governmental contracts or subcontracts relating to DOE sites, are a significant part of our business. Allowable costs under U.S. government contracts are subject to audit by the U.S. government. If these audits result in determinations that costs claimed as reimbursable are not allowed costs or were not allocated in accordance with applicable regulations, we could be required to reimburse the U.S. government for amounts previously received.

Governmental contracts or subcontracts involving governmental facilities are often subject to specific procurement regulations, contract provisions and a variety of other requirements relating to the formation, administration, performance and accounting of these contracts. Many of these contracts include express or implied certifications of compliance with applicable regulations and contractual provisions. If we fail to comply with any regulations, requirements or statutes, our existing governmental contracts or subcontracts involving governmental facilities could be terminated or we could be suspended from government contracting or subcontracting. If one or more of our governmental contracts or subcontracts are terminated for any reason, or if we are suspended or debarred from government work, we could suffer a significant reduction in expected revenues and profits. Furthermore, as a result of our governmental contracts or subcontracts involving governmental facilities, claims for civil or criminal fraud may be brought by the government or violations of these regulations, requirements or statutes.

Changes in environmental regulations and enforcement policies could subject us to additional liability and adversely affect our ability to continue certain operations.

We cannot predict the extent to which our operations may be affected by future governmental enforcement policies as applied to existing environmental laws, by changes to current environmental laws and regulations, or by the enactment of new environmental laws and regulations. Any predictions regarding possible liability under such laws are complicated further by current environmental laws which provide that we could be liable, jointly and severally, for certain activities of third parties over whom we have limited or no control.

Our businesses subject us to substantial potential environmental liability.

Our business of rendering services in connection with management of waste, including certain types of hazardous waste, low-level radioactive waste, and mixed waste (waste containing both hazardous and low-level radioactive waste), subjects us to risks of liability for damages. Such liability could involve, without limitation:

- claims for clean-up costs, personal injury or damage to the environment in cases in which we are held responsible for the release of hazardous or radioactive materials;
- claims of employees, customers, or third parties for personal injury or property damage occurring in the course of our operations; and
- claims alleging negligence or professional errors or omissions in the planning or performance of our services.

Our operations are subject to numerous environmental laws and regulations. We have in the past, and could in the future, be subject to substantial fines, penalties, and sanctions for violations of environmental laws and substantial expenditures as a responsible party for the cost of remediating any property which may be contaminated by hazardous substances generated by us and disposed at such property, or transported by us to a site selected by us, including properties we own or lease.

As our operations expand, we may be subject to increased litigation, which could have a negative impact on our future financial results.

Our operations are highly regulated and we are subject to numerous laws and regulations regarding procedures for waste treatment, storage, recycling, transportation, and disposal activities, all of which may provide the basis for litigation against us. In recent years, the waste treatment industry has experienced a significant increase in so-called “toxic-tort” litigation as those injured by contamination seek to recover for personal injuries or property damage. We believe that, as our operations and activities expand, there will be a similar increase in the potential for litigation alleging that we have violated environmental laws or regulations or are responsible for contamination or pollution caused by our normal operations, negligence or

other misconduct, or for accidents, which occur in the course of our business activities. Such litigation, if significant and not adequately insured against, could adversely affect our financial condition and our ability to fund our operations. Protracted litigation would likely cause us to spend significant amounts of our time, effort, and money. This could prevent our management from focusing on our operations and expansion.

If environmental regulation or enforcement is relaxed, the demand for our services will decrease.

The demand for our services is substantially dependent upon the public's concern with, and the continuation and proliferation of, the laws and regulations governing the treatment, storage, recycling, and disposal of hazardous, non-hazardous, and low-level radioactive waste. A decrease in the level of public concern, the repeal or modification of these laws, or any significant relaxation of regulations relating to the treatment, storage, recycling, and disposal of hazardous waste and low-level radioactive waste would significantly reduce the demand for our services and could have a material adverse effect on our operations and financial condition. We are not aware of any current federal or state government or agency efforts in which a moratorium or limitation has been, or will be, placed upon the creation of new hazardous or radioactive waste regulations that would have a material adverse effect on us; however, no assurance can be made that such a moratorium or limitation will not be implemented in the future.

We and our customers operate in a politically sensitive environment, and the public perception of nuclear power and radioactive materials can affect our customers and us.

We and our customers operate in a politically sensitive environment. Opposition by third parties to particular projects can limit the handling and disposal of radioactive materials. Adverse public reaction to developments in the disposal of radioactive materials, including any high-profile incident involving the discharge of radioactive materials, could directly affect our customers and indirectly affect our business. Adverse public reaction also could lead to increased regulation or outright prohibition, limitations on the activities of our customers, more onerous operating requirements or other conditions that could have a material adverse impact on our customers' and our business.

The elimination or any modification of the Price-Anderson Acts indemnification authority could have adverse consequences for our business.

The Atomic Energy Act of 1954, as amended, or the AEA, comprehensively regulates the manufacture, use, and storage of radioactive materials. The Price-Anderson Act ("PAA") supports the nuclear services industry by offering broad indemnification to DOE contractors for liabilities arising out of nuclear incidents at DOE nuclear facilities. That indemnification protects DOE prime contractor, but also similar companies that work under contract or subcontract for a DOE prime contract or transporting radioactive material to or from a site. The indemnification authority of the DOE under the PAA was extended through 2025 by the Energy Policy Act of 2005.

Under certain conditions, the PAA's indemnification provisions may not apply to our processing of radioactive waste at governmental facilities, and may not apply to liabilities that we might incur while performing services as a contractor for the DOE and the nuclear energy industry. If an incident or evacuation is not covered under PAA indemnification, we could be held liable for damages, regardless of fault, which could have an adverse effect on our results of operations and financial condition. If such indemnification authority is not applicable in the future, our business could be adversely affected if the owners and operators of new facilities fail to retain our services in the absence of commercial adequate insurance and indemnification.

Risks Relating to our Financial Performance and Position and Need for Financing

If any of our permits, other intangible assets, and tangible assets becomes impaired, we may be required to record significant charges to earnings.

Under accounting principles generally accepted in the United States ("U.S. GAAP"), we review our intangible and tangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Our permits are tested for impairment at least annually. Factors that may be considered a change in circumstances, indicating that the carrying value of our permit, other intangible assets, and tangible assets may not be recoverable, include a decline in stock price and market capitalization,

reduced future cash flow estimates, and slower growth rates in our industry. We may be required, in the future, to record impairment charges in our financial statements, in which any impairment of our permit, other intangible assets, and tangible assets is determined. Such impairment charges could negatively impact our results of operations.

Breach of any of the covenants in our credit facility could result in a default, triggering repayment of outstanding debt under the credit facility and the termination of our credit facility.

Our credit facility with our bank contains financial covenants. A breach of any of these covenants could result in a default under our credit facility triggering our lender to immediately require the repayment of all outstanding debt under our credit facility and terminate all commitments to extend further credit. In the past, when we failed to meet our minimum quarterly fixed charge coverage ratio (“FCCR”) requirement, our lender has either waived these instances of non-compliance or provided certain amendments to our FCCR requirements which enabled us to meet our quarterly FCCR requirements. Additionally, our lender has in the past waived our quarterly FCCR testing requirements. If we fail to meet any of our financial covenants going forward, including the minimum quarterly FCCR requirement, and our lender does not further waive the non-compliance or further revise our covenant requirement so that we are in compliance, our lender could accelerate the payment of our borrowings under our credit facility and terminate our credit facility. In such event, we may not have sufficient liquidity to repay our debt under our credit facility and other indebtedness.

Our debt and borrowing availability under our credit facility could adversely affect our operations.

At December 31, 2020, our aggregate consolidated debt was approximately \$6,729,000, which included our PPP Loan balance of approximately \$5,318,000. We have applied for loan forgiveness on the entire PPP Loan balance which is subject to the review and approval of our lender and the SBA. Our Second Amended and Restated Revolving Credit, Term Loan and Security Agreement dated May 8, 2020 provides for a total credit facility commitment of approximately \$19,742,000, consisting of a \$18,000,000 revolving line of credit and a term loan balance of approximately \$1,742,000. The maximum we can borrow under the revolving part of the credit facility is based on a percentage of the amount of our eligible receivables outstanding at any one time reduced by outstanding standby letters of credit and any borrowing reduction that our lender may impose from time to time. At December 31, 2020, we had no borrowing under the revolving part of our credit facility and borrowing availability of up to an additional \$14,220,000. A lack of positive operating results could have material adverse consequences on our ability to operate our business. Our ability to make principal and interest payments, to refinance indebtedness, and borrow under our credit facility will depend on both our and our subsidiaries' future operating performance and cash flow. Prevailing economic conditions, interest rate levels, and financial, competitive, business, and other factors affect us. Many of these factors are beyond our control.

Our indebtedness could limit our financial and operating activities, and adversely affect our ability to incur additional debt to fund future needs.

As a result of our indebtedness, we could, among other things, be:

- required to dedicate a substantial portion of our cash flow to the payment of principal and interest, thereby reducing the funds available for operations and future business opportunities;
- make it more difficult for us to satisfy our obligations;
- limit our ability to borrow additional money if needed for other purposes, including working capital, capital expenditures, debt service requirements, acquisitions and general corporate or other purposes, on satisfactory terms or at all;
- limit our ability to adjust to changing economic, business and competitive conditions;
- place us at a competitive disadvantage with competitors who may have less indebtedness or greater access to financing;
- make us more vulnerable to an increase in interest rates, a downturn in our operating performance or a decline in general economic conditions; and
- make us more susceptible to changes in credit ratings, which could impact our ability to obtain financing in the future and increase the cost of such financing.

Any of the foregoing could adversely impact our operating results, financial condition, and liquidity. Our ability to continue our operations depends on our ability to generate profitable operations or complete equity

or debt financings to increase our capital.

We may be unable to utilize loss carryforwards in the future.

We have approximately \$14,264,000 and \$71,316,000 in net operating loss carryforwards for federal and state income tax purposes, respectively, which will expire in various amounts starting in 2021 if not used against future federal and state income tax liabilities, respectively. Approximately \$12,199,000 of our federal net operating loss carryforwards were generated after December 31, 2017 and thus do not expire. Our net loss carryforwards are subject to various limitations. Our ability to use the net loss carryforwards depends on whether we are able to generate sufficient income in the future years. Further, our net loss carryforwards have not been audited or approved by the Internal Revenue Service.

Our Paycheck Protection Loan (“PPP Loan”) may be audited

In April 2020, we received a PPP Loan under the CARES Act in the amount of approximately \$5,666,000 which had a principal balance of approximately \$5,318,000 at December 31, 2020. We are aware that PPP loans in excess of \$2,000,000 may be subject to being audited by the appropriate governmental authority. If our PPP Loan is audited, it is currently unknown how our PPP Loan could be affected by an audit. An audit could result, among other things, in us being required to return all or a portion of our PPP Loan.

Risks Relating to our Common Stock

Issuance of substantial amounts of our Common Stock could depress our stock price.

Any sales of substantial amounts of our Common Stock in the public market could cause an adverse effect on the market price of our Common Stock and could impair our ability to raise capital through the sale of additional equity securities. The issuance of our Common Stock will result in the dilution in the percentage membership interest of our stockholders and the dilution in ownership value. At December 31, 2020, we had 12,153,897 shares of Common Stock outstanding.

In addition, at December 31, 2020, we had outstanding options to purchase 658,400 shares of our Common Stock at exercise prices ranging from \$2.79 to \$7.29 per share. Further, our preferred share rights plan, if triggered, could result in the issuance of a substantial amount of our Common Stock. The existence of this quantity of rights to purchase our Common Stock under the preferred share rights plan could result in a significant dilution in the percentage ownership interest of our stockholders and the dilution in ownership value. Future sales of the shares issuable could also depress the market price of our Common Stock.

We do not intend to pay dividends on our Common Stock in the foreseeable future.

Since our inception, we have not paid cash dividends on our Common Stock, and we do not anticipate paying any cash dividends in the foreseeable future. Our credit facility prohibits us from paying cash dividends on our Common Stock without prior approval from our lender.

The price of our Common Stock may fluctuate significantly, which may make it difficult for our stockholders to resell our Common Stock when a stockholder wants or at prices a stockholder finds attractive.

The price of our Common Stock on the NASDAQ Capital Markets constantly changes. We expect that the market price of our Common Stock will continue to fluctuate. This may make it difficult for our stockholders to resell the Common Stock when a stockholder wants or at prices a stockholder finds attractive.

Future issuance of our Common Stock could adversely affect the price of our Common Stock, our ability to raise funds in new stock offerings and could dilute the percentage ownership of our common stockholders.

Future sales of substantial amounts of our Common Stock or equity-related securities in the public market, or the perception that such sales or conversions could occur, could adversely affect prevailing trading prices of our Common Stock and could dilute the value of Common Stock held by our existing stockholders. No prediction can be made as to the effect, if any, that future sales of shares of our Common Stock or the availability of shares of our Common Stock for future sale will have on the trading price of our Common Stock. Such future sales or conversions could also significantly reduce the percentage ownership of our

common stockholders.

Our Preferred Share Rights Plan may adversely affect our stockholders.

The Company adopted a Preferred Share Purchase Rights Plan (“Rights Plan”) dated May 2018. As part of the Rights Plan, the Company’s Board of Directors (“Board”) declared a dividend distribution of one Preferred Share Purchase Right (“Right”) on each outstanding share of the Company’s Common Stock to stockholders of record on May 12, 2018. The Rights Plan is designed to assure that all of the Company’s shareholders receive fair and equal treatment in the event of any proposed takeover of the Company and to guard against partial tender abusive tactics to gain control of the Company. The Rights Plan, as amended, is to terminate the earliest of (1) close of business on May 2, 2021, (2) the time at which the Rights are redeemed, (3) the time at which the Rights are exchange, or (4) closing of any merger or acquisition of the Company which has been approved by the Board prior to any person becoming such an acquiring person.

In general, the Rights under the Rights Plan will be exercisable only if a person or group acquires beneficial ownership of 15% or more of the Company’s Common Stock or announces a tender or exchange offer, the consummation of which would result in ownership by a person or group of 15% or more of the Common Stock (with certain exceptions). Each Right under the Rights Plan (other than the Rights owned by such acquiring person or members of such group which are void) will entitle shareholders to buy one one-thousandth of a share of a new series of participating preferred stock at an exercise price of \$20.00. Each one one-thousandth of a share of such new preferred stock purchasable upon exercise of a Right has economic terms designed to approximate the value of one share of Common Stock. Shareholders who have beneficial ownership of 15% or more at the adoption of the new Rights Plan are grandfathered in, but may not acquire additional shares without triggering the new Rights Plan.

If the Company is acquired in a merger or other business combination transaction, each Right will entitle its holder (other than Rights owned by such acquiring person or members of such group which are void) to purchase, at the Right's then current exercise price, a number of the acquiring company's common shares having a market value at the time of twice the Right's exercise price.

In addition, if a person or group (with certain exceptions) acquires 15% or more of the Company's outstanding Common Stock, each Right will entitle its holder (other than the Rights owned by such acquiring person or members of such group which are void) to purchase, in lieu of preferred stock, at the Right's then current exercise price, a number of shares of the Company's Common Stock having a market value of twice the Right's exercise price.

Following the acquisition by a person or group of beneficial ownership of 15% or more of the Company's outstanding Common Stock (with certain exceptions), and prior to an acquisition of 50% or more of the Company’s Common Stock by such person or group, the Company’s Board may, at its option, exchange the Rights (other than Rights owned by such acquiring person or members of such group) in whole or in part, for shares of the Company's Common Stock at an exchange ratio of one share of Common Stock (or one one-thousandth of a share of the new series of participating preferred stock) per Right.

Prior to the acquisition by a person or group of beneficial ownership of 15% or more of the Company's Common Stock (with certain exceptions), the Rights are redeemable for \$0.001 per Right at the option of the Board of Directors.

The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our Board. The Rights should not interfere with any merger or other business combination approved by our Board.

General Risk Factors

Loss of certain key personnel could have a material adverse effect on us.

Our success depends on the contributions of our key management, environmental and engineering personnel. Our future success depends on our ability to retain and expand our staff of qualified personnel, including environmental specialists and technicians, sales personnel, and engineers. Without qualified

personnel, we may incur delays in rendering our services or be unable to render certain services. We cannot be certain that we will be successful in our efforts to attract and retain qualified personnel as their availability is limited due to the demand for hazardous waste management services and the highly competitive nature of the hazardous waste management industry. We do not maintain key person insurance on any of our employees, officers, or directors.

We may not be successful in winning new business mandates from our government and commercial customers or international customers.

We must be successful in winning mandates from our government, commercial customers and international customers to replace revenues from projects that we have completed or that are nearing completion and to increase our revenues. Our business and operating results can be adversely affected by the size and timing of a single material contract.

Our failure to maintain our safety record could have an adverse effect on our business.

Our safety record is critical to our reputation. In addition, many of our government and commercial customers require that we maintain certain specified safety record guidelines to be eligible to bid for contracts with these customers. Furthermore, contract terms may provide for automatic termination in the event that our safety record fails to adhere to agreed-upon guidelines during performance of the contract. As a result, our failure to maintain our safety record could have a material adverse effect on our business, financial condition and results of operations.

Systems failures, interruptions or breaches of security and other cyber security risks could have an adverse effect on our financial condition and results of operations.

We are subject to certain operational risks to our information systems. Because of efforts on the part of computer hackers and cyberterrorists to breach data security of companies, we face risk associated with potential failures to adequately protect critical corporate, customer and employee data. As part of our business, we develop and retain confidential data about us and our customers, including the U.S. government. We also rely on the services of a variety of vendors to meet our data processing and communications needs.

Despite our implemented security measures and established policies, we cannot be certain that all of our systems are entirely free from vulnerability to attack or other technological difficulties or failures or failures on the part of our employees to follow our established security measures and policies. Information security risks have increased significantly. Our technologies, systems, and networks may become the target of cyber-attacks, computer viruses, malicious code, or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of our or our customers' confidential, proprietary and other information and the disruption of our business operations. A security breach could adversely impact our customer relationships, reputation and operation and result in violations of applicable privacy and other laws, financial loss to us or to our customers or to our employees, and litigation exposure. While we maintain a system of internal controls and procedures, any breach, attack, or failure as discussed above could have a material adverse impact on our business, financial condition, and results of operations or liquidity.

There is also an increasing attention on the importance of cybersecurity relating to infrastructure. This creates the potential for future developments in regulations relating to cybersecurity that may adversely impact us, our customers and how we offer our services to our customers.

We may be exposed to certain regulatory and financial risks related to climate change.

Climate change is receiving ever increasing attention from scientists and legislators alike. The debate is ongoing as to the extent to which our climate is changing, the potential causes of this change and its potential impacts. Some attribute global warming to increased levels of greenhouse gases, including carbon dioxide, which has led to significant legislative and regulatory efforts to limit greenhouse gas emissions. Presently there are no federally mandated greenhouse gas reduction requirements in the United States. However, there are a number of legislative and regulatory proposals to address greenhouse gas emissions, which are in various phases of discussion or implementation. The outcome of federal and state actions to address global climate change could result in a variety of regulatory programs including potential new

regulations. Any adoption by federal or state governments mandating a substantial reduction in greenhouse gas emissions could increase costs associated with our operations. Until the timing, scope and extent of any future regulation becomes known, we cannot predict the effect on our financial position, operating results and cash flows.

We believe our proprietary technology is important to us.

We believe that it is important that we maintain our proprietary technologies. There can be no assurance that the steps taken by us to protect our proprietary technologies will be adequate to prevent misappropriation of these technologies by third parties. Misappropriation of our proprietary technology could have an adverse effect on our operations and financial condition. Changes to current environmental laws and regulations also could limit the use of our proprietary technology.

Failure to maintain effective internal control over financial reporting or failure to remediate a material weakness in internal control over financial reporting could have a material adverse effect on our business, operating results, and stock price.

Maintaining effective internal control over financial reporting is necessary for us to produce reliable financial reports and is important in helping to prevent financial fraud. If we are unable to maintain adequate internal controls, our business and operating results could be harmed. We are required to satisfy the requirements of Section 404 of Sarbanes Oxley and the related rules of the Commission, which require, among other things, management to assess annually the effectiveness of our internal control over financial reporting. If we are unable to maintain adequate internal control over financial reporting or effectively remediate any material weakness identified in internal control over financial reporting, there is a reasonable possibility that a misstatement of our annual or interim financial statements will not be prevented or detected in a timely manner. If we cannot produce reliable financial reports, investors could lose confidence in our reported financial information, the market price of our common stock could decline significantly, and our business, financial condition, and reputation could be harmed.

Delaware law, certain of our charter provisions, our stock option plans, outstanding warrants and our Preferred Stock may inhibit a change of control under circumstances that could give you an opportunity to realize a premium over prevailing market prices.

We are a Delaware corporation governed, in part, by the provisions of Section 203 of the General Corporation Law of Delaware, an anti-takeover law. In general, Section 203 prohibits a Delaware public corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. As a result of Section 203, potential acquirers may be discouraged from attempting to effect acquisition transactions with us, thereby possibly depriving our security holders of certain opportunities to sell, or otherwise dispose of, such securities at above-market prices pursuant to such transactions. Further, certain of our option plans provide for the immediate acceleration of, and removal of restrictions from, options and other awards under such plans upon a “change of control” (as defined in the respective plans). Such provisions may also have the result of discouraging acquisition of us.

We have authorized and unissued 17,120,061 (which include shares issuable under outstanding options to purchase 658,400 shares of our Common Stock and shares issuable under an outstanding warrant to purchase 60,000 shares of our Common Stock) shares of our Common Stock and 2,000,000 shares of our Preferred Stock as of December 31, 2020 (which includes 50,000 shares of our Preferred Stock reserved for issuance under our new preferred share rights plan discussed below). These unissued shares could be used by our management to make it more difficult for, and thereby discourage an attempt to acquire control of us.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not Applicable.

ITEM 2. PROPERTIES

Our principal executive office is in Atlanta, Georgia. Our Business Center is located in Oak Ridge, Tennessee. Our Treatment Segment facilities are located in Gainesville, Florida; Kingston, Tennessee; Richland, Washington; and Oak Ridge, Tennessee. All of the properties where these facilities operate on are held by our senior lender as collateral for our credit facility with the exception of the property at Oak Ridge, Tennessee which is leased with an option to purchase. Our Services Segment maintains offices, which are all leased properties. We maintain properties in Valdosta, Georgia and Memphis, Tennessee, which are all non-operational and are included within our discontinued operations.

The Company currently leases properties in the following locations for operations and administrative functions within our Treatment and Services Segments, including our corporate office and Business Center:

Location	Square Footage (SF)/		Expiration of Lease
	Acreage (AC)		
Oak Ridge, TN (Business Center)	14,932 SF		May 1, 2022
Oak Ridge, TN (Services)	5,000 SF		September 30, 2021
Blaydon On Tyne, England (Services)	1,000 SF		Monthly
New Brighton, PA (Services)	3,558 SF		June 30, 2022
Newport, KY (Services)	1,566 SF		Monthly
Pembroke, Ontario, Canada (Services)	800 SF		Monthly
Atlanta, GA (Corporate)	6,499 SF		July 31, 2024
Oak Ridge, TN (Treatment)	8.7 AC, including 17,400 SF		October 1, 2021

We believe that the above facilities currently provide adequate capacity for our operations and that additional facilities are readily available in the regions in which we operate, which could support and supplement our existing facilities.

ITEM 3. LEGAL PROCEEDINGS

See “Part II” – “Item 8 - Financial Statements and Supplementary Data” – “Notes to Consolidated Financial Statements” – “Note 14 – Commitments and Contingencies” – “Legal Matters” for a discussion of our legal proceedings.

ITEM 4. MINE SAFETY DISCLOSURE

Not Applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Our Common Stock is traded on the NASDAQ Capital Markets (“NASDAQ”) under the symbol “PESI.” The following table sets forth the high and low market trade prices quoted for the Common Stock during the periods shown. The source of such quotations and information is the NASDAQ online trading history reports.

		2020		2019	
		Low	High	Low	High
Common Stock	1 st Quarter	\$ 3.82	\$ 9.50	\$ 2.50	\$ 3.94
	2 nd Quarter	4.76	6.54	3.40	4.46
	3 rd Quarter	5.94	7.40	3.10	4.77
	4 th Quarter	5.80	7.13	4.30	9.98

At February 12, 2021, there were approximately 137 stockholders of record of our Common Stock. The actual number of our stockholders is greater than this number, and includes beneficial owners whose shares are held in “street name” by banks, brokers, and other nominees.

Since our inception, we have not paid any cash dividends on our Common Stock and have no dividend policy. Our loan agreement dated May 8, 2020 prohibits us from paying any cash dividends on our Common Stock without prior approval from our lender. We do not anticipate paying cash dividends on our outstanding Common Stock in the foreseeable future.

There were no purchases made by us or on behalf of us or any of our affiliated members of shares of our Common Stock during 2020.

We adopted a preferred share rights plan (the “Rights Plan”), as amended, which is designed to protect us against certain creeping acquisitions, open market purchases, and certain mergers and other combinations with acquiring companies. The Rights Plan is to terminate at the earliest of (1) close of business on May 2, 2021 (the “Final Expiration Date”), (2) the time at which the Rights are redeemed, (3) the time at which the Rights are exchange, or (4) closing of any merger or acquisition of the Company approved by the Board prior to any person becoming acquiring person.

See Item 1A. - Risk Factors – “Our Preferred Share Rights Plan may adversely affect our stockholders” as to further discussion relating to the terms of our Rights Plan in addition to its termination date.

See Note 7 “Capital Stock, Stock Plans, Warrants, and Stock Based Compensation” in Part II, Item 8, “Financial Statements and Supplementary Data” and “Equity Compensation Plans” in Part III, Item 12, “Security Ownership of Certain Beneficial Owners and Management and Related Stockholders Matter” for securities authorized for issuance under equity compensation plans which are incorporated herein by reference.

ITEM 6. SELECTED FINANCIAL DATA

Not required under Regulation S-K for smaller reporting companies.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Certain statements contained within this “Management's Discussion and Analysis of Financial Condition and Results of Operations” (“MD&A”) may be deemed “forward-looking statements” within the meaning of Section 27A of the Act, and Section 21E of the Securities Exchange Act of 1934, as amended (collectively, the “Private Securities Litigation Reform Act of 1995”). See “Special Note regarding Forward-Looking Statements” contained in this report.

Management's discussion and analysis is based, among other things, upon our audited consolidated financial statements and includes our accounts, the accounts of our wholly-owned subsidiaries, the accounts of our majority-owned Polish subsidiary, and the account of a variable interest entity for which we are the primary beneficiary, after elimination of all significant intercompany balances and transactions.

The following discussion and analysis should be read in conjunction with our consolidated financial statements and the notes thereto included in Item 8 of this report.

COVID-19 Impact

Since the outbreak of COVID-19 in early part of 2020, we have remained focused on keeping our employees working and, at the same time, focusing on protecting the health and wellbeing of our employees and the communities in which we operate while assuring the continuity of our business operations.

Our management team has proactively implemented our business continuity and safety plans and has taken a variety of measures to ensure the ongoing availability of our waste treatment and remediation services, while taking health and safety measures, including separating employee and customer contact, social distancing between employees, implementing enhanced cleaning and hygiene protocols in all of our facilities, and implementing remote work policies, when necessary.

The COVID-19 pandemic presents potential new risks to our business and results in significant volatility in the U.S. and international markets. We continue to closely monitor the impact of the COVID-19 pandemic on all aspects of our business. Starting in late March 2020, our operations were impacted by the shutdown of a number of projects and the delays of certain waste shipments. Since the latter part of the second quarter of 2020, all of the projects that were previously shutdown within our Services Segment restarted as stay-at-home orders and certain other restrictions resulting from the pandemic were lifted. Despite the shutdown of certain projects for part of 2020, revenues generated within our Services Segment in 2020 exceeded our revenue generated in 2019 by approximately \$42,188,000. We continue to experience delays in waste shipments from certain customers within our Treatment Segment directly related to the impact of COVID-19 including generator shutdowns and limited sustained operations, along with other factors. However, we expect to see a gradual return in waste receipts from these customers starting in the first half of 2021 as they accelerate operations. As the impact of COVID-19 remains fluid, the uncertainty in waste receipt shipments may impact our results of operations for the first quarter of 2021 and potentially the second quarter of 2021. The potential for a material impact on our business increases the longer COVID-19 impacts the level of economic activities in the United States and globally as our customers may continue to delay waste shipments and project work may shut down again. For this reason, we cannot reasonably estimate with any degree of certainty the future impact COVID-19 may have on our results of operations, financial position, and liquidity during the next twelve months.

At this time, we believe we have sufficient liquidity on hand to continue business operations during the next twelve months. At December 31, 2020, our borrowing availability under our revolving credit facility was approximately \$14,220,000 which was based on a percentage of eligible receivables and subject to certain reserves and included our cash on hand of approximately \$7,924,000. In April 2020, we entered into a promissory note (“PPP Loan”) with our credit facility lender in the amount of approximately \$5,666,000 under the Paycheck Protection Program (“PPP”) that was established under the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act” - see “CARES Act – PPP Loan” under “Liquidity and Capital Resources” below for a discussion of the PPP Loan). During the third quarter of 2020, we repaid approximately \$348,000 of the PPP Loan resulting from clarification in the loan calculation at the time of the loan origination. On October 5, 2020, we applied for forgiveness on the entire PPP Loan balance as permitted under the program, which is subject to the review and approval of our lender and Small Business Administration (“SBA”). Proceeds from the PPP Loan have allowed us to avoid having to furlough or layoff certain eligible employees as a result of the COVID-19 pandemic, although there are no assurances that such will not be required going forward. We continue to assess reducing operating costs during this volatile time, which include curtailing capital expenditures, eliminating non-essential expenditures and implementing a hiring freeze as needed. We elected to defer payment of our share of social security taxes as permitted under the CARES Act, as amended (see “CARES Act – Deferral of Employment Tax Deposits” within this MD&A for a discussion of this deferral). Based on our current projection, we believe that we will be able to meet the current covenant requirements under our loan agreement for the next twelve months despite the impact of COVID-19.

We are closely monitoring our customers’ payment performance. However, since a significant portion of our revenues is derived from government related contracts, we do not expect our accounts receivable collections to be materially impacted due to COVID-19.

Review

Revenue increased \$31,967,000 or 43.5% to \$105,426,000 for the twelve months ended December 31, 2020 from \$73,459,000 for the corresponding period of 2019. The increase was entirely within our Services Segment where revenue increased \$42,188,000 or 127.5% from increased projects and the sizable value of certain projects. Our Treatment Services revenue decreased by \$10,221,000 or 25.3% primarily due to delays in waste shipments from certain customers resulting from the impact of COVID-19 as discussed above. The delays in waste shipments were also partly attributed to the transition of new prime contractors at certain DOE sites which resulted in delays in waste shipments to us as subcontractors under certain contracts. Additionally, lower averaged price waste from revenue mix contributed to the decrease in revenue within the Treatment Segment. Gross profit increased \$309,000 or 2.0% due to the increase in revenues in the Services Segment. Selling, General, and Administrative (“SG&A”) expenses decreased by approximately \$88,000 or 0.7% for the twelve months ended December 31, 2020 as compared to the

corresponding period of 2019. At December 31, 2020, we had working capital of approximately \$3,672,000 as compared to working capital of \$26,000 at December 31, 2019. Our working capital at December 31, 2020 included the classification of approximately \$3,191,000 of the outstanding PPP Loan balance of \$5,318,000 as “Current portion of long-term debt” on our Consolidated Balance Sheets. As previously discussed, we have applied for forgiveness on repayment of the entire PPP Loan balance which is subject to the review and approval of our lender and the SBA.

Business Environment and Outlook

Our Treatment and Services Segments’ business continues to be heavily dependent on services that we provide to governmental clients directly as the contractor or indirectly as a subcontractor. We believe demand for our services will continue to be subject to fluctuations due to a variety of factors beyond our control, including, without limitation, the economic conditions, the manner in which the applicable government will be required to spend funding to remediate various sites, and/or the impact resulting from COVID-19 as discussed above. In addition, our governmental contracts and subcontracts relating to activities at governmental sites in the United States are generally subject to termination or renegotiation on 30 days’ notice at the government’s option, and our governmental contracts/task orders with the Canadian government authorities allow the authorities to terminate the contract/task orders at any time for convenience. Significant reductions in the level of governmental funding or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flows. As previously disclosed, our Medical Segment has substantially reduced its R&D costs and activities due to the need for capital to fund such activities. We anticipate that our Medical Segment will not resume full R&D activities until it obtains the necessary funding through obtaining its own credit facility or additional equity raise or obtaining new partners willing to fund its R&D activities. If the Medical Segment is unable to raise the necessary capital, the Medical Segment could be required to further reduce, delay or eliminate its R&D program.

We are continually reviewing methods to raise additional capital to supplement our liquidity requirements, when needed, and reducing our operating costs. We continue to aggressively bid on various contracts, including potential contracts within the international markets.

Results of Operations

The reporting of financial results and pertinent discussions are tailored to our three reportable segments: The Treatment Segment (“Treatment”), the Services Segment (“Services”), and the Medical Segment (“Medical”). Our Medical Segment has not generated any revenue and all costs incurred are included within R&D.

Summary - Years Ended December 31, 2020 and 2019

Below are the results of continuing operations for years ended December 31, 2020 and 2019 (amounts in thousands):

<u>(Consolidated)</u>	2020	%	2019	%
Net revenues	\$ 105,426	100.0	\$ 73,459	69.7
Cost of goods sold	89,533	84.9	57,875	78.8
Gross profit	15,893	15.1	15,584	21.2
Selling, general and administrative	11,774	11.2	11,862	16.1
Research and development	762	.7	750	1.0
Loss on disposal of property and equipment	29	—	3	—
Income from operations	3,328	3.2	2,969	4.0
Interest income	140	.1	337	.5
Interest expense	(398)	(.4)	(432)	(.6)
Interest expense – financing fees	(294)	(.3)	(208)	(.3)
Other	211	.2	223	.3
Loss on extinguishment of debt	(27)	—	—	—
Income from continuing operations before taxes	2,960	2.8	2,889	3.9
Income tax (benefit) expense	(189)	(.2)	157	.2
Income from continuing operations	\$ 3,149	3.0	\$ 2,732	3.7

Revenue

Consolidated revenues increased \$31,967,000 for the year ended December 31, 2020 compared to the year ended December 31, 2019, as follows:

(In thousands)	2020	%	2019	%	Change	%
		Revenue		Revenue		Change
<u>Treatment</u>						
Government waste	\$ 21,234	20.1	\$ 27,277	37.1	\$ (6,043)	(22.2)
Hazardous/non-hazardous ⁽¹⁾	5,072	4.8	6,376	8.7	(1,304)	(20.5)
Other nuclear waste	3,837	3.6	6,711	9.1	(2,874)	(42.8)
Total	30,143	28.6	40,364	54.9	(10,221)	(25.3)
<u>Services</u>						
Nuclear	73,458	69.7	30,371	41.4	43,087	141.9
Technical	1,825	1.7	2,724	3.7	(899)	(33.0)
Total	75,283	71.4	33,095	45.1	42,188	127.5
Total	\$ 105,426	100.0	\$ 73,459	100.0	\$ 31,967	43.5

¹⁾ Includes wastes generated by government clients of \$1,976,000 and \$2,422,000 for the twelve months ended December 31, 2020 and 2019, respectively.

Treatment Segment revenue decreased \$10,221,000 or 25.3 % for the twelve months ended December 31, 2020 over the same period in 2019. The revenue decrease was primarily due to lower revenue generated from lower waste volume resulting from waste shipment delays since late March 2020 from certain of our customers due to the impact of COVID-19 including generator shutdowns and limited sustained operations. The delays in waste shipments were also partly attributed to the transition of new prime contractors at certain DOE sites which resulted in delays in waste shipments to us as subcontractors under certain contracts. Additionally, lower averaged price waste from revenue mix contributed to the decrease in revenue. Our Services Segment revenue increased \$42,188,000 or 127.1% due to the increase in number of projects and the sizeable value of certain projects. Our Services Segment experienced this increase in revenue despite a number of our projects being shut down starting in late March 2020 due to COVID-19. These projects did not restart until the latter part of the second quarter of 2020. Our Services Segment revenues are project based; as such, the scope, duration and completion of each project vary. As a result, our Services Segment revenues are subject to differences relating to timing and project value.

Cost of Goods Sold

Cost of goods sold increased \$31,658,000 for the year ended December 31, 2020, as compared to the year ended December 31, 2019, as follows:

(In thousands)	2020	%	2019	%	Change
		Revenue		Revenue	
Treatment	\$ 24,652	81.8	\$ 28,116	69.7	\$ (3,464)
Services	64,881	86.2	29,759	89.9	35,122
Total	\$ 89,533	84.9	\$ 57,875	78.8	\$ 31,658

Cost of goods sold for the Treatment Segment decreased approximately \$3,464,000 or 12.3%. Treatment Segment costs of goods sold for the twelve months ended December 31, 2019 included additional closure costs recorded in the amount of \$330,000 for our East Tennessee Materials and Energy Corporation ("M&EC") facility due to finalization of closure requirements in connection with the closure of the facility. Excluding the closure costs recorded in 2019, Treatment Segment cost of goods sold decreased \$3,134,000 or 11.3% primarily due to the decrease in revenue. Excluding the closure costs recorded in 2019, Treatment Segment variable costs decreased by approximately \$3,516,000 primarily due to lower disposal, transportation, material and supplies and outside services costs. Our overall fixed costs were higher by approximately \$382,000 resulting from the following: maintenance expenses were higher by \$280,000; regulatory expenses were higher by approximately \$190,000; depreciation expenses were higher by approximately \$219,000 primarily due to more financed leases; general expenses were lower by

approximately \$61,000 in various categories; salaries and payroll costs were lower by approximately \$175,000; and travel expenses were lower by approximately \$71,000 due to restrictions implemented resulting from COVID-19. Services Segment cost of goods sold increased \$35,122,000 or 118.0% primarily due to increased revenue as discussed above. The increase in cost of goods sold within our Services Segment was primarily due to higher salaries and payroll costs, travel, and outside services expenses totaling approximately \$31,068,000, higher material and supplies, regulatory and disposal costs totaling approximately \$3,312,000, and higher general expenses of \$742,000 in various categories. Payroll costs within our Services Segment included higher expenses for project related incentives. Included within cost of goods sold is depreciation and amortization expense of \$1,555,000 and \$1,301,000 for the twelve months ended December 31, 2020, and 2019, respectively.

Gross Profit

Gross profit for the year ended December 31, 2020 was \$309,000 higher than 2019 as follows:

(In thousands)	2020	%	2019	%	Change
		Revenue		Revenue	
Treatment	\$ 5,491	18.2	\$ 12,248	30.3	\$ (6,757)
Services	10,402	13.8	3,336	10.1	7,066
Total	\$ 15,893	15.1	\$ 15,584	21.2	\$ 309

Treatment Segment gross profit decreased \$6,757,000 or 55.2% and gross margin decreased to 18.2% from 30.3%. Excluding the additional closure costs of \$330,000 recorded in the twelve months ended December 31, 2019 in connection with the closure of our M&EC facility as discussed above, gross profit decreased \$7,087,000 or 56.3% and gross margin decreased to 18.2% from 31.2% primarily due to lower revenue from lower waste volume and lower averaged price waste from revenue mix. In the Services Segment, gross profit increased \$7,066,000 or 211.8% and gross margin increased from 10.1% to 13.8% primarily due to the increase in revenue. Our overall Services Segment gross margin is impacted by our current projects which are competitively bid on and will therefore, have varying margin structures.

SG&A

SG&A expenses decreased \$88,000 for the year ended December 31, 2020 as compared to the corresponding period for 2019 as follows:

(In thousands)	2020	%	2019	%	Change
		Revenue		Revenue	
Administrative	\$ 5,537	—	\$ 5,395	—	\$ 142
Treatment	3,819	12.7	3,955	9.8	(136)
Services	2,418	3.2	2,512	7.6	(94)
Total	\$ 11,774	11.2	\$ 11,862	16.1	\$ (88)

The increase in Administrative SG&A was primarily due to the following: general expenses were higher by approximately \$84,000 in various categories; director stock option expenses were higher by approximately \$75,000 due to options granted to new directors in addition to higher fair value of options granted to re-elected directors; outside services expenses were higher by approximately \$16,000 resulting from more consulting/subcontract matters; depreciation expenses were higher by approximately \$14,000; salaries and payroll costs were higher by approximately \$13,000; and travel expenses were lower by approximately \$60,000 due to restrictions implemented resulting from the impact of COVID-19. Treatment SG&A was lower primarily due to the following: travel expenses were lower by approximately \$109,000 due to restrictions implemented resulting from the impact of COVID-19; general expenses were lower by \$123,000 in various categories which included lower trade show expenses of \$122,000 resulting from the cancellation of certain trade shows due to impact of COVID-19; and salaries and payroll costs were higher by approximately \$96,000. Services Segment SG&A was lower primarily due to the following: travel expenses were lower by approximately \$119,000 due to restrictions implemented resulting from the impact of COVID-19; bad debt expenses were lower by approximately \$432,000 as certain customer accounts which we had previously reserved for were collected in 2020 and additional bad debt expenses were recorded in

2019 for a certain account receivable which was determined not to be collectible at December 31, 2019; and salaries and payroll costs were higher by approximately \$457,000. Included in SG&A expenses is depreciation and amortization expense of \$41,000 and \$41,000 for the twelve months ended December 31, 2020 and 2019, respectively.

R&D

R&D expenses increased \$12,000 for the year ended December 31, 2020 as compared to the corresponding period of 2019 as follows:

(In thousands)	2020	2019	Change
Administrative	\$ 76	\$ 23	\$ 53
Treatment	243	401	(158)
Services	132	12	132
PF Medical	311	314	(3)
Total	\$ 762	\$ 750	\$ 12

Research and development costs consist primarily of employee salaries and benefits, laboratory costs, third party fees, and other related costs associated with the development of new technologies and technological enhancement of new potential waste treatment processes.

Interest Income

Interest income decreased by approximately \$197,000 for the twelve months ended December 31, 2020 as compared to the corresponding period of 2019. The decrease was primarily due to lower interest earned on the finite risk sinking funds from lower interest rate. The decrease in interest income was also attributed to lower interest earned from lower finite risk sinking fund balance resulting from the release of \$5,000,000 in finite risk sinking funds by AIG Specialty Insurance Company (“AIG”) to us at the end of July 2019 in connection with the closure of our M&EC facility. The \$5,000,000 in finite sinking funds represented a partial release of the total collateral held under our finite risk insurance policy.

Interest Expense

Interest expense decreased by approximately \$34,000 for the twelve months ended December 31, 2020 as compared to the corresponding period of 2019 primarily due to lower interest expense from our declining term loan balance outstanding and lower interest rate. Also, interest expense was lower from accelerated declining loan balance outstanding resulting from payments of principal on the \$2,500,000 loan that we entered into with Robert Ferguson on April 1, 2019. This loan was paid-in-full by us by the end December 2020. The overall decrease in interest expense was partially offset by higher interest expense from more finance leases and interest accrued for the PPP Loan (see “Liquidity and Capital Resources – Financing Activities” and “The CARES Act – PPP Loan” for further information of these loans).

Interest Expense- Financing Fees

Interest expense-financing fees increased approximately \$86,000 for the twelve months ended December 31, 2020 as compared to the corresponding period of 2019. The increase was primarily due to debt discount/debt issuance costs amortized as financing fees in connection with the issuance of our Common Stock and a purchase Warrant as consideration for us receiving the \$2,500,000 loan from Robert Ferguson which was paid off early by us at the end of December 2020.

Income Taxes

We had income tax benefit of \$189,000 and income tax expense of \$157,000 for continuing operations for the years ended December 31, 2020 and 2019, respectively. The Company’s effective tax rates were approximately 6.4% and 5.4% for the twelve months ended December 31, 2020 and 2019, respectively. The tax benefit for the year ended December 31, 2020 resulted primarily from state tax true-ups related to our amended tax returns and a reduction in the naked credit deferred tax liabilities (“DTL”) resulting from a reduction in estimated state apportionment percentage.

Discontinued Operations

Our discontinued operations consist of all our subsidiaries included in our Industrial Segment which encompasses subsidiaries divested in 2011 and prior and three previously closed locations.

Our discontinued operations had no revenue for the twelve months ended December 31, 2020 and 2019. We incurred net losses of \$412,000 and \$547,000 for our discontinued operations for the twelve months ended December 31, 2020 and 2019, respectively (net of taxes of \$0 for each period). The losses incurred for each period were primarily due to the administration and continued monitoring of our discontinued operations. Our net loss for the year ended December 31, 2019 also included an increase of approximately \$50,000 in remediation reserve for our Perma-Fix of Memphis (“PFM”) subsidiary due to reassessment of the remediation reserve.

Liquidity and Capital Resources

Our cash flow requirements during 2020 were primarily financed by our operations, credit facility availability, and the PPP Loan that we received under the CARES Act as discussed below (see “CARES Act – PPP Loan”). We generated approximately \$7,867,000 of cash from our continuing operations. Subject to the impact of COVID-19 as discussed above, our cash flow requirements for the next twelve months will consist primarily of general working capital needs, scheduled principal payments on our debt obligations, remediation projects, and planned capital expenditures. We plan to fund these requirements from our operations, credit facility availability, and cash on hand which was approximately \$7,924,000 at December 31, 2020. We continue to explore all sources of increasing our capital to supplement our liquidity requirements, when needed, and to improve our revenue and working capital. We are continually reviewing operating costs and reviewing the possibility of further reducing operating costs and non-essential expenditures to bring them in line with revenue levels, when necessary. At this time, we believe that our cash flows from operations, our available liquidity from our credit facility, and our cash on hand should be sufficient to fund our operations for the next twelve months. However, due to the uncertainty of COVID-19, there are no assurances such will be the case in the events that certain of our customers continue to delay waste shipments and/or elect to shut down projects again due to COVID-19. As previously disclosed, our Medical Segment substantially reduced its R&D costs and activities due to the need for capital to fund such activities. We continue to seek various sources of potential funding for our Medical Segment. We anticipate that our Medical Segment will not resume full R&D activities until it obtains the necessary funding through obtaining its own credit facility or additional equity raise or obtaining new partners willing to fund its R&D activities. If the Medical Segment is unable to raise the necessary capital, the Medical Segment could be required to further reduce, delay or eliminate its R&D program.

The following table reflects the cash flow activity for the year ended December 31, 2020 and the corresponding period of 2019:

(In thousands)	2020	2019
Cash provided by (used in) operating activities of continuing operations	\$ 7,867	\$ (4,023)
Cash used in operating activities of discontinued operations	(499)	(660)
Cash used in investing activities of continuing operations	(1,711)	(1,533)
Cash provided by investing activities of discontinued operations	118	121
Cash provided by financing activities of continuing operations	1,892	992
Effect of exchange rate changes on cash	6	19
Increase (decrease) in cash and finite risk sinking fund (restricted cash)	<u>\$ 7,673</u>	<u>\$ (5,084)</u>

At December 31, 2020, we were in a positive cash position with no revolving credit balance. At December 31, 2020, we had cash on hand of approximately \$7,924,000, which included account balances of our foreign subsidiaries totaling approximately \$377,000. At December 31, 2020, we had finite risk sinking funds (restricted cash) of approximately \$11,446,000, which represents cash held as collateral under our financial assurance policy.

Operating Activities

Accounts receivable, net of allowances for doubtful accounts, totaled \$9,659,000 at December 31, 2020, a decrease of \$3,519,000 from the December 31, 2019 balance of \$13,178,000. The decrease was primarily due to timing of invoicing which was reflective of the increase in our unbilled receivables and timing of our accounts receivable collection. We provide a variety of payment terms to our customers; therefore, our accounts receivable are impacted by these terms and the related timing of accounts receivable collections. The amount of our accounts receivables and collection could be materially impacted the longer COVID-19 persists.

Accounts payable, totaled \$15,382,000 at December 31, 2020, an increase of \$6,105,000 from the December 31, 2019 balance of \$9,277,000. The increase in accounts payable was attributed to an increase in costs within our Services Segment resulting from the significant increase in revenue. Additionally, our accounts payable are impacted by the timing of payments as we are continually managing payment terms with our vendors to maximize our cash position throughout all segments.

We had working capital of \$3,672,000 (which included working capital of our discontinued operations) at December 31, 2020, as compared to working capital of \$26,000 at December 31, 2019. The improvement in our working capital was primarily due to the proceeds that we received from the PPP Loan under the Paycheck Protection Program (see “PPP Loan” under “CARES Act” below for a discussion of this loan) and the increase in our unbilled receivables from the significant increase in revenues within our Services Segment. The improvement in our working capital was partially offset by the increase in our accounts payable. Additionally, at December 31, 2020, we classified approximately \$3,191,000 of the outstanding PPP Loan balance of \$5,318,000 as “Current portion of long-term debt” on our Consolidated Balance Sheets. We have applied for forgiveness on repayment of the entire PPP Loan balance which is subject to the review and approval of our lender and the SBA.

Investing Activities

During 2020, our purchases of capital equipment totaled approximately \$2,598,000, of which \$883,000 was subject to financing, with the remaining funded from cash from operations and our credit facility. We have budgeted approximately \$2,000,000 for 2021 capital expenditures primarily for our Treatment and Services Segments to maintain operations and regulatory compliance requirements and support revenue growth. Certain of these budgeted projects may either be delayed until later years or deferred altogether. We plan to fund our capital expenditures from cash from operations and/or financing. The initiation and timing of projects are also determined by financing alternatives or funds available for such capital projects.

Financing Activities

We entered into an Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated October 31, 2011 (“Amended Loan Agreement”), with PNC National Association (“PNC”), acting as agent and lender. The Amended Loan Agreement had been amended from time to time since the execution of the Amended Loan Agreement. The Amended Loan Agreement, as subsequently amended (“Revised Loan Agreement”), provided us with the following credit facility with a maturity date of March 24, 2021: (a) up to \$12,000,000 revolving credit (“revolving credit”) and (b) a term loan (“term loan”) of approximately \$6,100,000. The maximum that we can borrow under the revolving credit was based on a percentage of eligible receivables (as defined) at any one time reduced by outstanding standby letters of credit and borrowing reductions that our lender may impose from time to time.

Payment of annual rate of interest due on the revolving credit under the Revised Loan Agreement was at prime (3.25% at December 31, 2020) plus 2% and the term loan at prime plus 2.5%.

On May 8, 2020, we entered into a Second Amended and Restated Revolving Credit, Term Loan and Security Agreement (the “New Loan Agreement”) with PNC, replacing our previous Revised Loan Agreement with PNC. The New Loan Agreement provides us with the following credit facility:

- up to \$18,000,000 revolving credit facility, subject to the amount of borrowings based on a percentage of eligible receivables and subject to certain reserves; and

- a term loan of \$1,741,818, which requires monthly installments of \$35,547.

The New Loan Agreement terminates as of May 15, 2024, unless sooner terminated.

Similar to our Revised Loan Agreement, the New Loan Agreement requires us to meet certain customary financial covenants, including, among other things, a minimum Tangible Adjusted Net Worth requirement of \$27,000,000 at all times; maximum capital spending of \$6,000,000 annually; and a minimum fixed charge coverage ratio (“FCCR”) requirement of 1.15:1.

Under the New Loan Agreement, payment of annual rate of interest due on the credit facility is as follows:

- revolving credit at prime plus 2.50% or London InterBank Offer Rate (“LIBOR”) plus 3.50% and the term loan at prime plus 3.00% or LIBOR plus 4.00%. We can only elect to use the LIBOR interest payment option after we become compliant with meeting the minimum FCCR of 1.15:1; and
- Upon the achievement of a FCCR of greater than 1.25:1, we have the option of paying an annual rate of interest due on the revolving credit at prime plus 2.00% or LIBOR plus 3.00% and the term loan at prime plus 2.50% or LIBOR plus 3.50%. We met this FCCR in each of the quarters of 2020. Upon meeting the FCCR of 1.25:1, this interest payment option will remain in place in the event that our future FCCR falls below 1.25:1.

Under the LIBOR option of interest payment noted above, a LIBOR floor of 0.75% shall apply in the event that LIBOR falls below 0.75% at any point in time.

Pursuant to the New Loan Agreement, we may terminate the New Loan Agreement upon 90 days’ prior written notice upon payment in full of our obligations under the New Loan Agreement. We have agreed to pay PNC 1.0% of the total financing in the event we pay off our obligations on or before May 7, 2021 and 0.5% of the total financing if we pay off our obligations after May 7, 2021 but prior to or on May 7, 2022. No early termination fee shall apply if we pay off our obligations under the New Loan Agreement after May 7, 2022.

At December 31, 2020, the borrowing availability under our revolving credit was approximately \$14,220,000, based on our eligible receivables and includes a reduction in borrowing availability of approximately \$3,026,000 from outstanding standby letters of credit.

Our credit facility under our Revised and New Loan Agreement with PNC contains certain financial covenant requirements, along with customary representations and warranties. A breach of any of these financial covenant requirements, unless waived by PNC, could result in a default under our credit facility allowing our lender to immediately require the repayment of all outstanding debt under our credit facility and terminate all commitments to extend further credit. We met our financial covenant requirements in 2020, including our quarterly FCCR requirements. We expect to meet our financial covenant requirements in the next twelve months; however, if we fail to meet any of our financial covenant requirements and our lender does not waive the non-compliance or revise our covenant so that we are in compliance, our lender could accelerate the repayment of borrowings under our credit facility and terminate our credit facility. In the event that our lender accelerates the payment of our borrowings and terminate our credit facility, we may not have sufficient liquidity to repay our debt under our credit facility and other indebtedness.

As previously disclosed, on April 1, 2019, we completed a lending transaction with Robert Ferguson (the “Lender”), whereby we borrowed from the Lender the sum of \$2,500,000 pursuant to the terms of a Loan and Security Purchase Agreement and promissory note (the “Loan”). The Lender is a shareholder of ours and also serves as a consultant to us in connection with our Test Bed Initiative (“TBI”) at our Perma-Fix Northwest Richland, Inc. (“PFNWR”) subsidiary. The proceeds from the Loan were used for general working capital purposes. The Loan is unsecured, with a term of two years with interest payable at a fixed interest rate of 4.00% per annum. The Loan provides for monthly payments of accrued interest only during

the first year of the Loan, with the first interest payment due May 1, 2019 and monthly payments of approximately \$208,333 in principal plus accrued interest starting in the second year of the Loan. The Loan also allows for prepayment of principal payments over the term of the Loan without penalty with such prepayment of principal payments to be applied to the second year of the loan payments at our discretion. In December 2020, the Loan was paid-in-full. In connection with this capital raise transaction described above and consideration for us receiving the Loan, we issued a Warrant (the “Warrant”) to the Lender to purchase up to 60,000 shares of our Common Stock at an exercise price of \$3.51 per share, which was the closing bid price for a share of our Common Stock on NASDAQ.com immediately preceding the execution of the Loan and Warrant. The Warrant expires on April 1, 2024 and remains outstanding at December 31, 2020. As further consideration for this capital raise transaction relating to the Loan, we also issued 75,000 shares of its Common Stock to the Lender. The fair value of the Warrant and Common Stock and the related closing fees incurred from the transaction totaled approximately \$398,000 and was recorded as debt discount/debt issuance costs which has been fully amortized as interest expense – financing fees. The 75,000 shares of Common Stock, the Warrant and the 60,000 shares of Common Stock that may be purchased under the Warrant were and will be issued in a private placement that was and will be exempt from registration under Rule 506 and/or Sections 4(a)(2) and 4(a)(5) of the Securities Act of 1933, as amended (the “Act”) and bear a restrictive legend against resale except in a transaction registered under the Act or in a transaction exempt from registration thereunder.

The CARES Act

PPP Loan

On April 14, 2020, we entered into a promissory note with PNC, our credit facility lender, in the amount of approximately \$5,666,000 under the PPP (the “PPP Loan”). The PPP was established under the CARES Act and is administered by the SBA. On June 5, 2020, the Paycheck Protection Program Flexibility Act of 2020 (“Flexibility Act”) was signed into law which amended the CARES Act. The note evidencing the PPP Loan contains events of default relating to, among other things, payment defaults, breach of representations and warranties, and provisions of the promissory note. During the third quarter of 2020, we repaid approximately \$348,000 of the PPP Loan to PNC resulting from clarification in the loan calculation at the time of the loan origination.

Under the terms of the Flexibility Act, we can apply for and be granted forgiveness for all or a portion of the PPP Loan. Such forgiveness will be determined, subject to limitations, based on the use of loan proceeds by us for eligible payroll costs, mortgage interest, rent and utility costs and the maintenance of employee and compensation levels for the covered period (which is defined as a 24 week period, beginning April 14, 2020, the date in which proceeds from the PPP Loan was disbursed to us by PNC). At least 60% of such forgiven amount must be used for eligible payroll costs. On October 5, 2020, we applied for forgiveness on repayment of the loan balance as permitted under the program, which is subject to the review and approval of our lender and the SBA. If all or a portion of the PPP Loan is not forgiven, all or the remaining portion of the loan will be for a term of two years but can be prepaid at any time prior to maturity without any prepayment penalties. The annual interest rate on the PPP Loan is 1.0% and no payments of principal or interest are due until the date that the SBA remits the loan forgiveness amount to our lender. While our PPP Loan currently has a two year maturity, the Flexibility Act permits us to request a five year maturity with our lender. At December 31, 2020, we have not received a determination on potential forgiveness on any portion of the PPP Loan balance; therefore, we have classified approximately \$3,191,000 of the PPP Loan balance as “Current portion of long-term debt,” on our Consolidated Balance Sheets, which was based on payment of the PPP Loan starting in July 2021 (10 months from end of our covered period) in accordance with the terms of our PPP Loan agreement.

Deferral of Employment Tax Deposits

The CARES Act, as amended by the Flexibility Act, provides employers the option to defer the payment of an employer’s share of social security taxes beginning on March 27, 2020 through December 31, 2020, with 50% of the amount of social security taxes deferred to become due on December 31, 2021 with the remaining 50% due on December 31, 2022. We elected to defer such taxes starting in mid-April 2020. At December 31, 2020, we deferred payment of approximately \$1,252,000 in our share of social security taxes, of which approximately \$626,000 is included in “Other long-term liabilities,” with the remaining balance included in “Accrued expenses” within current liabilities in the Company’s Consolidated Balance Sheets.

Off Balance Sheet Arrangements

From time to time, we are required to post standby letters of credit and various bonds to support contractual obligations to customers and other obligations, including facility closures. At December 31, 2020, the total amount of standby letters of credit outstanding totaled approximately \$3,026,000 and the total amount of bonds outstanding totaled approximately \$46,388,000. We also provide closure and post-closure requirements through a financial assurance policy for certain of our Treatment Segment facilities through AIG. At December 31, 2020, the closure and post-closure requirements for these facilities were approximately \$19,651,000.

Critical Accounting Policies and Estimates

Our consolidated financial statements are prepared based upon the selection and application of accounting principles generally accepted in the United States of America (“US GAAP”), which may require us to make estimates, judgments and assumptions that affect amounts reported in our financial statements and accompanying notes. The accounting policies below are those we believe affect the more significant estimates and judgments used in preparation of our financial statements. Our other accounting policies are described in the accompanying notes to our consolidated financial statements of this Form 10-K (see “Item 8 – Financial Statements and Supplementary Data” – “Notes to Consolidated Financial Statements” – “Note 2 – Summary of Significant Accounting Policies”):

Intangible Assets. Intangible assets consist primarily of the recognized value of the permits required to operate our business. We continually monitor the propriety of the carrying amount of our permits to determine whether current events and circumstances warrant adjustments to the carrying value.

Indefinite-lived intangible assets are not amortized but are reviewed for impairment annually as of October 1, or when events or changes in the business environment indicate that the carrying value may be impaired. If the fair value of the asset is less than the carrying amount, we perform a quantitative test to determine the fair value. The impairment loss, if any, is measured as the excess of the carrying value of the asset over its fair value. Significant judgments are inherent in these analyses and include assumptions for, among other factors, forecasted revenue, gross margin, growth rate, operating income, timing of expected future cash flows, and the determination of appropriate long-term discount rates.

Impairment testing of our permits related to our Treatment reporting unit as of October 1, 2020 and 2019 resulted in no impairment charges.

Intangible assets that have definite useful lives are amortized using the straight-line method over the estimated useful lives (with the exception of customer relationships which are amortized using an accelerated method) and are excluded from our annual intangible asset valuation review as of October 1. Intangible assets with definite useful lives are also tested for impairment whenever events or changes in circumstances indicate that the asset’s carrying value may not be recoverable.

Accrued Closure Costs and Asset Retirement Obligations (“ARO”). Accrued closure costs represent our estimated environmental liability to clean up our facilities as required by our permits, in the event of closure. Accounting Standards Codification (“ASC”) 410, “Asset Retirement and Environmental Obligations” requires that the discounted fair value of a liability for an ARO be recognized in the period in which it is incurred with the associated ARO capitalized as part of the carrying cost of the asset. The recognition of an ARO requires that management make numerous estimates, assumptions and judgments regarding such factors as estimated probabilities, timing of settlements, material and service costs, current technology, laws and regulations, and credit adjusted risk-free rate to be used. This estimate is inflated, using an inflation rate, to the expected time at which the closure will occur, and then discounted back, using a credit adjusted risk free rate, to the present value. ARO’s are included within buildings as part of property and equipment and are depreciated over the estimated useful life of the property. In periods subsequent to initial measurement of the ARO, we must recognize period-to-period changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate of undiscounted cash flow. Increases in the ARO liability due to passage of time impact net income as accretion expense and are included in cost of goods sold in the Consolidated Statements of Operations. Changes in the estimated future cash flows costs underlying the obligations (resulting from changes or expansion at the facilities)

require adjustment to the ARO liability calculated and are capitalized and charged as depreciation expense, in accordance with our depreciation policy.

Recent Accounting Pronouncements

See “Item 8 – Financial Statements and Supplementary Data” – “Notes to Consolidated Financial Statements” – “Note 2 – Summary of Significant Accounting Policies” for the recent accounting pronouncements that have been adopted during the year ended December 31, 2020, or will be adopted in future periods.

Known Trends and Uncertainties

Economic Conditions. Our business continues to be heavily dependent on services that we provide to governmental clients, primarily as subcontractors for others who are prime contractors to government authorities (particularly the U.S Department of Energy and U.S. Department of Defense) or directly as the prime contractor. We believe demand for our services will continue to be subject to fluctuations due to a variety of factors beyond our control, including the economic conditions and the manner in which the government entity will be required to spend funding to remediate various sites. In addition, our U.S. governmental contracts and subcontracts relating to activities at governmental sites are generally subject to termination or renegotiation on 30 days notice at the government’s option. The TOAs with the Canadian government generally provide that the government may terminate a TOA at any time for convenience. Significant reductions in the level of governmental funding or specifically mandated levels for different programs that are important to our business could have a material adverse impact on our business, financial position, results of operations and cash flows.

Significant Customers. Our Treatment and Services Segments have significant relationships with the U.S and Canadian governmental authorities through contracts entered into indirectly as subcontractors for others who are prime contractors or directly as the prime contractor to government authorities. Our inability to continue under existing contracts that we have with the U.S government and Canadian government authorities (directly or indirectly as a subcontractor) or significant reductions in the level of governmental funding in any given year could have a material adverse impact on our operations and financial condition.

We performed services relating to waste generated by government clients (domestic and foreign (primarily Canadian)), either directly as a prime contractor or indirectly for others as a subcontractor to government entities, representing approximately \$96,582,000, or 91.6%, of our total revenue during 2020, as compared to \$59,985,000, or 81.7%, of our total revenue during 2019.

Revenue generated by us as a subcontractor to a customer for a remediation project performed for a government entity (the “DOE”) within our Services Segment in 2020 and 2019 accounted for approximately \$41,011,000 or 38.9% and \$8,529,000 or 11.6% (included in revenue generated relating to government clients above) of our total revenue for 2020 and 2019, respectively. This remediation project included among other things, decontamination support of a building. As work progressed throughout stages of this project in 2020, additional contaminations were regularly discovered which resulted in approval for additional work to be performed under this project. This project is expected to be completed by the first half of 2021.

As our revenues are project/event based where the completion of one contract with a specific customer may be replaced by another contract with a different customer from year to year, we do not believe the loss of one specific customer from one year to the next will generally have a material adverse effect on our operations and financial condition.

COVID-19 Impact. The extent of the impact of the COVID-19 pandemic on our business is uncertain and difficult to predict, as the responses to the pandemic continue to evolve rapidly. Since the latter part of the second quarter of 2020, all of the projects within our Services Segment that were previously shutdown have restarted as stay-at-home orders and certain other restrictions resulting from the pandemic were lifted. Within our Treatment Segment, we continue to experience delays in waste shipment from certain customers directly related to the impact of COVID-19 including generator shutdowns and limited sustained operations, along with other factors. However, we expect to see a gradual return in waste receipts from these customers

starting in the first half of 2021 as they accelerate operations. COVID-19 disruption could have a material adverse effect on our business as our customers could curtail and reduce capital and overall spending.

The severity of the impact the COVID-19 pandemic on our business will depend on a number of factors, including, but not limited to, the duration and severity of the pandemic, the extent and severity of the impact on our customers, the impact on governmental programs and budgets, distribution of COVID-19 vaccines, the rate at which people are inoculated with the vaccines, and how quickly and to what extent normal economic and operating conditions resume, all of which are uncertain and cannot be predicted with any accuracy or confidence at this time. Our future results of operations and liquidity could be adversely impacted by continued delays in waste shipments and/or the recurrence of project work shut downs as well as potential partial/full shutdown of any of our facilities due to COVID-19.

Environmental Contingencies

We are engaged in the waste management services segment of the pollution control industry. As a participant in the on-site treatment, storage and disposal market and the off-site treatment and services market, we are subject to rigorous federal, state and local regulations. These regulations mandate strict compliance and therefore are a cost and concern to us. Because of their integral role in providing quality environmental services, we make every reasonable attempt to maintain complete compliance with these regulations; however, even with a diligent commitment, we, along with many of our competitors, may be required to pay fines for violations or investigate and potentially remediate our waste management facilities. We routinely use third party disposal companies, who ultimately destroy or secure landfill residual materials generated at our facilities or at a client's site. In the past, numerous third-party disposal sites have improperly managed waste and consequently require remedial action; consequently, any party utilizing these sites may be liable for some or all of the remedial costs. Despite our aggressive compliance and auditing procedures for disposal of wastes, we could further be notified, in the future, that we are a potentially responsible party ("PRP") at a remedial action site, which could have a material adverse effect.

We have three remediation projects, which are currently in progress relating to our Perma-Fix of Dayton, Inc. ("PFD"), PFM and Perma-Fix of South Georgia, Inc. ("PFSG") subsidiaries, all within our discontinued operations. These remediation projects principally entail the removal/remediation of contaminated soil and, in most cases, the remediation of surrounding ground water. The remediation activities are closely reviewed and monitored by the applicable state regulators. While no assurances can be made that we will be able to do so, we expect to fund the expenses to remediate these sites from funds generated internally.

At December 31, 2020, we had total accrued environmental remediation liabilities of \$854,000, a decrease of \$73,000 from the December 31, 2019 balance of \$927,000. The decrease represents payments made on remediation projects for our PFSG and PFD subsidiaries. At December 31, 2020, \$744,000 of the total accrued environmental liabilities was recorded as current.

Related Party Transactions

David Centofanti

David Centofanti serves as our Vice President of Information Systems. For such position, he received annual compensation of \$181,000 and \$177,000 for 2020 and 2019, respectively. David Centofanti is the son of Dr. Louis Centofanti, our Executive Vice President ("EVP") of Strategic Initiatives and a member of our Board of Directors ("Board"). We believe the compensation received by David Centofanti for his technical expertise which he provides to us is competitive and comparable to compensation we would have to pay to an unaffiliated third party with the same technical expertise.

Employment Agreements

We entered into an employment agreement with each of Mark Duff, President and Chief Executive Officer ("CEO"), Dr. Louis Centofanti, EVP of Strategic Initiatives, Ben Naccarato, Chief Financial Officer ("CFO"), Andrew Lombardo, EVP of Nuclear and Technical Services, and Richard Grondin, EVP of Waste Treatment Operations, with each employment agreement dated July 22, 2020 (each employment agreement referred to as the "New Employment Agreement"). We had entered into an employment agreement with each of Mark Duff, Dr. Louis Centofanti and Ben Naccarato on September 8, 2017 which each of the

employment agreement was terminated effective July, 22, 2020 upon the execution of the New Employment Agreement with Mark Duff, Dr. Louis Centofanti and Ben Naccarato.

Each New Employment Agreement is effective for three years from July 22, 2020 (the “Initial Term”) unless earlier terminated by the Company or by the executive officer. At the end of the Initial Term of each New Employment Agreement, each New Employment Agreement will automatically be extended for one additional year, unless at least six months prior to the expiration of the Initial Term, we or the executive officer provides written notice not to extend the terms of the New Employment Agreement. Each New Employment Agreement provides for annual base salary, performance bonuses (as provided in the Management Incentive Plan (“MIP”) as approved by our Compensation and Stock Option Committee (the “Compensation Committee”) and Board) and other benefits commonly found in such agreement.

Pursuant to each New Employment Agreement, if the executive officer’s employment is terminated due to death/disability or for cause (as defined in the agreements), we will pay to the executive officer or to his estate an amount equal to the sum of any unpaid base salary and accrued unused vacation time through the date of termination and any benefits due to the executive officer under any employee benefit plan (the “Accrued Amounts”) plus any performance compensation payable pursuant to the MIP with respect to the fiscal year immediately preceding the date of termination.

If the executive officer terminates his employment for “good reason” (as defined in the agreements) or is terminated by us without cause (including any such termination for “good reason” or without cause within 24 months after a Change in Control (as defined in the agreement)), we will pay the executive officer the Accrued Amounts, two years of full base salary, and two times the performance compensation (under the MIP) earned with respect to the fiscal year immediately preceding the date of termination provided the performance compensation earned with respect to the fiscal year immediately preceding the date of termination has not been paid. If performance compensation earned with respect to the fiscal year immediately preceding the date of termination has been made to the executive officer, the executive officer will be paid an additional year of the performance compensation earned with respect to the fiscal year immediately preceding the date of termination. If the executive terminates his employment for a reason other than for good reason, we will pay to the executive an amount equal to the Accrued Amounts plus any performance compensation payable pursuant to the MIP with respect to the fiscal year immediately preceding the date of termination.

If there is a Change in Control (as defined in the agreements), all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full commencing on the date of termination through the original term of the options. In the event of the death of an executive officer, all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full commencing on the date of death, with such options exercisable for the lesser of the original option term or twelve months from the date of the executive officer’s death. In the event an executive officer terminates his employment for “good reason” or is terminated by the Company without cause, all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full commencing on the date of termination, with such options exercisable for the lesser of the original option term or within 60 days from the date of the executive’s date of termination. Severance benefits payable with respect to a termination (other than Accrued Amounts) shall not be payable until the termination constitutes a “separation from service” (as defined under Treasury Regulation Section 1.409A-1(h)).

MIPs

On January 16, 2020, our Board and the Compensation Committee approved individual MIP for each Mark Duff, CEO and President, Ben Naccarato, EVP and CFO, Dr. Louis Centofanti, EVP of Strategic Initiatives and Andy Lombardo, who was appointed by our Board to the position of EVP of Nuclear and Technical Services and an executive officer of the Company on January 16, 2020. Mr. Lombardo previously held the position of Senior Vice President (“SVP”) of Nuclear and Technical Services. Additionally, on July 22, 2020, our Board and our Compensation Committee approved a MIP for Richard Grondin who was appointed by our Board to the position of EVP of Waste Treatment Operations and an executive officer of the Company. Mr. Grondin previously held the position of Vice President of Western Operations within our

Treatment Segment. Each of the MIPs is effective January 1, 2020 and applicable for year ended December 31, 2020. Each MIP provides guidelines for the calculation of annual cash incentive-based compensation, subject to Compensation Committee oversight and modification. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of the executive's 2020 annual base salary. The potential target performance compensation ranges from 5% to 150% of the base salary for the CEO (\$17,220 to \$516,600), 5% to 100% of the base salary for the CFO (\$14,000 to \$280,000), 5% to 100% of the base salary for the EVP of Strategic Initiatives (\$11,667 to \$233,336), 5% to 100% of the base salary for the EVP of Nuclear and Technical Services (\$14,000 to \$280,000) and 5% to 100% (\$12,000 to \$240,000) of the base salary for the EVP of Waste Treatment Operations. The total incentive compensation earned under the 2020 MIPs for the executive officers was approximately \$419,000 and is payable on or about 90 days after year-end, or sooner, based on finalization of our audited financial statements for 2020 in accordance to the MIPs.

On January 21, 2021, our Board and the Company Compensation Committee approved individual MIP for the calendar year 2021 for each CEO, EVP and CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations. Each of the MIPs is effective January 1, 2021 and applicable for year 2021. Each MIP provides guidelines for the calculation of annual cash incentive-based compensation, subject to Compensation Committee oversight and modification. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of the executive's 2021 annual base salary at the time of the approval of the MIP. The potential target performance compensation ranges from 5% to 150% of the base salary for the CEO (\$17,220 to \$516,600), 5% to 100% of the base salary for the CFO (\$14,000 to \$280,000), 5% to 100% of the base salary for the EVP of Strategic Initiatives (\$11,667 to \$233,336), 5% to 100% of the base salary for the EVP of Nuclear and Technical Services (\$14,000 to \$280,000) and 5% to 100% (\$12,000 to \$240,000) of the base salary for the EVP of Waste Treatment Operations.

Salary

On January 16, 2020, the Board, with the approval of the Compensation Committee approved the following salary increase for the Company's executive officers effective January 1, 2020:

- Annual base salary for Mark Duff, CEO and President, was increased to \$344,400 from \$287,000.
- Annual base salary for Ben Naccarato, who was promoted to EVP and CFO from VP and CFO, was increased to \$280,000 from \$235,231; and
- Annual base salary for Andy Lombardo, who was appointed to the position of EVP of Nuclear and Technical Services as discussed above, was increased to \$280,000 from \$258,662, which was the annual base salary that Mr. Lombardo earned as SVP of Nuclear and Technical Services and prior to his appointment as an executive officer of the Company by the Board.

Additionally, as a result of Richard Grondin's appointment by the Board to the position of EVP of Waste Treatment and an executive officer on July 22, 2020, his annual salary was increased from \$208,000 as Vice President of Western Operations within our Treatment Segment to \$240,000, effective July 22, 2020.

In February 2021, the Compensation Committee approved an annual salary cost of living adjustment of approximately 2.3% to take into effect April 1, 2021 for each of our executive officers.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required under Regulation S-K for smaller reporting companies.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Forward-looking Statements

Certain statements contained within this report may be deemed "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (collectively, the "Private Securities Litigation Reform Act of 1995").

All statements in this report other than a statement of historical fact are forward-looking statements that are subject to known and unknown risks, uncertainties and other factors, which could cause actual results and performance of the Company to differ materially from such statements. The words "believe," "expect," "anticipate," "intend," "will," and similar expressions identify forward-looking statements. Forward-looking statements contained herein relate to, among other things,

- demand for our services;
- reductions in the level of government funding in future years;
- R&D activity and necessary capital of our Medical Segment;
- business strategy;
- reducing operating costs and non-essential expenditures;
- ability to meet loan agreement covenant requirements;
- cash flow requirements;
- accounts receivable impact;
- sufficient liquidity to continue business;
- PPP Loan forgiveness;
- furlough or layoff eligible employees;
- future results of operations and liquidity;
- effect of economic disruptions on our business;
- curtail capital expenditures;
- government funding for our services;
- may not have liquidity to repay debt if our lender accelerates payment of our borrowings;
- manner in which the applicable government will be required to spend funding to remediate various sites;
- funding operations;
- fund capital expenditures from cash from operations and/or financing;
- impact from COVID-19;
- completion of material contract;
- gradual return in waste shipments;
- fund remediation expenditures for sites from funds generated internally;
- collection of accounts receivables;
- compliance with environmental regulations;
- potential effect of being a PRP;
- potential sites for violations of environmental laws and remediation of our facilities;
- continuation of contracts with federal government;
- loss of contracts;
- permitting and licensing requirements;
- partial or full shutdown of any of our facilities;
- liability from Tetra Tech claims;
- shutdown of projects and continued waste shipments delays by clients; and
- R&D costs.

While the Company believes the expectations reflected in such forward-looking statements are reasonable, it can give no assurance such expectations will prove to be correct. There are a variety of factors, which could cause future outcomes to differ materially from those described in this report, including, but not limited to:

- general economic conditions;
- contract bids, including international markets;
- material reduction in revenues;
- inability to meet PNC covenant requirements;
- inability to collect in a timely manner a material amount of receivables;
- increased competitive pressures;

- inability to maintain and obtain required permits and approvals to conduct operations;
- public not accepting our new technology;
- inability to develop new and existing technologies in the conduct of operations;
- inability to maintain and obtain closure and operating insurance requirements;
- inability to retain or renew certain required permits;
- discovery of additional contamination or expanded contamination at any of the sites or facilities leased or owned by us or our subsidiaries which would result in a material increase in remediation expenditures;
- delays at our third-party disposal site can extend collection of our receivables greater than twelve months;
- refusal of third-party disposal sites to accept our waste;
- changes in federal, state and local laws and regulations, especially environmental laws and regulations, or in interpretation of such;
- requirements to obtain permits for TSD activities or licensing requirements to handle low level radioactive materials are limited or lessened;
- potential increases in equipment, maintenance, operating or labor costs;
- management retention and development;
- financial valuation of intangible assets is substantially more/less than expected;
- the requirement to use internally generated funds for purposes not presently anticipated;
- inability to continue to be profitable on an annualized basis;
- inability of the Company to maintain the listing of its Common Stock on the NASDAQ;
- terminations of contracts with government agencies (domestic and foreign) or subcontracts involving government agencies (domestic or foreign), or reduction in amount of waste delivered to the Company under the contracts or subcontracts;
- renegotiation of contracts involving government agencies (domestic and foreign);
- federal government's inability or failure to provide necessary funding to remediate contaminated federal sites;
- disposal expense accrual could prove to be inadequate in the event the waste requires re-treatment;
- inability to raise capital on commercially reasonable terms;
- inability to increase profitable revenue;
- impact of the COVID-19;
- audit of our PPP Loan;
- new governmental regulations;
- lender refuses to waive non-compliance or revise our covenant so that we are in compliance; and
- risk factors contained in Item 1A of this report.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Financial Statement Schedules

In accordance with the rules of Regulation S-X, schedules are not submitted because they are not applicable to or required by the Company.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Perma-Fix Environmental Services, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Perma-Fix Environmental Services, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, stockholders’ equity, and cash flows for the years then ended, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matters

Critical audit matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2014.

Atlanta, Georgia
March 29, 2021

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
CONSOLIDATED BALANCE SHEETS
As of December 31,

(Amounts in Thousands, Except for Share and Per Share Amounts)	2020	2019
ASSETS		
Current assets:		
Cash	\$ 7,924	\$ 390
Accounts receivable, net of allowance for doubtful accounts of \$404 and \$487, respectively	9,659	13,178
Unbilled receivables	14,453	7,984
Inventories	610	487
Prepaid and other assets	3,967	2,983
Current assets related to discontinued operations	22	104
Total current assets	<u>36,635</u>	<u>25,126</u>
Property and equipment:		
Buildings and land	20,139	19,967
Equipment	22,090	20,068
Vehicles	457	410
Leasehold improvements	23	23
Office furniture and equipment	1,413	1,418
Construction-in-progress	1,569	1,609
Total property and equipment	<u>45,691</u>	<u>43,495</u>
Less accumulated depreciation	<u>(27,908)</u>	<u>(26,919)</u>
Net property and equipment	17,783	16,576
Property and equipment related to discontinued operations	81	81
Operating lease right-of-use assets	2,287	2,545
Intangibles and other long term assets:		
Permits	8,922	8,790
Other intangible assets - net	875	1,065
Finite risk sinking fund (restricted cash)	11,446	11,307
Other assets	890	989
Other assets related to discontinued operations	—	36
Total assets	<u>\$ 78,919</u>	<u>\$ 66,515</u>

The accompanying notes are an integral part of these consolidated financial statements.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
CONSOLIDATED BALANCE SHEETS, CONTINUED

As of December 31,

(Amounts in Thousands, Except for Share and per Share Amounts)	2020	2019
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 15,382	\$ 9,277
Accrued expenses	6,381	6,118
Disposal/transportation accrual	1,220	1,156
Deferred revenue	4,614	5,456
Accrued closure costs - current	75	84
Current portion of long-term debt	3,595	1,300
Current portion of operating lease liabilities	273	244
Current portion of finance lease liabilities	525	471
Current liabilities related to discontinued operations	898	994
Total current liabilities	<u>32,963</u>	<u>25,100</u>
Accrued closure costs	6,290	5,957
Deferred tax liabilities	471	590
Long-term debt, less current portion	3,134	2,580
Long-term operating lease liabilities, less current portion	2,070	2,342
Long-term finance lease liabilities, less current portion	662	466
Other long-term liabilities	626	—
Long-term liabilities related to discontinued operations	252	244
Total long-term liabilities	<u>13,505</u>	<u>12,179</u>
Total liabilities	46,468	37,279
Commitments and Contingencies (Note 14)		
Stockholders' Equity:		
Preferred Stock, \$.001 par value; 2,000,000 shares authorized, no shares issued and outstanding	—	—
Common Stock, \$.001 par value; 30,000,000 shares authorized; 12,161,539 and 12,123,520 shares issued, respectively; 12,153,897 and 12,115,878 shares outstanding, respectively	12	12
Additional paid-in capital	108,931	108,457
Accumulated deficit	(74,455)	(77,315)
Accumulated other comprehensive loss	(207)	(211)
Less Common Stock in treasury, at cost; 7,642 shares	(88)	(88)
Total Perma-Fix Environmental Services, Inc. stockholders' equity	<u>34,193</u>	<u>30,855</u>
Non-controlling interest	(1,742)	(1,619)
Total stockholders' equity	<u>32,451</u>	<u>29,236</u>
Total liabilities and stockholders' equity	<u>\$ 78,919</u>	<u>\$ 66,515</u>

The accompanying notes are an integral part of these consolidated financial statements.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
For the years ended December 31,

(Amounts in Thousands, Except for Per Share Amounts)	2020	2019
Net revenues	\$ 105,426	\$ 73,459
Cost of goods sold	<u>89,533</u>	<u>57,875</u>
Gross profit	15,893	15,584
Selling, general and administrative expenses	11,774	11,862
Research and development	762	750
Loss on disposal of property and equipment	<u>29</u>	<u>3</u>
Income from operations	3,328	2,969
Other income (expense):		
Interest income	140	337
Interest expense	(398)	(432)
Interest expense-financing fees	(294)	(208)
Other	211	223
Loss on debt extinguishment of debt	<u>(27)</u>	<u>—</u>
Income from continuing operations before taxes	2,960	2,889
Income tax (benefit) expense	<u>(189)</u>	<u>157</u>
Income from continuing operations, net of taxes	3,149	2,732
Loss from discontinued operations, net of taxes of \$0	<u>(412)</u>	<u>(541)</u>
Net income	2,737	2,191
Net loss attributable to non-controlling interest	<u>(123)</u>	<u>(124)</u>
Net income attributable to Perma-Fix Environmental Services, Inc. common stockholders	<u>\$ 2,860</u>	<u>\$ 2,315</u>
Net income (loss) per common share attributable to Perma-Fix Environmental Services, Inc. stockholders - basic:		
Continuing operations	\$.27	\$.24
Discontinued operations	<u>(.03)</u>	<u>(.05)</u>
Net income per common share	<u>\$.24</u>	<u>\$.19</u>
Net income (loss) per common share attributable to Perma-Fix Environmental Services, Inc. stockholders - diluted:		
Continuing operations	\$.26	\$.24
Discontinued operations	<u>(.03)</u>	<u>(.05)</u>
Net income per common share	<u>\$.23</u>	<u>\$.19</u>
Number of common shares used in computing net income (loss) per share:		
Basic	12,139	12,046
Diluted	12,347	12,060

The accompanying notes are an integral part of these consolidated financial statements.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
For the years ended December 31,

(Amounts in Thousands)	2020	2019
Net Income	\$ <u>2,737</u>	\$ <u>2,191</u>
Other comprehensive income:		
Foreign currency translation adjustments	<u>4</u>	<u>3</u>
Total other comprehensive income	<u>4</u>	<u>3</u>
Comprehensive income	2,741	2,194
Comprehensive loss attributable to non-controlling interest	<u>(123)</u>	<u>(124)</u>
Comprehensive income attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$ <u><u>2,864</u></u>	\$ <u><u>2,318</u></u>

The accompanying notes are an integral part of these consolidated financial statements.

PERMA-FIX ENVIRONMENTAL SERVICES, INC
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For the years ended December 31,
(Amounts in Thousands, Except for Share Amounts)

	Common Stock		Additional Paid-In Capital	Common Stock Held In Treasury	Accumulated Other Comprehensive Loss	Non-controlling Interest in Subsidiary	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount						
Balance at December 31, 2018	<u>11,944,215</u>	<u>\$ 12</u>	<u>\$ 107,548</u>	<u>\$ (88)</u>	<u>\$ (214)</u>	<u>\$ (1,495)</u>	<u>\$ (79,630)</u>	<u>\$ 26,133</u>
Net income (loss)	—	—	—	—	—	(124)	2,315	2,191
Foreign currency translation	—	—	—	—	3	—	—	3
Issuance of Common Stock for services	71,905	—	241	—	—	—	—	241
Stock-Based Compensation	—	—	179	—	—	—	—	179
Issuance of Common Stock with debt	75,000	—	263	—	—	—	—	263
Issuance of warrant with debt	—	—	93	—	—	—	—	93
Issuance of Common Stock upon exercise of options	32,400	—	133	—	—	—	—	133
Balance at December 31, 2019	<u>12,123,520</u>	<u>\$ 12</u>	<u>\$ 108,457</u>	<u>\$ (88)</u>	<u>\$ (211)</u>	<u>\$ (1,619)</u>	<u>\$ (77,315)</u>	<u>\$ 29,236</u>
Net income (loss)	—	—	—	—	—	(123)	2,860	2,737
Foreign currency translation	—	—	—	—	4	—	—	4
Issuance of Common Stock for services	34,135	—	232	—	—	—	—	232
Stock-Based Compensation	—	—	236	—	—	—	—	236
Issuance of Common Stock upon exercise of options	3,884	—	6	—	—	—	—	6
Balance at December 31, 2020	<u>12,161,539</u>	<u>\$ 12</u>	<u>\$ 108,931</u>	<u>\$ (88)</u>	<u>\$ (207)</u>	<u>\$ (1,742)</u>	<u>\$ (74,455)</u>	<u>\$ 32,451</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the years ended December 31,

(Amounts in Thousands)	2020	2019
Cash flows from operating activities:		
Net income	\$ 2,737	\$ 2,191
Less: loss on discontinued operations, net of taxes of \$0 (Note 9)	(412)	(541)
	<u>3,149</u>	<u>2,732</u>
Income from continuing operations	3,149	2,732
Adjustments to reconcile net income from continuing operations to cash provided by (used in) operating activities:		
Depreciation and amortization	1,596	1,342
Interest on finance lease with purchase option	9	3
Loss on extinguishment of debt	27	—
Amortization of debt issuance/debt discount costs	294	208
Deferred tax (benefit) expense	(119)	4
(Recovery of) provision for bad debt reserves	(101)	386
Loss on disposal of property and equipment	29	3
Issuance of common stock for services	232	241
Stock-based compensation	236	179
Changes in operating assets and liabilities of continuing operations:		
Accounts receivable	3,620	(5,829)
Unbilled receivables	(6,469)	(4,879)
Prepaid expenses, inventories and other assets	1,147	923
Accounts payable, accrued expenses and unearned revenue	4,217	664
Cash provided by (used in) continuing operations	<u>7,867</u>	<u>(4,023)</u>
Cash used in discontinued operations	(499)	(660)
Cash provided by (used in) operating activities	<u>7,368</u>	<u>(4,683)</u>
Cash flows from investing activities:		
Purchases of property and equipment (net)	(1,715)	(1,535)
Proceeds from sale of property and equipment	4	2
Cash used in investing activities of continuing operations	<u>(1,711)</u>	<u>(1,533)</u>
Cash provided by investing activities of discontinued operations	118	121
Cash used in investing activities	<u>(1,593)</u>	<u>(1,412)</u>
Cash flows from financing activities:		
Borrowing on revolving credit	102,788	59,333
Repayments of revolving credit borrowings	(103,109)	(59,651)
Proceeds from issuance of long-term debt	5,666	2,500
Proceeds from finance leases	—	405
Principal repayment of finance lease liabilities	(615)	(272)
Principal repayments of long term debt	(2,759)	(1,344)
Payment of debt issuance costs	(85)	(112)
Proceeds from issuance of common stock upon exercise of options	6	133
Cash provided by financing activities of continuing operations	<u>1,892</u>	<u>992</u>
Effect of exchange rate changes on cash	<u>6</u>	<u>19</u>
Increase (decrease) in cash and finite risk sinking fund (restricted cash) (Note 2)	7,673	(5,084)
Cash and finite risk sinking fund (restricted cash) at beginning of period (Note 2)	11,697	16,781
Cash and finite risk sinking fund (restricted cash) at end of period (Note 2)	<u>\$ 19,370</u>	<u>\$ 11,697</u>
Supplemental disclosure:		
Interest paid	\$ 366	\$ 422
Income taxes paid	70	245
Non-cash investing and financing activities:		
Equipment purchase subject to finance lease	856	393
Equipment purchase subject to financing	27	—
Issuance of Common Stock with debt	—	263
Issuance of Warrant with debt	—	93

The accompanying notes are an integral part of these consolidated financial statements.

PERMA-FIX ENVIRONMENTAL SERVICES, INC.
Notes to Consolidated Financial Statements
December 31, 2020 and 2019

NOTE 1

DESCRIPTION OF BUSINESS AND BASIS OF PRESENTATION

Perma-Fix Environmental Services, Inc. (the Company, which may be referred to as we, us, or our), an environmental and technology know-how company, is a Delaware corporation, engaged through its subsidiaries, in three reportable segments:

TREATMENT SEGMENT, which includes:

- nuclear, low-level radioactive, mixed waste (containing both hazardous and low-level radioactive constituents), hazardous and non-hazardous waste treatment, processing and disposal services primarily through four uniquely licensed and permitted treatment and storage facilities; and
- R&D activities to identify, develop and implement innovative waste processing techniques for problematic waste streams.

In 2020, we expanded our low-level radioactive waste processing and treatment capability within our Treatment Segment through the addition of our Oak Ridge Environmental Waste Operations Center (“EWOC”) facility. The EWOC facility serves primarily as a multi-disciplinary equipment and component processing center for large component, size/volume reduction, sort/segregation, waste transload, and system operability testing. The ultimate objective will be receipt, preparation, packaging, and transportation of low-level radioactive waste to final disposal facilities (landfills, approved radiological waste repositories). Operations at the facility have been limited to date as we continue to complete transition of the site. No revenue was generated at EWOC in 2020.

SERVICES SEGMENT, which includes:

- Technical services, which include:
 - o professional radiological measurement and site survey of large government and commercial installations using advanced methods, technology and engineering;
 - o integrated Occupational Safety and Health services including IH assessments; hazardous materials surveys, e.g., exposure monitoring; lead and asbestos management/abatement oversight; indoor air quality evaluations; health risk and exposure assessments; health & safety plan/program development, compliance auditing and training services; and OSHA citation assistance;
 - o global technical services providing consulting, engineering, project management, waste management, environmental, and decontamination and decommissioning field, technical, and management personnel and services to commercial and government customers; and
 - o on-site waste management services to commercial and governmental customers.
- Nuclear services, which include:
 - o technology-based services including engineering, D&D, specialty services and construction, logistics, transportation, processing and disposal;
 - o remediation of nuclear licensed and federal facilities and the remediation cleanup of nuclear legacy sites. Such services capability includes: project investigation; radiological engineering; partial and total plant D&D; facility decontamination, dismantling, demolition, and planning; site restoration; logistics; transportation; and emergency response; and
- A company owned equipment calibration and maintenance laboratory that services, maintains, calibrates, and sources (i.e., rental) health physics, IH and customized NIOSH instrumentation.
- A company owned gamma spectroscopy laboratory for the analysis of oil and gas industry solids and liquids.

MEDICAL SEGMENT, which includes: R&D of the Company’s medical isotope production technology by our majority-owned Polish subsidiary, Perma-Fix Medical (“PF Medical” or the “Medical Segment”). The Company’s Medical Segment has not generated any revenue as it remains in the R&D stage and has

substantially reduced its R&D costs and activities due to the need for capital to fund these activities. All costs incurred by the Medical Segment are reflected within R&D in the accompanying consolidated financial statements.

The Company's continuing operations consist of the operations of our subsidiaries/facilities as follow: Diversified Scientific Services, Inc. ("DSSI"), Perma-Fix of Florida, Inc. ("PFF"), Perma-Fix of Northwest Richland, Inc. ("PFNWR"), Safety & Ecology Corporation ("SEC"), Perma-Fix Environmental Services UK Limited ("PF UK Limited"), Perma-Fix of Canada, Inc. ("PF Canada"), PF Medical, East Tennessee Materials & Energy Corporation ("M&EC") (facility closure completed in 2019), EWOC and Perma-Fix ERRG, a variable interest entity ("VIE") for which we are the primary beneficiary (See "Note 19 - Variable Interest Entities ("VIE") for a discussion of this VIE).

The Company's discontinued operations (see Note 9) consist of operations of all our subsidiaries included in our Industrial Segment which encompasses subsidiaries divested in 2011 and prior and three previously closed locations.

NOTE 2

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The Company's consolidated financial statements include our accounts, those of our wholly-owned subsidiaries, our majority-owned Polish subsidiary, Perma-Fix Medical and Perma-Fix ERRG, a VIE for which we are the primary beneficiary as discussed above, after elimination of all significant intercompany accounts and transactions.

Use of Estimates

The Company prepares financial statements in conformity with accounting standards generally accepted in U.S. GAAP, which may require estimates of future cash flows and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as, the reported amounts of revenues and expenses during the reporting period. Due to the inherent uncertainty involved in making estimates, actual results could differ from those estimates.

Cash and Finite Risk Sinking Fund (Restricted Cash)

At December 31, 2020, the Company had cash on hand of approximately \$7,924,000, which included account balances of our foreign subsidiaries totaling approximately \$377,000. At December 31, 2019, the Company had cash on hand of approximately \$390,000, which reflected primarily account balances of our foreign subsidiaries totaling approximately \$388,000. At December 31, 2020 and 2019, the Company had finite risk sinking funds of approximately \$11,446,000 and \$11,307,000, respectively, which represented cash held as collateral under the Company's financial assurance policy (see "Note 14 – Commitment and Contingencies – Insurance" for a discussion of this fund).

Accounts Receivable

Accounts receivable are customer obligations due under normal trade terms requiring payment within 30 or 60 days from the invoice date based on the customer type (government, broker, or commercial). The carrying amount of accounts receivable is reduced by an allowance for doubtful accounts, which is a valuation allowance that reflects management's best estimate of the amounts that will not be collected. The Company regularly reviews all accounts receivable balances that exceed 60 days from the invoice date and based on an assessment of current credit worthiness, estimates the portion, if any, of the balance that will not be collected. This analysis excludes government related receivables due to our past successful experience in their collectability. Specific accounts that are deemed to be uncollectible are reserved at 100% of their outstanding balance. The remaining balances aged over 60 days have a percentage applied by aging category, based on historical experience that allows us to calculate the total allowance required. Once the Company has exhausted all options in the collection of a delinquent accounts receivable balance, which includes collection letters, demands for payment, collection agencies and attorneys, the account is deemed

uncollectible and subsequently written off. The write off process involves approvals from senior management based on required approval thresholds.

The following table sets forth the activity in the allowance for doubtful accounts for the years ended December 31, 2020 and 2019 (in thousands):

	Year Ended December 31,	
	2020	2019
Allowance for doubtful accounts - beginning of year	\$ 487	\$ 105
(Recovery of) provision for bad debt reserve	(101)	386
Recovery of write-off (write-off)	18	(4)
Allowance for doubtful accounts - end of year	<u>\$ 404</u>	<u>\$ 487</u>

Unbilled Receivables

Unbilled receivables are generated by differences between invoicing timing and our over time revenue recognition methodology used for revenue recognition purposes. As major processing and contract completion phases are completed and the costs are incurred, the Company recognizes the corresponding percentage of revenue. Within our Treatment Segment, the facilities experience delays in processing invoices due to the complexity of the documentation that is required for invoicing, as well as the difference between completion of revenue recognition milestones and agreed upon invoicing terms, which results in unbilled receivables. The timing differences occur for several reasons which include: partially from delays in the final processing of all wastes associated with certain work orders and partially from delays for analytical testing that is required after the facilities have processed waste but prior to our release of waste for disposal. The tasks relating to these delays can take months to complete but are generally completed within twelve months.

Unbilled receivables within our Services Segment can result from: (1) revenue recognized by our Earned Value Management program (a program which integrates project scope, schedule, and cost to provide an objective measure of project progress) but invoice milestones have not yet been met and/or (2) contract claims and pending change orders, including Requests for Equitable Adjustments (“REAs”) when work has been performed and collection of revenue is reasonably assured.

Inventories

Inventories consist of treatment chemicals, saleable used oils, and certain supplies. Additionally, the Company has replacement parts in inventory, which are deemed critical to the operating equipment and may also have extended lead times should the part fail and need to be replaced. Inventories are valued at the lower of cost or net realizable value with cost determined by the first-in, first-out method.

Disposal and Transportation Costs

The Company accrues for waste disposal based upon a physical count of the waste at each facility at the end of each accounting period. Current market prices for transportation and disposal costs are applied to the end of period waste inventories to calculate for the transportation and disposal accruals.

Property and Equipment

Property and equipment expenditures are capitalized and depreciated using the straight-line method over the estimated useful lives of the assets for financial statement purposes, while accelerated depreciation methods are principally used for income tax purposes. Generally, asset lives range from ten to forty years for buildings (including improvements and asset retirement costs) and three to seven years for office furniture and equipment, vehicles, and decontamination and processing equipment. Leasehold improvements are capitalized and amortized over the lesser of the term of the lease or the life of the asset. Maintenance and repairs are charged directly to expense as incurred. The cost and accumulated depreciation of assets sold or retired are removed from the respective accounts, and any gain or loss from sale or retirement is recognized in the accompanying Consolidated Statements of Operations. Renewals and improvements, which extend the useful lives of the assets, are capitalized.

Certain property and equipment expenditures are financed through leases. Amortization of financed leased assets is computed using the straight-line method over the estimated useful lives of the assets. At December

31, 2020, assets recorded under finance leases were \$2,285,000 less accumulated depreciation of \$291,000, resulting in net fixed assets under finance leases of \$1,994,000. At December 31, 2019, assets recorded under finance leases were \$1,410,000 less accumulated depreciation of \$71,000, resulting in net fixed assets under finance leases of \$1,339,000. These assets are recorded within net property and equipment on the Consolidated Balance Sheets.

Long-lived assets, such as property, plant and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. Assets to be disposed of are separately presented in the balance sheet and reported at the lower of the carrying amount or fair value less costs to sell, and are no longer depreciated.

Our depreciation expense totaled approximately \$1,357,000 and \$1,086,000 in 2020 and 2019, respectively.

Leases

The Company accounts for leases in accordance with Financial Accounting Standards Board's ("FASB") Accounting Standards Update ("ASU") 2016-02, "Leases (Topic 842)." At the inception of an arrangement, the Company determines if an arrangement is, or contains, a lease based on facts and circumstances present in that arrangement. Lease classifications, recognition, and measurement are then determined at the lease commencement date.

The Company's operating lease right-of-use ("ROU") assets and operating lease liabilities represent primarily leases for office and warehouse spaces used to conduct our business. These leases have remaining terms of approximately 3 to 9 years which include one or more options to renew. The Company includes renewal options in valuing its ROU assets and liabilities when it determines that it is reasonably certain to exercise these renewal options. As most of our operating leases do not provide an implicit rate, the Company uses its incremental borrowing rate as the discount rate when determining the present value of the lease payments. The incremental borrowing rate is determined based on the Company's secured borrowing rate, lease terms and current economic environment. Some of our operating leases include both lease (rent payments) and non-lease components (maintenance costs such as cleaning and landscaping services). The Company has elected the practical expedient to account for lease component and non-lease component as a single component for all leases under ASU 2016-02. Lease expense for operating leases is recognized on a straight-line basis over the lease term.

Finance leases primarily consist of processing and transport equipment used by our facilities' operations. Our finance leases also include a building with land for our waste treatment operations. The Company's finance leases generally have initial terms between one to six years and some of the leases include options to purchase the underlying assets at fair market value at the conclusion of the lease term. The lease for the building and land has a term of two years with an option to buy at the end of the lease term, which the Company is reasonably certain to exercise. See "Property and Equipment" above for assets recorded under financed leases. Borrowing rates for our finance leases are either explicitly stated in the lease agreements or implicitly determined from available terms in the lease agreements.

The Company adopted the policy to not recognize ROU assets and liabilities for short term leases.

Capitalized Interest

The Company's policy is to capitalize interest cost incurred on debt during the construction of projects for its use. A reconciliation of our total interest cost to "Interest Expense" as reported on our Consolidated Statements of Operations for 2020 and 2019 is as follows:

(Amounts in Thousands)	2020	2019
Interest cost capitalized	\$ —	\$ 29
Interest cost charged to expense	398	432
Total interest	<u>\$ 398</u>	<u>\$ 461</u>

Intangible Assets

Intangible assets consist primarily of the recognized value of the permits required to operate our business. Indefinite-lived intangible assets are not amortized but are reviewed for impairment annually as of October 1, or when events or changes in the business environment indicate that the carrying value may be impaired. If the fair value of the asset is less than the carrying amount, a quantitative test is performed to determine the fair value. The impairment loss, if any, is measured as the excess of the carrying value of the asset over its fair value. Judgments and estimates are inherent in these analyses and include assumptions for, among other factors, forecasted revenue, gross margin, growth rate, operating income, timing of expected future cash flows, and the determination of appropriate long-term discount rates. Impairment testing of our indefinite-lived permits related to our Treatment reporting unit as of October 1, 2020 and 2019 resulted in no impairment charges.

Intangible assets that have definite useful lives are amortized using the straight-line method over the estimated useful lives (with the exception of customer relationships which are amortized using an accelerated method) and are excluded from our annual intangible asset valuation review as of October 1. Definite-lived intangible assets are also tested for impairment whenever events or changes in circumstances suggest impairment might exist.

R&D

Operational innovation and technical know-how are very important to the success of our business. Our goal is to discover, develop, and bring to market innovative ways to process waste that address unmet environmental needs and to develop new company service offerings. The Company conducts research internally and also through collaborations with other third parties. R&D costs consist primarily of employee salaries and benefits, laboratory costs, third party fees, and other related costs associated with the development and enhancement of new potential waste treatment processes and new technology and are charged to expense when incurred in accordance with ASC Topic 730, "Research and Development." The Company's R&D expenses included approximately \$311,000 and \$314,000 for the years ended December 31, 2020 and 2019, respectively, incurred by our Medical Segment.

Accrued Closure Costs and ARO

Accrued closure costs represent our estimated environmental liability to clean up our facilities, as required by our permits, in the event of closure. ASC 410, "Asset Retirement and Environmental Obligations" requires that the discounted fair value of a liability for an ARO be recognized in the period in which it is incurred with the associated ARO capitalized as part of the carrying cost of the asset. The recognition of an ARO requires that management make numerous estimates, assumptions and judgments regarding such factors as estimated probabilities, timing of settlements, material and service costs, current technology, laws and regulations, and credit adjusted risk-free rate to be used. This estimate is inflated, using an inflation rate, to the expected time at which the closure will occur, and then discounted back, using a credit adjusted risk free rate, to the present value. ARO's are included within buildings as part of property and equipment and are depreciated over the estimated useful life of the property. In periods subsequent to initial measurement of the ARO, the Company must recognize period-to-period changes in the liability resulting from the passage of time and revisions to either the timing or the amount of the original estimate of undiscounted cash flows. Increases in the ARO liability due to passage of time impact net income as accretion expense, which is included in cost of goods sold. Changes in costs resulting from changes or expansion at the facilities require adjustment to the ARO liability and are capitalized and charged as depreciation expense, in accordance with the Company's depreciation policy.

Income Taxes

Income taxes are accounted for in accordance with ASC 740, "Income Taxes." Under ASC 740, the provision for income taxes is comprised of taxes that are currently payable and deferred taxes that relate to

the temporary differences between financial reporting carrying values and tax bases of assets and liabilities. Deferred tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Any effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

ASC 740 requires that deferred income tax assets be reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred income tax assets will not be realized. The Company regularly assesses the likelihood that the deferred tax asset will be recovered from future taxable income. The Company considers projected future taxable income and ongoing tax planning strategies, then records a valuation allowance to reduce the carrying value of the net deferred income taxes to an amount that is more likely than not to be realized.

ASC 740 sets out a consistent framework for preparers to use to determine the appropriate recognition and measurement of uncertain tax positions. ASC 740 uses a two-step approach wherein a tax benefit is recognized if a position is more-likely-than-not to be sustained. The amount of the benefit is then measured to be the highest tax benefit which is greater than 50% likely to be realized. ASC 740 also sets out disclosure requirements to enhance transparency of an entity's tax reserves. The Company recognizes accrued interest and income tax penalties related to unrecognized tax benefits as a component of income tax expense.

The Company reassesses the validity of our conclusions regarding uncertain income tax positions on a quarterly basis to determine if facts or circumstances have arisen that might cause us to change our judgment regarding the likelihood of a tax position's sustainability under audit.

Foreign Currency

The Company's foreign subsidiaries include PF UK Limited, PF Canada and PF Medical. Assets and liabilities are translated to U.S. dollars at the exchange rate in effect at the balance sheet date and revenue and expenses at the average exchange rate for the period. Foreign currency translation adjustments for these subsidiaries are accumulated as a separate component of accumulated other comprehensive income (loss) in stockholders' equity. Gains and losses resulting from foreign currency transactions are recognized in the Consolidated Statements of Operations.

Concentration Risk

The Company performed services relating to waste generated by government clients (domestic and foreign (primarily Canadian)), either indirectly for others as a subcontractor to government entities or directly as a prime contractor, representing approximately \$96,582,000, or 91.6%, of our total revenue during 2020, as compared to \$59,985,000, or 81.7%, of our total revenue during 2019.

Revenue generated by the Company as a subcontractor to a customer for a remediation project performed for a government entity (the "DOE") within our Services Segment in 2020 and 2019 accounted for approximately \$41,011,000 or 38.9% and \$8,529,000 or 11.6% (included in revenues generated relating to government clients above) of the Company's total revenue for 2020 and 2019, respectively. This remediation project included among other things, decontamination support of a building. As work progressed throughout stages of this project in 2020, additional contaminations were regularly discovered which resulted in approval in additional work to be performed under this project. This project is expected to be completed by the first half of 2021.

As our revenues are project/event based where the completion of one contract with a specific customer may be replaced by another contract with a different customer from year to year, the Company does not believe the loss of one specific customer from one year to the next will generally have a material adverse effect on our operations and financial condition.

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash and accounts receivable. The Company maintains cash with high quality financial institutions, which may exceed Federal Deposit Insurance Corporation ("FDIC") insured amounts from time

to time. Concentration of credit risk with respect to accounts receivable is limited due to the Company's large number of customers and their dispersion throughout the United States as well as with the significant amount of work that we perform for the federal and Canadian government.

The Company had three government related customers whose total unbilled and net outstanding receivable balances represented 41.1%, 19.0% and 12.5% of the Company's total consolidated unbilled and net accounts receivable at December 31, 2020. The Company had two government related customers whose total unbilled and net outstanding receivable balances represented 12.5% and 34.3% of the Company's total consolidated unbilled and net accounts receivable at December 31, 2019.

Revenue Recognition and Related Policies

The Company recognizes revenue in accordance with FASB's ASC 606, "Revenue from Contracts with Customers." ASC 606 provides a single, comprehensive revenue recognition model for all contracts with customers. Under ASC 606, a five-step process is utilized in order to determine revenue recognition, depicting the transfer of goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. Under ASC 606, a performance obligation is a promise in a contract to transfer a distinct good or service to the customer and is the unit of account. A contract transaction price is allocated to each distinct performance obligation and recognized as revenues as the performance obligation is satisfied.

Treatment Segment Revenues:

Contracts in our Treatment Segment primarily have a single performance obligation as the promise to receive, treat and dispose of waste is not separately identifiable in the contract and, therefore, not distinct. Performance obligations are generally satisfied over time using the input method. Under the input method, the Company uses a measure of progress divided into major phases which include receipt (ranging from 9.0% to 50%), treatment/processing (ranging from 15% to 89%) and shipment/final disposal (ranging from 2% to 52%). As major processing phases are completed and the costs are incurred, the proportional percentage of revenue is recognized. Transaction price for Treatment Segment contracts are determined by the stated fixed rate per unit price as stipulated in the contract.

Services Segment Revenues:

Revenues for our Services Segment are generated from time and materials, cost reimbursement or fixed price arrangements:

The Company's primary obligation to customers in time and materials contracts relate to the provision of services to the customer at the direction of the customer. This provision of services at the request of the customer is the performance obligation, which is satisfied over time. Revenue earned from time and materials contracts is determined using the input method and is based on contractually defined billing rates applied to services performed and materials delivered.

The Company's primary performance obligation to customers in cost reimbursement contracts is to complete certain tasks and work streams. Each specified work stream or task within the contract is considered to be a separate performance obligation. The transaction price is calculated using an estimated cost to complete the various scope items to achieve the performance obligation as stipulated in the contract. An estimate is prepared for each individual scope item in the contract and the transaction price is allocated on a time and materials basis as services are provided. Revenue from cost reimbursement contracts is recognized over time using the input method based on costs incurred, plus a proportionate amount of fee earned.

Under fixed price contracts, the objective of the project is not attained unless all scope items within the contract are completed and all of the services promised within fixed fee contracts constitute a single performance obligation. Transaction price is estimated based upon the estimated cost to complete the overall project. Revenue from fixed price contracts is recognized over time using the output or input method. For the output method, revenue is recognized based on milestone attained on the project. For the input method, revenue is recognized based on costs incurred on the project relative to the total estimated costs of the project.

The majority of our revenue is derived from short term contracts with an original expected length of one year or less. Also, the nature of our contracts generally does not give rise to variable consideration.

Significant Payment Terms

Invoicing is based on schedules established in customer contracts. Payment terms vary by customers but are generally established at 30 days from invoicing.

Incremental Costs to Obtain a Contract

Costs incurred to obtain contracts with our customers are immaterial and as a result, the Company expenses (within selling, general and administration expenses (“SG&A”)) incremental costs incurred in obtaining contracts with our customer as incurred.

Remaining Performance Obligations

The Company applies the practical expedient in ASC 606-10-50-14 and does not disclose information about remaining performance obligations that have original expected durations of one year or less.

Within our Services Segment, there are service contracts which provide that the Company has a right to consideration from a customer in an amount that corresponds directly with the value to the customer of our performance completed to date. For those contracts, the Company has utilized the practical expedient in ASC 606-10-55-18, which allows the Company to recognize revenue in the amount for which we have the right to invoice; accordingly, the Company does not disclose the value of remaining performance obligations for those contracts.

Stock-Based Compensation

Stock-based compensation granted to employees are accounted for in accordance with ASC 718, “Compensation – Stock Compensation.” Stock-based payment transactions for acquiring goods and services from nonemployees are also accounted for under ASC 718. ASC 718 requires stock-based payments to employees and nonemployees, including grant of options, to be recognized in the Statement of Operations based on their fair values. The Company uses the Black-Scholes option-pricing model to determine the fair value of stock-based awards which requires subjective assumptions. Assumptions used to estimate the fair value of stock-based awards include the exercise price of the award, the expected term, the expected volatility of our stock over the stock-based award’s expected term, the risk-free interest rate over the award’s expected term, and the expected annual dividend yield. The Company accounts for forfeitures when they occur.

Comprehensive Income (Loss)

The components of comprehensive income (loss) are net income (loss) and the effects of foreign currency translation adjustments.

Income (Loss) Per Share

Basic income (loss) per share is calculated based on the weighted-average number of outstanding common shares during the applicable period. Diluted income (loss) per share is based on the weighted-average number of outstanding common shares plus the weighted-average number of potential outstanding common shares. In periods where they are anti-dilutive, such amounts are excluded from the calculations of dilutive earnings per share. Income (loss) per share is computed separately for each period presented.

Fair Value of Financial Instruments

Certain assets and liabilities are required to be recorded at fair value on a recurring basis, while other assets and liabilities are recorded at fair value on a nonrecurring basis. Fair value is determined based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The three-tier value hierarchy, which prioritizes the inputs used in the valuation methodologies, is:

Level 1—Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2—Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar

assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3—Valuations based on unobservable inputs reflecting the Company’s own assumptions, consistent with reasonably available assumptions made by other market participants.

Financial instruments include cash (Level 1), accounts receivable, accounts payable, and debt obligations (Level 3). Credit is extended to customers based on an evaluation of a customer’s financial condition and, generally, collateral is not required. At December 31, 2020 and December 31, 2019, the fair value of the Company’s financial instruments approximated their carrying values. The fair value of the Company’s revolving credit and term loan approximate its carrying value due to the variable interest rate.

Recently Adopted Accounting Standards

In August 2018, the FASB issued ASU 2018-13, “Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement.” ASU 2018-13 improves the disclosure requirements on fair value measurements. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The adoption of ASU No. 2018-13 by the Company effective January 1, 2020 did not have a material impact on the Company’s financial statements or disclosures.

In March 2020, the FASB issued ASU 2020-04, “Reference Rate Reform (“ASU 848”): Facilitation of the Effects of Reference Rate Reform on Financial Reporting.” ASU 2020-04 provides optional expedients and exceptions for applying U.S. GAAP to contract modifications and hedging relationships, subject to meeting certain criteria, that reference London Interbank Offered Rate (“LIBOR”) or another rate that is expected to be discontinued. The amendments in the ASU are effective for all entities as of March 12, 2020 through December 31, 2022. The adoption of ASU 2020-04 on March 12, 2020 by the Company did not have a material impact on the Company’s financial statements. The Company will continue to assess the potential impact of this ASU through the effective period.

Recently Issued Accounting Standards – Not Yet Adopted

In June 2016, the FASB issued ASU No. 2016-13, “Credit Losses (Topic 326) - Measurement of Credit Losses on Financial Instruments and subsequent amendments to the initial guidance: ASU 2018-19 “Codification Improvements to Topic 326, Financial Instruments - Credit Losses,” ASU 2019-04 “Codification Improvements to Topic 326, Financial Instruments - Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments,” ASU 2019-05 “Financial Instruments - Credit Losses (Topic 326): Targeted Transition Relief,” ASU 2019-11 “Codification Improvements to Topic 326, Financial Instruments - Credit Losses” and ASU 2020-02, “Financial Instruments—Credit Losses (Topic 326) and Leases (Topic 842)” (collectively, “Topic 326”). Topic 326 introduces an approach, based on expected losses, to estimate credit losses on certain types of financial instruments and modifies the impairment model for available-for-sale debt securities. The new approach to estimating credit losses (referred to as the current expected credit losses model) applies to most financial assets measured at amortized cost and certain other instruments, including trade and other receivables and loans. Entities are required to apply the standard’s provisions as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is adopted. These ASUs are effective January 1, 2023 for the Company as a smaller reporting company. The Company had expected to early adopt these ASUs effective January 1, 2020; however, due to the need for reallocation of the Company’s resources to manage COVID-19 related matters, the Company has deferred adoption of these ASUs effective January 1, 2020 and expect to adopt these ASUs by January 1, 2023.

In December 2019, the FASB issued ASU No. 2019-12, “Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes,” which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. This ASU is effective January 1, 2021 for the Company. The Company does not expect the adoption of this ASU will have a material impact on the Company’s financial statements.

In January 2020, the FASB issued ASU 2020-01, “Investments - Equity Securities (Topic 321), Investments - Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815), clarifying the Interactions between Topic 321, Topic 323, and Topic 815.” This guidance addresses accounting for the transition into and out of the equity method and provides clarification of the interaction of rules for equity securities, the equity method of accounting, and forward contracts and purchase options on certain types of securities. This standard is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2020. Early adoption is permitted. This ASU is effective January 1, 2021 for the Company. The Company does not expect the adoption of this ASU will have a material impact on the Company’s financial statements.

In August 2020, the FASB issued ASU No. 2020-06, “Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity’s Own Equity.” ASU 2020-06 simplifies the accounting for convertible instruments by removing major separation models and removing certain settlement condition qualifiers for the derivatives scope exception for contracts in an entity’s own equity, and simplifies the related diluted net income per share calculation for both Subtopics. ASU 2020-06 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2023, for the Company as a smaller reporting company. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. The Company is currently evaluating the impact of this ASU on its consolidated financial statements and disclosures.

In October 2020, the FASB issued ASU No 2020-10, “Codification Improvements.” ASU 2020-10 updates various codification topics by clarifying or improving disclosure requirements. ASU 2020-10 is effective for public entities for fiscal years beginning after December 15, 2020, with early adoption permitted. This ASU is effective January 1, 2021 for the Company. The Company does not expect the adoption of this ASU will have a material impact on the Company’s financial statements and disclosures.

NOTE 3

COVID-19 IMPACT

The COVID-19 pandemic that started in early part of 2020 continues to present potential new risks to our business and continues to result in significant volatility in the U.S. and international markets. The Company continues to closely monitor the impact of the COVID-19 pandemic on all aspects of our business. Starting in late March 2020, the Company’s operations were impacted by the shutdown of a number of projects and the delays of certain waste shipments. Since the latter part of the second quarter of 2020, all of the projects that were previously shutdown within our Services Segment restarted as stay-at-home orders and certain other restrictions resulting from the pandemic were lifted. Despite the shutdown of certain projects for part of 2020, revenues generated within our Services Segment in 2020 exceeded our revenue generated in 2019 by approximately \$42,188,000. The Company continues to experience delays in waste shipments from certain customers within our Treatment Segment directly related to the impact of COVID-19 including generator shutdowns and limited sustained operations, along with other factors. However, the Company expects to see a gradual return in waste receipts from these customers starting in the first half of 2021 as they accelerate operations. As the impact of COVID-19 remains fluid, the uncertainty in waste receipt shipments may impact our results of operations for the first quarter of 2021 and potentially the second quarter of 2021. The potential for a material impact on the Company’s business increases the longer COVID-19 impacts the level of economic activities in the United States and globally as our customers may continue to delay waste shipments and project work may shut down again. For this reason, we cannot reasonably estimate with any degree of certainty the future impact COVID-19 may have on our results of operations, financial position, and liquidity which may impact our ability to meet our financial covenant requirements under our credit facility.

The Company’s cash flow requirements during 2020 were primarily financed by our operations, credit facility availability, and proceeds from the PPP Loan (established under the CARES Act) that the Company entered into with its credit facility lender in April 2020 (see “Note 10 – Long Term Debt – PPP Loan” for further detail of this loan). At December 31, 2020, the Company had borrowing availability under its

revolving credit facility of approximately \$14,220,000 which was based on a percentage of eligible receivables and subject to certain reserves and included its cash on hand of approximately \$7,924,000. The Company's working capital at December 31, 2020 was approximately \$3,672,000 as compared to working capital of \$26,000 at December 31, 2019. Our working capital at December 31, 2020 included the classification of approximately \$3,191,000 of the outstanding PPP Loan balance of \$5,318,000 at December 31, 2020 as "Current portion of long-term debt" on our Consolidated Balance Sheets. We have applied for forgiveness on repayment of the entire PPP Loan balance which is subject to the review and approval of our lender and the SBA.

At this time, the Company believes it has sufficient liquidity on hand to fund cash flow requirements for the next twelve months which consist primarily of general working capital needs, scheduled principal payments on our debt obligations, remediation projects, and planned capital expenditures. The Company plans to fund these requirements from our operations, credit facility availability, and cash on hand. The Company is continually reviewing operating costs during this volatile time and is committed to further reducing operating costs to bring them in line with revenue levels, when necessary. These measures include curtailing capital expenditures, eliminating non-essential expenditures and implementing a hiring freeze as needed.

The Company is closely monitoring our customers' payment performance. However, as a significant portion of our revenues is derived from government related contracts, the Company does not expect its accounts receivable collections to be materially impacted due to COVID-19.

As previously disclosed, the Company's Medical Segment has not generated any revenue. The Company anticipates that its Medical Segment will not resume full R&D activities until it obtains the necessary funding through obtaining its own credit facility or additional equity raise or obtaining new partners willing to fund its R&D activities. If the Medical Segment is unable to raise the necessary capital, the Medical Segment could be required to further reduce, delay or eliminate its R&D program.

NOTE 4 REVENUE

Disaggregation of Revenue

In general, the Company's business segmentation is aligned according to the nature and economic characteristics of our services and provides meaningful disaggregation of each business segment's results of operations. The following tables present further disaggregation of our revenues by different categories for our Services and Treatment Segments:

Revenue by Contract Type (In thousands)

	Twelve Months Ended			Twelve Months Ended		
	December 31, 2020			December 31, 2019		
	Treatment	Services	Total	Treatment	Services	Total
Fixed price	\$ 30,143	\$ 8,970	\$ 39,113	\$ 40,364	\$ 12,162	\$ 52,526
Time and materials	—	66,313	66,313	—	20,788	20,788
Cost reimbursement	—	—	—	—	145	145
Total	\$ 30,143	\$ 75,283	\$ 105,426	\$ 40,364	\$ 33,095	\$ 73,459

Revenue by generator (In thousands)

	Twelve Months Ended			Twelve Months Ended		
	December 31, 2020			December 31, 2019		
	Treatment	Services	Total	Treatment	Services	Total
Domestic government	\$ 22,795	\$ 68,237	\$ 91,032	\$ 29,420	\$ 25,077	\$ 54,497
Domestic commercial	6,933	1,825	8,758	10,601	2,724	13,325
Foreign government	415	5,135	5,550	279	5,209	5,488
Foreign commercial	—	86	86	64	85	149
Total	\$ 30,143	\$ 75,283	\$ 105,426	\$ 40,364	\$ 33,095	\$ 73,459

Contract Balances

The timing of revenue recognition, billings, and cash collections results in accounts receivable and unbilled receivables (contract assets). The Company's contract liabilities consist of deferred revenues which

represents advance payment from customers in advance of the completion of our performance obligation.

The following table represents changes in our contract assets and contract liabilities balances:

(In thousands)		December 31, 2020	December 31, 2019	Year-to-date Change (\$)	Year-to-date Change (%)
Contract assets					
Account receivables, net of allowance	\$	9,659	\$ 13,178	\$ (3,519)	(26.7) %
Unbilled receivables - current		14,453	7,984	6,469	81.0 %
Contract liabilities					
Deferred revenue	\$	4,614	\$ 5,456	\$ (842)	(15.4) %

During the twelve months ended December 31, 2020 and 2019, the Company recognized revenue of \$8,094,000 and \$10,354,000, respectively, related to untreated waste that was in the Company's control as of the beginning of each respective year. Revenue recognized in each period related to performance obligations satisfied within the respective period.

NOTE 5 LEASES

The components of lease cost for the Company's leases were as follows (in thousands):

	Twelve Months Ended December 31,	
	2020	2019
Operating Leases:		
Lease cost	\$ 456	\$ 456
Finance Leases:		
Amortization of ROU assets	220	63
Interest on lease liability	143	63
	363	126
Short-term lease rent expense	15	43
Total lease cost	\$ 834	\$ 625

The weighted average remaining lease term and the weighted average discount rate for operating and finance leases at December 31, 2020 was:

	Operating Leases	Finance Leases
Weighted average remaining lease terms (years)	8.0	3.5
Weighted average discount rate	8.0%	7.3%

The weighted average remaining lease term and the weighted average discount rate for operating and finance leases at December 31, 2019 was:

	Operating Leases	Finance Leases
Weighted average remaining lease terms (years)	8.8	2.0
Weighted average discount rate	8.0%	9.3%

The following table reconciles the undiscounted cash flows for the operating and finance leases at December 31, 2020 to the operating and finance lease liabilities recorded on the balance sheet (in thousands):

	Operating Leases		Finance Leases	
2021	\$	450	\$	587
2022		458		271
2023		466		150
2024		342		146
2025		304		146
2025 and thereafter		1,154		18
Total undiscounted lease payments		3,174		1,318
Less: Imputed interest		(831)		(131)
Present value of lease payments	\$	<u>2,343</u>	\$	<u>1,187</u>
Current portion of operating lease obligations	\$	273	\$	—
Long-term operating lease obligations, less current portion	\$	2,070	\$	—
Current portion of finance lease obligations	\$	—	\$	525
Long-term finance lease obligations, less current portion	\$	—	\$	662

Supplemental cash flow and other information related to our leases were as follows (in thousands):

	Twelve Months Ended December 31,	
	2020	2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flow from operating leases	\$ 442	\$ 434
Operating cash flow from finance leases	\$ 143	\$ 63
Financing cash flow from finance leases	\$ 615	\$ 272
ROU assets obtained in exchange for lease obligations for:		
Finance liabilities	\$ 874	\$ 893
Operating liabilities	\$ —	\$ 182

NOTE 6 PERMIT AND OTHER INTANGIBLE ASSETS

The following table summarizes changes in the carrying value of permits. No permit exists at our Services and Medical Segments.

Permit (amount in thousands)	Treatment
Balance as of December 31, 2018	\$ 8,443
PCB permit amortized ⁽¹⁾	(7)
Permit in progress	354
Balance as of December 31, 2019	<u>8,790</u>
Permit in progress	132
Balance as of December 31, 2020	<u>\$ 8,922</u>

The following table summarizes information relating to the Company's definite-lived intangible assets:

Intangibles (amount in thousands)	Weighted Average Amortization Period (Years)	December 31, 2020			December 31, 2019		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patent	13	\$ 742	\$ (334)	\$ 408	\$ 760	\$ (358)	\$ 402
Software	3	418	(411)	7	414	(408)	6
Customer relationships	10	3,370	(2,910)	460	3,370	(2,713)	657
Permit	—	—	—	—	545	(545)	—
Total		<u>\$ 4,530</u>	<u>\$ (3,655)</u>	<u>\$ 875</u>	<u>\$ 5,089</u>	<u>\$ (4,024)</u>	<u>\$ 1,065</u>

The intangible assets noted above were amortized on a straight-line basis over their useful lives with the exception of customer relationships which were amortized using an accelerated method.

The following table summarizes the expected amortization over the next five years for our definite-lived intangible assets:

Year	Amount (In thousands)
2021	199
2022	172
2023	132
2024	11
2025	11

Amortization expense recorded for definite-lived intangible assets was approximately \$239,000 and \$256,000, for the years ended December 31, 2020 and 2019, respectively.

NOTE 7

CAPITAL STOCK, STOCK PLANS, WARRANTS, AND STOCK BASED COMPENSATION

Stock Option Plans

The Company adopted the 2003 Outside Directors Stock Plan (the “2003 Plan”), which was approved by our stockholders at the Company’s July 29, 2003 Annual Meeting of Stockholders. Non-Qualified Stock Options (“NQSOs”) granted under the 2003 Plan generally have a vesting period of six months from the date of grant and a term of 10 years, with an exercise price equal to the closing trade price on the date prior to grant date. The 2003 Plan also provides for the issuance to each outside director a number of shares of the Company’s Common Stock in lieu of 65% or 100% (based on option elected by each director) of the fee payable to the eligible director for services rendered as a member of the Board. The number of shares issued is determined at 75% of the market value as defined in the plan (the Company recognizes 100% of the market value of the shares issued). The 2003 Plan, as amended, also provides for the grant of an NQSO to purchase up to 6,000 shares of our Common Stock for each outside director upon initial election to the Board, and the grant of an NQSO to purchase 2,400 shares of our Common Stock upon each re-election. The number of shares of the Company’s Common Stock authorized under the 2003 Plan is 1,100,000. At December 31, 2020, the 2003 Plan had available for issuance 218,577 shares.

The Company’s 2017 Stock Option Plan (“2017 Plan”) authorizes the grant of options to officers and employees of the Company, including any employee who is also a member of the Board, as well as to consultants of the Company. The 2017 Plan authorizes an aggregate grant of 1,140,000 NQSOs and ISOs, which includes a rollover of 140,000 shares that had remained available for issuance under the 2010 Stock Option Plan (“2010 Plan”) immediately upon the approval of the 2017 Plan and an increase of 600,000 shares to the 2017 Plan which was approved by the Company’s stockholders at the 2020 Annual Meeting of Stockholders held on July 22, 2020 (“2020 Annual Meeting”). Consultants of the Company can only be granted NQSOs. The term of each stock option granted under the 2017 Plan shall be fixed by the Compensation Committee, but no stock options will be exercisable more than ten years after the grant date, or in the case of an ISO granted to a 10% stockholder, five years after the grant date. The exercise price of any ISO granted under the 2017 Plan to an individual who is not a 10% stockholder at the time of the grant shall not be less than the fair market value of the shares at the time of the grant, and the exercise price of any ISO granted to a 10% stockholder shall not be less than 110% of the fair market value at the time of grant. The exercise price of any NQSOs granted under the plan shall not be less than the fair market value of the shares at the time of grant. At December 31, 2020, the 2017 Plan had available for issuance 647,500 shares.

Upon the approval of the 2017 Plan as discussed above, no further options remained available for issuance under the 2010 Plan. On September 29, 2020, the 2010 Plan expired; however, an option (ISO) issued under the 2010 Plan prior to the expiration of the 2010 Plan for the purchase of up to 50,000 shares of our

Common Stock at \$3.97 per share will remain in effect until the earlier of the exercise date by the optionee or the maturity date of May 15, 2022.

Stock Options to Employees and Outside Director

On February 4, 2020, the Company granted 6,000 NQSOs from the Company's 2003 Plan to a new director elected by the Company's Board to fill a vacancy on the Board. The options granted were for a contractual term of ten years with a vesting period of six months. The exercise price of the options was \$7.00 per share, which was equal to the Company's closing stock price per share the day preceding the grant date, pursuant to the 2003 Plan.

On July 22, 2020, the Company granted an aggregate of 12,000 NQSOs from the Company's 2003 Plan to five of the six re-elected directors at the Company's 2020 Annual Meeting. Dr. Louis F. Centofanti, the Company's EVP of Strategic Initiatives and also a Board member, was not eligible to receive options under the 2003 Plan as an employee of the Company, pursuant to the 2003 Plan. The NQSOs granted were for a contractual term of ten years with a vesting period of six months. The exercise price of the NQSO was \$6.70 per share, which was equal to our closing stock price the day preceding the grant date, pursuant to the 2003 Plan.

On August 10, 2020, the Company granted 6,000 NQSOs from the Company's 2003 Plan to a new director elected by the Company's Board to fill a vacancy on the Board. The options granted were for a contractual term of ten years with a vesting period of six months. The exercise price of the options was \$7.29 per share, which was equal to the Company's closing stock price per share the day preceding the grant date, pursuant to the 2003 Plan.

On January 17, 2019 the Company granted 105,000 ISOs from the 2017 Plan to certain employees, which included our executive officers as follows: 25,000 ISOs to our CEO; 15,000 ISOs to our CFO; and 15,000 ISOs to our EVP of Strategic Initiatives. The ISOs granted were for a contractual term of six years with one-fifth vesting annually over a five-year period. The exercise price of the ISO was \$3.15 per share, which was equal to the fair market value of the Company's Common Stock on the date of grant.

On July 25, 2019, the Company granted an aggregate of 12,000 NQSOs from the Company's 2003 Plan to five of the six re-elected directors at the Company's Annual Meeting of Stockholders held on July 25, 2019. Dr. Louis F. Centofanti (a Board member) was not eligible to receive options under the 2003 Plan as an employee of the Company, pursuant to the 2003 Plan. The NQSOs granted were for a contractual term of ten years with a vesting period of six months. The exercise price of the NQSO was \$3.31 per share, which was equal to our closing stock price the day preceding the grant date, pursuant to the 2003 Plan.

On August 29, 2019 the Company granted an aggregate of 12,500 ISOs from the 2017 Plan to certain employees. The ISOs granted were for a contractual term of six years with one-fifth vesting annually over a five-year period. The exercise price of the ISO was \$3.90 per share, which was equal to the fair market value of the Company's Common Stock on the date of grant.

During 2020, the Company issued 2,000 shares of its Common Stock resulting from the exercise of options from the Company's 2017 Plan for total proceeds of \$6,300. Additionally, the Company issued 1,884 shares of its Common Stock from cashless exercises of 8,000 and 2,500 options at \$3.60 per share and \$3.15 per share, respectively. The Company issued an aggregate of 32,400 shares of Common Stock in 2019 from exercises of options resulting in total proceed of approximately \$133,000.

The Company estimates fair value of stock options using the Black-Scholes valuation model. Assumptions used to estimate the fair value of stock options granted include the exercise price of the award, the expected term, the expected volatility of the Company's stock over the option's expected term, the risk-free interest rate over the option's expected term, and the expected annual dividend yield. The fair value of the options granted during 2020 and 2019 and the related assumptions used in the Black-Scholes option model used to value the options granted were as follows. No options were granted to employees in 2020:

	Employee Stock Option Granted	
	2019	
Weighted-average fair value per share	\$	1.46
Risk -free interest rate ⁽¹⁾		1.40%-2.58%
Expected volatility of stock ⁽²⁾		48.67%-51.38%
Dividend yield		None
Expected option life ⁽³⁾		5.0 years

	Outside Director Stock Options Granted	
	2020	2019
Weighted-average fair value per share	\$ 4.66	\$ 2.27
Risk -free interest rate ⁽¹⁾	0.59%-1.61%	2.08%
Expected volatility of stock ⁽²⁾	55.83%-56.68%	54.28%
Dividend yield	None	None
Expected option life ⁽³⁾	10.0 years	10.0 years

⁽¹⁾ The risk-free interest rate is based on the U.S. Treasury yield in effect at the grant date over the expected term of the option.

⁽²⁾ The expected volatility is based on historical volatility from our traded Common Stock over the expected term of the option.

⁽³⁾ The expected option life is based on historical exercises and post-vesting data.

The following table summarizes stock-based compensation recognized for fiscal years 2020 and 2019.

	Year Ended	
	2020	2019
Employee Stock Options	\$ 132,000	\$ 150,000
Director Stock Options	104,000	29,000
Total	\$ 236,000	\$ 179,000

At December 31, 2020, the Company has approximately \$274,000 of total unrecognized compensation costs related to unvested options for employee and directors. The weighted average period over which the unrecognized compensation costs are expected to be recognized is approximately 2.1 years.

Stock Options to Consultant

The Company granted a NQSO to Robert Ferguson on July 27, 2017 from the Company's 2017 Plan for the purchase of up to 100,000 shares of the Company's Common Stock ("Ferguson Stock Option") in connection with his work as a consultant to the Company's Test Bed Initiative ("TBI") at our PFNWR facility at an exercise price of \$3.65 per share, which was the fair market value of the Company's Common Stock on the date of grant. The term of the Ferguson Stock Option is seven years from the grant date. The vesting of the Ferguson Stock Option is subject to the achievement of three separate milestones by certain dates. On January 17, 2019, the Company's Compensation and Board approved an amendment to the Ferguson Stock Option whereby the vesting date for the second milestone for the purchase of up to 30,000 shares of the Company's Common Stock was extended to March 31, 2020 from January 27, 2019. On March 27, 2020, the Compensation Committee and the Board approved another amendment to the Ferguson Stock Option whereby the vesting date for the second milestone was further extended to December 31, 2021 from March 31, 2020 and the vesting date for the third milestone for the purchase of up to 60,000 shares of the Company's Common Stock was extended to December 31, 2022 from January 27, 2021. The 10,000 options under the first milestone were exercised by Robert Ferguson in May 2018. The Company has not recognized compensation costs (fair value of approximately \$262,000 at December 31, 2020) for the remaining 90,000 Ferguson Stock Option under the remaining two milestones since achievement of the performance obligation under each of the two remaining milestones is uncertain at December 31, 2020. All other terms of the Ferguson Stock Option remain unchanged.

Summary of Stock Option Plans

The summary of the Company's total plans as of December 31, 2020 and 2019, and changes during the period then ended are presented as follows:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value ⁽⁴⁾
Options outstanding January 1, 2020	681,300	\$ 3.84		
Granted	24,000	\$ 6.92		
Exercised	(12,500)	\$ 3.47		\$ 16,060
Forfeited/expired	(34,400)	\$ 5.52		
Options outstanding end of period ⁽¹⁾	<u>658,400</u>	\$ 3.87	3.5	\$ 1,426,143
Options exercisable at December 31, 2020 ⁽²⁾	<u><u>356,400</u></u>	\$ 3.99	3.3	\$ 732,163

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value ⁽⁴⁾
Options outstanding January 1, 2019	616,000	\$ 4.23		
Granted	129,500	3.24		
Exercised	(32,400)	4.10		\$ 93,000
Forfeited/expired	(31,800)	8.68		
Options outstanding end of period ⁽³⁾	<u>681,300</u>	\$ 3.84	4.2	\$ 3,587,000
Options exercisable as of December 31, 2019 ⁽³⁾	<u><u>286,800</u></u>	\$ 4.28	3.8	\$ 1,383,000

⁽¹⁾ Options with exercise prices ranging from \$2.79 to \$7.29

⁽²⁾ Options with exercise prices ranging from \$2.79 to \$7.05

⁽³⁾ Options with exercise prices ranging from \$2.79 to \$8.40

⁽⁴⁾ The intrinsic value of a stock option is the amount by which the market value of the underlying stock exceeds the exercise price

The summary of the Company's nonvested options as of December 31, 2020 and changes during the period then ended are presented as follows:

	Shares	Weighted Average Grant-Date Fair Value
Non-vested options January 1, 2020	394,500	\$ 1.77
Granted	24,000	4.66
Vested	(96,500)	2.00
Forfeited	(20,000)	1.62
Non-vested options at December 31, 2020	<u><u>302,000</u></u>	\$ 1.94

Warrant

In connection with a \$2,500,000 loan that the Company executed April 1, 2019 with Mr. Robert Ferguson, the Company issued a Warrant to Mr. Ferguson for the purchase of up to 60,000 shares of our Common Stock at an exercise price of \$3.51 per share. The Warrant is exercisable six months from April 1, 2019 and expires on April 1, 2024 and remains outstanding at December 31, 2020 (see "Note 10 – Long Term Debt" for further information of this Warrant).

Common Stock Issued for Services

The Company issued a total of 34,135 and 71,905 shares of our Common Stock in 2020 and 2019, respectively, under our 2003 Plan to our outside directors as compensation for serving on our Board. As a member of the Board, each director elects to receive either 65% or 100% of the director's fee in shares of

our Common Stock. The number of shares received is calculated based on 75% of the fair market value of our Common Stock determined on the business day immediately preceding the date that the quarterly fee is due. The balance of each director's fee, if any, is payable in cash. The Company recorded approximately \$250,000 and \$232,000 in compensation expense (included in SG&A expenses) for the twelve months ended December 31, 2020 and 2019, respectively, for the portion of director fees earned in the Company's Common Stock.

Shares Reserved

At December 31, 2020, the Company has reserved approximately 658,400 shares of our Common Stock for future issuance under all of the option arrangements.

NOTE 8 INCOME (LOSS) PER SHARE

The following table reconciles the income (loss) and average share amounts used to compute both basic and diluted loss per share:

(Amounts in Thousands, Except for Per Share Amounts)	Years Ended	
	December 31,	
	2020	2019
Net income attributable to Perma-Fix Environmental Services, Inc., common stockholders:		
Income from continuing operations, net of taxes	\$ 3,149	\$ 2,732
Net loss attributable to non-controlling interest	(123)	(124)
Income from continuing operations attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$ 3,272	\$ 2,856
Loss from discontinuing operations attributable to Perma-Fix Environmental Services, Inc. common stockholders	(412)	(541)
Net income attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$ 2,860	\$ 2,315
Basic income per share attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$.24	\$.19
Diluted income per share attributable to Perma-Fix Environmental Services, Inc. common stockholders	\$.23	\$.19
Weighted average shares outstanding:		
Basic weighted average shares outstanding	12,139	12,046
Add: dilutive effect of stock options	184	14
Add: dilutive effect of warrants	24	—
Diluted weighted average shares outstanding	12,347	12,060
Potential shares excluded from above weighted average share calculations due to their anti-dilutive effect include:		
Stock options	42	482
Warrant	—	60

NOTE 9 DISCONTINUED OPERATIONS

The Company's discontinued operations consist of all our subsidiaries included in our Industrial Segment which encompasses subsidiaries divested in 2011 and prior and three previously closed locations.

The Company incurred losses from discontinued operations of \$412,000 and \$541,000 for the years ended December 31, 2020 and 2019 (net of taxes of \$0 for each period), respectively. The loss for the year ended 2019 included an increase of approximately \$50,000 in remediation reserve for our PFM subsidiary due to reassessment of the remediation reserve. The remaining loss for each of the periods noted above was

primarily due to costs incurred in the administration and continued monitoring of our discontinued operations.

The following table presents the major class of assets of discontinued operations at December 31, 2020 and December 31, 2019. No assets and liabilities were held for sale at each of the periods noted.

(Amounts in Thousands)	December 31, 2020	December 31, 2019
Current assets		
Other assets	\$ 22	\$ 104
Total current assets	<u>22</u>	<u>104</u>
Long-term assets		
Property, plant and equipment, net ⁽¹⁾	81	81
Other assets	<u>—</u>	<u>36</u>
Total long-term assets	<u>81</u>	<u>117</u>
Total assets	<u><u>\$ 103</u></u>	<u><u>\$ 221</u></u>
Current liabilities		
Accounts payable	\$ 4	\$ 8
Accrued expenses and other liabilities	150	169
Environmental liabilities	<u>744</u>	<u>817</u>
Total current liabilities	898	994
Long-term liabilities		
Closure liabilities	142	134
Environmental liabilities	<u>110</u>	<u>110</u>
Total long-term liabilities	<u>252</u>	<u>244</u>
Total liabilities	<u><u>\$ 1,150</u></u>	<u><u>\$ 1,238</u></u>

⁽¹⁾ net of accumulated depreciation of \$10,000 for each period presented.

The Company's discontinued operations included a note receivable in the original amount of approximately \$375,000 recorded in May 2016 resulting from the sale of property at our Perma-Fix of Michigan, Inc. ("PFMI") subsidiary. This note required 60 equal monthly installment payments by the buyer of approximately \$7,250 (which includes interest). On July 24, 2020, the purchaser of the property paid off the outstanding note receivable balance of approximately \$105,000.

Environmental Liabilities

The Company has three remediation projects, which are currently in progress relating to our PFD, PFM and PFSG (closed locations) subsidiaries. The Company divested PFD in 2008; however, the environmental liability of PFD was retained by the Company upon the divestiture of PFD. These remediation projects principally entail the removal/remediation of contaminated soil and, in most cases, the remediation of surrounding ground water. The remediation activities are closely reviewed and monitored by the applicable state regulators.

At December 31, 2020, we had total accrued environmental remediation liabilities of \$854,000, a decrease of \$73,000 from the December 31, 2019 balance of \$927,000. The decrease represents payments made on remediation projects for our PFSG and PFD subsidiaries. At December 31, 2020, \$744,000 of the total accrued environmental liabilities was recorded as current.

The current and long-term accrued environmental liabilities at December 31, 2020 are summarized as follows (in thousands).

	Current Accrual	Long-term Accrual	Total
PFD	\$ 17	\$ 60	\$ 77
PFM	\$ 50	15	65
PFSG	<u>\$ 677</u>	<u>35</u>	<u>712</u>
Total liability	<u><u>\$ 744</u></u>	<u><u>\$ 110</u></u>	<u><u>\$ 854</u></u>

NOTE 10 LONG-TERM DEBT

Long-term debt consists of the following at December 31, 2020 and December 31, 2019:

(Amounts in Thousands)	December 31, 2020	December 31, 2019
Revolving Credit facility dated May 8, 2020, borrowings based upon eligible accounts receivable, subject to monthly borrowing base calculation, balance due on May 15, 2024. Effective interest rate for 2020 and 2019 was 6.1% and 6.6%, respectively. ⁽¹⁾	\$ —	\$ 321
Term Loan dated May 8, 2020, payable in equal monthly installments of principal, balance due on May 15, 2024. Effective interest rate for 2020 and 2019 was 5.2% and 6.9%, respectively. ⁽¹⁾	1,388 ⁽²⁾	1,827 ⁽²⁾
Promissory Note dated April 1, 2019, payable in twelve monthly installments of interest only, starting May 1, 2019 followed with twelve monthly installments of approximately \$208 in principal plus accrued interest. Interest accrues at annual rate of 4.0%. ⁽³⁾	— ⁽⁴⁾	1,732 ⁽⁴⁾
Promissory Note dated April 14, 2020, balance subject to loan forgiveness. Interest accrues at annual rate of 1.0%. ⁽³⁾	5,318 ⁽⁵⁾	—
Note Payable dated June 10, 2020, payable in 36 monthly installments, starting in July 2020 at annual interest rate of \$5.64%.	23	—
Total debt	<u>6,729</u>	<u>3,880</u>
Less current portion of long-term debt	<u>3,595</u> ⁽⁴⁾	<u>1,300</u> ⁽⁴⁾
Long-term debt	<u>\$ 3,134</u>	<u>\$ 2,580</u>

⁽¹⁾ Our revolving credit facility is collateralized by our accounts receivable and our term loan is collateralized by our property, plant, and equipment. Effective July 1, 2019, monthly installment principal payment on the Term Loan was amended to approximately \$35,500 from approximately \$101,600. See “Revolving Credit and Term Loan Agreement” below for terms of the Company’s credit facility prior to the New Loan Agreement dated May 8, 2020.

⁽²⁾ Net of debt issuance costs of (\$105,000) and (\$92,000) at December 31, 2020 and December 31, 2019, respectively.

⁽³⁾ Uncollateralized note.

⁽⁴⁾ Net of debt discount/debt issuance costs of (\$0) and (\$248,000) at December 31, 2020 and December 31, 2019, respectively. The Promissory Note provided for prepayment of principal over the term of the Note without penalty. In 2019, the Company made total prepayment of principal of \$520,000 which was reflected in the current portion of the debt. In 2020, the outstanding principal balance of \$1,980,000 was paid-in-full of which of which \$416,000 was prepaid.

⁽⁵⁾ Entered into with the Company’s credit facility lender under the PPP under the CARES Act (see “PPP Loan” below for further information on this loan and its terms).

Revolving Credit and Term Loan Agreement

The Company entered into an Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated October 31, 2011 (“Amended Loan Agreement”), with PNC National Association (“PNC”), acting as agent and lender. The Amended Loan Agreement had been amended from time to time since the execution of the Amended Loan Agreement. The Amended Loan Agreement, as subsequently amended (“Revised Loan Agreement”), provided the Company with the following credit facility with a maturity date of March 24, 2021: (a) up to \$12,000,000 revolving credit (“revolving credit”) and (b) a term loan (“term loan”) of approximately \$6,100,000. The maximum that the Company can borrow under the revolving credit was based on a percentage of eligible receivables (as defined) at any one time reduced by outstanding standby letters of credit and borrowing reductions that our lender may impose from time to time.

Payment of annual rate of interest due on the revolving credit under the Revised Loan Agreement was at prime (3.25% at December 31, 2020) plus 2% and the term loan at prime plus 2.5%.

On May 8, 2020, the Company entered into a Second Amended and Restated Revolving Credit, Term Loan and Security Agreement (the “New Loan Agreement”) with PNC, replacing our previous Revised Loan Agreement with PNC. The New Loan Agreement provides the Company with the following credit facility:

- up to \$18,000,000 revolving credit facility, subject to the amount of borrowings based on a percentage of eligible receivables and subject to certain reserves; and
- a term loan of \$1,741,818, which requires monthly installments of \$35,547.

The New Loan Agreement terminates as of May 15, 2024, unless sooner terminated.

Similar to our Revised Loan Agreement, the New Loan Agreement requires the Company to meet certain customary financial covenants, including, among other things, a minimum Tangible Adjusted Net Worth requirement of \$27,000,000 at all times; maximum capital spending of \$6,000,000 annually; and a minimum FCCR requirement of 1.15:1.

Under the New Loan Agreement, payment of annual rate of interest due on the credit facility is as follows:

- revolving credit at prime plus 2.50% or LIBOR plus 3.50% and the term loan at prime plus 3.00% or LIBOR plus 4.00%. The Company can only elect to use the LIBOR interest payment option after it becomes compliant with meeting the minimum FCCR of 1.15:1; and
- Upon the achievement of a FCCR of greater than 1.25:1, the Company has the option of paying an annual rate of interest due on the revolving credit at prime plus 2.00% or LIBOR plus 3.00% and the term loan at prime plus 2.50% or LIBOR plus 3.50%. The Company met this FCCR in each of the quarters in 2020. Upon meeting the FCCR of 1.25:1, this interest payment option will remain in place in the event that the Company’s future FCCR falls below 1.25:1.

Under the LIBOR option of interest payment noted above, a LIBOR floor of 0.75% shall apply in the event that LIBOR falls below 0.75% at any point in time.

Pursuant to the New Loan Agreement, the Company may terminate the New Loan Agreement upon 90 days’ prior written notice upon payment in full of our obligations under the New Loan Agreement. The Company has agreed to pay PNC 1.0% of the total financing in the event we pay off our obligations on or before May 7, 2021 and 0.5% of the total financing if we pay off our obligations after May 7, 2021 but prior to or on May 7, 2022. No early termination fee shall apply if we pay off our obligations under the New Loan Agreement after May 7, 2022.

In connection with New Loan Agreement, the Company paid its lender a fee of \$50,000 and incurred other direct costs of approximately \$35,000, which are being amortized over the term of the New Loan Agreement as interest expense-financing fees. As a result of the termination of the Revised Loan Agreement, the Company recorded approximately \$27,000 in loss on extinguishment of debt in accordance with ASC 470-50, “Debt – Modifications and Extinguishment.”

At December 31, 2020, the borrowing availability under our revolving credit was approximately \$14,220,000, based on our eligible receivables and includes a reduction in borrowing availability of approximately \$3,026,000 from outstanding standby letters of credit.

The Company’s credit facility under its Revised and New Loan Agreement with PNC contains certain financial covenants, along with customary representations and warranties. A breach of any of these financial covenants, unless waived by PNC, could result in a default under our credit facility allowing our lender to immediately require the repayment of all outstanding debt under our credit facility and terminate all commitments to extend further credit. The Company met its financial covenant requirements in 2020, including its quarterly FCCR requirements.

Loan and Securities Purchase Agreement, Promissory Note and Subordination Agreement

On April 1, 2019, the Company completed a lending transaction with Robert Ferguson (the “Lender”), whereby the Company borrowed from the Lender the sum of \$2,500,000 pursuant to the terms of a Loan and Security Purchase Agreement and promissory note (the “Loan”). The Lender is a shareholder of the Company and also serves as a consultant to the Company in connection with the Company’s TBI at its PFNWR subsidiary. Proceeds from the Loan were used for general working capital purposes. The Loan is unsecured, with a term of two years with interest payable at a fixed interest rate of 4.00% per annum. The Loan provides for monthly payments of accrued interest only during the first year of the Loan, with the first interest payment due May 1, 2019 and monthly payments of approximately \$208,333 in principal plus accrued interest starting in the second year of the Loan. The Loan also allows for prepayment of principal payments over the term of the Loan without penalty with such prepayment of principal payments to be applied to the second year of the loan payments at the Company’s discretion. In December 2020, the Loan was paid-in-full. In connection with this capital raise transaction described above and consideration for us receiving the Loan, the Company issued a Warrant (the “Warrant”) to the Lender to purchase up to 60,000 shares of our Common Stock at an exercise price of \$3.51 per share, which was the closing bid price for a share of our Common Stock on NASDAQ.com immediately preceding the execution of the Loan and Warrant. The Warrant expires on April 1, 2024 and remains outstanding at December 31, 2020. As further consideration for this capital raise transaction relating to the Loan, the Company also issued 75,000 shares of its Common Stock to the Lender. The fair value of the Warrant and Common Stock and the related closing fees incurred from the transaction totaled approximately \$398,000 and was recorded as debt discount/debt issuance costs which has been fully amortized as interest expense – financing fees. The 75,000 shares of Common Stock, the Warrant and the 60,000 shares of Common Stock that may be purchased under the Warrant were and will be issued in a private placement that was and will be exempt from registration under Rule 506 and/or Sections 4(a)(2) and 4(a)(5) of the Securities Act of 1933, as amended (the “Act”) and bear a restrictive legend against resale except in a transaction registered under the Act or in a transaction exempt from registration thereunder.

PPP Loan

On April 14, 2020, the Company entered into a promissory note with PNC, our credit facility lender, in the amount of approximately \$5,666,000 (“PPP Loan”) under the PPP. The PPP was established under the CARES Act and is administered by the SBA. On June 5, 2020, the Flexibility Act was signed into law which amended the CARES Act. The note evidencing the PPP Loan contains events of default relating to, among other things, payment defaults, breach of representations and warranties, and provisions of the promissory note. During the third quarter of 2020, the Company repaid approximately \$348,000 of the PPP Loan to PNC resulting from clarification made in the loan calculation at the time of the loan origination.

Under the terms of the Flexibility Act, the Company can apply for and be granted forgiveness for all or a portion of the PPP Loan. Such forgiveness will be determined, subject to limitations, based on the use of loan proceeds by the Company for eligible payroll costs, mortgage interest, rent and utility costs and the maintenance of employee and compensation levels for the covered period (which is defined as a 24 week period, beginning April 14, 2020, the date in which proceeds from the PPP Loan was disbursed to the Company by PNC). At least 60% of such forgiven amount must be used for eligible payroll costs. On October 5, 2020, the Company applied for forgiveness on repayment of the loan balance as permitted under the program, which is subject to the review and approval of our lender and the SBA. If all or a portion of the PPP Loan is not forgiven, all or the remaining portion of the loan will be for a term of two years but can be prepaid at any time prior to maturity without any prepayment penalties. The annual interest rate on the PPP Loan is 1.0% and no payments of principal or interest are due until SBA remits the loan forgiveness amount to our lender. While the Company’s PPP Loan currently has a two year maturity, the Flexibility Act permits the Company to request a five year maturity with our lender. At December 31, 2020, the Company has not received a determination on potential forgiveness on any portion of the PPP Loan balance; therefore, the Company has classified approximately \$3,191,000 of the PPP Loan balance as “Current portion of long-term debt,” on its Consolidated Balance Sheets, which was based on payment of the PPP Loan starting in July 2021 (10 months from end of our covered period) in accordance with the terms of our PPP Loan agreement.

The following table details the amount of the maturities of long-term debt maturing in future years at December 31, 2020 (excludes debt issuance costs of \$105,000).

Year ending December 31:		
(In thousands)	2021	3,627
	2022	2,562
	2023	431
	2024	214
Total	\$	<u><u>6,834</u></u>

NOTE 11
ACCRUED EXPENSES

Accrued expenses include the following (in thousands) at December 31:

	<u>2020</u>	<u>2019</u>
Salaries and employee benefits	\$ 4,203	\$ 3,908
Accrued sales, property and other tax	589	793
Interest payable	50	17
Insurance payable	1,145	935
Other	394	465
Total accrued expenses	<u><u>\$ 6,381</u></u>	<u><u>\$ 6,118</u></u>

Accrued expenses for 2020 included a total of approximately \$419,000 in compensation expenses accrued under the 2020 Management Incentive Plans (“MIPs”) for our executives (see “Note 16 – Related Party Transactions – MIPs” for further discussion of the 2020 MIPs) in addition to a 2020 discretionary bonus of approximately \$27,000 payable to the Company’s EVP of Nuclear and Technical Services approved by the Company’s Compensation Committee. Accrued expenses for 2019 included an aggregate of approximately \$360,000 in compensation expenses accrued under 2019 MIPs for our executive officers and our SVP of Nuclear and Technical Services, which total amount was paid at the end of May 2020.

NOTE 12
ACCRUED CLOSURE COSTS AND ARO

Accrued closure costs represent our estimated environmental liability to clean up our fixed-based regulated facilities as required by our permits, in the event of closure. Changes to reported closure liabilities (current and long-term) for the years ended December 31, 2020 and 2019, were as follows:

<u>Amounts in thousands</u>	
Balance as of December 31, 2018	6,750
Accretion expense	320
Spending	(1,359)
Adjustment to closure liability	330
Balance as of December 31, 2019	<u><u>\$ 6,041</u></u>
Accretion expense	335
Spending	(11)
Balance as of December 31, 2020	<u><u>\$ 6,365</u></u>

The Company recorded an additional \$330,000 of closure costs and current closure liabilities in 2019 due to finalization of closure requirements for the Company’s M&EC facility. In 2019, the Company completed the closure and decommissioning activities of its M&EC facility in accordance with M&EC’s license and permit requirements.

The spending of approximately \$11,000 and \$1,359,000 in 2020 and 2019, respectively, was primarily for

the closure of the Company's M&EC facility. Closure liabilities of M&EC are classified as current in the Consolidated Balance Sheets for 2020 and 2019.

The reported closure asset or ARO, is reported as a component of "Net Property and equipment" in the Consolidated Balance Sheets at December 31, 2020 and 2019 with the following activity for the years ended December 31, 2020 and 2019:

<u>Amounts in thousands</u>	
Balance as of December 31, 2018	3,730
Amortization of closure and post-closure asset	<u>(191)</u>
Balance as of December 31, 2019	\$ <u>3,539</u>
Amortization of closure and post-closure asset	<u>(191)</u>
Balance as of December 31, 2020	\$ <u><u>3,348</u></u>

NOTE 13
INCOME TAXES

The components of income (loss) before income tax (benefit) expense by jurisdiction for continuing operations for the years ended December 31, consisted of the following (in thousands):

	<u>2020</u>	<u>2019</u>
United States	4,778	4,120
Canada	(1,391)	(735)
United Kingdom	(121)	(184)
Poland	<u>(306)</u>	<u>(312)</u>
Total income before tax (benefit) expense	\$ <u><u>2,960</u></u>	\$ <u><u>2,889</u></u>

The components of current and deferred federal and state income tax (benefit) expense for continuing operations for the years ended December 31, consisted of the following (in thousands):

	<u>2020</u>	<u>2019</u>
Federal income tax expense - deferred	4	5
State income tax (benefit) expense - current	(70)	153
State income tax (benefit) expense - deferred	<u>(123)</u>	<u>(1)</u>
Total income tax (benefit) expense	\$ <u><u>(189)</u></u>	\$ <u><u>157</u></u>

An overall reconciliation between the expected tax (benefit) expense using the federal statutory rate of 21% for each of the years ended 2020 and 2019 and the (benefit) expense for income taxes from continuing operations as reported in the accompanying Consolidated Statement of Operations is provided below (in thousands).

	2020	2019
Federal tax expense at statutory rate	\$ 622	\$ 607
State tax (benefit) expense, net of federal benefit	(192)	152
Change in deferred tax rates	(71)	106
Permanent items	126	54
Difference in foreign rate	(68)	(27)
Change in deferred tax liabilities	(256)	835
Other	117	(218)
Decrease in valuation allowance	(467)	(1,352)
Income tax (benefit) expense	<u>\$ (189)</u>	<u>\$ 157</u>

The global intangible low-taxed income (“GILTI”) provisions under the Tax Cuts and Jobs Act of 2017 (the “TCJA”) require the Company to include in its U.S. income tax return foreign subsidiary earnings in excess of an allowable return on the foreign subsidiary’s tangible assets. The Company has elected to account for GILTI tax in the period in which it is incurred, and therefore has not provided any deferred tax impacts of GILTI in its consolidated financial statements for the years ended December 31, 2020 and 2019. As the foreign subsidiaries are all in loss positions for 2020, there is no GILTI inclusion for the current year.

On March 27, 2020, the CARES Act was enacted and signed into law. The CARES Act included a number of income tax law changes, including modifications to the interest limitation under Internal Revenue Code (“IRC”) §163(j) and reinstatement of the ability to carry back net operating losses. The income tax items in the CARES Act did not have a material impact on the Company’s 2020 income tax provision.

The Company had temporary differences and net operating loss carry forwards from both our continuing and discontinued operations, which gave rise to deferred tax assets and liabilities at December 31, 2020 and 2019 as follows (in thousands):

Deferred tax assets:	2020	2019
Net operating losses	\$ 8,662	\$ 9,391
Environmental and closure reserves	1,839	1,977
Lease liability	642	742
Other	1,734	1,295
Deferred tax liabilities:		
Depreciation and amortization	(3,447)	(3,211)
Goodwill and indefinite lived intangible assets	(471)	(590)
Right-of-use lease asset	(627)	(730)
481(a) adjustment	(209)	(336)
Prepaid expenses	(22)	(22)
	<u>8,101</u>	<u>8,516</u>
Valuation allowance	(8,572)	(9,106)
Net deferred income tax liabilities	<u>(471)</u>	<u>(590)</u>

In 2020 and 2019, the Company concluded that it was more likely than not that \$8,572,000 and \$9,106,000 of our deferred income tax assets would not be realized, and as such, a full valuation allowance was applied against those deferred income tax assets.

The Company has estimated net operating loss carryforwards (“NOLs”) for federal and state income tax purposes of approximately \$14,264,000 and \$71,316,000, respectively, as of December 31, 2020. The estimated consolidated federal and state NOLs include approximately \$2,455,000 and \$3,774,000, respectively, of our majority-owned subsidiary, PF Medical, which is not part of our consolidated group for tax purposes. These net operating losses can be carried forward and applied against future taxable income, if any, and expire in various amounts starting in 2021. Approximately \$12,199,000 of our federal NOLs

were generated after December 31, 2017 and thus do not expire. However, as a result of various stock offerings and certain acquisitions, which in the aggregate constitute a change in control, the use of these NOLs will be limited under the provisions of Section 382 of the Internal Revenue Code of 1986, as amended. Additionally, NOLs may be further limited under the provisions of Treasury Regulation 1.1502-21 regarding Separate Return Limitation Years.

The tax years 2017 through 2020 remain open to examination by taxing authorities in the jurisdictions in which the Company operates.

No uncertain tax positions were identified by the Company for the years currently open under statute of limitations.

The Company had no federal income tax payable for the years ended December 31, 2020 and 2019.

NOTE 14

COMMITMENTS AND CONTINGENCIES

Hazardous Waste

In connection with our waste management services, the Company processes both hazardous and non-hazardous waste, which we transport to our own, or other, facilities for destruction or disposal. As a result of disposing of hazardous substances, in the event any cleanup is required at the disposal site, the Company could be a potentially responsible party for the costs of the cleanup notwithstanding any absence of fault on our part.

Legal Matters

In the normal course of conducting our business, we are involved in various litigation. We are not a party to any litigation or governmental proceeding which our management believes could result in any judgments or fines against us that could would have a material adverse effect on our financial position, liquidity or results of future operations.

During July 2020, Tetra Tech EC, Inc. ("Tetra Tech") filed a complaint in the United States District Court for the Northern District of California against CH2M Hill, Inc. ("CH2M") and four subcontractors of CH2M, including the Company ("Defendants"). The complaint alleges claims for negligence, negligent misrepresentation and equitable indemnification against all defendants related to alleged damages suffered by Tetra Tech in respect of certain draft reports prepared by defendants at the request of the U.S. Navy as part of an investigation and review of certain whistleblower complaints about Tetra Tech's environmental restoration at the Hunter's Point Naval Shipyard in San Francisco.

CH2M was hired by the Navy in 2016 to review Tetra Tech's work. CH2M subcontracted with environmental consulting and cleanup firms Battelle Memorial Institute, Cabrera Services, Inc., SC&A, Inc. and the Company to assist with the review, according to the complaint.

The complaint alleges that the subject draft reports were prepared negligently and in a biased manner, made public, and caused damage to Tetra Tech's reputation; triggering related lawsuits and costing it opportunities for both government and commercial contracts.

The Company has provided notice of this lawsuit to our insurance carrier. Our insurance carrier is providing a defense on our behalf in connection with this lawsuit, subject to a \$100,000 self-insured retention and the terms and limitations contained in the insurance policy.

On January 7, 2021 Defendants' motion to dismiss the complaint in its entirety was granted without prejudice, with leave to amend. Tetra Tech subsequently filed a First Amended Complaint ("FAC") and Defendants filed a motion to dismiss Tetra Tech's FAC. At this time, the Company continues to believe it does not have any liability to Tetra Tech.

Insurance

The Company has a 25-year finite risk insurance policy entered into in June 2003 (“2003 Closure Policy”) with AIG which provides financial assurance to the applicable states for our permitted facilities in the event of unforeseen closure. The 2003 Closure Policy, as amended, provides for a maximum allowable coverage of \$28,177,000 which includes available capacity to allow for annual inflation and other performance and surety bond requirements. Total coverage under the 2003 Closure Policy, as amended, was \$19,651,000 at December 31, 2020. At December 31, 2020 and December 31, 2019, finite risk sinking funds contributed by the Company related to the 2003 Closure Policy which is included in other long term assets on the accompanying Consolidated Balance Sheets totaled \$11,446,000 and \$11,307,000, respectively, which included interest earned of \$1,975,000 and \$1,836,000 on the finite risk sinking funds as of December 31, 2020 and December 31, 2019, respectively. Interest income for the year ended 2020 and 2019 was approximately \$139,000 and \$337,000, respectively. If the Company so elects, AIG is obligated to pay us an amount equal to 100% of the finite risk sinking fund account balance in return for complete release of liability from both us and any applicable regulatory agency using this policy as an instrument to comply with financial assurance requirements.

Letter of Credits and Bonding Requirements

From time to time, the Company is required to post standby letters of credit and various bonds to support contractual obligations to customers and other obligations, including facility closures. At December 31, 2020, the total amount of standby letters of credit outstanding was approximately \$3,026,000 and the total amount of bonds outstanding was approximately \$46,388,000.

NOTE 15

PROFIT SHARING PLAN

The Company adopted a 401(k) Plan in 1992, which is intended to comply with Section 401 of the Internal Revenue Code and the provisions of the Employee Retirement Income Security Act of 1974. All full-time employees who have attained the age of 18 are eligible to participate in the 401(k) Plan. Eligibility is immediate upon employment but enrollment is only allowed during four quarterly open periods of January 1, April 1, July 1, and October 1. Participating employees may make annual pretax contributions to their accounts up to 100% of their compensation, up to a maximum amount as limited by law. The Company, at its discretion, may make matching contributions of 25% based on the employee’s elective contributions. Company contributions vest over a period of five years. In 2020 and 2019, the Company contributed approximately \$594,000 and \$395,000 in 401(k) matching funds, respectively.

NOTE 16

RELATED PARTY TRANSACTIONS

David Centofanti

David Centofanti serves as our Vice President of Information Systems. For such position, he received annual compensation of \$181,000 and \$177,000 for 2020 and 2019, respectively. David Centofanti is the son of our EVP of Strategic Initiatives and a Board member.

Employment Agreements

The Company entered into an employment agreement with each of Mark Duff, President and CEO, Dr. Louis Centofanti, EVP of Strategic Initiatives, Ben Naccarato, EVP and CFO, Andrew Lombardo, EVP of Nuclear and Technical Services, and Richard Grondin, EVP of Waste Treatment Operations, with each employment agreement dated July 22, 2020 (each employment agreement referred to as the “New Employment Agreement”). The Company had entered into an employment agreement with each of Mark Duff, Dr. Louis Centofanti and Ben Naccarato on September 8, 2017 which each of the employment agreement was terminated effective July 22, 2020 upon the execution of the New Employment Agreement with Mark Duff, Dr. Louis Centofanti and Ben Naccarato.

Each New Employment Agreement is effective for three years from July 22, 2020 (the “Initial Term”) unless earlier terminated by the Company or by the executive officer. At the end of the Initial Term of each

New Employment Agreement, each New Employment Agreement will automatically be extended for one additional year, unless at least six months prior to the expiration of the Initial Term, we or the executive officer provides written notice not to extend the terms of the New Employment Agreement. Each New Employment Agreement provides for annual base salary, performance bonuses (as provided in the MIP as approved by our Compensation Committee and Board) and other benefits commonly found in such agreement.

Pursuant to each New Employment Agreement, if the executive officer's employment is terminated due to death/disability or for cause (as defined in the agreements), the Company will pay to the executive officer or to his estate an amount equal to the sum of any unpaid base salary and accrued unused vacation time through the date of termination and any benefits due to the executive officer under any employee benefit plan (the "Accrued Amounts") plus any performance compensation payable pursuant to the MIP with respect to the fiscal year immediately preceding the date of termination.

If the executive officer terminates his employment for "good reason" (as defined in the agreements) or is terminated by us without cause (including any such termination for "good reason" or without cause within 24 months after a Change in Control (as defined in the agreement)), the Company will pay the executive officer the Accrued Amounts, two years of full base salary, and two times the performance compensation (under the MIP) earned with respect to the fiscal year immediately preceding the date of termination provided the performance compensation earned with respect to the fiscal year immediately preceding the date of termination has not been paid. If performance compensation earned with respect to the fiscal year immediately preceding the date of termination has been made to the executive officer, the executive officer will be paid an additional year of the performance compensation earned with respect to the fiscal year immediately preceding the date of termination. If the executive terminates his employment for a reason other than for good reason, the Company will pay to the executive an amount equal to the Accrued Amounts plus any performance compensation payable pursuant to the MIP with respect to the fiscal year immediately preceding the date of termination.

If there is a Change in Control (as defined in the agreements), all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full commencing on the date of termination through the original term of the options. In the event of the death of an executive officer, all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full commencing on the date of death, with such options exercisable for the lesser of the original option term or twelve months from the date of the executive officer's death. In the event an executive officer terminates his employment for "good reason" or is terminated by the Company without cause, all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full commencing on the date of termination, with such options exercisable for the lesser of the original option term or within 60 days from the date of the executive's date of termination. Severance benefits payable with respect to a termination (other than Accrued Amounts) shall not be payable until the termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

MIPs

On January 16, 2020, the Company's Board and the Compensation Committee approved individual MIP for each Mark Duff, CEO and President, Ben Naccarato, EVP and CFO, Dr. Louis Centofanti, EVP of Strategic Initiatives and Andy Lombardo, who was appointed by our Board to the position of EVP of Nuclear and Technical Services and an executive officer of the Company on January 16, 2020. Mr. Lombardo previously held the position of SVP of Nuclear and Technical Services. Additionally, on July 22, 2020, the Company's Board and the Compensation Committee approved a MIP for Richard Grondin who was appointed by the Board to the position of EVP of Waste Treatment Operations and an executive officer of the Company. Mr. Grondin previously held the position of Vice President of Western Operations within our Treatment Segment. Each of the MIPs is effective January 1, 2020 and applicable for year ended December 31, 2020. Each MIP provides guidelines for the calculation of annual cash incentive-based compensation, subject to Compensation Committee oversight and modification. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of the executive's 2020 annual base salary. The potential target performance compensation ranges from 5%

to 150% of the base salary for the CEO (\$17,220 to \$516,600), 5% to 100% of the base salary for the CFO (\$14,000 to \$280,000), 5% to 100% of the base salary for the EVP of Strategic Initiatives (\$11,667 to \$233,336), 5% to 100% of the base salary for the EVP of Nuclear and Technical Services (\$14,000 to \$280,000) and 5% to 100% (\$12,000 to \$240,000) of the base salary for the EVP of Waste Treatment Operations.

Each of the three executives in 2019 (Mark Duff, Ben Naccarato, Dr. Louis Centofanti) also had a MIP for 2019 which also provided guidelines for the calculation of annual cash incentive-based compensation, similar to the 2020 MIPs discussed above. An aggregate of approximately \$271,000 in compensation expenses was earned under the MIPs for the Company's three executives for 2019 which was paid to the executives at the end of May 2020. Prior to being named an executive officer of the Company on January 16, 2020, Andy Lombardo had a MIP for 2019 as the SVP of Nuclear and Technical Services. Andy Lombardo earned approximately \$89,000 under the 2019 MIP which was also paid by the Company to him at the end of May 2020.

Salary

On January 16, 2020, the Board, with the approval of the Compensation Committee approved the following salary increase for the Company's NEO effective January 1, 2020:

- Annual base salary for Mark Duff, CEO and President, was increased to \$344,400 from \$287,000.
- Annual base salary for Ben Naccarato, who was promoted to EVP and CFO from VP and CFO, was increased to \$280,000 from \$235,231; and
- Annual base salary for Andy Lombardo, who was appointed to the position of EVP of Nuclear and Technical Services as discussed above, was increased to \$280,000 from \$258,662, which was the annual base salary that Mr. Lombardo earned as SVP of Nuclear and Technical Services and prior to his appointment as an executive officer of the Company by the Board.

Additionally, as a result of Mr. Grondin's appointment by the Board to the position of EVP of Waste Treatment and an executive officer on July 22, 2020, his annual salary was increased from \$208,000 as Vice President of Western Operations within our Treatment Segment to \$240,000, effective July 22, 2020.

NOTE 17

SEGMENT REPORTING

In accordance with ASC 280, "Segment Reporting", we define an operating segment as a business activity:

- from which we may earn revenue and incur expenses;
- whose operating results are regularly reviewed by the chief operating decision maker ("CODM") to make decisions about resources to be allocated to the segment and assess its performance; and
- for which discrete financial information is available.

We currently have three reporting segments, which include Treatment and Services Segments, which are based on a service offering approach; and Medical, whose primary purpose is the R&D of a medical isotope production technology. The Medical Segment has not generated any revenues and all costs incurred are reflected within R&D in the accompanying consolidated financial statements. As previously disclosed, the Medical Segment has substantially reduced its R&D costs and activities due to the need for capital to fund these activities. The Company anticipates that the Medical Segment will not resume full R&D activities until the necessary capital is obtained through its own credit facility or additional equity raise, or obtains partners willing to provide funding for its R&D. Our reporting segments exclude our corporate headquarter, business center and our discontinued operations (see "Note 9 – Discontinued Operations") which do not generate revenues.

The table below shows certain financial information of our reporting segments as of and for the years ended December 31, 2020 and 2019 (in thousands).

Segment Reporting as of and for the year ended December 31, 2020

				Segments		Consolidated Total
	Treatment	Services	Medical	Total	Corporate ⁽²⁾	
Revenue from external customers	\$ 30,143	\$ 75,283	—	\$ 105,426 ^{(3) (4)}	\$ —	\$ 105,426
Intercompany revenues	1,493	25	—	1,518	—	—
Gross profit	5,491	10,402	—	15,893	—	15,893
Research and development	243	132	311	686	76	762
Interest income	1	—	—	1	139	140
Interest expense	(115)	(27)	—	(142)	(256)	(398)
Interest expense-financing fees	—	—	—	—	(294)	(294)
Depreciation and amortization	1,204	354	—	1,558	38	1,596
Segment income (loss) before income taxes	1,494	7,826	(311)	9,009	(6,049)	2,960
Income tax (benefit) expense	(264)	6	—	(258)	69	(189)
Segment income (loss)	1,758	7,820	(311)	9,267	(6,118)	3,149
Segment assets ⁽¹⁾	32,324	22,368 ⁽⁸⁾	17	54,709	24,210 ⁽⁵⁾	78,919
Expenditures for segment assets (net)	1,264	451	—	1,715	—	1,715 ⁽⁷⁾
Total debt	—	23	—	23	6,706	6,729 ⁽⁶⁾

Segment Reporting as of and for the year ended December 31, 2019

				Segments		Consolidated Total
	Treatment	Services	Medical	Total	Corporate ⁽²⁾	
Revenue from external customers	\$ 40,364	\$ 33,095	—	\$ 73,459 ^{(3) (4)}	\$ —	\$ 73,459
Intercompany revenues	329	38	—	367	—	—
Gross profit	12,248	3,336	—	15,584	—	15,584
Research and development	401	12	314	727	23	750
Interest income	—	—	—	—	337	337
Interest expense	(129)	(23)	—	(152)	(280)	(432)
Interest expense-financing fees	—	—	—	—	(208)	(208)
Depreciation and amortization	999	318	—	1,317	25	1,342
Segment income (loss) before income taxes	7,973	795	(314)	8,454	(5,565)	2,889
Income tax expense	153	—	—	153	4	157
Segment income (loss)	7,820	795	(314)	8,301	(5,569)	2,732
Segment assets ⁽¹⁾	34,260	15,410 ⁽⁸⁾	16	49,686	16,829 ⁽⁵⁾	66,515
Expenditures for segment assets (net)	1,366	169	—	1,535	—	1,535 ⁽⁷⁾
Total debt	—	—	—	—	3,880	3,880 ⁽⁶⁾

(1) Segment assets have been adjusted for intercompany accounts to reflect actual assets for each segment.

(2) Amounts reflect the activity for corporate headquarters not included in the segment information.

(3) The Company performed services relating to waste generated by government clients (domestic and foreign (primarily Canadian)), either directly as a prime contractor or indirectly for others as a subcontractor to government entities, representing approximately 96,582,000 or 91.6% of total revenue for 2020 and \$59,985,000 or 81.7% of total revenue for 2019. The following reflects such revenue generated by our two segments:

	2020			2019		
	Treatment	Services	Total	Treatment	Services	Total
Domestic government	\$ 22,795	\$ 68,237	\$ 91,032	\$ 29,420	\$ 25,077	\$ 54,497
Foreign government	415	5,135	5,550	279	5,209	5,488
Total	\$ 23,210	\$ 73,372	\$ 96,582	\$ 29,699	\$ 30,286	\$ 59,985

(4) The following table reflects revenue based on customer location:

	2020	2019
United States	\$ 99,790	\$ 67,822
Canada	5,550	5,488
United Kingdom	86	149
Total	\$ 105,426	\$ 73,459

- (5) Amount includes assets from our discontinued operations of \$103,000 and \$221,000 at December 31, 2020 and 2019, respectively.
- (6) Net of debt discount/debt issuance costs of (\$105,000) and (\$340,000) for 2020 and 2019, respectively (see “Note 10 – “Long-Term Debt” for additional information).
- (7) Net of financed amount of \$883,000 and \$393,000 for the year ended December 31, 2020 and 2019, respectively.
- (8) Includes long-lived asset (net) for our PF Canada, Inc. subsidiary of \$33,000 and \$41,000 for the year ended December 31, 2020 and 2019, respectively.

NOTE 18
DEFERRAL OF EMPLOYMENT TAX DEPOSITS

The CARES Act, as amended by the Flexibility Act which was signed into law on June 5, 2020, provides employers the option to defer the payment of an employer’s share of social security taxes beginning on March 27, 2020 through December 31, 2020 with 50% of the amount of social security taxes deferred to become due on December 31, 2021 with the remaining 50% due on December 31, 2022. The Company elected to defer such taxes starting in mid-April 2020. At December 31, 2020, the Company has deferred payment of approximately \$1,252,000 in its share of social security taxes, of which approximately \$626,000 is included in “Other long-term liabilities,” with the remaining balance included in “Accrued expenses” within current liabilities in the Company’s Consolidated Balance Sheets.

NOTE 19
VARIABLE INTEREST ENTITIES (“VIE”)

On May 24, 2019, the Company and Engineering/Remediation Resources Group, Inc. (“ERRG”) entered into an unpopulated joint venture agreement for project work bids within the Company’s Services Segment. The joint venture is doing business as Perma-Fix ERRG, a general partnership. The Company has a 51% partnership interest in the joint venture and ERRG has a 49% partnership interest in the joint venture. Activities under Perma-Fix ERRG did not commence until the first quarter of 2020.

The Company determines whether joint ventures in which it has invested meet the criteria of a VIE at the start of each new venture and when a reconsideration event has occurred. A VIE is a legal entity that satisfies any of the following characteristics: (a) the legal entity does not have sufficient equity investment at risk; (b) the equity investors at risk as a group, lack the characteristics of a controlling financial interest; or (c) the legal entity is structured with disproportionate voting rights.

The Company consolidates a VIE if it is determined to be the primary beneficiary of the VIE. The primary beneficiary has both the power to direct the activities of the VIE that most significantly impact the entity’s economic performance and the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE.

Based on the Company’s evaluation of Perma-Fix ERRG and related agreements with Perma-Fix ERRG, the Company determined that Perma-Fix ERRG is a VIE in which we are the primary beneficiary. At December 31, 2020, Perma-Fix ERRG had total assets of \$2,723,000 and total liabilities of \$2,723,000 which are all recorded as current.

NOTE 20
SUBSEQUENT EVENTS

Management evaluated events occurring subsequent to December 31, 2020 through March 29, 2021, the date these consolidated financial statements were available for issuance, and other than as noted below determined that no material recognizable subsequent events occurred.

MIPs

On January 21, 2021, the Company's Compensation Committee and the Board approved individual MIP for the calendar year 2021 for each CEO, EVP and CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations. Each of the MIPs is effective January 1, 2021 and applicable for year 2021. Each MIP provides guidelines for the calculation of annual cash incentive-based compensation, subject to Compensation Committee oversight and modification. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of the executive's 2021 annual base salary at the time of the approval of the MIP. The potential target performance compensation ranges from 5% to 150% of the base salary for the CEO (\$17,220 to \$516,600), 5% to 100% of the base salary for the CFO (\$14,000 to \$280,000), 5% to 100% of the base salary for the EVP of Strategic Initiatives (\$11,667 to \$233,336), 5% to 100% of the base salary for the EVP of Nuclear and Technical Services (\$14,000 to \$280,000) and 5% to 100% (\$12,000 to \$240,000) of the base salary for the EVP of Waste Treatment Operations.

Executive Officer Salary

In February 2021, the Company's Compensation Committee approved an annual salary cost of living adjustment of approximately 2.3% to take into effect April 1, 2021 for each of our executive officers.

Board Compensation

On January 21, 2021, the Company's Compensation Committee and the Board approved the following revision to the compensation of each non-employee Board member and the Board Committee(s) for which the Board member serves, effective January 1, 2021.

- each director is to be paid a quarterly fee of \$11,500 from \$8,000;
- the Chairman of the Board is to be paid an additional quarterly fee of \$8,750 from \$7,500;
- the Chairman of the Audit Committee is to be paid an additional quarterly fee of \$6,250 from \$5,500;
- the Chairman of each of the Compensation Committee, the Corporate Governance and Nominating Committee (the "Nominating Committee"), and the Strategic Advisory Committee (the "Strategic Committee") is to receive \$3,125 in quarterly fee. No such quarterly fee was previously paid. The Chairman of the Board is not eligible to receive a quarterly fee for serving as the Chairman of any the aforementioned Committees ;
- each Audit Committee member (excluding the Chairman of the Audit Committee) is to receive \$1,250 in quarterly fee; and
- each member of the Compensation Committee, the Nominating Committee, and the Strategic Committee is to receive a quarterly fee of \$500. Such fee is payable only if the member does not serve as the Chairman of the Audit Committee, the Nominating Committee, the Strategic Committee or as the Chairman of the Board.

Each non-employee Board member will continue to receive \$1,000 for each board meeting attendance and a \$500 fee for meeting attendance via conference call.

Each non-employee director may continue to elect to have either 65% or 100% of such fees payable in Common Stock under the 2003 Plan, with the balance, if any, payable in cash (see "Note 7 – Capital Stock, Stock Plans, Warrants, and Stock Based Compensation – Stock Option Plans" for a discussion of the 2003 Plan).

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures.

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic reports filed with the Securities and Exchange Commission (the "Commission") is recorded, processed, summarized and reported within the

time periods specified in the rules and forms of the Commission and that such information is accumulated and communicated to our management, including the Chief Executive Officer (“CEO”) (Principal Executive Officer), and Chief Financial Officer (“CFO”) (Principal Financial Officer), as appropriate to allow timely decisions regarding the required disclosure. In designing and assessing our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their stated control objectives and are subject to certain limitations, including the exercise of judgment by individuals, the difficulty in identifying unlikely future events, and the difficulty in eliminating misconduct completely. Our management, with the participation of our CEO and CFO, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended. Based upon this assessment, our CEO and CFO have concluded that our disclosure controls and procedures were effective as of December 31, 2020.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934. Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements or fraudulent acts. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. A control system, no matter how well designed, can provide only reasonable assurance with respect to financial statement preparation and presentation.

Internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of the consolidated financial statements in accordance with generally accepted accounting principles in the United States of America, and that receipts and expenditures of the Company are being made only in accordance with appropriate authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the consolidated financial statements.

Management, with the participation of our CEO and CFO, conducted an assessment of the effectiveness of internal control over financial reporting as of December 31, 2020 based on the framework in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on this assessment, management, with the participation of our CEO and CFO, concluded that the Company’s internal control over financial reporting was effective as of December 31, 2020.

This Form 10-K does not include an attestation report of the Company’s independent registered public accounting firm regarding internal control over financial reporting. Since the Company is not a large accelerated filer or an accelerated filer, management’s report was not subject to attestation by the Company’s independent registered public accounting firm pursuant to the rules of the Commission that permit the Company to provide only management’s report in this Form 10-K.

Changes in Internal Control over Financial Reporting

There was no other change in our internal control over financial reporting (as defined in

Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fiscal quarter ended December 31, 2020 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

DIRECTORS

The following table sets forth, as of the date of this Report, information concerning our Board of Directors (“Board”):

<u>NAME</u> ⁽¹⁾	<u>AGE</u>	<u>POSITION</u>
Dr. Louis F. Centofanti	76	Director; Executive Vice President (“EVP”) of Strategic Initiatives; President of Perma-Fix Medical (“PF Medical”)
Mr. Thomas P. Bostick ⁽¹⁾	64	Director
Mr. Joseph T. Grumski ⁽²⁾	59	Director
The Honorable Joe R. Reeder	73	Director
Mr. Larry M. Shelton	67	Chairman of the Board
The Honorable Zach P. Wamp	63	Director
Mr. Mark A. Zwecker	70	Director

Each director is elected to serve until the next annual meeting of stockholders.

⁽¹⁾ Mr. Bostick was unanimously elected by the Board effective August 10, 2020 to fill a Board vacancy.

⁽²⁾ Mr. Grumski was unanimously elected by the Board effective February 4, 2020 to fill a Board vacancy.

Director Information

Our directors and executive officers, their ages, the positions with us held by each of them, the periods during which they have served in such positions and a summary of their recent business experience are set forth below. Each of the biographies of the current directors listed below also contains information regarding such person's service as a director, business experience, director positions with other public companies held currently or at any time during the past five years, and the experience, qualifications, attributes and skills that our Board considered in nominating or appointing each of them to serve as one of our directors.

Dr. Louis F. Centofanti

Dr. Centofanti, the founder of the Company and a director of the Company since its inception in 1991, currently holds the position of EVP of Strategic Initiatives. Effective January 26, 2018, Dr. Centofanti was appointed to the position of President of PF Medical and no longer a member of the Supervisory Board of PF Medical (a position he had held since June 2, 2015). From March 1996 to September 8, 2017 and from February 1991 to September 1995, Dr. Centofanti held the position of President and Chief Executive Officer (“CEO”) of the Company. Dr. Centofanti served as Chairman of the Board from the Company’s inception in February 1991 until December 16, 2014. In January 2015, Dr. Centofanti was appointed by the U.S Secretary of Commerce Penny Prizker to serve on the U.S. Department of Commerce’s Civil Nuclear Trade Advisory Committee (“CINTAC”). The CINTAC is composed of industry representatives from the civil nuclear industry and meets periodically throughout the year to discuss the critical trade issues facing the U.S. civil nuclear sector. From 1985 until joining the Company, Dr. Centofanti served as Senior Vice President (“SVP”) of USPCI, Inc., a large publicly-held hazardous waste management company, where he was responsible for managing the treatment, reclamation and technical groups within USPCI. In 1981, he

and Mark Zwecker, a current Board member of the Company, founded PPM, Inc. (later sold to USPCI), a hazardous waste management company specializing in treating PCB-contaminated oil. From 1978 to 1981, Dr. Centofanti served as Regional Administrator of the U.S. Department of Energy for the southeastern region of the United States. Dr. Centofanti has a Ph.D. and a M.S. in Chemistry from the University of Michigan, and a B.S. in Chemistry from Youngstown State University.

As founder of Perma-Fix and PPM, Inc., and as a senior executive at USPCI, Dr. Centofanti combines extensive business experience in the waste management industry with a drive for innovative technology which is critical for a waste management company. In addition, his service in the government sector provides a solid foundation for the continuing growth of the Company, particularly within the Company's Nuclear business. Dr. Centofanti's comprehensive understanding of the Company's operations and his extensive knowledge of its history, coupled with his drive for innovation and excellence, positions Dr. Centofanti to optimize our role in this competitive, evolving market, and led the Board to conclude that he should serve as a director.

Mr. Thomas P. Bostick

Effective August 10, 2020, Mr. Bostick was unanimously elected by the Board to serve as a member of the Company's Board of Directors. Mr. Bostick is currently the CEO of Bostick Global Strategies, LLC, a position he has held since July 2016. Bostick Global Strategies, LLC provides strategic advisory support in the areas of Engineering, Environmental Sustainability, Human Resources, Biotechnology, Education, Executive Coaching, and Agile Project Management. In February 2021, Mr. Bostick was selected by U. S. Senator Jack Reed, Chairman of the Senate Armed Services Committee, to serve as a member of a new commission consisting of eight appointed individuals, tasked with renaming Confederate-named military bases and property. Mr. Bostick previously served as the Chief Operating Officer ("COO") and President of Intrexon Bioengineering from November 2017 to February 2020, a division of Intrexon Corporation (formerly NASDAQ: XON; now NASDAQ: PGEN). Intrexon Bioengineering addresses global challenges across food, agriculture, environmental, energy, and industrial fields by advancing biologically engineered solutions to improve sustainability and efficiency. As the COO and President of Intrexon Bioengineering, Mr. Bostick oversaw operations across the company's multiple technology divisions, driving efficiency and effectiveness in the application of the company's assets toward its development projects, and led a major restructuring of Intrexon Corporation. Mr. Bostick is a member of the board of HireVue, Inc., a privately-held company specializing in online video interviewing services for employers, and Streamside Systems, Inc., a privately-held, veteran-led company that provides services and solutions for global water resource problems. In October 2020, Mr. Bostick was appointed to the board of CSX Corporation (NASDAQ: CSX), a publicly-held rail transportation company, where in December 2020 he was appointed to serve as a member of both the Finance Committee and the Governance Committee. In addition to Mr. Bostick's service on the boards of for profit companies, he has since November 2016 also served on the board of American Corporate Partners, a 501(c)(3) nonprofit organization dedicated to assisting U.S. veterans in their transition from the armed services to the civilian workforce.

Mr. Bostick has also had a distinguished career in the U.S. military, retiring from the US Army in July 2016 with the rank of Lieutenant General. During his distinguished military career, he served as the 53rd U.S. Army Chief of Engineers and the Commanding General of the U.S. Army Corps of Engineers (USACE). As the senior military officer of the Army Corps of Engineers, General Bostick was responsible for overseeing and supervising most of the Nation's civil works infrastructure and military construction, hundreds of environmental protection projects, as well as managing 34,000 civilian employees and military personnel in over 110 countries around the world with a \$25 billion annual budget. As the Chief of Engineers, General Bostick led a \$5 billion recovery program after Superstorm Sandy.

Before his command of USACE, General Bostick served in a variety of command and staff assignments with the U.S. Army both in the U.S. and abroad, including as Deputy Chief of Staff, G-1, Personnel, U.S. Army; Commanding General, U.S. Army Recruiting Command; Assistant Division Commander, 1st Cavalry Division; Executive Officer to the Chief of Engineers; Executive Officer to the Army Chief of Staff; and Deputy Director of Operations for the National Military Command Center, J-3, the Joint Staff in the Pentagon.

General Bostick's military honors and decorations include the Distinguished Service Medal, the Defense Superior Service Medal, the Bronze Star, the Legion of Merit with two oak leaf clusters, the Defense Meritorious Service Medal, the Meritorious Service Medal with four oak leaf clusters, the Joint Service Commendation Medal, the Army Commendation Medal, the Army Achievement Medal with one oak leaf cluster, the Combat Action Badge, the U.S Parachutist badge, the Army Recruiter Badge, and the Ranger Tab.

As a White House Fellow, one of America's most prestigious programs for leadership and public service, General Bostick was a special assistant to the Secretary of Veterans Affairs. He graduated with a Bachelor of Science degree from the U.S. Military Academy at West Point and later returned to the Academy to serve as an Associate Professor of Mechanical Engineering. He holds Master's degrees in Civil Engineering and Mechanical Engineering from Stanford University and a Doctorate in Systems Engineering from George Washington University. He is a Member of the National Academy of Engineering and the National Academy of Construction.

Mr. Bostick's distinguished career in both the government and private sectors brings valuable experience and insight into solving complex issues domestically and globally. His extensive knowledge and problem-solving experiences enhance the Board's ability to address significant challenges in the nuclear market and led the Board to conclude that he should serve as a director.

Mr. Joseph T. Grumski

Effective February 4, 2020, Mr. Grumski was unanimously elected by the Board as a director to fill a vacancy on the Board. From May 2013 through March 2020, Mr. Grumski served as President and CEO and a board member of TAS Energy Inc. ("TAS"), a privately-held company that delivers efficient modular systems manufactured offsite and utilized in power, data centers, industrial and commercial applications. TAS has successfully managed over 400 projects in over 32 countries. In April 2020, TAS was acquired by Comfort Systems USA, Inc. (NYSE: FIX), and now operates as a wholly-owned subsidiary of that company. Comfort Systems USA, Inc. is a publicly-held company that provides mechanical and electrical contracting services in 139 locations in 114 cities throughout the United States. Mr. Grumski continues to serve as the President and CEO of TAS. From 1997 to February 2013, Mr. Grumski was employed with Science Applications International Corporation ("SAIC") (NYSE: SAIC), a publicly-held company that provides government services and information technology support. During his employment with SAIC, Mr. Grumski held various senior management positions, including the positions of President of SAIC's Energy, Environment & Infrastructure ("E2I") commercial subsidiary and General Manager of the E2I Business Unit. SAIC's E2I commercial subsidiary and Business Unit is comprised of approximately 5,200 employees performing over \$1.1 billion of services for federal, commercial, utility and state customers. Mr. Grumski's many accomplishments with SAIC included growing SAIC's \$300 million federal environmental business to a top ranked, \$1.1 billion business; receiving the National Safety Council "Industry Leader" award in 2009; and receiving highest senior executive performance rating three years in a row. Mr. Grumski began his career with Gulf Oil Company and has progressed through senior level engineering, operations management, and program management positions with various companies, including Westinghouse Electric Corporation and Lockheed Martin, Inc. Mr. Grumski received a B.S. in Mechanical Engineering from The University of Pittsburgh and a M.S in Mechanical Engineering from West Virginia University.

Mr. Grumski has had an extensive career in solving and overseeing solutions to complex issues involving both domestic and international concerns. In addition, his extensive experience in companies that provide services to the government sector as well as his experience in the commercial sector provide solid experience for the continuing growth of the Company's Treatment and Services Segment. Mr. Grumski's extensive knowledge and problem-solving experiences, executive operational leadership experience and governance experience enhance the Board's ability to address significant challenges in the nuclear market, and led the Board to conclude that he should serve as a director.

The Honorable Joe R. Reeder

Mr. Reeder, a director since 2003, is a principal shareholder in the law firm of Greenberg Traurig LLP, one of the nation's largest U.S.-based law firms, with 41 offices and 2,200 attorneys worldwide, for which Mr.

Reeder served as Shareholder-in-Charge of the law firm's Mid-Atlantic Region (1999-2008). His clientele includes celebrities, heads of state, sovereign nations, international corporations, and law firms. As the 14th Undersecretary of the U.S. Army (1993-97), Mr. Reeder also served three years as Chairman of the Panama Canal Commission's Board, overseeing a multibillion-dollar infrastructure program. For the past 18 years, he has served on the Canal's International Advisory Board. He has served on the boards of the National Defense Industry Association ("NDIA"), chairing NDIA's Ethics Committee, the Armed Services YMCA, the Marshall Legacy Institute, and many other private companies and charitable organizations. After successive 4-year appointments by Virginia Governors Mark Warner and Tim Kaine, Mr. Reeder served seven years as Chairman of two Commonwealth of Virginia military boards, and 10 years on the USO Board of Governors. Mr. Reeder was appointed by Governor Terry McAuliffe to the Virginia Military Institute's Board of Visitors (2014), and reappointed in 2018 by current Virginia Governor Ralph Northam. Mr. Reeder, who has been a television commentator on legal and national security issues, has consistently been named a Super Lawyer for Washington, D.C., most recently in 2020. Among other corporate positions, he's been a director since September 2005 for ELBIT Systems of America, LLC, a subsidiary of Elbit Systems Ltd. (NASDAQ: ESLT), a publicly-held company that provides product and system solutions focusing on defense, homeland security, and commercial aviation. Mr. Reeder served on the Washington First Bank ("WFB") board from 2004 to 2017, and, since January 2018, has served on the board of Sandy Spring Bancorp, Inc. (NASDAQ: SASR), which acquired WFB in January 2018. Since April 2018, Mr. Reeder has served on the Audit Committee of Sandy Spring Bancorp, Inc.

In May 2018 Mr. Reeder was appointed to the Advisory Council Bid Protest Committee to the United States Court of Federal Claims.

A West Point graduate who served in the 82nd Airborne Division after Ranger School, Mr. Reeder earned his J.D. from the University of Texas, and L.L.M. from Georgetown University.

Mr. Reeder's career has focused on solving and overseeing solutions to complex domestic and international issues. This experience has enhanced the Board's ability to address major challenges in the nuclear market, as well as day-to-day corporate challenges, which is why the Board values his service as a director.

Mr. Larry M. Shelton

Mr. Shelton, a director since July 2006, has also held the position of Chairman of the Board of the Company since December 16, 2014. Mr. Shelton served as the Chief Financial Officer ("CFO") of S K Hart Management, LLC, a private investment management company ("S K Hart Management"), from 1999 until August 2018. Mr. Shelton served as President of Pony Express Land Development, Inc. (an affiliate of SK Hart Management), a privately held land development company, from January 2013 until August 2017, and has served on its board since December 2005. Mr. Shelton served as Director and CFO of S K Hart Ranches (PTY) Ltd, a private South African Company involved in agriculture, from March 2012 to March 2020. Mr. Shelton continues to provide advisory services to S K Hart Ranches (PTY) Ltd. Mr. Shelton served as a member of the Supervisory Board of PF Medical from April 2014 to December 2016. Mr. Shelton has over 20 years of experience as an executive financial officer for several waste management companies, including as CFO of Envirocare of Utah, Inc. (now EnergySolutions, Inc. (1995-1999)), a privately held nuclear waste services company, and as CFO of USPCI, Inc. (1982-1987), then a NYSE- listed public company engaged in the hazardous waste business. Since July 1989, Mr. Shelton has served on the board of Subsurface Technologies, Inc., a privately held company specializing in providing environmentally sound innovative solutions for water well rehabilitation and development. Mr. Shelton has a B.A. in accounting from the University of Oklahoma.

With his years of accounting experience as CFO for various companies, including a number of waste management companies, Mr. Shelton combines extensive industry knowledge and understanding of accounting principles, financial reporting requirements, evaluating and overseeing financial reporting processes and business matters. These factors led the Board to conclude that he should serve as a director.

The Honorable Zach P. Wamp

Mr. Wamp, a director since January 2018, is currently the President of Zach Wamp Consulting, a position he has held since 2011. As the President and owner of Zach Wamp Consulting, he has served some of the

most prominent companies from Silicon Valley to Wall Street as a business development consultant and advisor. From September 2013 to November 2017, Mr. Wamp chaired the Board of Directors for Chicago Bridge and Iron Federal Services, LLC (a subsidiary of Chicago Bridge & Iron Company, NYSE: CBI, which provides critical services primarily to the U.S. government). From January 1995 to January 2011, Mr. Wamp served as a member of the U.S. House of Representatives from Tennessee's 3rd Congressional District. His district included the Oak Ridge National Laboratory, with strong science and research missions from energy to homeland security. Among his many accomplishments, which included various leadership roles in the advancement of education and science, Mr. Wamp was instrumental in the formation and success of the Tennessee Valley Technology Corridor, which created thousands of jobs for Tennesseans in the areas of high-tech research, development, and manufacturing. During his career in the political arena, Mr. Wamp served on several prominent subcommittees during his 14 years on the House Appropriations Committee, including serving as a "ranking member" of the Subcommittee on Military Construction and Veterans Affairs and Related Agencies. Mr. Wamp has been a regular panelist on numerous media outlets and has been featured in a number of national publications effectively articulating sound social and economic policy. Mr. Wamp's business career has also included work in the real estate sector for a number of years as a licensed industrial-commercial real estate broker, for which he was named Chattanooga's Small Business Person of the Year. He is a founder and Board Chair of Learning Blade, the nation's premiere STEM education platform, which is now operating statewide in six states with deployment in another 10 states. Learning Blade is owned and operated by SAI Interactive, Inc., d/b/a Thinking Media, a privately-held educational products and services company.

Mr. Wamp has an extensive career in solving and overseeing solutions to complex issues involving domestic concerns. In addition, his wide-ranging career, particularly with respect to his government-related work, provides solid experience for the continuing growth of the Company's Treatment and Services Segments. His extensive knowledge and problem-solving expertise enhance the Board's ability to address significant challenges in the nuclear market, and led the Board to conclude that he should serve as a director.

Mr. Mark A. Zwecker

Mr. Zwecker, a director since the Company's inception in January 1991, previously served as the CFO and a board member for JCI US Inc. from 2013 to 2019. JCI US Inc. is a telecommunications company and wholly-owned subsidiary of Japan Communications, Inc. (Tokyo Stock Exchange (Securities Code: 9424)), which provides cellular service for M2M (machine to machine) applications. From 2006 to 2013, Mr. Zwecker served as Director of Finance for Communications Security and Compliance Technologies, Inc., a wholly-owned subsidiary of JCI US Inc. that develops security software products for the mobile workforce. From 1997 to 2006, Mr. Zwecker served as President of ACI Technology, LLC, a privately-held IT services provider, and from 1986 to 1998, he served as Vice President of Finance and Administration for American Combustion, Inc., a privately-held combustion technology solutions provider. In 1981, with Dr. Centofanti, Mr. Zwecker co-founded a start-up, PPM, Inc., a hazardous waste management company. He remained with PPM, Inc. until its acquisition in 1985 by USPCI. Mr. Zwecker has a B.S. in Industrial and Systems Engineering from the Georgia Institute of Technology and an M.B.A. from Harvard University.

As a director since our inception, Mr. Zwecker's understanding of our business provides valuable insight to the Board. With years of experience in operations and finance for various companies, including a number of waste management companies, Mr. Zwecker combines extensive knowledge of accounting principles, financial reporting rules and regulations, the ability to evaluate financial results, and understanding of financial reporting processes. He has an extensive background in operating complex organizations. Mr. Zwecker's experience and background position him well to serve as a member of our Board. These factors led the Board to conclude that he should serve as a director.

BOARD LEADERSHIP STRUCTURE

We currently separate the roles of Chairman of the Board and CEO. The Board believes that this leadership structure promotes balance between the Board's independent authority to oversee our business, and the CEO and his management team, who manage the business on a day-to-day basis.

The Company does not have a written policy with respect to the separation of the positions of Chairman of

the Board and CEO. The Company believes it is important to retain its flexibility to allocate the responsibilities of the offices of the Chairman and CEO in any way that is in the best interests of the Company at a given point in time; therefore, the Company's leadership structure may change in the future as circumstances may dictate.

Mr. Mark Zwecker, a current member of our Board, continues to serve as the Independent Lead Director, a position he has held since February 2010. The Lead Director's role includes:

- convening and chairing meetings of the non-employee directors as necessary from time to time and Board meetings in the absence of the Chairman of the Board;
- acting as liaison between directors, committee chairs and management;
- serving as information sources for directors and management; and
- carrying out such responsibilities as the Board may delegate from time to time.

AUDIT COMMITTEE

We have a separately designated standing Audit Committee of our Board established in accordance with Section 3(a)(58)(A) of the Exchange Act. Members of the Audit Committee are Mark A. Zwecker (Chairperson), Larry M. Shelton, and Joseph T. Grumski, who replaced Zach Wamp as a member of the Audit Committee effective April 16, 2020.

Our Board has determined that each of our Audit Committee members is and was independent within the meaning of the rules of the NASDAQ and is an "audit committee financial expert" as defined by Item 407(d)(5)(ii) of Regulation S-K of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

The Audit Committee has also discussed with Grant Thornton, LLP, the Company's independent registered accounting firm, the matters required to be discussed by Public Company Accounting Oversight Board ("PCAOB") Auditing Standard No. 16 (Communications with Audit Committee).

BOARD OF DIRECTOR INDEPENDENCE

The Board has determined that each director, other than Dr. Centofanti, is "independent" within the meaning of the applicable NASDAQ rules. Dr. Centofanti is not deemed to be an "independent director" because of his employment as an executive officer of the Company.

COMPENSATION AND STOCK OPTION COMMITTEE

The Compensation and Stock Option Committee (the "Compensation Committee") reviews and recommends to the Board the compensation and benefits of all of the Company's officers and reviews general policy matters relating to compensation and benefits of the Company's employees. The Compensation Committee also administers the Company's stock option plans. The Compensation Committee has the sole authority to retain and terminate a compensation consultant, as well as to approve the consultant's fees and other terms of engagement. It also has the authority to obtain advice and assistance from internal or external legal, accounting or other advisors. No compensation consultant was employed during 2020. Members of the Compensation Committee during 2020 were Larry M. Shelton (Chairperson), Joe R. Reeder, and Mark A. Zwecker. Effective January 21, 2021, Joseph T. Grumski replaced Larry M. Shelton as the Chairperson and a member of the Compensation Committee and Zach P. Wamp replaced Joe R. Reeder as a member of the Compensation Committee. None of the members of the Compensation Committee has been or is an officer or employee of the Company or has had or has any relationship with the Company requiring disclosure under applicable Commission regulations.

CORPORATE GOVERNANCE AND NOMINATING COMMITTEE

We have a separately-designated standing Corporate Governance and Nominating Committee (the "Nominating Committee"). Members of the Nominating Committee during 2020 were Joe R. Reeder (Chairperson), Zach P. Wamp, and Larry M. Shelton. Effective January 21, 2021, Mr. Bostick replaced Larry M. Shelton as a member of the Nominating Committee. All members of the Nominating Committee are and were "independent" as that term is defined by current NASDAQ listing standards.

The Nominating Committee recommends to the Board of Directors candidates to fill vacancies on the Board and the nominees for election as directors at each annual meeting of stockholders. In making such recommendation, the Nominating Committee takes into account information provided to them from the candidate, as well as the Nominating Committee's own knowledge and information obtained through inquiries to third parties to the extent the Nominating Committee deems appropriate. The Company's Bylaws sets forth certain minimum director qualifications to qualify for nomination for election as a director. To qualify for nomination or for election as a director, an individual must:

- be an individual at least 21 years of age who is not under legal disability;
- have the ability to be present, in person, at all regular and special meetings of the Board of Directors;
- not serve on the boards of more than three other publicly-held companies;
- satisfy the director qualification requirements of all environmental and nuclear commissions, boards or similar regulatory or law enforcement authorities to which the Company is subject so as not to cause the Company to fail to satisfy any of the licensing requirements imposed by any such authority;
- not be affiliated with, employed by or a representative of, or have or acquire a material personal involvement with, or material financial interest in, any "Business Competitor" (as defined in the Bylaws);
- not have been convicted of a felony or of any misdemeanor involving moral turpitude; and
- have been nominated for election to the Board of Directors in accordance with the terms of the Bylaws.

In addition to the minimum director qualifications as mentioned above, in order for any proposed nominee to be eligible to be a candidate for election to the Board, such candidate must deliver to the Nominating Committee a completed questionnaire with respect to the background, qualifications, stock ownership and independence of such proposed nominee. The Nominating Committee reviews each candidate's qualifications to include considerations of:

- standards of integrity, personal ethics and values, commitment, and independence of thought and judgment;
- ability to represent the interests of the Company's stockholders;
- ability to dedicate sufficient time, energy and attention to fulfill the requirements of the position; and
- diversity of skills and experience with respect to accounting and finance, management and leadership, business acumen, vision and strategy, charitable causes, business operations, and industry knowledge.

The Nominating Committee does not assign specific weight to any particular criteria and no particular criterion is necessarily applicable to all prospective nominees. The Nominating Committee does not have a formal policy for the consideration of diversity in identifying nominees for directors. However, diversity is one of the many factors taken into account when considering potential candidates to serve on the Board of Directors. The Company generally views and values diversity from the perspective of professional and life experiences, as well as geographic location, representative of the markets in which we do business. The Company recognizes that diversity in professional and life experiences may include consideration of gender, race, cultural background or national origin, in identifying individuals who possess the qualifications that the Nominating Committee believes are important to be represented on the Board. The Company believes that the inclusion of diversity as one of many factors considered in selecting director nominees is consistent with the Company's goal of creating a board of directors that best serves our needs and those of our shareholders.

Stockholder Nominees

There have been no changes to the stockholder nomination process since the Company's last proxy statement. The procedure for stockholder nominees to the Board of Directors is set out below.

The Nominating Committee will consider properly submitted stockholder nominations for candidates for membership on the Board of Directors from stockholders who meet each of the requirements set forth in the Bylaws, including, but not limited to, the requirements that any such stockholder own at least 1% of the Company’s shares of the Common Stock entitled to vote at the meeting on such election, has held such shares continuously for at least one full year, and continuously holds such shares through and including the time of the annual or special meeting. Nominations of persons for election to the Board of Directors may be made at any Annual Meeting of Stockholders, or at any Special Meeting of Stockholders called for the purpose of electing directors. Any stockholder nomination (“Proposed Nominee”) must comply with the requirements of the Company’s Bylaws and the Proposed Nominee must meet the minimum qualification requirements as discussed above. For a nomination to be made by a stockholder, such stockholder must provide advance written notice to the Nominating Committee, delivered to the Company’s principal executive office address (i) in the case of an Annual Meeting of Stockholders, no later than the 90th day nor earlier than the 120th day prior to the anniversary date of the immediately preceding Annual Meeting of Stockholders; and (ii) in the case of a Special Meeting of Stockholders called for the purpose of electing directors, not later than the 10th day following the day on which public disclosure of the date of the Special Meeting of Stockholders is made.

The Nominating Committee will evaluate the qualification of the Proposed Nominee and the Proposed Nominee’s disclosure and compliance requirements in accordance with the Company’s Bylaws. If the Board of Directors, upon the recommendation of the Nominating Committee, determines that a nomination was not made in accordance with the Company’s Bylaws, the Chairman of the Meeting shall declare the nomination defective and it will be disregarded.

STRATEGIC ADVISORY COMMITTEE

We have a separately designated Strategic Advisory Committee (the “Strategic Committee”). The primary functions of the Strategic Committee are to investigate and evaluate strategic alternatives available to the Company and to work with management on long-range strategic planning and identification of potential new business opportunities. The members of the Strategic Advisory Committee are Dr. Louis Centofanti (Chairperson), Joe R. Reeder, Mark A. Zwecker, and Larry M. Shelton. The Strategic Advisory Committee does not have a charter.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following table sets forth, as of the date hereof, information concerning our executive officers:

<u>NAME</u>	<u>AGE</u>	<u>POSITION</u>
Mr. Mark Duff	58	President and CEO
Mr. Ben Naccarato	58	CFO, EVP, and Secretary; CFO and member of the Management Board of PF Medical
Dr. Louis Centofanti	76	EVP of Strategic Initiatives; President of PF Medical
Mr. Andrew Lombardo	61	EVP of Nuclear and Technical Services; Member of the Supervisory Board of PF Medical
Mr. Richard Grondin	62	EVP of Waste Treatment Operations; Member of the Supervisory Board of PF Medical

Mr. Mark Duff

Mr. Mark Duff has held the position of President and CEO of the Company since September 2017. Since joining the Company in June 2016 and prior to being named the President and CEO, Mr. Duff held the positions of Chief Operating Officer and Executive Vice President of the Company. Since joining Perma-Fix, Mr. Duff has developed and implemented strategies to meet aggressive growth objectives in both the Treatment and Services Segments. In the Treatment Segment, he has upgraded each facility to increase efficiency and modernize treatment capabilities to meet the changing markets associated with the waste management industry. In the Services Segment, which encompasses all field operations, he has completed the revitalization of business development programs which has resulted in increased competitive procurement effectiveness and broadened the market penetration within both the commercial and government sectors. Both of these implemented strategies have contributed to continuous growth in revenues and profitability. Mr. Duff has over 30 years of management and technical experience in the U.S Department

of Energy (“DOE”) and U.S. Department of Defense (“DOD”) environmental and construction markets as a corporate officer, senior project manager, co-founder of a consulting firm, and federal employee. Mr. Duff has an MBA from the University of Phoenix and received his B.S. from the University of Alabama.

Mr. Ben Naccarato

Mr. Naccarato has served as the Company’s CFO since February 26, 2009. On January 16, 2020, the Company’s Board, with the approval of the Compensation Committee, promoted Mr. Naccarato to EVP and CFO from Vice President and CFO. Mr. Naccarato joined the Company in September 2004 and served as Vice President, Finance of the Company’s Industrial Segment until May 2006, when he was named Vice President, Corporate Controller/Treasurer. Since July 2015 and December 2015, Mr. Naccarato has served as the CFO of PF Medical and a member of the Management Board of PF Medical, respectively. Mr. Naccarato has over 30 years of experience in senior financial positions in the waste management and used oil industries. From December 2002 to September 2004, Mr. Naccarato was the CFO of a privately held company in the fuel distribution and used waste oil industry. Mr. Naccarato is a graduate of University of Toronto with a Bachelor of Commerce and Finance Degree and is a Chartered Professional Accountant, Certified Management Accountant (CPA, CMA).

On March 3, 2021, Mr. Naccarato was appointed to serve as an independent director of PyroGenesis Canada, Inc., a high-tech company involved in the design, development, manufacture and commercialization of advanced plasma processes and products and whose stock is listed for trading on the Toronto (PYR) and NASDAQ (PYR) Stock Exchange. Effective March 11, 2021, Mr. Naccarato was appointed to serve as a member of both the Audit and Compensation Committee of PyroGenesis.

Dr. Louis Centofanti

See “Director – Dr. Louis F. Centofanti” in this section for information on Dr. Centofanti.

Mr. Andrew (“Andy”) Lombardo

On January 16, 2020, the Company’s Board appointed Mr. Lombardo to the position of EVP of Nuclear and Technical Services and an executive officer of the Company. Since joining the Company in 2011, Mr. Lombardo has held various positions within the Company’s Services Segment, including SVP of Nuclear and Technical Services. Since May 2019, Mr. Lombardo has served as a member of the Supervisory Board of PF Medical.

Mr. Lombardo, a Certified Health Physicist (“CHP”), has over 35 years of management and technical experience in the commercial nuclear reactor market, and the DOE and DOD environmental and construction markets as a senior director, senior project manager, senior CHP and chemist. Prior to joining the Company, Mr. Lombardo held the position of Vice President of Technical Services for Safety and Ecology Corporation (“SEC”), a subsidiary of Homeland Security Capital Corporation, a publicly traded environmental services company, prior to the acquisition of SEC by the Company in 2011. In his positions with both the Company and SEC, Mr. Lombardo procured and performed greater than \$20 million a year in health physics and radioactive material management projects across the DOE and DOD complex while managing a professional staff of engineers and health physicists and an instrumentation laboratory. Prior to his employment with the Company and SEC, he managed decommissioning projects for two engineering firms which included the successful deployment of soil segregation technology, resulting in client savings of more than \$100 million in transportation and disposal costs. During this time, he developed an expertise characterizing and managing naturally occurring radioactive material (“NORM”) and technologically enhanced NORM (“TENORM”) waste streams across multiple industries including oil and gas exploration and production. As a result of his expertise, he was recently appointed to the National Council on Radiation Protection and Measurement Committee to provide a commentary on the generation and disposal of TENORM waste. Mr. Lombardo began his career as a chemist and health physicist for the Duquesne Light Company at two commercial reactor sites and one joint DOE/Naval Reactors Duquesne Light test reactor in Shippingport, PA. Mr. Lombardo is certified in comprehensive practice of health physics, and has a M.S. degree in Health Physics from the University of Pittsburgh and a B.S. in Natural Sciences from Indiana University of Pennsylvania.

Mr. Richard Grondin

On July 22, 2020, the Company's Board appointed Mr. Richard Grondin to the position of EVP of Waste Treatment Operations and an executive officer of the Company. Effective January 21, 2021, Mr. Grondin was elected to serve as a member of the Supervisory Board of PF Medical. Since joining the Company in 2002, Mr. Grondin has held various positions within the Company's Treatment Segment, including Vice President of Technical Services, Vice President/General Manager of the Perma-Fix Northwest Richland, Inc. ("PFNWR") Facility and Vice President of Western Operations. Mr. Grondin, a Project Management Professional ("PMP"), has over 35 years of management and technical experience in the highly regulated and specialized radioactive/hazardous waste management industry with the majority of his experience concentrated on managing start-up waste management processing and disposal facilities for four different organizations in the commercial and government sectors. Prior to joining the Company, Mr. Grondin held the position of Vice President of Mixed Waste Operations for Allied Technology Group ("ATG") in Richland, Washington; Vice President of Operations for Waste Control Specialists ("WCS") in Andrews Texas; and Technical Manager/Director of Operations for Rollins Environmental Services Facility in Deer Trail, Colorado. In his positions with the Company, Mr. Grondin, together with others, transformed the PFNWR facility to a profitable subsidiary after its acquisition by the Company. Mr. Grondin is recognized in the United States and Canada as an authority in hazardous and mixed waste treatment. He has been involved in the treatment of several hundred thousand tons of waste in the last 35 years. Mr. Grondin has a Diploma of Collegial Studies in Pure and Applied Sciences from CEGEP of Amiante (Thetford-Mines, Canada) and Analytical Chemistry Techniques from CEGEP of Ahuntsic (Montreal, Canada), a Geography minor from Montreal University (Montreal, Canada) and a Certificate of Business Management from the School of Higher Commercial Studies from Montreal University (Montreal, Canada).

Certain Relationships

There are no family relationships between any of the directors or executive officers.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act, and the regulations promulgated thereunder require our executive officers and directors and beneficial owners of more than 10% of our Common Stock to file reports of ownership and changes of ownership of our Common Stock with the Commission, and to furnish us with copies of all such reports. Based solely on a review of the copies of such reports furnished to us and written information provided to us, we believe that during 2020 none of our executive officers, directors, or beneficial owners of more than 10% of our Common Stock failed to timely file reports under Section 16(a).

Capital Bank–Grawe Gruppe AG ("Capital Bank") has advised us that it is a banking institution regulated by the banking regulations of Austria, which holds shares of our Common Stock as agent on behalf of numerous investors. Capital Bank has represented that all of such investors are accredited investors under Rule 501 of Regulation D promulgated under the Act. In addition, Capital Bank has advised us that none of such investors, individually or as a group, beneficially own more than 4.9% of our Common Stock as calculated in accordance with Rule 13d-3 of the Exchange Act. Capital Bank has further informed us that its clients (and not Capital Bank) maintain full voting and dispositive power over such shares. Consequently, Capital Bank has advised us that it believes it is not the beneficial owner, as such term is defined in Rule 13d-3 of the Exchange Act, of the shares of our Common Stock registered in the name of Capital Bank because it has neither voting nor investment power, as such terms are defined in Rule 13d-3, over such shares. Capital Bank has informed us that it does not believe that it is required to file, and has not filed, (a) reports under Section 16(a) of the Exchange Act or (b) either Schedule 13D or Schedule 13G in connection with the shares of our Common Stock registered in the name of Capital Bank.

If the representations of, or information provided by Capital Bank, are incorrect or Capital Bank was historically acting on behalf of its investors as a group, rather than on behalf of each investor independent of other investors, then Capital Bank and/or the investor group would have become a beneficial owner of more than 10% of our Common Stock on February 9, 1996, as a result of the acquisition of 1,100 shares of our Preferred Stock that were convertible into a maximum of 256,560 shares of our Common Stock. If either Capital Bank or a group of Capital Bank's investors became a beneficial owner of more than 10% of our Common Stock on February 9, 1996, or at any time thereafter, and thereby required to file reports under Section 16(a) of the Exchange Act, then Capital Bank has failed to file a Form 3 or any Forms 4 or 5 since

February 9, 1996. (See “Item 12 - Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matter – Security Ownership of Certain Beneficial Owners” for a discussion of Capital Bank’s current record ownership of our securities).

Code of Ethics

Our Code of Ethics applies to all our executive officers and is available on our website at www.permatrix.com. If any amendments are made to the Code of Ethics or any grants of waivers are made to any provision of the Code of Ethics to any of our executive officers, we will promptly disclose the amendment or waiver and nature of such amendment or waiver on our website at the same web address.

ITEM 11. EXECUTIVE COMPENSATION

Summary Compensation

The following table summarizes the total compensation paid or earned by each of the named executive officers (“NEOs”) for the fiscal years ended December 31, 2020 and 2019.

Name and Principal Position	Year	Salary	Bonus	Option	Non-Equity	All other	Total
				Awards	Incentive Plan	Compensation	Compensation
		(\$)	(\$)	(\$) ⁽⁵⁾	(\$)	(\$) ⁽⁸⁾	(\$)
Mark Duff	2020	344,400	—	—	107,010 ⁽⁶⁾	29,930	481,340
President and CEO	2019	287,000	—	35,564	110,699 ⁽⁷⁾	29,680	462,943
Ben Naccarato	2020	280,000	—	—	86,000 ⁽⁶⁾	41,594	407,594
EVP and CFO	2019	235,231	—	21,338	81,070 ⁽⁷⁾	40,861	378,500
Dr. Louis Centofanti	2020	233,336	—	—	71,668 ⁽⁶⁾	33,780	338,784
EVP of Strategic Initiatives	2019	228,985	—	21,338	78,918 ⁽⁷⁾	32,264	361,505
Andy Lombardo ⁽¹⁾	2020	280,000	27,000 ⁽³⁾	—	83,000 ⁽⁶⁾	12,385	402,385
EVP of Nuclear & Technical Services	2019	258,662	—	14,225	89,147 ⁽⁷⁾	5,168	367,202
Richard Grondin ⁽²⁾	2020	223,151	—	—	71,143 ⁽⁶⁾	29,216	323,510
EVP of Waste Treatment Operations	2019	183,904	30,341 ⁽⁴⁾	14,225	— ⁽⁷⁾	29,137	257,607

⁽¹⁾ On January 16, 2020, the Board appointed Mr. Lombardo to the position of EVP of Nuclear and Technical Services and an executive officer of the Company. Previously, Mr. Lombardo held the position of SVP of Nuclear and Technical Services (within the Services Segment). As the EVP of Nuclear and Technical Services, Mr. Lombardo’s annual base salary was increased to \$280,000, effective January 1, 2020.

⁽²⁾ On July 22, 2020, the Board appointed Mr. Grondin to the position of EVP of Waste Treatment Operations and an executive officer of the Company. Previously, Mr. Grondin held the position of Vice President of Western Operations. As the EVP of Waste Treatment Operations, Mr. Grondin’s annual base salary was increased to \$240,000, effective July 22, 2020.

⁽³⁾ Reflects a discretionary bonus earned by Mr. Lombardo which was approved by the Company’s Compensation Committee

and which is to be paid upon payment of the compensation earned under Mr. Lombardo's 2020 MIP as described in footnote (6) below.

- (4) Reflects a discretionary bonus earned by Mr. Grondin which was approved by the Company's CEO and paid in May 2020. See also footnote (7) below.
- (5) Reflects the aggregate grant date fair value of awards computed in accordance with ASC 718, "Compensation – Stock Compensation." Assumptions used in the calculation of this amount are included in "Note 7 – Capital Stock, Stock Plans, Warrants and Stock Based Compensation" to "Notes to Consolidated Financial Statement."
- (6) Represents performance compensation earned under the Company's Management Incentive Plan ("MIP"). The MIP for each individual in the table is described under the heading "2020 MIPs." Compensation earned under the 2020 MIPs is to be paid on or about 90 days after year-end, or sooner based on final Form 10-K filing.
- (7) Represents performance compensation earned under the Company's 2019 MIP. As discussed above, Mr. Lombardo was named an executive officer of the Company effective January 16, 2020. Mr. Lombardo had a MIP for 2019 as the SVP of Nuclear and Technical Services, prior to his election as an executive officer by the Board on January 16, 2020. Mr. Lombardo's MIP as SVP of Nuclear and Technical Services was subject to the approval of the CEO. Mr. Grondin did not have a MIP for 2019 but earned a bonus which is described in footnote (4) above. Compensation earned under the MIPs for 2019 was paid by the Company at the end of May 2020.
- (8) The amount shown includes a monthly automobile allowance, insurance premiums (health, disability and life) paid by the Company on behalf of the NEO, and 401(k) matching contributions.

Name	Insurance		Auto Allowance	401(k) match	Total
	Premium				
Mark Duff	\$ 14,430	\$ 9,000	\$ 6,500	\$ 29,930	
Ben Naccarato	\$ 26,853	\$ 9,000	\$ 5,741	\$ 41,594	
Dr. Louis Centofanti	\$ 18,516	\$ 9,000	\$ 6,264	\$ 33,780	
Andy Lombardo	\$ —	\$ 5,885	\$ 6,500	\$ 12,385	
Richard Grondin	\$ 18,516	\$ 4,200	\$ 6,500	\$ 29,216	

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth unexercised options held by the NEOs as of the fiscal year-end.

Outstanding Equity Awards at December 31, 2020

Name	Number of Securities Underlying Unexercised Options (#)		Number of Securities Underlying Unexercised Options (#) ⁽¹⁾		Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (#)	Option Exercise Price (\$)	Option Expiration Date
	Exercisable	Unexercisable	Exercisable	Unexercisable			
Mark Duff	50,000	(2)	—	(2)	—	3.97	5/15/2022
	60,000	(3)	40,000	(3)	—	3.65	7/27/2023
	5,000	(4)	20,000	(4)	—	3.15	1/17/2025
Ben Naccarato	30,000	(3)	20,000	(3)	—	3.65	7/27/2023
	3,000	(4)	12,000	(4)	—	3.15	1/17/2025
Dr. Louis Centofanti	30,000	(3)	20,000	(3)	—	3.65	7/27/2023
	3,000	(4)	12,000	(4)	—	3.15	1/17/2025
Andy Lombardo	4,000	(5)	8,000	(5)	—	3.60	10/19/2023
	—	(4)	8,000	(4)	—	3.15	1/17/2025
Richard Grondin	12,000	(5)	8,000	(5)	—	3.60	10/19/2023
	2,000	(4)	8,000	(4)	—	3.15	1/17/2025

⁽¹⁾ Pursuant to each of the employment agreements between the Company and, respectively, Mark Duff, Ben Naccarato, Dr. Lou Centofanti, Andy Lombardo, and Richard Grondin, each dated July 22, 2020, in the event of a change in control, death of the executive officer, the executive officer terminates his employment for "good reason" or the executive officer is terminated by the Company without cause, each outstanding option and award shall immediately become exercisable in full (see "Employment Agreements" below for further discussion of the event pursuant to which accelerated exercise of the respective NEO's

outstanding options can arise).

- (2) Incentive stock option granted on May 15, 2016 under the Company's 2010 Stock Option Plan. The option has a contractual term of six years with one-third yearly vesting over a three-year period.
- (3) Incentive stock option granted on July 27, 2017 under the Company's 2017 Stock Option Plan. The option has a contractual term of six years with one-fifth yearly vesting over a five-year period.
- (4) Incentive stock option granted on January 17, 2019 under the Company's 2017 Stock Option Plan. The option has a contractual term of six years with one-fifth yearly vesting over a five-year period.
- (5) Incentive stock option granted on October 19, 2017 under the Company's 2017 Stock Option Plan. The option has a contractual term of six years with one-fifth yearly vesting over a five-year period.

Option Exercises

The table below reflects options exercised by our NEO's in 2020.

Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$) ⁽¹⁾
Andy Lombardo	2,000	\$ 7,700

- (1) Realized value determined based on the difference between (a) the total proceeds received by the Company from the exercise of options for the purchase of 2,000 shares of the Company's Common Stock at \$3.15 per share, and (b) the market value (\$7.00 per share) of the 2,000 shares of the Company's Common Stock acquired by Mr. Lombardo on the date of the exercise of the options.

Employment Agreements

Effective July 22, 2020, each of the NEOs entered into an employment agreement with the Company (each, an "Employment Agreement" and, collectively, the "Employment Agreements"). Each of the Employment Agreements, which are substantially identical, provides for a specified annual base salary, which annual salary may be increased from time to time, but not reduced, as determined by the Compensation Committee. In addition, each of the NEOs is entitled to participate in the Company's broad-based benefits plans and to certain performance compensation payable under separate MIPs as approved by the Company's Compensation Committee and Board. The Company's Compensation Committee and the Board approved individual 2020 MIPs on January 16, 2020 (which were effective January 1, 2020 and applicable for the 2020 fiscal year) for each of Mark Duff, Ben Naccarato, Dr. Louis Centofanti, and Andy Lombardo. Additionally, the Compensation Committee and the Board approved a 2020 MIP for Richard Grondin on July 22, 2020 (which was effective January 1, 2020 and applicable for the 2020 fiscal year) (see discussion of each of the 2020 MIPs below under "2020 MIPs"). The Employment Agreements for each of Mark Duff, Dr. Louis Centofanti, and Ben Naccarato replaced existing employment agreements between the Company and each such individual originally entered into on September 8, 2017.

Each of the Employment Agreements is effective for three years from July 22, 2020 (the "Initial Term") unless earlier terminated by the Company or by the respective NEO. At the end of the Initial Term of each Employment Agreement, each Employment Agreement will automatically be extended for one additional year, unless at least six months prior to the expiration of the Initial Term, the Company or the respective NEO provides written notice not to extend the terms of the Employment Agreement.

Each of the Employment Agreements provides that, if an NEO's employment is terminated due to death/disability or for cause (as defined in the agreements), the Company will pay to the NEO or to his estate an amount equal to the sum of any unpaid base salary, accrued unused vacation time through the date of termination, any benefits due to the NEO under any employee benefit plan (the "Accrued Amounts") and any performance compensation payable pursuant to the MIP applicable to such NEO.

If the NEO terminates his employment for "good reason" (as defined in the agreements) or is terminated by the Company without cause (including any such termination for "good reason" or without cause within 24 months after a Change in Control (as defined in the agreements), the Company will pay the NEO the Accrued Amounts, two years of full base salary, and two times the performance compensation (under the NEO's MIP) earned with respect to the fiscal year immediately preceding the date of termination provided

the performance compensation earned with respect to the fiscal year immediately preceding the date of termination has not yet been paid. If performance compensation earned with respect to the fiscal year immediately preceding the date of termination has been paid to the NEO, the NEO will be paid an additional year of the performance compensation earned with respect to the fiscal year immediately preceding the date of termination. If the NEO terminates his employment for a reason other than for good reason, the Company will pay to the executive an amount equal to the Accrued Amounts plus any performance compensation payable pursuant to the MIP applicable to such NEO.

If there is a Change in Control (as defined in the agreements), all outstanding stock options to purchase the common stock held by the NEO will immediately become exercisable in full commencing on the date of termination through the original term of the options. In the event of the death of an NEO, all outstanding stock options to purchase common stock held by the NEO will immediately become exercisable in full commencing on the date of death, with such options exercisable for the lesser of the original option term or twelve months from the date of the NEO's death. In the event an NEO terminates his employment for "good reason" or is terminated by the Company without cause, all outstanding stock options to purchase common stock held by the NEO will immediately become exercisable in full commencing on the date of termination, with such options exercisable for the lesser of the original option term or within 60 days from the date of the NEO's date of termination. Severance benefits payable with respect to a termination (other than Accrued Amounts) shall not be payable until the termination constitutes a "separation from service" (as defined under Treasury Regulation Section 1.409A-1(h)).

Potential Payments

The following table sets forth the potential (estimated) payments and benefits to which each NEO would be entitled upon termination of employment or following a Change in Control of the Company, as specified under each of their respective Employment Agreements with the Company, assuming each circumstance described below occurred on December 31, 2020, the last day of our most recent fiscal year.

Name and Principal Position Potential Payment/Benefit	Disability/ Retirement	For Cause	Death	By Executive for Good Reason or by Company Without Cause		Change in Control of the Company
Mark Duff						
President and CEO						
Accrued Amounts	\$ 24,163	⁽⁶⁾ \$ 24,163	⁽⁶⁾ \$ 24,163	⁽⁶⁾ \$ 24,163	⁽¹⁾ \$ 712,963	⁽¹⁾ \$ 712,963
Performance compensation	\$ 107,010	⁽²⁾ \$ 107,010	⁽²⁾ \$ 107,010	⁽²⁾ \$ 107,010	⁽³⁾ \$ 214,020	⁽³⁾ \$ 214,020
Stock Options	\$ 253,300	⁽⁵⁾ \$ 253,300	⁽⁵⁾ \$ 402,500	⁽⁴⁾ \$ 402,500	⁽⁴⁾ \$ 402,500	⁽⁴⁾ \$ 402,500
Ben Naccarato						
EVP and CFO						
Accrued Amounts	\$ 54,762	⁽⁶⁾ \$ 54,762	⁽⁶⁾ \$ 54,762	⁽⁶⁾ \$ 54,762	⁽¹⁾ \$ 614,762	⁽¹⁾ \$ 614,762
Performance compensation	\$ 86,000	⁽²⁾ \$ 86,000	⁽²⁾ \$ 86,000	⁽²⁾ \$ 86,000	⁽³⁾ \$ 172,000	⁽³⁾ \$ 172,000
Stock Options	\$ 78,060	⁽⁵⁾ \$ 78,060	⁽⁵⁾ \$ 158,300	⁽⁴⁾ \$ 158,300	⁽⁴⁾ \$ 158,300	⁽⁴⁾ \$ 158,300
Dr. Louis Centofanti						
EVP of Strategic Initiatives						
Accrued Amounts	\$ 166,967	⁽⁶⁾ \$ 166,967	⁽⁶⁾ \$ 166,967	⁽⁶⁾ \$ 166,967	⁽¹⁾ \$ 633,639	⁽¹⁾ \$ 633,639
Performance compensation	\$ 71,668	⁽²⁾ \$ 71,668	⁽²⁾ \$ 71,668	⁽²⁾ \$ 71,668	⁽³⁾ \$ 143,336	⁽³⁾ \$ 143,336
Stock Options	\$ 78,060	⁽⁵⁾ \$ 78,060	⁽⁵⁾ \$ 158,300	⁽⁴⁾ \$ 158,300	⁽⁴⁾ \$ 158,300	⁽⁴⁾ \$ 158,300
Andy Lombardo						
EVP of Nuclear and Technical Services						
Accrued Amounts	\$ 19,276	⁽⁶⁾ \$ 19,276	⁽⁶⁾ \$ 19,276	⁽⁶⁾ \$ 19,276	⁽¹⁾ \$ 579,276	⁽¹⁾ \$ 579,276
Performance compensation	\$ 83,000	⁽²⁾ \$ 83,000	⁽²⁾ \$ 83,000	⁽²⁾ \$ 83,000	⁽³⁾ \$ 166,000	⁽³⁾ \$ 166,000
Stock Options	\$ 9,480	⁽⁵⁾ \$ 9,480	⁽⁵⁾ \$ 51,000	⁽⁴⁾ \$ 51,000	⁽⁴⁾ \$ 51,000	⁽⁴⁾ \$ 51,000
Richard Grondin						
EVP of Waste Treatment Operations						
Accrued Amounts	\$ 91,201	⁽⁶⁾ \$ 91,201	⁽⁶⁾ \$ 91,201	⁽⁶⁾ \$ 91,201	⁽¹⁾ \$ 571,201	⁽¹⁾ \$ 571,201
Performance compensation	\$ 71,143	⁽²⁾ \$ 71,143	⁽²⁾ \$ 71,143	⁽²⁾ \$ 71,143	⁽³⁾ \$ 142,286	⁽³⁾ \$ 142,286
Stock Options	\$ 34,080	⁽⁵⁾ \$ 34,080	⁽⁵⁾ \$ 75,600	⁽⁴⁾ \$ 75,600	⁽⁴⁾ \$ 75,600	⁽⁴⁾ \$ 75,600

- (1) Represents two times the base salary of the NEO at December 31, 2020 plus “Accrued Amounts” noted in footnote (6) below.
- (2) Represents performance compensation earned for fiscal year 2020 (see “2020 MIPs” below). Pursuant to each MIP, performance compensation is to be paid about 90 days after year-end, or sooner based on final Form 10-K filing.
- (3) Represents two times the performance compensation earned for fiscal year 2020 (see “2020 MIPs” below). Pursuant to the MIP, performance compensation is to be paid about 90 days after fiscal year-end, or sooner based on final Form 10-K filing.
- (4) Benefit is calculated based on the difference between the exercise price of each option and the market value of the Company’s Common Stock per share (as reported on the NASDAQ) at December 31, 2020 times the number of options outstanding at December 31, 2020.
- (5) Benefit is calculated based on the difference between the exercise price of each option and the market value of the Company’s Common Stock per share (as reported on the NASDAQ) at December 31, 2020 times the number of options vested at December 31, 2020.
- (6) Represents accrued base salary earned for 2020 but paid in 2021, as well as accrued unused vacation/sick time and benefits (defined as “Accrued Amounts” in each of the respective per the Employment Agreement).

2020 Executive Compensation Components

For the fiscal year ended December 31, 2020, the principal components of compensation for executive officers were:

- base salary;
- performance-based incentive compensation;
- long term incentive compensation;

- retirement and other benefits; and
- perquisites.

Based on the amounts set forth in the Summary Compensation table, during 2020, salary accounted for approximately 69.7% of the total compensation of our NEOs, while equity option awards, MIP compensation, and other compensation accounted for approximately 30.3% of the total compensation of the NEOs.

Base Salary

The NEOs, other officers, and other employees of the Company receive a base annual salary. Base salary ranges for executive officers are determined for each executive based on his or her position and responsibility by using market data and comparisons to companies in similar industry.

During its review of base salaries for executives, the Compensation Committee primarily considers:

- market data and comparisons to companies in similar industry;
- internal review of the executive's compensation, both individually and relative to other officers; and
- individual performance of the executive.

Salary levels are typically considered annually as part of the performance review process as well as upon a promotion or other change in job responsibility. Merit-based salary increases for executives are based on the Compensation Committee's assessment of the individual's performance. The base salary and potential annual base salary adjustments for the NEOs are set forth in their respective employment agreements. On January 16, 2020, the Compensation Committee and the Board approved a base salary increase for each of the following individuals, which became effective January 1, 2020: (a) approximately \$57,400 increase from \$287,000 to \$344,400 for Mark Duff, CEO and President; (b) approximately \$44,769 increase from \$235,231 to \$280,000 for Ben Naccarato who was named EVP and CFO from VP and CFO; and (c) approximately \$21,338 increase from \$258,662 to \$280,000 for Andy Lombardo, who was named an executive officer of the Company effective January 16, 2020 and appointed to the position of EVP of Nuclear and Technical Services from SVP of Nuclear and Technical Services. Lou Centofanti, EVP of Strategic Initiatives, was approved a base salary increase of 1.9%, effective January 1, 2020 (from \$228,985 to \$233,336). As a result of Richard Grondin's promotion to EVP of Waste Treatment and being named an executive officer of the Company, his annual salary was increased from \$208,000 as the Vice President of Western Operations to \$240,000, effective July 22, 2020. In February 2021, the Compensation Committee approved a cost of living adjustment of approximately 2.3% of each NEO's base salary, effective April 1, 2021.

Performance-Based Incentive Compensation

The Compensation Committee has the latitude to design cash and equity-based incentive compensation programs to promote high performance and achievement of our corporate objectives by directors and the NEOs, encourage the growth of stockholder value and enable employees to participate in our long-term growth and profitability. The Compensation Committee may grant stock options and/or performance bonuses. In granting these awards, the Compensation Committee may establish any conditions or restrictions it deems appropriate. In addition, the CEO has discretionary authority to grant stock options to certain high-performing executives or officers, subject to the approval of the Compensation Committee. The exercise price for each stock option granted is at or above the market price of our Common Stock on the date of grant. Stock options may be awarded to newly hired or promoted executives at the discretion of the Compensation Committee. Grants of stock options to eligible newly hired executive officers are generally made at the next regularly scheduled Compensation Committee meeting following the hire date.

2020 MIPs

On January 16, 2020, the Board and the Compensation Committee approved individual MIPs for the CEO, CFO, EVP of Strategic Initiatives and EVP of Nuclear and Technical Services. Additionally, on July 22,

2020, the Board and the Compensation Committee approved a MIP for the EVP of Treatment Waste Operations in connection with his appointment to such position on that date. The MIPs were effective January 1, 2020 and applicable for the 2020 fiscal year. Each MIP provides guidelines for the calculation of annual cash incentive-based compensation, subject to Compensation Committee oversight and modification. Each MIP awarded cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of the executive's 2020 annual base salary. The potential target performance compensation ranged from 5% to 150% of the base salary for the CEO (\$17,220 to \$516,600), 5% to 100% of the base salary for the CFO (\$14,000 to \$280,000), 5% to 100% of the base salary for the EVP of Strategic Initiatives (\$11,667 to \$233,336), 5% to 100% of the base salary for the EVP of Nuclear and Technical Services (\$14,000 to \$280,000) and 5% to 100% of the base salary for the EVP of Waste Treatment Operations (\$12,000 to \$240,000).

Performance compensation, if any, is to be paid on or about 90 days after year-end, or sooner, based on final Form 10-K filing. The Compensation Committee retains the right to modify, change or terminate each MIP and may adjust the various target amounts described below, at any time and for any reason.

The total performance compensation paid to the CEO, CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations as a group is not to exceed 50% of the Company's pre-tax net income computed prior to the calculation of performance compensation.

The following describes the principal terms of the respective 2020 MIP applicable to each NEO:

CEO MIP:

CEO performance compensation for fiscal 2020 was based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2020, all with respect to the Company's operations. The Compensation Committee believes performance compensation payable under each of the 2020 MIPs as discussed herein and below should be based on achievement of an EBITDA target, which excludes certain non-cash items, as this target provides a better indicator of operating performance. However, EBITDA has certain limitations as it does not reflect all items of income or cash flows that affect the Company's financial performance under GAAP. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation was payable at 5% to 50% of the 2020 base salary, weighted 60% based on the EBITDA goal, 10% on the revenue goal, and 15% on the number of health and safety claim incidents that occurred during fiscal 2020, with the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during the fiscal 2020. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation was payable at 75% to 150% of the CEO's 2020 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on the Board-approved revenue target and EBITDA target. The 2020 target performance incentive compensation for the CEO was as follows:

Annualized Base Pay:	\$344,400
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$172,200</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$516,600</u>

Perma-Fix Environmental Services, Inc.
2020 Management Incentive Plan
CEO MIP MATRIX

	Performance Target Achieved						
	<60%	60%-74%	75%-89%	90%-110%	111%-129%	130%-150%	>150%
Revenue (1) (5)	\$ -	\$ 1,722	\$ 8,610	\$ 17,220	\$ 29,520	\$ 41,820	\$ 66,420
EBITDA (2)	-	10,332	51,660	103,320	177,120	250,920	398,520
Health & Safety (3) (5)	-	2,583	12,915	25,830	25,830	25,830	25,830
Permit & License Violations (4) (5)	-	2,583	12,915	25,830	25,830	25,830	25,830
	<u>\$ -</u>	<u>\$ 17,220</u>	<u>\$ 86,100</u>	<u>\$ 172,200</u>	<u>\$ 258,300</u>	<u>\$ 344,400</u>	<u>\$ 516,600</u>

- 1) Revenue was defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2020 financial statements. The percentage achieved was determined by comparing the actual consolidated revenue for 2020 to the Board approved Revenue Target for 2020, which was \$86,201,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2020, which was \$6,913,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target was based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims were identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds was established for the annual Incentive Compensation Plan calculation for 2020.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive was earned/determined according to the scale set forth below: An "official notice of non-compliance" was defined as an official communication during 2020 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility's implementation of corrective action(s).

Permit and License Violations	Performance Target Achieved
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target was achieved.

CFO MIP:

CFO performance compensation for fiscal 2020 was based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2020, all with respect to the Company's operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation was payable at 5% to 50% of the 2020 base salary, weighted 75% based on EBITDA goal, 10% on the revenue goal, and 7.5% on the number of health and safety claim incidents that occurred during fiscal 2020, with the remaining 7.5% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during the fiscal 2020. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation was payable at 65% to 100% of the CFO's 2020 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on the Board-approved revenue target and EBITDA target. The 2020 target performance incentive compensation for the CEO was as follows:

Annualized Base Pay:	\$280,000
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$140,000</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$420,000</u>

Perma-Fix Environmental Services, Inc. 2020 Management Incentive Plan CFO MIP MATRIX							
	Performance Target Achieved						
	<60%	60%-74%	75%-89%	90%-110%	111%-129%	130%-150%	>150%
Revenue (1) (5)	\$ -	\$ 1,400	\$ 7,000	\$ 14,000	\$ 23,000	\$ 31,000	\$ 37,000
EBITDA (2)	-	10,500	52,500	105,000	138,000	186,000	222,000
Health & Safety (3) (5)	-	1,050	5,250	10,500	10,500	10,500	10,500
Permit & License Violations (4) (5)	-	1,050	5,250	10,500	10,500	10,500	10,500
	<u>\$ -</u>	<u>\$ 14,000</u>	<u>\$ 70,000</u>	<u>\$ 140,000</u>	<u>\$ 182,000</u>	<u>\$ 238,000</u>	<u>\$ 280,000</u>

- 1) Revenue was defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2020 financial statements. The percentage achieved was determined by comparing the actual consolidated revenue for 2020 to the Board approved Revenue Target for 2020, which was \$86,201,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.

- 2) EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2020, which was \$6,913,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target was based upon the actual number of Worker’s Compensation Lost Time Accidents, as provided by the Company’s Worker’s Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker’s Compensation Lost Time Accidents, supported by the Worker’s Compensation Loss Report provided by the company’s carrier or broker. Such claims were identified on the loss report as “indemnity claims.” The following number of Worker’s Compensation Lost Time Accidents and corresponding Performance Target Thresholds was established for the annual Incentive Compensation Plan calculation for 2020.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive was earned/determined according to the scale set forth below: An “official notice of non-compliance” was defined as an official communication during 2020 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility’s implementation of corrective action(s).

Permit and <u>License Violations</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target was achieved.

EVP of Strategic Initiatives MIP:

The 2020 performance compensation plan for the EVP of Strategic Initiative was based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2020, all with respect to the Company’s operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation was payable at 5% to 50% of the 2020 base salary, weighted 75% based on EBITDA goal, 10% on revenue goal, and

7.5% on the number of health and safety claim incidents that occurred during fiscal 2020, with the remaining 7.5% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during fiscal 2020. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation was payable at 65% to 100% of the EVP of Strategic Initiative's 2020 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on the Board-approved revenue target and EBITDA target. The 2020 target performance incentive compensation for the EVP of Strategic Initiatives was as follows:

Annualized Base Pay:	\$233,336
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$116,668</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$350,004</u>

Perma-Fix Environmental Services, Inc. 2020 Management Incentive Plan EVP OF STRATEGIC INITIATIVES MIP MATRIX							
	Performance Target Achieved						
	<60%	60%-74%	75%-89%	90%-110%	111%-129%	130%-150%	>150%
Revenue (1) (5)	\$ -	\$ 1,167	\$ 5,833	\$ 11,667	\$ 19,167	\$ 25,834	\$ 30,834
EBITDA (2)	-	8,750	43,751	87,501	115,001	155,002	185,002
Health & Safety (3) (5)	-	875	4,375	8,750	8,750	8,750	8,750
Permit & License Violations (4) (5)	-	875	4,375	8,750	8,750	8,750	8,750
	<u>\$ -</u>	<u>\$ 11,667</u>	<u>\$ 58,334</u>	<u>\$ 116,668</u>	<u>\$ 151,668</u>	<u>\$ 198,336</u>	<u>\$ 233,336</u>

- Revenue was defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2020 financial statements. The percentage achieved was determined by comparing the actual consolidated revenue for 2020 to the Board approved Revenue Target for 2020, which was \$86,201,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2020, which was \$6,913,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- The Health and Safety Incentive Target was based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims were identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds was established for the annual Incentive Compensation Plan calculation for 2020.

Work Comp. Claim Number	Performance Target Achieved
4	60%-74%
3	75%-89%
2	90%-110%

1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive was earned/determined according to the scale set forth below: An “official notice of non-compliance” was defined as an official communication during 2020 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility’s implementation of corrective action(s).

Permit and License Violations	Performance Target Achieved
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target was achieved.

EVP of Nuclear and Technical Services MIP:

The 2020 performance compensation plan for the EVP of Nuclear and Technical Services was based upon meeting corporate revenue, EBITDA, health and safety compliance, and Cost Performance Index (“CPI”) (a metric used in measuring project performance) objectives for fiscal 2020, all with respect to the Company’s operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation was payable at 5% to 50% of the 2020 base salary, weighted 60% based on the EBITDA goal, 10% on the revenue goal, and 15% on the number of health and safety claim incidents that occur during fiscal 2020, with the remaining 15% on CPI metric goals. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation was payable at 65% to 100% of the SVP of Nuclear and Technical Services’ 2020 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on the Board-approved revenue target and the EBITDA target. The 2020 target performance incentive compensation for the EVP of Nuclear and Technical Services was as follows:

Annualized Base Pay:	\$280,000
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$140,000</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$420,000</u>

Perma-Fix Environmental Services, Inc.
2020 Management Incentive Plan
EVP OF NUCLEAR & TECHNICAL SERVICES MIP MATRIX

	Performance Target Achieved						
	<u><60%</u>	<u>60%-74%</u>	<u>75%-89%</u>	<u>90%-110%</u>	<u>111%-129%</u>	<u>130%-150%</u>	<u>>150%</u>
Revenue (1) (5)	\$ -	\$ 1,400	\$ 7,000	\$ 14,000	\$ 20,000	\$ 28,000	\$ 34,000
EBITDA (2)	-	8,400	42,000	84,000	120,000	168,000	204,000
Health & Safety (3) (5)	-	2,100	10,500	21,000	21,000	21,000	21,000
CPI (4) (5)	-	2,100	10,500	21,000	21,000	21,000	21,000
	<u>\$ -</u>	<u>\$ 14,000</u>	<u>\$ 70,000</u>	<u>\$ 140,000</u>	<u>\$ 182,000</u>	<u>\$ 238,000</u>	<u>\$ 280,000</u>

- 1) Revenue was defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2020 financial statements. The percentage achieved was determined by comparing the actual consolidated revenue for 2020 to the Board approved Revenue Target for 2020, which was \$86,201,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2020, which was \$6,913,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive target was based upon the actual number of Worker's Compensation Lost Time Accidents in the Company's Services Segment, as provided by the Company's Worker's Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims were identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds was established for the annual Incentive Compensation Plan calculation for 2020.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%)

- 4) CPI incentive was earned/determined by maintaining project performance metrics for all Firm Fixed Price task orders and projects to include monitoring CPI based on recognized earned value calculations. As defined through monthly project reviews, all CPI metrics should exceed 1.0 for Nuclear Services Projects. A cumulative CPI (CCPI) was calculated from all fixed cost contracts.

The following CCPI and corresponding Performance Target Thresholds were established for annual incentive compensation plan calculation for 2020.

CPI (if CCPI is)	Performance Target Achieved
<0.60	(n/a)
0.60-0.74	60%-74%
0.75-0.89	75%-89%
0.90-1.10	90%-110%
1.11-1.29	111%-129%
1.30-1.50	130%-150%
>1.50	>150%

- 5) No performance incentive compensation was payable for achieving the health and safety, and CPI, and revenue targets unless a minimum of 60% of the EBITDA Target was achieved.

EVP of Waste Treatment Operations:

The 2020 performance compensation plan for the EVP of Waste Treatment Operations was based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2020, all with respect to the Company's operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation was payable at 5% to 50% of the 2020 base salary, weighted 60% based on EBITDA goal, 10% on revenue goal, and 15% on the number of health and safety claim incidents that occurred during fiscal 2020, with the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occurred during fiscal 2020. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation was payable at 65% to 100% of the EVP of Waste Treatment Waste Operation's 2020 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components was based on the Board-approved revenue target and EBITDA target. The 2020 target performance incentive compensation for the EVP of Waste Treatment Operations was as follows:

Annualized Base Pay:	\$240,000
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$120,000</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$360,000</u>

Perma-Fix Environmental Services, Inc. 2020 Management Incentive Plan EVP OF WASTE TREATMENT OPERATIONS MIP MATRIX							
	Performance Target Achieved						
	<u><60%</u>	<u>60%-74%</u>	<u>75%-89%</u>	<u>90%-110%</u>	<u>111%-129%</u>	<u>130%-150%</u>	<u>>150%</u>
Revenue (1) (5)	\$ -	\$ 1,200	\$ 6,000	\$ 12,000	\$ 17,143	\$ 24,000	\$ 29,143
EBITDA (2)	-	7,200	36,000	72,000	102,857	144,000	174,857
Health & Safety (3) (5)	-	1,800	9,000	18,000	18,000	18,000	18,000
Permit & License Violations (4) (5)	-	1,800	9,000	18,000	18,000	18,000	18,000
	<u>\$ -</u>	<u>\$ 12,000</u>	<u>\$ 60,000</u>	<u>\$ 120,000</u>	<u>\$ 156,000</u>	<u>\$ 204,000</u>	<u>\$ 240,000</u>

- 1) Revenue was defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2020 financial statements. The percentage achieved was determined by comparing the actual consolidated revenue for 2020 to the Board approved Revenue Target for 2020, which was \$86,201,000. The Board reserved the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA was defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved was determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2020, which was \$6,913,000. The Board reserved the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target was based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller submitted a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims were identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds was established for the annual Incentive Compensation Plan calculation for 2020.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive was earned/determined according to the scale set forth below: An "official notice of non-compliance" was defined as an official communication during 2020 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which resulted in a facility's implementation of corrective action(s).

Permit and <u>License Violations</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation was payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target was achieved.

2020 MIP Targets

As discussed above, 2020 MIPs approved by the Board and the Compensation Committee for the CEO, CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EPV of Waste Treatment Operations provided for the award of cash compensation based on achievement of performance targets which included revenue and EBITDA targets as approved by our Board. The 2020 MIP revenue target of \$86,201,000 and EBITDA target of \$6,913,000 were set by the Compensation Committee taking into account the Board-approved budget for 2020 as well as the committee's expectations for performance that in its estimation would warrant payment of incentive cash compensation. In formulating the revenue target of \$86,201,000, the Board considered 2019 results, economic conditions, and forecasts for 2020 government (U.S DOE) spending. The Compensation Committee believed the performance targets were likely to be achieved, but not assured.

The following tables set forth the MIP compensation earned by the CEO, CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations for fiscal year 2020.

CEO

<u>Target Objectives:</u>	<u>Performance Target Threshold Achieved</u>	<u>MIP Compensation Earned</u>
Revenue	111%-129%	\$ 29,520
EBITDA	75%-89%	51,660
Health & Safety	<60%	—
Permit & License Violations	111%-129%	25,830
Total Performance Compensation		<u>\$ 107,010</u>

CFO

<u>Target Objectives:</u>	<u>Performance Target Threshold Achieved</u>	<u>MIP Compensation Earned</u>
Revenue	111%-129%	\$ 23,000
EBITDA	75%-89%	52,500
Health & Safety	<60%	—
Permit & License Violations	111%-129%	10,500
Total Performance Compensation		<u>\$ 86,000</u>

EVP of Strategic Initiatives

<u>Target Objectives:</u>	<u>Performance Target Threshold Achieved</u>	<u>MIP Compensation Earned</u>
Revenue	111%-129%	\$ 19,167
EBITDA	75%-89%	43,751
Health & Safety	<60%	—
Permit & License Violations	111%-129%	8,750
Total Performance Compensation		<u>\$ 71,668</u>

EVP of Nuclear and Technical Services

<u>Target Objectives:</u>	<u>Performance Target Threshold Achieved</u>	<u>MIP Compensation Earned</u>
Revenue	111%-129%	\$ 20,000
EBITDA	75%-89%	42,000
Health & Safety	<60%	—
CPI	90%-110%	21,000
Total Performance Compensation		<u>\$ 83,000</u>

EVP of Waste Treatment Operations

Target Objectives:	Performance Target Threshold Achieved	MIP Compensation Earned
Revenue	111%-129%	\$ 17,143
EBITDA	75%-89%	36,000
Health & Safety	<60%	—
Permit & License Violations	111%-129%	18,000
Total Performance Compensation		\$ 71,143

2021 MIPs

On January 21, 2021, the Company Compensation Committee and the Board approved individual MIPs for the calendar year 2021 for the CEO, CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations. The MIPs are effective January 1, 2021 and applicable for the 2021 fiscal year. Each MIP provides guidelines for the calculation of annual cash incentive-based compensation, subject to Compensation Committee oversight and modification. Each MIP awards cash compensation based on achievement of performance thresholds, with the amount of such compensation established as a percentage of base salary at the time of the approval of the MIP. The potential target performance compensation ranges from 5% to 150% of the 2021 base salary for the CEO (\$17,220 to \$516,600), 5% to 100% of the 2021 base salary for the CFO (\$14,000 to \$280,000), 5% to 100% of the 2021 base salary for the EVP of Strategic Initiatives (\$11,667 to \$233,336), 5% to 100% of the 2021 base salary for the EVP of Nuclear and Technical Services (\$14,000 to \$280,000) and 5% to 100% (\$12,000 to \$240,000) of the 2021 base salary for the EVP of Waste Treatment Operations.

Performance compensation, if any, is to be paid on or about 90 days after year-end, or sooner, based on final Form 10-K filing. The Compensation Committee retains the right to modify, change or terminate each MIP and may adjust the various target amounts described below, at any time and for any reason. Subsequent to the approval of the MIPs for fiscal year 2021 on January 21, 2021 as described below, in February 2021, the Compensation Committee approved a cost of living adjustment of approximately 2.3% of each NEO's base salary, effective April 1, 2021. As such, compensation payable, if any, under each of the MIPs for fiscal year 2021 as discussed below for our NEOs will be adjusted accordingly to reflect this cost of living adjustment.

The total performance compensation, if any, to be paid to the CEO, CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations is not to exceed 50% of the Company's pre-tax net income prior to the calculation of performance compensation.

The following describes the principal terms of each 2021 MIP as approved on January 21, 2021:

CEO MIP:

CEO performance compensation for 2021 is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal year 2021, all with respect to the Company's operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation is payable at 5% to 50% of the CEO's 2021 base salary, weighted 60% based on the EBITDA goal, 10% on the revenue goal, and 15% on the number of health and safety claim incidents that occur during fiscal 2021, with the remaining 15% on the number of notices alleging environmental, health or safety violations under our permit or licenses that occur during the fiscal 2021. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation is payable at 75% to 150% of the CEO's 2021 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on our Board-approved revenue target and EBITDA target. The 2021 target performance incentive compensation for our CEO is as follows:

Annualized Base Pay:	\$344,400
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$172,200</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$516,600</u>

Perma-Fix Environmental Services, Inc.
2021 Management Incentive Plan
CEO MIP MATRIX

	Performance Target Achieved						
	<u><60%</u>	<u>60%-74%</u>	<u>75%-89%</u>	<u>90%-110%</u>	<u>111%-129%</u>	<u>130%-150%</u>	<u>>150%</u>
Revenue (1) (5)	\$ -	\$ 1,722	\$ 8,610	\$ 17,220	\$ 29,520	\$ 41,820	\$ 66,420
EBITDA (2)	-	10,332	51,660	103,320	177,120	250,920	398,520
Health & Safety (3) (5)	-	2,583	12,915	25,830	25,830	25,830	25,830
Permit & License Violations (4) (5)	-	2,583	12,915	25,830	25,830	25,830	25,830
	<u>\$ -</u>	<u>\$ 17,220</u>	<u>\$ 86,100</u>	<u>\$ 172,200</u>	<u>\$ 258,300</u>	<u>\$ 344,400</u>	<u>\$ 516,600</u>

- 1) Revenue is defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2021 financial statements. The percentage achieved is determined by comparing the actual consolidated revenue for 2021 to the Board approved Revenue Target for 2021, which is \$101,810,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2021, which is \$3,623,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target is based upon the actual number of Worker's Compensation Lost Time Accidents, as provided by the Company's Worker's Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims will be identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2021.

Work Comp. Claim Number	Performance Target Achieved
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An "official notice of non-compliance" is defined as an official communication during 2021 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility's implementation of corrective action(s).

Permit and License Violations	Performance Target Achieved
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target is achieved.

CFO MIP:

CFO performance compensation for fiscal 2021 is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2021, all with respect to the Company's operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation is payable at 5% to 50% of the 2021 base salary, weighted 75% based on EBITDA goal, 10% on the revenue goal, and 7.5% on the number of health and safety claim incidents that occur during fiscal 2021, with the remaining 7.5% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occur during the fiscal 2021. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation is payable at 65% to 100% of the CFO's 2021 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on the Board-approved revenue target and EBITDA target. The 2021 target performance incentive compensation for the CEO is as follows:

Annualized Base Pay:	\$280,000
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$140,000</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$420,000</u>

Perma-Fix Environmental Services, Inc. 2021 Management Incentive Plan CFO MIP MATRIX							
	Performance Target Achieved						
	<u><60%</u>	<u>60%-74%</u>	<u>75%-89%</u>	<u>90%-110%</u>	<u>111%-129%</u>	<u>130%-150%</u>	<u>>150%</u>
Revenue (1) (5)	\$ -	\$ 1,400	\$ 7,000	\$ 14,000	\$ 23,000	\$ 31,000	\$ 37,000
EBITDA (2)	-	10,500	52,500	105,000	138,000	186,000	222,000
Health & Safety (3) (5)	-	1,050	5,250	10,500	10,500	10,500	10,500
Permit & License Violations (4) (5)	-	1,050	5,250	10,500	10,500	10,500	10,500
	<u>\$ -</u>	<u>\$ 14,000</u>	<u>\$ 70,000</u>	<u>\$ 140,000</u>	<u>\$ 182,000</u>	<u>\$ 238,000</u>	<u>\$ 280,000</u>

- 1) Revenue is defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2021 financial statements. The percentage achieved is determined by comparing the actual consolidated revenue for 2021 to the Board approved Revenue Target for 2021, which is \$101,810,000.

The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.

- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2021, which is \$3,623,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target is based upon the actual number of Worker’s Compensation Lost Time Accidents, as provided by the Company’s Worker’s Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker’s Compensation Lost Time Accidents, supported by the Worker’s Compensation Loss Report provided by the company’s carrier or broker. Such claims will be identified on the loss report as “indemnity claims.” The following number of Worker’s Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2021.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An “official notice of non-compliance” is defined as an official communication during 2021 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility’s implementation of corrective action(s).

Permit and <u>License Violations</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target is achieved.

EVP of Strategic Initiatives MIP:

EVP of Strategic Initiatives performance compensation for fiscal 2021 is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2021, all with respect to the Company’s operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation is payable at 5% to 50% of the 2021 base salary, weighted 75% based on EBITDA goal, 10% on the revenue goal, and 7.5% on the number of health and safety claim incidents that occur during fiscal 2021, with the remaining 7.5% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occur during the fiscal 2021. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation is payable at 65% to 100% of the EVP of Strategic Initiative’s 2021 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on the Board-approved revenue target and EBITDA target. The 2021 target performance incentive compensation for the EVP of Strategic Initiative is as follows:

Annualized Base Pay:	\$233,336
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$116,668</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$350,004</u>

Perma-Fix Environmental Services, Inc. 2021 Management Incentive Plan EVP OF STRATEGIC INITIATIVES MIP MATRIX							
	Performance Target Achieved						
	<u><60%</u>	<u>60%-74%</u>	<u>75%-89%</u>	<u>90%-110%</u>	<u>111%-129%</u>	<u>130%-150%</u>	<u>>150%</u>
Revenue (1) (5)	\$ -	\$ 1,167	\$ 5,833	\$ 11,667	\$ 19,167	\$ 25,834	\$ 30,834
EBITDA (2)	-	8,750	43,751	87,501	115,001	155,002	185,002
Health & Safety (3) (5)	-	875	4,375	8,750	8,750	8,750	8,750
Permit & License Violations (4) (5)	-	875	4,375	8,750	8,750	8,750	8,750
	<u>\$ -</u>	<u>\$ 11,667</u>	<u>\$ 58,334</u>	<u>\$ 116,668</u>	<u>\$ 151,668</u>	<u>\$ 198,336</u>	<u>\$ 233,336</u>

- 1) Revenue is defined as the total consolidated third-party top line revenue as publicly reported in the Company’s 2021 financial statements. The percentage achieved is determined by comparing the actual consolidated revenue for 2021 to the Board approved Revenue Target for 2021, which is \$101,810,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2021, which is \$3,623,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive Target is based upon the actual number of Worker’s Compensation Lost Time Accidents, as provided by the Company’s Worker’s Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker’s Compensation Lost Time Accidents, supported by the Worker’s Compensation Loss Report provided by the company’s carrier or broker. Such claims will be identified on the loss report as “indemnity claims.” The following number of Worker’s Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2021.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An “official notice of non-compliance” is defined as an official communication during 2021 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility’s implementation of corrective action(s).

Permit and <u>License Violations</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target is achieved.

EVP of Nuclear and Technical Services MIP:

EVP of Nuclear and Technical Services performance compensation for 2021 is based upon meeting corporate revenue, EBITDA, health and safety compliance, and Cost Performance Index (“CPI”) (a metric used in measuring project performance) objectives for fiscal 2021, all with respect to the Company’s operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation is payable at 5% to 50% of the 2021 base salary, weighted 60% based on the EBITDA goal, 10% on the revenue goal, and 15% on the number of health and safety claim incidents that occur during fiscal 2021, with the remaining 15% on CPI metric goals. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation is payable at 65% to 100% of the EVP of Nuclear and Technical Service’s 2021 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on the Board-approved revenue target and the EBITDA target. The 2021 target performance incentive compensation for the EVP of Nuclear and Technical Services is as follows:

Annualized Base Pay:	\$280,000
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$140,000</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$420,000</u>

Perma-Fix Environmental Services, Inc.
2021 Management Incentive Plan
EVP OF NUCLEAR & TECHNICAL SERVICES MIP MATRIX

	Performance Target Achieved						
	<u><60%</u>	<u>60%-74%</u>	<u>75%-89%</u>	<u>90%-110%</u>	<u>111%-129%</u>	<u>130%-150%</u>	<u>>150%</u>
Revenue (1) (5)	\$ -	\$ 1,400	\$ 7,000	\$ 14,000	\$ 20,000	\$ 28,000	\$ 34,000
EBITDA (2)	-	8,400	42,000	84,000	120,000	168,000	204,000
Health & Safety (3) (5)	-	2,100	10,500	21,000	21,000	21,000	21,000
CPI (4) (5)	-	2,100	10,500	21,000	21,000	21,000	21,000
	<u>\$ -</u>	<u>\$ 14,000</u>	<u>\$ 70,000</u>	<u>\$ 140,000</u>	<u>\$ 182,000</u>	<u>\$ 238,000</u>	<u>\$ 280,000</u>

- 1) Revenue is defined as the total consolidated third-party top line revenue as publicly reported in the Company's 2021 financial statements. The percentage achieved is determined by comparing the actual consolidated revenue for 2021 to the Board approved Revenue Target for 2021, which is \$101,810,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2021, which is \$3,623,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.
- 3) The Health and Safety Incentive target is based upon the actual number of Worker's Compensation Lost Time Accidents in the Company's Services Segment, as provided by the Company's Worker's Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker's Compensation Lost Time Accidents, supported by the Worker's Compensation Loss Report provided by the company's carrier or broker. Such claims will be identified on the loss report as "indemnity claims." The following number of Worker's Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2021.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%)

- 4) CPI incentive is earned/determined by maintaining project performance metrics for all Firm Fixed Price task orders and projects to include monitoring CPI based on recognized earned value calculations. As defined through monthly project reviews, all CPI metrics should exceed 1.0 for Nuclear Services Projects. A cumulative CPI (CCPI) will be calculated from all fixed cost

contracts. The following CCPI and corresponding Performance Target Thresholds have been established for annual incentive compensation plan calculation for 2021.

CPI (if CCPI is)	Performance Target Achieved
<0.60	(n/a)
0.60-0.74	60%-74%
0.75-0.89	75%-89%
0.90-1.10	90%-110%
1.11-1.29	111%-129%
1.30-1.50	130%-150%
>1.50	>150%

- 5) No performance incentive compensation will be payable for achieving the health and safety, and CPI, and revenue targets unless a minimum of 60% of the EBITDA Target is achieved.

EVP of Waste Treatment Operations MIP:

EVP of Waste Treatment Operation's performance compensation for fiscal 2021 is based upon meeting corporate revenue, EBITDA, health and safety, and environmental compliance (permit and license violations) objectives for fiscal 2021, all with respect to the Company's operations. At achievement of 60% to 110% of each of the revenue and EBITDA targets, the potential performance compensation is payable at 5% to 50% of the 2021 base salary, weighted 60% based on EBITDA goal, 10% on the revenue goal, and 15% on the number of health and safety claim incidents that occur during fiscal 2021, with the remaining 15% on the number of notices alleging environmental, health or safety violations under our permits or licenses that occur during the fiscal 2021. Upon achievement of 111% to 150%+ of each of the revenue and EBITDA targets, the potential performance compensation is payable at 65% to 100% of the EVP of Waste Treatment Operation's 2021 base salary, based on the four objectives noted above, with the payment of such performance compensation weighted more heavily toward the EBITDA objective. Each of the revenue and EBITDA components is based on the Board-approved revenue target and EBITDA target. The 2021 target performance incentive compensation for the EVP of Waste Treatment Operations is as follows:

Annualized Base Pay:	\$240,000
Performance Incentive Compensation Target (at 100% of Plan):	<u>\$120,000</u>
Total Annual Target Compensation (at 100% of Plan):	<u>\$360,000</u>

Perma-Fix Environmental Services, Inc. 2021 Management Incentive Plan EVP OF WASTE TREATMENT OPERATIONS MIP MATRIX							
	Performance Target Achieved						
	<60%	60%-74%	75%-89%	90%-110%	111%-129%	130%-150%	>150%
Revenue (1) (5)	\$ -	\$ 1,200	\$ 6,000	\$ 12,000	\$ 17,143	\$ 24,000	\$ 29,143
EBITDA (2)	-	7,200	36,000	72,000	102,857	144,000	174,857
Health & Safety (3) (5)	-	1,800	9,000	18,000	18,000	18,000	18,000
Permit & License Violations (4) (5)	-	1,800	9,000	18,000	18,000	18,000	18,000
	<u>\$ -</u>	<u>\$ 12,000</u>	<u>\$ 60,000</u>	<u>\$ 120,000</u>	<u>\$ 156,000</u>	<u>\$ 204,000</u>	<u>\$ 240,000</u>

- 1) Revenue is defined as the total consolidated third-party top line revenue as publicly reported in the Company’s 2021 financial statements. The percentage achieved is determined by comparing the actual consolidated revenue for 2021 to the Board approved Revenue Target for 2021, which is \$101,810,000. The Board reserves the right to modify or change the Revenue Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.

- 2) EBITDA is defined as earnings before interest, taxes, depreciation, and amortization from continuing and discontinued operations, including PF Medical. The percentage achieved is determined by comparing the actual EBITDA to the Board approved EBITDA Target for 2021, which is \$3,623,000. The Board reserves the right to modify or change the EBITDA Targets as defined herein in the event of the sale or disposition of any of the assets of the Company or in the event of an acquisition.

- 3) The Health and Safety Incentive Target is based upon the actual number of Worker’s Compensation Lost Time Accidents, as provided by the Company’s Worker’s Compensation carrier. The Corporate Controller will submit a report on a quarterly basis documenting and confirming the number of Worker’s Compensation Lost Time Accidents, supported by the Worker’s Compensation Loss Report provided by the company’s carrier or broker. Such claims will be identified on the loss report as “indemnity claims.” The following number of Worker’s Compensation Lost Time Accidents and corresponding Performance Target Thresholds has been established for the annual Incentive Compensation Plan calculation for 2021.

Work Comp. <u>Claim Number</u>	Performance <u>Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 4) Permits or License Violations incentive is earned/determined according to the scale set forth below: An “official notice of non-compliance” is defined as an official communication during 2021 from a local, state, or federal regulatory authority alleging one or more violations of an otherwise applicable Environmental, Health or Safety requirement or permit provision, which results in a facility’s implementation of corrective action(s).

<u>Permit and License Violations</u>	<u>Performance Target Achieved</u>
4	60%-74%
3	75%-89%
2	90%-110%
1	111%-129%
1	130%-150%
1	>150%

- 5) No performance incentive compensation will be payable for achieving the health and safety, permit and license violation, and revenue targets unless a minimum of 60% of the EBITDA Target is achieved.

2021 MIP Targets

As discussed above, 2021 MIPs approved by the Board and the Compensation Committee for the CEO, CFO, EVP of Strategic Initiatives, EVP of Nuclear and Technical Services and EVP of Waste Treatment Operations provide for the award of cash compensation based on achievement of performance targets which include revenue and EBITDA targets as approved by our Board. The 2021 MIP revenue target of \$101,810,000 and EBITDA target of \$3,623,000 were set by the Compensation Committee taking into account the Board-approved budget for 2021 as well as the committee's expectations for performance that in its estimation would warrant payment of incentive cash compensation. In formulating the revenue target of \$101,810,000, the Board considered 2020 results, economic conditions, impact of COVID-19 and forecasts for 2021 government (U.S. DOE) spending. The Compensation Committee believes the performance targets are likely to be achieved, but not assured, particularly in light of the uncertainty from the impact of COVID-19.

Long-Term Incentive Compensation

Employee Stock Option Plans

The 2017 Stock Option Plan ("2017 Option Plan") encourages participants to focus on long-term performance and provides an opportunity for executive officers and certain designated key employees to increase their stake in the Company. Stock options succeed by delivering value to executives only when the value of our stock increases. The 2017 Option Plan authorizes the grant of Non-Qualified Stock Options ("NQSOs") and Incentive Stock Options ("ISOs") for the purchase of our Common Stock.

The 2017 Option Plan assists the Company to:

- enhance the link between the creation of stockholder value and long-term executive incentive compensation;
- provide an opportunity for increased equity ownership by executives; and
- maintain competitive levels of total compensation;

Stock option award levels are determined based on market data, vary among participants based on their positions with the Company and are granted generally at the Compensation Committee's regularly scheduled July or August meeting. Newly hired or promoted executive officers who are eligible to receive options are generally awarded such options at the next regularly scheduled Compensation Committee meeting following their hire or promotion date.

Options are awarded with an exercise price equal to or not less than the closing price of the Company's Common Stock on the date of the grant as reported on the NASDAQ. In certain limited circumstances, the Compensation Committee may grant options to an executive at an exercise price in excess of the closing price of the Company's Common Stock on the grant date.

The Company's NEOs have outstanding options from the Company's 2017 Option Plan (See "Item 11 – Executive Compensation – Outstanding Equity Awards at Fiscal Year-End - Outstanding Equity Awards at December 31, 2020" for outstanding options for each of our NEOs). An option granted to our President and CEO in May 2016 for the purchase of up to 50,000 shares of the Company's Common Stock at \$3.97 per share with an expiration date of May 15, 2022 remains outstanding under the 2010 Stock Option Plan. The 2010 Stock Option Plan expired on September 29, 2020; however, the option remains in effect until the earlier of the exercise date by the optionee or the maturity date of May 15, 2022.

In cases of termination of an executive officer's employment due to death, by the executive for "good reason," by the Company without cause, and due to a "change of control," all outstanding stock options to purchase common stock held by the executive officer will immediately become exercisable in full (see further discussion of the exercisability term of these options in each of these circumstances in "Item 11 – EXECUTIVE COMPENSATION – Employment Agreements"). Otherwise, vesting of option awards

ceases upon termination of employment and exercise right of the vested option amount ceases upon three months from termination of employment except in the case of retirement (subject to a six-month limitation) and disability (subject to a one-year limitation).

Accounting for Stock-Based Compensation

We account for stock-based compensation in accordance with Accounting Standards Codification (“ASC”) 718, “Compensation – Stock Compensation.” ASC 718 establishes accounting standards for entity exchanges of equity instruments for goods or services. It also addresses transactions in which an entity incurs liabilities in exchange for goods or services that are based on the fair value of the entity’s equity instruments or that may be settled by the issuance of those equity instruments. ASC 718 requires all stock-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. The Company uses the Black-Scholes option-pricing model to determine the fair-value of stock-based awards which requires subjective assumptions. Assumptions used to estimate the fair value of stock options granted include the exercise price of the award, the expected term, the expected volatility of the Company’s stock over the option’s expected term, the risk-free interest rate over the option’s expected term, and the expected annual dividend yield. We recognize stock-based compensation expense using a straight-line amortization method over the requisite period, which is the vesting period of the stock option grant.

Retirement and Other Benefits

401(k) Plan

The Company adopted the Perma-Fix Environmental Services, Inc. 401(k) Plan (the “401(k) Plan”) in 1992, which is intended to comply with Section 401 of the Internal Revenue Code and the provisions of the Employee Retirement Income Security Act of 1974. All full-time employees who have attained the age of 18 are eligible to participate in the 401(k) Plan. Eligibility is immediate upon employment but enrollment is only allowed during four quarterly open periods of January 1, April 1, July 1, and October 1. Participating employees may make annual pretax contributions to their accounts up to 100% of their compensation, up to a maximum amount as limited by law. At our discretion, we may make matching contributions based on the employee’s elective contributions. Company contributions vest over a period of five years. In 2020, the Company contributed approximately \$594,000 in 401(k) matching funds, of which approximately \$31,500 was for our NEOs (see the “Summary Compensation” table in this section for 401(k) matching fund contributions made for the NEOs for 2020).

Perquisites and Other Personal Benefits

The Company provides executive officers with limited perquisites and other personal benefits (health/disability/life insurance) that the Company and the Compensation Committee believe are reasonable and consistent with its overall compensation program to better enable the Company to attract and retain superior employees for key positions. The Compensation Committee periodically reviews the levels of perquisites and other personal benefits provided to executive officers. The executive officers are provided an auto allowance.

Compensation of Directors

Directors who are employees receive no additional compensation for serving on the Board or its committees. In 2020, the Company provided the following annual compensation to non-employee directors:

- options to purchase 2,400 shares of Common Stock with each option having a 10-year term and being fully vested after six months from grant date;
- a quarterly director fee of \$8,000;
- an additional quarterly fee of \$5,500 and \$7,500 to the Chairman of the Audit Committee and Chairman of the Board (non-employee), respectively; and
- a fee of \$1,000 for each board meeting attendance and a \$500 fee for meeting attendance via conference call.

Each director may elect to have either 65% or 100% of such fees payable in Common Stock under the 2003

Outside Directors Stock Plan (“2003 Outside Directors Plan”), with the balance, if any, payable in cash.

Dr. Louis Centofanti, a current member of the Board, is not eligible to receive compensation for his service as a director of the Company as he is an employee of the Company (see “Summary Compensation” table in this section for Dr. Centofanti’s annual salary and other compensation as an employee of the Company).

The table below summarizes the director compensation expenses recognized by the Company for director options and stock awards (resulting from fees earned) for the year ended December 31, 2020. The terms of the 2003 Outside Directors Plan are further described below under “2003 Outside Directors Plan.”

Director Compensation

Name	Fees Earned or Paid			Option Awards	Non-Equity Incentive Plan Compensation	Nonqualified Deferred Compensation Earnings	All Other Compensation	Total
	In Cash	Stock Awards						
	(\$) ⁽¹⁾	(\$) ⁽²⁾	(\$) ⁽⁵⁾		(\$)	(\$)	(\$)	(\$)
Thomas P. Bostick	—	18,027	26,160 ⁽⁴⁾		—	—	—	44,187
Joseph T. Grumski	—	43,343	40,656 ⁽³⁾		—	—	—	83,999
Joe R. Reeder	—	48,662	11,256 ⁽³⁾		—	—	—	59,918
Larry M. Shelton	23,275	57,633	11,256 ⁽³⁾		—	—	—	92,164
Zach P. Wamp	12,775	31,630	11,256 ⁽³⁾		—	—	—	55,661
Mark A. Zwecker	20,475	50,701	11,256 ⁽³⁾		—	—	—	82,432

⁽¹⁾ Under the 2003 Outside Directors Plan, each director elects to receive 65% or 100% of the director’s fees in shares of our Common Stock. The amounts set forth above represent the portion of the director’s fees paid in cash and exclude the value of the directors’ fee elected to be paid in Common Stock under the 2003 Outside Directors Plan, which values are included under “Stock Awards.”

⁽²⁾ The number of shares of Common Stock comprising stock awards granted under the 2003 Outside Directors Plan is calculated based on 75% of the closing market value of the Common Stock as reported on the NASDAQ on the business day immediately preceding the date that the quarterly fee is due. Such shares are fully vested on the date of grant. The value of the stock award is based on the market value of our Common Stock at each quarter end times the number of shares issuable under the award. The amount shown is the fair value of the Common Stock on the date of the award.

⁽³⁾ Reflects options granted under the Company’s 2003 Outside Directors Plan resulting from re-election to the Board on July 22, 2020. Options are for a 10-year period with an exercise price of \$6.70 per share and are fully vested in six months from grant date. The value of the option award for each outside director is calculated based on the fair value of the option per share (approximately \$4.69) on the date of grant times the number of options granted, which was 2,400 for each director, pursuant to ASC 718, “Compensation – Stock Compensation.” Option awards for Joseph T. Grumski also included the grant of options for the purchase of up to 6,000 shares of our Common Stock granted to him upon initial election to the Board on February 4, 2020. The option is for a 10-year period with an exercise price of \$7.00 per share and are fully vested six months from date of grant. The fair value of the 6,000 options was determined to be approximately \$29,400 based on fair value of \$4.90 per share.

⁽⁴⁾ Reflects options for the purchase of up to 6,000 shares of the Company’s Common Stock granted under the Company’s 2003 Outside Directors Plan resulting from initial election to the Board on August 10, 2020. The options are for a 10-year period with an exercise price of \$7.29 per share and are fully vested six months from date of grant. The fair value of the option was determined to be approximately \$26,160 based on fair value of \$4.36 per share.

⁽⁵⁾ The following table reflects the aggregate number of outstanding non-qualified stock options held by the Company’s directors at December 31, 2020. As an employee of the Company or its subsidiaries, Dr. Centofanti is not eligible to participate in the 2003 Outside Directors Plan. Options reflected below for Dr. Centofanti were granted from the 2017 Stock Option Plan as discussed previously:

Name	Options Outstanding at December 31, 2020
Dr. Louis Centofanti	65,000
Thomas P. Bostick	6,000
Joseph T. Grumski	8,400
Joe R. Reeder	24,000
Larry M. Shelton	24,000
Zach P. Wamp	13,200
Mark A. Zwecker	24,000
Total	164,600

On January 21, 2021, the Company's Compensation Committee and the Board approved the following revision to the annual compensation of each non-employee Board member and the Board Committee(s) for which the Board member serves, effective January 1, 2021.

- each director is to be paid a quarterly fee of \$11,500, compared to the previous quarterly fee of \$8,000;
- the Chairman of the Board is to be paid an additional quarterly fee of \$8,750, compared to the Chairman's previous additional quarterly fee of \$7,500;
- the Chairman of the Audit Committee is to be paid an additional quarterly fee of \$6,250, compared to the Audit Chair's previous additional quarterly fee of \$5,500;
- the Chairman of each of the Compensation Committee, the Nominating Committee, and the Strategic Committee is to receive \$3,125 in additional quarterly fees. No additional quarterly fees were previously paid to the chairs of such committees. The Chairman of the Board is not eligible to receive a quarterly fee for serving as the Chairman of any the aforementioned committees ;
- each Audit Committee member (excluding the Chairman of the Audit Committee) is to receive an additional quarterly fee of \$1,250; and
- each member of the Compensation Committee, the Nominating Committee, and the Strategic Committee is to receive a quarterly fee of \$500. Such fee is payable only if the member does not serve as the Chairman of the Audit Committee, the Nominating Committee, the Strategic Committee or as the Chairman of the Board.

Each non-employee Board member will continue to receive \$1,000 for each board meeting attendance and a \$500 fee for meeting attendance via conference call. Also, each director will continue to receive an option to purchase up to 2,400 shares of the Company's Common Stock on the date of his re-election to the Board at the annual meeting of stockholders, with each option having a 10-year term and becoming fully vested after six months from grant date.

Each director may continue to elect to have either 65% or 100% of such fees payable in Common Stock under the 2003 Outside Directors Plan, with the balance, if any, payable in cash.

2003 Outside Directors Plan

We believe that it is important for our directors to have a personal interest in our success and growth and for their interests to be aligned with those of our stockholders; therefore, under our 2003 Outside Directors Plan, as amended, each outside director is granted a 10-year option to purchase up to 6,000 shares of Common Stock on the date such director is initially elected to the Board, and receives on each re-election date an option to purchase up to another 2,400 shares of our Common Stock, with the exercise price being the fair market value of the Common Stock preceding the option grant date. No option granted under the 2003 Outside Directors Plan is exercisable until after the expiration of six months from the date the option is granted and no option shall be exercisable after the expiration of ten years from the date the option is granted. At December 31, 2020, options to purchase 146,400 shares of Common Stock were outstanding under the 2003 Outside Directors Plan, of which 128,400 were vested at December 31, 2020.

As a member of the Board, each director may elect to receive either 65% or 100% of his director's fee in shares of our Common Stock. The number of shares received by each director is calculated based on 75% of the fair market value of the Common Stock determined on the business day immediately preceding the date that the quarterly fee is due. The balance of each director's fee, if any, is payable in cash. In 2020, the fees

earned by our outside directors totaled approximately \$307,000. Reimbursements of expenses for attending meetings of the Board are paid in cash at the time of the applicable Board meeting. As a management director, Dr. Centofanti is not eligible to participate in the 2003 Outside Directors Plan.

As of December 31, 2020, we have issued 714,623 shares of our Common Stock in payment of director fees since the inception of the 2003 Outside Directors Plan.

In the event of a “change of control” (as defined in the 2003 Outside Directors Plan), each outstanding stock option and stock award shall immediately become exercisable in full notwithstanding the vesting or exercise provisions contained in the stock option agreement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Security Ownership of Certain Beneficial Owners

The table below sets forth information as to the shares of Common Stock beneficially owned as of February 12, 2021 by each person known by us to be the beneficial owners of more than 5% of any class of our voting securities.

<u>Name of Beneficial Owner</u>	<u>Title Of Class</u>	<u>Amount and Nature of Ownership</u>	<u>Percent Of Class ⁽¹⁾</u>
Heartland Advisors, Inc. ⁽²⁾	Common	1,352,530	11.1%

⁽¹⁾ The number of shares and the percentage of outstanding Common Stock shown as beneficially owned by a person are based upon 12,165,734 shares of Common Stock outstanding on February 12, 2021, and the number of shares of Common Stock which such person has the right to acquire beneficial ownership of within 60 days. Beneficial ownership by our stockholders has been determined in accordance with the rules promulgated under Section 13(d) of the Exchange Act.

⁽²⁾ This information is based on the Schedule 13D of Heartland Advisors, Inc., an investment advisor, filed with the Commission on January 13, 2021, disclosing that at January 8, 2021, each Heartland Advisors, Inc. and Mr. William Nasgovitz, as a control person of Heartland Advisors, Inc. had shared dispositive power over all shares shown above and shared voting power over 1,346,030 of such shares. The address of Heartland Advisors, Inc. is 789 North Water Street, Milwaukee, WI 53202.

As of February 12, 2021, Capital Bank–Grawe Gruppe AG (“Capital Bank”), a banking institution regulated by the banking regulations of Austria, holds of record as a nominee for, and as an agent of, certain accredited investors, 2,057,359 shares of our Common Stock. None of such investors beneficially own more than 4.9% of our Common Stock and to the best knowledge of Capital Bank, as far as stocks held by such investors in accounts with Capital Bank, none of such investors act together as a group or otherwise act in concert for the purpose of voting on matters subject to the vote of our stockholders or for purpose of disposition or investment of such stock. Additionally, the investors for whom Capital Bank acts as nominee with respect to such shares maintain full voting and dispositive power over the Common Stock beneficially owned by such investors, and Capital Bank has neither voting nor investment power over such shares. Accordingly, Capital Bank believes that (i) it is not the beneficial owner, as such term is defined in Rule 13d-3 of the Exchange Act, of the shares of Common Stock registered in Capital Bank’s name because (a) Capital Bank holds the Common Stock as a nominee only, (b) Capital Bank has neither voting nor investment power over such shares, and (c) Capital Bank has not nominated or sought to nominate, and does not intend to nominate in the future, any person to serve as a member of our Board; and (ii) it is not required to file reports under Section 16(a) of the Exchange Act or to file either Schedule 13D or Schedule 13G in connection with the shares of our Common Stock registered in the name of Capital Bank.

Notwithstanding the previous paragraph, if Capital Bank's representations to us described above are incorrect or if the investors for whom Capital Bank acts as nominee are acting as a group, then Capital Bank or a group of such investors could be a beneficial owner of more than 5% of our voting securities. If Capital

Bank was deemed the beneficial owner of such shares, the following table sets forth information as to the shares of voting securities that Capital Bank may be considered to beneficially own on February 12, 2021:

<u>Name of Record Owner</u>	<u>Title Of Class</u>	<u>Amount and Nature of Ownership</u>	<u>Percent Of Class (*)</u>
Capital Bank-Grawe Gruppe	Common	2,057,359 ⁽⁺⁾	16.9%

(*) This calculation is based upon 12,165,734 shares of Common Stock outstanding on February 12, 2021, plus the number of shares of Common Stock which Capital Bank, as agent for certain accredited investors has the right to acquire within 60 days, which is none.

(+) This amount is the number of shares that Capital Bank has represented to us that it holds of record as nominee for, and as an agent of, certain accredited investors. As of the date of this report, Capital Bank has no warrants or options to acquire, as agent for certain investors, additional shares of our Common Stock. Although Capital Bank is the record holder of the shares of Common Stock described in this note, Capital Bank has advised us that it does not believe it is a beneficial owner of the Common Stock or that it is required to file reports under Section 16(a) or Section 13(d) of the Exchange Act. Capital Bank has advised us that it (a) holds the Common Stock as a nominee only and that it does not exercise voting or investment power over the Common Stock held in its name and that no one investor for which it holds our Common Stock holds more than 4.9% of our issued and outstanding Common Stock and (b) has not nominated, and has not sought to nominate, and does not intend to nominate in the future, any person to serve as a member of our Board. Accordingly, we do not believe that Capital Bank is our affiliate. Capital Bank's address is Burgring 16, A-8010 Graz, Austria.

Security Ownership of Management

The following table sets forth information as to the shares of voting securities beneficially owned as of February 12, 2021, by each of our directors and NEOs and by all of our directors and NEOs as a group. Beneficial ownership has been determined in accordance with the rules promulgated under Section 13(d) of the Exchange Act. A person is deemed to be a beneficial owner of any voting securities for which that person has the right to acquire beneficial ownership within 60 days.

<u>Name of Beneficial Owner</u> ⁽²⁾	<u>Amount and Nature of Beneficial Owner</u> ⁽¹⁾	<u>Percent of Class</u> ⁽¹⁾
Thomas P. Bostick	8,865	(3) *
Dr. Louis F. Centofanti ⁽⁴⁾	266,325	(4) 2.18%
Joseph T. Grumski ⁽⁵⁾	15,376	(5) *
Joe R. Reeder ⁽⁶⁾	218,253	(6) 1.79%
Larry M. Shelton ⁽⁷⁾	151,657	(7) 1.24%
Zack P. Wamp ⁽⁸⁾	33,785	(8) *
Mark A. Zwecker ⁽⁹⁾	213,858	(9) 1.75%
Mark Duff ⁽¹⁰⁾	138,321	(10) 1.13%
Richard Grondin ⁽¹¹⁾	16,036	(11) *
Andy Lombardo ⁽¹²⁾	11,900	(12) *
Ben Naccarato ⁽¹³⁾	39,318	(13) *
Directors and Executive Officers as a Group (11 persons)	1,113,694	(14) 8.92%

*Indicates beneficial ownership of less than one percent (1%).

(1) See footnote (1) of the table under "Security Ownership of Certain Beneficial Owners."

(2) The business address of each person, for the purposes hereof, is c/o Perma-Fix Environmental Services, Inc., 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350.

- (3) Mr. Bostick has sole and voting and investment power over all shares shown, which include: (i) 2,865 shares of Common Stock held of record by Mr. Bostick, and (ii) immediately exercisable options to purchase 6,000 shares.
- (4) These shares include (i) 167,525 shares held of record by Dr. Centofanti, (ii) immediately exercisable options to purchase 36,000 shares, and (iii) 62,800 shares held by Dr. Centofanti's wife. Dr. Centofanti has sole voting and investment power over all such shares, except for the shares held by Dr. Centofanti's wife, over which Dr. Centofanti shares voting and investment power. Dr. Centofanti also owns 700 shares of PF Medical's Common Stock.
- (5) Mr. Grumski has sole and voting and investment power over all shares shown, which include: (i) 6,976 shares of Common Stock held of record by Mr. Grumski, and (ii) immediately exercisable options to purchase 8,400 shares.
- (6) Mr. Reeder has sole voting and investment power over all shares shown, which include: (i) 194,253 shares of Common Stock held of record by Mr. Reeder, and (ii) immediately exercisable options to purchase 24,000 shares.
- (7) Mr. Shelton has sole voting and investment power over all shares shown, which include: (i) 127,657 shares of Common Stock held of record by Mr. Shelton, and (ii) immediately exercisable options to purchase 24,000 shares. Mr. Shelton also owns 750 shares of PF Medical's Common Stock.
- (8) Mr. Wamp has sole voting and investment power over all shares shown, which include: (i) 20,585 shares of Common Stock held of record by Mr. Wamp, and (ii) immediately exercisable options to purchase 13,200 shares.
- (9) Mr. Zwecker has sole voting and investment power over all shares shown, which include: (i) 189,858 shares of Common Stock held of record by Mr. Zwecker, and (ii) immediately exercisable options to purchase 24,000 shares.
- (10) Mr. Duff has sole voting and investment power over all shares shown, which include: (i) 18,321 shares of Common Stock held of record by Mr. Duff, and (ii) immediately exercisable options to purchase 120,000 shares.
- (11) Mr. Grondin has sole voting and investment power over all shares shown, which include: (i) 36 shares of Common Stock held of record by Mr. Grondin, and (ii) immediately exercisable options to purchase 16,000 shares.
- (12) Mr. Lombardo has sole voting and investment power over all shares shown, which include: (i) 5,900 shares of Common Stock held of record by Mr. Lombardo, and (ii) immediately exercisable options to purchase 6,000 shares.
- (13) Mr. Naccarato has sole voting and investment power over all shares shown, which include: (i) 3,318 shares of Common Stock held of record by Mr. Naccarato, and (ii) immediately exercisable options to purchase 36,000 shares. Mr. Naccarato also owns 100 shares of PF Medical's Common Stock.
- (14) Amount includes 313,600 immediately exercisable options.

Equity Compensation Plans

The following table sets forth information as of December 31, 2020, with respect to our equity compensation plans.

Equity Compensation Plan			
Plan Category	Number of securities to be issued upon exercise of outstanding options warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by stockholders	658,400	\$3.87	866,077
Equity compensation plans not approved by stockholders	—	—	—
Total	658,400	\$3.87	866,077

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

We describe below transactions to which we were a party during our last two fiscal years or to which we currently propose to be a party in the future, and in which:

- the amounts involved exceeded or will exceed the lesser of \$120,000 or one percent of the average of our total assets at year-end for the last two completed fiscal years; and
- any of our directors, executive officers or beneficial owners of more than 5% of any class of our voting securities, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Audit Committee Review

Our Audit Committee Charter provides for the review by the Audit Committee of any related party transactions, other than transactions involving an employment relationship with the Company, which are reviewed by the Compensation Committee. Although we do not have written policies for the review of related party transactions, the Audit Committee reviews transactions between the Company and its directors, executive officers, holders of more than 5% of any class of the Company’s voting securities, and their respective immediate family members. In reviewing a proposed transaction, the Audit Committee takes into account, among other factors it deems appropriate:

- (1) the extent of the related person’s interest in the transaction;
- (2) whether the transaction is on terms generally available to an unaffiliated third-party under the same or similar circumstances;
- (3) the cost and benefit to the Company;
- (4) the impact or potential impact on a director’s independence in the event the related party is a director, an immediate family member of a director or an entity in which a director is a partner, stockholder or executive officer;
- (5) the availability of other sources for comparable products or services;
- (6) the terms of the transaction; and
- (7) the risks to the Company.

In addition, as applicable, the Audit Committee considers Section 144 of the Delaware General Corporation Law (“DGCL”) and the Company’s Code of Ethics.

The provisions of Section 144 of the DGCL apply to transactions between the Company and any of its officers or directors, or any organization in which any such individual has a financial interest or serves as a director or officer (individually, a “Section 144 Related Party,” and, collectively, “Section 144 Related Parties”). Section 144 provides that a transaction between a corporation and any Section 144 Related Party will not be void or voidable solely because such transaction involves the corporation and the Section 144 Related Party, or solely because the Section 144 Related Party is present at or participates or votes in the meeting of the board or committee which authorizes the transaction, if the transaction (a) is approved in

good faith after full disclosure of the material facts of the transaction by a majority vote of (i) the disinterested directors, or (ii) the stockholders, and (b) is fair as to the corporation as of the time it is authorized, approved, or ratified by the board, a committee or the stockholders.

The provisions of the Code of Ethics apply to our NEOs and provides that such individuals must exhibit and promote honest and ethical conduct in connection with the performance of his or her duties for and on behalf of the Company, including the ethical handling of actual or apparent conflicts of interest involving such individual and the Company, by, among other considerations:

- not entering into a transaction that would result in a conflict of interest with what is in the best interest of the Company and that is reasonably likely to result in material personal gain to any such individuals or their affiliates;
- not having a personal financial interest in any of the Company's suppliers, customers or competitors that could cause divided loyalty as a result of having the ability to influence the Company's decisions with that particular supplier or customer or actions to be taken by the Company that could materially benefit a competitor.

Related party transactions are reviewed by the Audit Committee prior to the consummation of the transaction. With respect to a related party transaction arising between Audit Committee meetings, the CFO may present it to the Audit Committee Chairperson, who will review and may approve the related party transaction subject to ratification by the Audit Committee at the next scheduled meeting. Our Audit Committee shall approve only those transactions that, in light of known circumstances, are not inconsistent with the Company's best interests.

Related Party Transactions

David Centofanti

David Centofanti serves as our Vice President of Information Systems. For such position, he received annual compensation of \$181,000 and \$177,000 for 2020 and 2019, respectively. David Centofanti is the son of Dr. Louis F. Centofanti, our EVP of Strategic Initiatives and a Board member.

Employment Agreements and MIPs

We entered into an employment agreement with each of our NEOs, Mark Duff (President and CEO), Ben Naccarato (CFO), Dr. Louis Centofanti (EVP of Strategic Initiatives), Andy Lombardo (EVP of Nuclear and Technical Services) and Richard Grondin (EVP of Waste Treatment Operations), with each employment agreement dated July 22, 2020 (see "Item 11. Executive Compensation – Employment Agreements" for a discussion of these employment agreements). Each of our NEOs also has a MIP for fiscal years 2020 and 2021 (see "Item 11. Executive Compensation - Performance-Based Incentive Compensation – 2020 MIPs and 2021 MIPs" for a discussion of these MIPs).

Board Independence

Our Common Stock is listed on the Nasdaq Capital Market. Rule 5605 of the Nasdaq Marketplace Rules requires a majority of a listed company's board of directors to be comprised of independent directors. In addition, the Nasdaq Marketplace Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under applicable provisions of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Audit committee members must also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act, and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under Nasdaq Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of our Board, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3 under the Exchange Act, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In order to be considered

independent for purposes of Rule 10C-1, the board must consider, for each member of a compensation committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and whether the director is affiliated with the company or any of its subsidiaries or affiliates.

Our Board annually undertakes a review of the composition of our Board of Directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our Board of Directors has determined that each of Messrs. Thomas P. Bostick, Joseph T. Grumski, Joe R. Reeder, Larry M. Shelton, Zach P. Wamp and Mark A. Zwecker is an "independent director" as defined under the Nasdaq Marketplace Rules. Our Board of Directors has also determined that each member of our Audit Committee, consisting of Mark A. Zwecker (Chairperson), Zach Wamp (who was a member of the Audit Committee until April 16, 2020), Larry M. Shelton, and Joseph T. Grumski (who became a member of the Audit Committee effective April 16, 2020), and each member of our Compensation Committee, consisting of Joseph T. Grumski (who became a member and the Chairperson effective January 21, 2021), Zach P. Wamp (who became a member effective January 21, 2021), Mark A. Zwecker, Larry M. Shelton (who was replaced by Joseph T. Grumski as a member and the Chairperson effective January 21, 2021), and Joe R. Reeder (who was replaced by Zach P. Wamp as a member effective January 21, 2021) satisfy/satisfied the independence standards for such committees established by the Commission and the Nasdaq Marketplace Rules, as applicable. In making such determination, our Board of Directors considered the relationships that each such non-employee director has with our Company and all other facts and circumstances our Board of Directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director.

Our Board of Directors has determined that Dr. Centofanti is not deemed to be an "independent director" because of his employment as a senior executive of the Company.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table reflects the aggregate fees for the audit and other services provided by Grant Thornton LLP, the Company's independent registered public accounting firm, for fiscal years 2020 and 2019:

Fee Type	<u>2020</u>	<u>2019</u>
Audit Fees ⁽¹⁾	\$ 557,000	608,000
Tax Fees ⁽²⁾	<u>104,000</u>	<u>113,000</u>
Total	<u>\$ 661,000</u>	<u>721,000</u>

⁽¹⁾ Audit fees consist of audit work performed in connection with the annual financial statements, the reviews of unaudited quarterly financial statements, and work generally only the independent registered accounting firm can reasonably provide, such as consents and review of regulatory documents filed with the Securities and Exchange Commission.

⁽²⁾ Fees for income tax planning, filing, and consulting.

Engagement of the Independent Auditor

To ensure that our independent registered public accounting firm is engaged only to provide audit and non-audit services that are compatible with maintaining its independence, the Audit Committee has a policy that requires the Committee to review and approve in advance all services to be provided by the Company's independent accounting firm before the firm is engaged to provide those services. The Audit Committee considers non-audit services and fees when assessing auditor independence, and determined that tax return preparation and other tax compliance services is compatible with maintaining our accounting firm's independence. All services under the headings Audit Fees and Tax Fees were approved by the Audit

Committee pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X of the Exchange Act. The Audit Committee's pre-approval policy provides as follows:

- The Audit Committee will review and pre-approve on an annual basis all audits, audit-related, tax and other services, along with acceptable cost levels, to be performed by the independent accounting firm and any member of the independent accounting firm's alliance network of firms, and may revise the pre-approved services during the period based on later determinations. Pre-approved services typically include: audits, quarterly reviews, regulatory filing requirements, consultation on new accounting and disclosure standards, employee benefit plan audits, reviews and reporting on management's internal controls and specified tax matters.
- Any proposed service that is not pre-approved on the annual basis requires a specific pre-approval by the Audit Committee, including cost level approval.
- The Audit Committee may delegate pre-approval authority to one or more of the Audit Committee members. The delegated member must report to the Audit Committee, at the next Audit Committee meeting, any pre-approval decisions made.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULE

The following documents are filed as a part of this report:

(a)(1) Consolidated Financial Statements

See Item 8 for the Index to Consolidated Financial Statements.

(a)(2) Financial Statement Schedule

Schedules are not required, are not applicable or the information is set forth in the consolidated financial statements or notes thereto.

(a)(3) Exhibits

The Exhibits listed in the Exhibit Index are filed or incorporated by reference as a part of this report.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Perma-Fix Environmental Services, Inc.

By /s/ Mark Duff Date March 29, 2021
Mark Duff
Chief Executive Officer, President and
Principal Executive Officer

By /s/ Ben Naccarato Date March 29, 2021
Ben Naccarato
Chief Financial Officer and
Principal Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in capacities and on the dates indicated.

By /s/ Thomas P. Bostick Date March 29, 2021
Thomas P. Bostick, Director

By /s/ Dr. Louis F. Centofanti Date March 29, 2021
Dr. Louis F. Centofanti, Director

By /s/ Joseph T. Grumski Date March 29, 2021
Joseph T. Grumski

By /s/ Joe R. Reeder Date March 29, 2021
Joe R. Reeder, Director

By /s/ Larry M. Shelton Date March 29, 2021
Larry M. Shelton, Chairman of the Board

By /s/ Zach P. Wamp Date March 29, 2021
Zach P. Wamp, Director

By /s/ Mark A. Zwecker Date March 29, 2021
Mark A. Zwecker, Director

EXHIBIT INDEX

Exhibit No.	Description
3(i)	Restated Certificate of Incorporation, as amended, of Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 3(i) to the Company's 2018 Form 10-K filed on April 1, 2019.
3(ii)	Second Amended and Restated Bylaws, as amended effective January 21, 2021, of Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 3(ii) to the Company's 8-K filed on January 26, 2021.
4.1	Shareholder Rights Agreement dated and effective as of May 2, 2018 between Perma-Fix Environmental Services, Inc. as the Company and Continental Stock Transfer & Trust Company, as Rights Agent, as incorporated by reference from Exhibit 4.1 to the Company's Form 8-K filed on May 2, 2018.
4.2	First Amendment to Shareholder Rights Agreement dated May 2, 2019 between Perma-Fix Environmental Services, Inc. and Continental Stock Transfer & Trust Company as Rights Agent, as incorporated by reference from Exhibit 4.2 to the Company's Form 8-K filed on May 3, 2019.
4.3	Amended and Restated Revolving Credit, Term Loan and Security Agreement between Perma-Fix Environmental Services, Inc. and PNC Bank, National Association (as Lender and as Agent), dated October 31, 2011, as incorporated by reference from Exhibit 4.8 to the Company 2016 Form 10-K filed on March 24, 2017.
4.4	First Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement, dated November 7, 2012, between the Company and PNC Bank, National Association, as incorporated by reference from Exhibit 4.4 to the Company 2017 Form 10-K filed on March 16, 2018.
4.5	Second Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver, dated May 9, 2013, between the Company and PNC Bank, National Association, as incorporated by reference from Exhibit 4.4 to the Company 2018 Form 10-K filed on April 1, 2019.
4.6	Third Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated August 2, 2013, as incorporated by reference from Exhibit 4.5 to the Company 2018 Form 10-K filed on April 1, 2019.
4.7	Third Amended, Restated and Substituted Revolving Credit Note between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated August 2, 2013, as incorporated by reference from Exhibit 4.6 to the Company 2018 Form 10-K filed on April 1, 2019.
4.8	Fourth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated April 14, 2014, as incorporated by reference from Exhibit 4.8 to the Company's 2019 Form 10-K filed on March 20, 2020.
4.9	Fifth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 25, 2014, as incorporated by reference from Exhibit 4.9 to the Company's 2019 Form 10-K filed on March 20, 2020.
4.10	Sixth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 28, 2014, as incorporated by reference from Exhibit 4.10 to the Company's 2019 Form 10-K filed on March 20, 2020.
4.11	Seventh Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated March 24, 2016, as incorporated by reference from Exhibit 4.17 to the Company's 2015 Form 10-K filed on March 24, 2016.
4.12	Eighth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental

- Services, Inc., dated August 22, 2016, as incorporated by reference from Exhibit 4.9 to the Company's Form 10-Q for the quarter ended June 30, 2016 filed on August 22, 2016.
- 4.13 Ninth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated November 17, 2016, as incorporated by reference from Exhibit 4.10 to the Company's Form 10-Q for the quarter ended September 30, 2016 filed on November 18, 2016.
- 4.14 Tenth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated July 26, 2018, as incorporated by reference from Exhibit 4.1 to the Company's Form 8-K filed on July 30, 2018.
- 4.15 Eleventh Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement and Waiver between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated March 29, 2019, as incorporated by reference from Exhibit 4.14 to the Company's 2018 Form 10-K filed on April 1, 2019.
- 4.16 Twelfth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated June 20, 2019, as incorporated by reference from Exhibit 4.1 to the Company's Form 8-K filed on June 21, 2019.
- 4.17 Thirteenth Amendment to Amended and Restated Revolving Credit, Term Loan and Security Agreement between PNC Bank, National Association and Perma-Fix Environmental Services, Inc., dated December 13, 2019, as incorporated by reference from Exhibit 4.17 to the Company's 2019 Form 10-K filed on March 20, 2020.
- 4.18 Second Amended and Restated Revolving Credit, Term Loan and Security Agreement between Perma-Fix Environmental Services, Inc. and PNC Bank, National Association (as Lender and as Agent), dated May 8, 2020, as incorporated by reference from Exhibit 4.1 to the Company's Form 10-Q for the Quarter ended March 31, 2020 filed on May 12, 2020.
- 4.19 Payment Protection Program Term Note dated April 11, 2020, by and between Perma-Fix Environmental Services, Inc. and PNC Bank, National Association, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K filed on April 15, 2020.
- 4.20 Loan and Securities Purchase Agreement, dated April 1, 2019 between Robert L. Ferguson and Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 4.15 to the Company's 2018 Form 10-K filed on April 1, 2019.
- 4.21 Common Stock Purchase Warrant dated April 1, 2019 for Robert L. Ferguson, as incorporated by reference from Exhibit 4.16 to the Company's 2018 Form 10-K filed on April 1, 2019.
- 10.1 2003 Outside Directors' Stock Plan of the Company, as incorporated by reference from Exhibit 10.1 to the Company's 2019 Form 10-K filed on March 20, 2020.
- 10.2 First Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Exhibit 10.2 to the Company's 2019 Form 10-K filed on March 20, 2020.
- 10.3 Second Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Exhibit 10.3 to the Company's 2017 Form 10-K filed on March 16, 2018.
- 10.4 Third Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Exhibit 10.4 to the Company's 2017 Form 10-K filed on March 16, 2018.
- 10.5 Fourth Amendment to 2003 Outside Directors Stock Plan, as incorporated by reference from Exhibit A to the Company's Proxy Statement for its 2017 Annual Meeting of Stockholders filed on June 22, 2017.
- 10.6 2017 Stock Option Plan, as incorporated by reference from Exhibit B to the Company's Proxy Statement for its 2017 Annual Meeting of Stockholders filed on June 22, 2017.
- 10.7 Employment Agreement dated July 22, 2020 between Mark Duff, Chief Executive Officer, and Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K filed on July 27, 2020.
- 10.8 Employment Agreement dated July 22, 2020 between Dr. Louis Centofanti, Executive Vice President of Strategic Initiatives, and Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 99.2 to the Company's Form 8-K filed on July 27, 2020.

- 10.9 Employment Agreement dated July 22, 2020 between Ben Naccarato, Chief Financial Officer, and Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 99.3 to the Company's Form 8-K filed on July 27, 2020.
- 10.10 Employment Agreement dated July 22, 2020 between Andy Lombardo, EVP of Nuclear and Technical Services, Inc. and Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 99.4 to the Company's Form 8-K filed on July 27, 2020.
- 10.11 Employment Agreement dated July 22, 2020 between Richard Grondin, EVP of Waste Treatment Operations and Perma-Fix Environmental Services, Inc., as incorporated by reference from Exhibit 99.5 to the Company's Form 8-K filed on July 27, 2020.
- 10.12 2020 Incentive Compensation Plan for Chief Executive Officer, effective January 1, 2020, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K filed on January 22, 2020.
- 10.13 2020 Incentive Compensation Plan for Chief Financial Officer, effective January 1, 2020, as incorporated by reference from Exhibit 99.2 to the Company's Form 8-K filed on January 22, 2020.
- 10.14 2020 Incentive Compensation Plan for Executive Vice President of Strategic Initiatives, effective January 1, 2020, as incorporated by reference from Exhibit 99.3 to the Company's Form 8-K filed on January 22, 2020.
- 10.15 2020 Incentive Compensation Plan for Executive Vice President of Nuclear and Technical Services, effective January 1, 2020, as incorporated by reference from Exhibit 99.4 to the Company's Form 8-K filed on January 22, 2020.
- 10.16 2020 Incentive Compensation Plan for Executive Vice President of Waste Treatment Operations, effective January 1, 2020, as incorporated by reference from Exhibit 99.6 to the Company's Form 8-K filed on July 27, 2020.
- 10.17 Incentive Stock Option Agreement dated July 27, 2017 between Perma-Fix Environmental Services, Inc., and Chief Executive Officer, as incorporated by reference from Exhibit 99.1 to the Company's Form 8-K filed on August 2, 2017.
- 10.18 Incentive Stock Option Agreement dated July 27, 2017 between Perma-Fix Environmental Services, Inc., and Executive Vice President/Chief Operating Officer, as incorporated by reference from Exhibit 99.2 to the Company's Form 8-K filed on August 2, 2017.
- 10.19 Incentive Stock Option Agreement dated July 27, 2017 between Perma-Fix Environmental Services, Inc., and Chief Financial Officer, as incorporated by reference from Exhibit 99.3 to the Company's Form 8-K filed on August 2, 2017.
- 10.20 Incentive Stock Option Agreement dated January 17, 2019 between Perma-Fix Environmental Services, Inc., and Chief Executive Officer, as incorporated by reference from Exhibit 99.4 to the Company's Form 8-K filed on January 23, 2019.
- 10.21 Incentive Stock Option Agreement dated January 17, 2019 between Perma-Fix Environmental Services, Inc., and Chief Financial Officer, as incorporated by reference from Exhibit 99.5 to the Company's Form 8-K filed on January 23, 2019.
- 10.22 Incentive Stock Option Agreement dated January 17, 2019 between Perma-Fix Environmental Services, Inc., and EVP of Strategic Initiatives, as incorporated by reference from Exhibit 99.6 to the Company's Form 8-K filed on January 23, 2019.
- 10.23 Incentive Stock Option Agreement dated October 19, 2017 between Perma-Fix Environmental Services, Inc., and Richard Grondin, as incorporated by reference from Exhibit 99.11 to the Company's Form 8-K filed on July 27, 2020.
- 10.24 Incentive Stock Option Agreement dated January 17, 2019 between Perma-Fix Environmental Services, Inc., and Richard Grondin, as incorporated by reference from Exhibit 99.12 to the Company's Form 8-K filed July 27, 2020.
- 10.25 Stock Option Agreement dated July 27, 2017 between Perma-Fix Environmental Services, Inc., and Mr. Robert L. Ferguson, as incorporated by reference from Exhibit 10.6 to the Company's third quarter Form 10-Q filed on August 9, 2017.
- 10.26 First Amendment to Stock Option Agreement dated July 27, 2017 between Perma-Fix Environmental Services, Inc. Mr. Robert L. Ferguson, as incorporated by reference from Exhibit 10.23 to the Company 2018 Form 10-K filed on April 1, 2019.

- 10.27 Second Amendment to Stock Option Agreement dated July 27, 2017 between Perma-Fix Environmental Services, Inc. Mr. Robert L. Ferguson, as incorporated by reference from Exhibit 99.3 to the Company Form 8-K filed on March 31, 2020.
- 10.28 Task Order Agreement for Small Scales Remediation Package between Canadian Nuclear Laboratories LTD and Perma-Fix Canada Inc., as incorporated by reference from Exhibit 10.1 to the Company’s Form 10-Q for the quarter ended March 31, 2019 filed on May 9, 2019. CERTAIN INFORMATION WITHIN SCHEDULE 2 – PRICE INFORMATION OF THIS EXHIBIT HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBLICLY DISCLOSED.
- 10.29 2021 Incentive Compensation Plan for Chief Executive Officer, effective January 1, 2021, as incorporated by reference from Exhibit 99.1 to the Company’s Form 8-K filed on January 26, 2021.
- 10.30 2021 Incentive Compensation Plan for Chief Financial Officer, effective January 1, 2021, as incorporated by reference from Exhibit 99.2 to the Company’s Form 8-K filed on January 26, 2021.
- 10.31 2021 Incentive Compensation Plan for EVP of Strategic Initiatives, effective January 1, 2021, as incorporated by reference from Exhibit 99.3 to the Company’s Form 8-K filed on January 26, 2021.
- 10.32 2021 Incentive Compensation Plan for EVP of Nuclear and Technical Services, effective January 1, 2021, as incorporated by reference from Exhibit 99.4 to the Company’s Form 8-K filed on January 26, 2021.
- 10.33 2021 Incentive Compensation Plan for EVP of Waste Treatment Operations, effective January 1, 2021, as incorporated by reference from Exhibit 99.5 to the Company’s Form 8-K filed on January 26, 2021.
- 10.34 Time and Material Master Task Ordering Agreement Subcontract Form of Agreement (subcontract 573512) dated February 23, 2020 and Modification 4 between Perma-Fix Environmental Services, Inc. and Triad National Security, LLC. CERTAIN INFORMATION OF THIS EXHIBIT WITHIN “EXHIBIT C” – “Form A-1 SCHEDULE OF RATES AND NOT-TO-EXCEED AMOUNTS” HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBICLY DISCLOSED.
- 10.35 Time and Material Master Task Ordering Agreement Subcontract Form of Agreement (subcontract 554628) dated August 21, 2019 and Modification 6 between Perma-Fix Environmental Services, Inc. and Triad National Security, LLC. CERTAIN INFORMATION OF THIS EXHIBIT WITHIN “EXHIBIT C” – “FORM A-1 SCHEDULE OF RATES AND NOT-TO-EXCEED AMOUNTS” HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBICLY DISCLOSED.
- 21.1 List of Subsidiaries
- 23.1 Consent of Grant Thornton, LLP
- 31.1 Certification by Mark Duff, Chief Executive Officer and Principal Executive Officer of the Company pursuant to Rule 13a-14(a) and 15d-14(a).
- 31.2 Certification by Ben Naccarato, Chief Financial Officer and Principal Financial Officer of the Company pursuant to Rule 13a-14(a) and 15d-14(a).
- 32.1 Certification by Mark Duff, Chief Executive Officer and Principal Executive Officer of the Company furnished pursuant to 18 U.S.C. Section 1350.
- 32.2 Certification by Ben Naccarato, Chief Financial Officer and Principal Financial Officer of the Company furnished pursuant to 18 U.S.C. Section 1350.
- 101.INS XBRL Instance Document*
- 101.SCH XBRL Taxonomy Extension Schema Document*
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document*
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document*
- 101.LAB XBRL Taxonomy Extension Labels Linkbase Document*

*Pursuant to Rule 406T of Regulation S-T, the Interactive Data File in Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Section 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purpose of Section 18 of the Securities Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

EXHIBIT 31.1

CERTIFICATIONS

I, Mark Duff, certify that:

1. I have reviewed this annual report on Form 10-K of Perma-Fix Environmental Services, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of the internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 29, 2021

/s/ Mark Duff

Mark Duff
Chief Executive Officer, President
and Principal Executive Officer

EXHIBIT 31.2

CERTIFICATIONS

I, Ben Naccarato, certify that:

1. I have reviewed this annual report on Form 10-K of Perma-Fix Environmental Services, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of the internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 29, 2021

/s/ Ben Naccarato

Ben Naccarato
Chief Financial Officer and
Principal Financial Officer

CORPORATE INFORMATION

Board of Directors

Thomas P. Bostick
CEO of
Bostick Global Strategies, LLC
(Director since August 2020)⁽²⁾

Dr. Louis F. Centofanti
Executive Vice President of
Strategic Initiatives
(Director since 1991)⁽⁴⁾

Kerry C. Duggan
Founder and Principal of
SustainabiliD
(Director since May 2021)

Joseph T. Grumski
Director
President and Chief Executive Officer
of TAS Energy, Inc.
(Director since February 2020)⁽¹⁾⁽³⁾

Joe R. Reeder
Director
Shareholder of
Greenburg Traurig, LLP,
Former Army Undersecretary
(Director since 2003)⁽²⁾⁽⁴⁾

Larry M. Shelton
Chairman of the Board
(Director since 2006)⁽¹⁾⁽⁴⁾

Zach P. Wamp
Director
President of
Zach Wamp Consulting
(Director since 2018)⁽²⁾⁽³⁾

Mark A. Zwecker
Director
(Director since 1991)⁽¹⁾⁽³⁾⁽⁴⁾

Management Team

Mark Duff
President and
Chief Executive Officer

Ben Naccarato
Executive Vice President and
Chief Financial Officer

Dr. Louis F. Centofanti
Executive Vice President of Strategic
Initiatives

Andrew Lombardo
Executive Vice President of
Nuclear and Technical Services

Richard Grondin
Executive Vice President of
Waste Treatment Operations

⁽¹⁾ Member of Audit Committee

⁽²⁾ Member of Corporate Governance and Nominating Committee

⁽³⁾ Member of Compensation and Stock Option Committee

⁽⁴⁾ Member of Strategic Advisory Committee

Corporate Information

Executive Offices
8302 Dunwoody Place, Suite 250
Atlanta, Georgia 30350
Telephone: 770-587-9898
Fax: 770-587-9937

Transfer Agent and Registrar
Continental Stock Transfer
& Trust Company
One State Street Plaza, 30th Floor
New York, New York 10004

Independent Registered
Public Accounting Firm
Grant Thornton LLP
1100 Peachtree Street NE #1200
Atlanta, Georgia 30309

Stock Listing
The common stock of Perma-Fix
Environmental Services, Inc. is listed
on Nasdaq where it is traded under
the ticker symbol PESI.

Stockholder Inquiries

Inquiries concerning stockholder records should be addressed to the Transfer Agent listed above. Comments or questions concerning the operations of the Company should be addressed to the Secretary, Perma-Fix Environmental Services, Inc., 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350.

Included within this Annual Report is a list briefly describing all exhibits listed in the Company's Form 10-K. We will furnish any exhibit to a shareholder upon receipt of a written request and payment of a specified reasonable fee, which fee shall be limited to the registrant's reasonable expenses in furnishing such exhibit. Each request must set forth a good-faith representation that, as of the record date for the solicitation of proxies, the person making the request was a beneficial owner of securities of the Company entitled to vote.

The Company defines EBITDA as earnings before interest, taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA before research and development costs related to the Medical Isotope project, closure costs accrued for East Tennessee Materials and Energy Corporation (M&EC), and net gain on exchange offer of Series B Preferred stock of M&EC (where applicable). Both EBITDA and adjusted EBITDA are not measures of performance calculated in accordance with accounting standards generally accepted in the United States of America ("U.S. GAAP"), and should not be considered in isolation of, or as a substitute for, earnings as an indicator of operating performance or cash flows from operating activities as a measure of liquidity. The Company believes the presentation of EBITDA and adjusted EBITDA is relevant and useful by enhancing the readers' ability to understand the Company's operating performance. The Company's management utilizes EBITDA and adjusted EBITDA as a means to measure performance. The Company's measurements of EBITDA and adjusted EBITDA may not be comparable to similar titled measures reported by other companies. The table below reconciles EBITDA and adjusted EBITDA, both non-GAAP measures, to GAAP numbers for income (loss) from continuing operations for the period noted.

(In thousands)	Fiscal Year 2020	Fiscal Year 2019	Fiscal Year 2018
Income (loss) from continuing operations	\$ 3,149	\$ 2,732	\$ (1,074)
Adjustments:			
Depreciation and amortization	1,596	1,342	1,455
Interest income	(140)	(337)	(295)
Interest expense	398	432	251
Interest expense—financing fees	294	208	38
Income tax (benefit) expense	(189)	157	(936)
Loss on extinguishment of debt	27	—	—
EBITDA	5,135	4,534	(561)
Research and development costs related to medical isotope project	311	314	811
Net gain on exchange offer of Series B Preferred Stock of M&EC	—	—	(1,596)
Closure costs accrued for M&EC subsidiary	—	330	3,323
Adjusted EBITDA	\$ 5,446	\$ 5,178	\$ 1,977

Certain statements contained in the Shareholders' letter, which have been added to this Annual Report on Form 10-K, may be deemed additional forward-looking statements. All estimates, projections, and other statements generally identifiable by the use of the words "believe," "expect," "intend," "anticipate," "plans to" and similar expressions (except statements of historical facts) contained therein are forward-looking statements, including but not limited to, advancing initiatives; sales pipeline in the Services Segment; bid and bid award; backlog of contracts; enhance revenues; establish large backlog; leverage our advanced capabilities; growth strategy for 2021; broadening our base of clients; and COVID impact. See "Special Note Regarding Forward-Looking Statements" contained in this Form 10-K that is part of the Annual Report and our Form 10-Q for quarter ended March 31, 2021, for discussion of factors which could cause future outcomes to differ materially from those described herein.

The Shareholders' letter should be read in conjunction with the "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in the Form 10-K contained within this 2020 Annual Report and our Form 10-Q for the quarter ended March 31, 2021.



8302 Dunwoody Place, Suite 250 / Atlanta, Georgia 30350
P 770-587-9898 / F 770-587-9937
www.perma-fix.com



ATTACHMENT E – REFERENCES

The following references provide a partial list of Perma-Fix of Florida’s active household hazardous waste (HHW) business venues. This experience involves both permanent collection center events and mobile HHW collection events. Perma-Fix of Florida has active HHW contracts with each of these three counties dating from 2018 to the present.

Marion County Solid Waste Department

5601 SE 66th Street

Ocala, FL 34480

James Larramore

phone: (352) 671-8481

cell: (352) 812-6406

Email: james.larramore@marioncountyfl.org

Population 365,579

Number of Fixed Facility Cleanouts per year: 4 [2018 (4); 2019 (4); 2020 (4); 2021 (2)]

Number of Mobile HHW Collection Events per year: 2-4 [2018 (2); 2019 (2); 2020 (1); 2021 (1)]

2001 - present: Household Hazardous Waste Collection & Disposal Services.

Escambia County Solid Waste

13009 Beulah Road

Cantonment, FL 32533

Jim Howes

(850) 937-2175 (office); (850) 554-2752 (cell) fax: (850) 937-1452

Email: jehowes@co.escambia.fl.us

Population 318,316

Number of Fixed Facility Cleanouts per year: 6 [2018 (6); 2019 (6); 2020 (5); 2021 (2)]

Number of Mobile HHW Collection Events per year: 5-6 [2018 (5); 2019 (3); 2020 (2); 2021 (3)]

2016 - present: Household Hazardous Waste Disposal Services.

Orange County Solid Waste Department

5901 Young Pine Rd.

Orlando, FL 32829

Demetrius Shields

(407) 836-6653 (office)

Email: Demetrius.Shields@ocfl.net

Population 1.4 million

Number of Fixed Facility Cleanouts per year: 6 [2018 (6); 2019 (6); 2020 (5); 2021 (7)]

Number of Mobile HHW Collection Events per year: 5-6 [2018 (5); 2019 (3); 2020 (2); 2021 (0)]

2018 - present: Household Hazardous Waste Disposal Services.

ATTACHMENT G, H, AND I – TSD AND OPERATIONS/METHOD DETAILS

Located in Gainesville, Florida, Perma-Fix of Florida (PFF) is a full service Treatment, Storage and Disposal (TSD) facility specializing in the processing and treatment of certain types of wastes containing both low level radioactive and hazardous wastes, which are known in the industry as mixed wastes.

Perma-Fix of Florida is a permitted and licensed TSD Facility operating under both a RCRA Hazardous Waste permit and Radioactive Materials License. Our disposal capabilities include:

- Non-hazardous wastes such as used oil, oil filters, antifreeze, spill clean-ups (rags, booms, socks), off spec, un-used or out of date chemical products, Universal wastes (lamps, mercury containing devices, etc), petroleum contaminated soils and waters from UST remediation sites and many more.
- Hazardous wastes such as solvent waste from automotive paint and body shops, industrial facilities, maintenance operations, hospital labs, lab packs, chemotherapy and pharmaceutical wastes, inks, etc. We can also handle waters that are contaminated with chemicals making them hazardous.
- Radioactive/Mixed wastes such as liquid scintillation vials (LSV), bulk scintillation liquids, radioactively contaminated soils with hazardous constituents, lab packs, lead shielding, debris, etc.

We also offer Laboratory Analysis, Waste Characterization and Transportation Services.

The attached operating permit shows where waste is “stored, consolidated, treated and/or disposed of”, and describes our treatment methods.



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

June 3, 2020

Mr. Kevin Schmuggerow
Vice President Southeast Operation
1940 NW 67th Place
Gainesville, Florida, 32653
kschmuggerow@perma-fix.com

RE: **Perma-Fix of Florida, Inc.**
EPA ID Number: FLD 980 711 071
Operating Permit: 17680-012-HO
Alachua County, Gainesville, Florida

Dear Mr. Schmuggerow:

Enclosed is Permit Number 17680-012-HO for the operation of a hazardous waste treatment and storage facility, and the replacement of one treatment unit. This permit is being issued pursuant to Section 403.722, Florida Statutes (F.S.), and Chapters 62-4, 62-160, 62-730, and 62-780, Florida Administrative Code (F.A.C.).

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68, F.S. by the filing of a notice of appeal under Florida Rules of Appellate Procedure 9.110 and 9.190 with the Clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice must be filed within 30 days after this order is filed with the Clerk of the Department.

If you have any questions, please contact Bradley Buselli by telephone at (850) 245-8989 or by e-mail at bradley.buselli@floridadep.gov.

Sincerely,

A handwritten signature in blue ink that reads "Michell Mason Smith".

Michell Mason Smith, Environmental Administrator
Hazardous Waste Program & Permitting

Mr. Kevin Schmuggerow
Page 2 of 2
June 3, 2020

Enclosure

cc (w/ Enclosure):

Brian Bastek, EPA Region 4, bastek.brian@epa.gov
Carlos Merizalde, EPA Region 4, merizalde.carlos@epa.gov
Pam Cosgrove, DEP Northeast District, pamela.cosgrove@floridadep.gov
Cheryl Mitchell, DEP Northeast District, cheryl.l.mitchell@floridadep.gov
Dan Cain, Perma-Fix, dcain@perma-fix.com
Bill Kelly, Trihydro, bkelly@trihydro.com
Annie Dziergowski, U.S. Fish & Wildlife Service, annie_dziergowski@fws.gov
Florida Fish & Wildlife Conservation Planning Services,
FWCConservationPlanningServices@myfwc.com



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

PERMITTEE:
PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA 32653

I.D. NUMBER: FLD 980 711 071
PERMIT NUMBER: 17680-012-HO
DATE OF ISSUE: JUNE 3, 2020
EXPIRATION DATE: JUNE 8, 2025

ATTENTION:
MR. KEVIN SCHMUGGEROW
VICE PRESIDENT

COUNTY: ALACHUA
PROJECT: OPERATION OF A HAZARDOUS WASTE
TREATMENT AND STORAGE FACILITY AND
REPLACEMENT OF ONE TREATMENT UNIT

Pursuant to authorization obtained by the Florida Department of Environmental Protection (FDEP) under the Resource Conservation and Recovery Act [42 United States Code (U.S.C.) 6901, *et seq.*, commonly known as RCRA] and the Hazardous and Solid Waste Amendments of 1984 (HSWA), this permit is issued under the provisions of Section 403.722 Florida Statutes (F.S.), and Chapters 62-4, 62-160, 62-730, 62-777 and 62-780 Florida Administrative Code (F.A.C.). This permit replaces expired permit 17680-011-HO. The above-named Permittee is hereby authorized to perform the work or operate the facility shown on the application dated December 11, 2019 and supplemented by additional information dated March 25, 2020, that are incorporated herein and collectively referred to as the "permit application." The permit application also includes any approved drawing(s), plans, and other documents that are specifically identified and incorporated by reference. Solid waste management units (SWMUs) and areas of concern (AOCs) identified to date are listed in Appendix A. The RCRA-regulated units, permitted units or permitted activities are specifically described as follows:

1. To operate one (1) enclosed container storage area, located in the Treatment and Operations Building (TOB), as illustrated in the permit application, and/or subsequent revisions, and shown in Attachment D of this Permit. The TOB container storage area contains seven (7) zones for storage of hazardous waste in containers meeting D.O.T. specifications and in size of 718 gallons (B-25 box) or less. The permit authorizes the storage of a maximum volume of 35,200 gallons of hazardous waste in the TOB storage area. The container storage area includes a containment system that consists of concrete curbing at least 4 inches high to prevent run-off. Exhaust and fugitive emissions from treatment operations within the TOB must be treated through an air pollution control system consisting of a regenerative thermal oxidizer (RTO)/HEPA filter system. The hazardous waste codes for treatment permitted in the TOB and waste permitted to be stored in this area are listed in Attachment A of this Permit.

2. The following hazardous waste treatment units are located in the TOB. The following treatment must be conducted in the TOB:
 - a. PF-I process (treatment in containers) as described in the permit application and/or subsequent revisions. The PF-I process is a two-step process for the permanent stabilization and/or solidification of hazardous and mixed waste conducted primarily in 55-gallon drums.
 - b. Existing PF-II process (miscellaneous treatment unit) as described in the permit application and/or subsequent revisions. The PF-II process consists of thermal desorption and/or chemical oxidation/reduction in a treatment unit. The existing PF-II treatment equipment is planned to be replaced with continuous PF-II treatment equipment and feed preparation equipment in the TOB as described in the permit application and/or subsequent revisions.
 - c. Lab Pack decommissioning as described in the permit application and/or subsequent revisions.
 - d. Fuel blending activity as described in the permit application and/or subsequent revisions.
 - e. Mercury amalgamation as described in the permit application and/or subsequent revisions.
 - f. Non-elementary neutralization as described in the permit application and/or subsequent revisions (Appendix I-E).
 - g. Deactivation process as described in the permit application and/or subsequent revisions.
 - h. Treatment using a Drum Rotator as described in the permit application and/or subsequent revisions.
 - i. Oxidation/reduction treatment in containers.
 - j. Solvent Recycling as described in Condition 10 below.
3. The existing PF-II treatment equipment is planned to be replaced with newly constructed, continuous PF-II treatment equipment and feed preparation equipment in the TOB as described in the permit application and/or subsequent revisions (Appendix II-I-1). This proposed treatment process will replace the existing PF-II process described in item 2.b. above. Specific conditions for these changes are noted in Part II Subpart B.5 of this Permit.
4. To operate a container storage area, located in the Processing and Storage Building (PSB), illustrated in the permit application and/or subsequent revisions, and in Attachment E of this Permit. The PSB container storage area contains three (3) zones for storage of hazardous waste in containers meeting D.O.T. specifications and in size of 718 gallons (B-25 box) or less. The permit authorizes the storage of a maximum volume of 72,105 gallons of hazardous waste in the PSB storage area. The storage area is covered and has a containment system consisting of 6-inch wide concrete curbing at least 2.5 inches high and two sumps to prevent both run-on and run-off. The hazardous waste codes for the waste permitted to be stored in this area are listed in Attachment A of this Permit.
5. To conduct the following hazardous waste activities located in the PSB:
 - a. Fuel-blending operations including phase separation treatment, decanting and bulking in this area, as described in the permit application and/or subsequent revisions.
 - b. Lab Pack decommissioning as described in the permit application and/or subsequent revisions.

- c. Storage and bulking of chemotherapy and pharmaceutical waste as described in the permit application and/or subsequent revisions.
 - d. Chemical precipitation, chemical reduction, neutralization, filtration, flocculation and physical treatment (i.e., sorting and segregation) in containers as described in the permit application and/or subsequent revisions.
 - e. Tank storage as described in condition 6 below.
 - f. Non-elementary neutralization and chemical extraction as described in in the permit application and/or subsequent revisions (Appendix I-E).
6. To operate a 3,000-gallon horizontal, aboveground storage tank illustrated in the permit application and/or subsequent revisions and in Attachment E of this Permit. The storage tank is used for the accumulation and storage of radioactive mixed waste containing ethanol, toluene and xylene that is generated from Liquid Scintillation Vial (LSV) processing. This tank is located within secondary containment inside the PSB.
 7. To operate one (1) hazardous waste container treatment unit for hazardous waste debris treatment in the LSV Processing and Waste Storage Warehouse, described in the permit application and/or subsequent revisions. The unit is comprised of an approximately 250-gallon stainless steel portable vat, equipped with an emission control hood. This unit is located within the 5-3/4" x 6" concrete curbing containment of the LSV Processing Area within the LSV Processing and Waste Storage Warehouse. In certain cases, debris treatment may be performed in the TOB area. Exhaust and fugitive emissions from debris treatment operations within the LSV area will be treated through an air pollution control system consisting of HEPA filters and a regenerative thermal oxidizer. The hazardous waste codes for treatment permitted in the LSV Processing Area are listed in Attachment A of this Permit.
 8. To operate a container storage area, located in the LSV Processing and Waste Storage Warehouse, described in the permit application and/or subsequent revisions, and in Attachment C of this Permit. The LSV container storage area stores hazardous waste in containers meeting D.O.T specifications and in size of 718 gallons (B-25 box) or less. The permit authorizes the storage of a maximum volume of 54,340 gallons of hazardous waste in the LSV Processing and Waste Storage Warehouse area. The storage area is covered and has a containment system consisting of at least 2.75" high x 5.5" concrete curbing and rollover berms. The hazardous waste codes for the waste permitted to be stored in this area are listed in Attachment A of this Permit.
 9. To conduct the additional following hazardous waste activities located in the LSV / Waste Storage Warehouse:
 - a. LSV Processing as described in the permit application and/or subsequent revisions.
 - b. Repackaging as described in the permit application and/or subsequent revisions.
 - c. Chemical extraction, physical extraction and micro-encapsulation including debris treatment as described in the permit application and/or subsequent revisions.
 - d. Lab Pack decommissioning as described in the permit application and/or subsequent revisions.

- e. Solid Waste Management as described in the permit application and/or subsequent revisions.
 - f. Miscellaneous Waste Storage and Transfer as described in the permit application and/or subsequent revisions.
 - g. Fuel Blending as described in permit application and/or subsequent revisions.
 - h. Mercury Amalgamation as described in the permit application and/or subsequent revisions.
 - i. Non-elementary neutralization as described in the permit application and/or subsequent revisions (Appendix I-E).
 - j. Treatment using a drum rotator as described in the permit application and/or subsequent revisions.
 - k. Deactivation of D003 waste as described in the permit application and/or subsequent revisions.
 - l. Solvent Recycling as described in Condition 10 below.
10. To conduct proposed solvent recycling activities, exempt from RCRA permitting requirements per 40 CFR 261.6(c)(1), as described in Part 1 Section D.2.1 and Part II.R of the revised permit application. A distillation unit was purchased in 1997 for a one-time operation and has not been used since that time. The distillation unit has been retained at the facility and will be located in either the LSV radioactive control area (RCA) or the TOB RCA. The emissions from this unit are subject to Subpart AA and would be managed through the air pollution control equipment at either location.

The Permittee is required to investigate any releases of contaminants to the environment at the facility regardless of the time at which waste was placed in a unit and to take appropriate corrective action for any such releases. Pursuant to 40 Code of Federal Regulations (CFR) 260.10 [as adopted by reference in Subsection 62-730.020(1), F.A.C.], the corrective action requirements of this RCRA permit extend to all property under control of the Permittee (see Attachment A, a map of the property boundaries of the land under the Permittee's control) and to all contamination that originated from discharges at the property under control of the Permittee.

This permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this permit are accurate. Any inaccuracies found in this information or information submitted as required by this permit may be grounds for termination or modification of this permit in accordance with Section 403.727(3)(a) F.S. and Rule 62-730.290, F.A.C., and potential enforcement action.

The facility is located at 1940 NW 67th Place, Gainesville, Florida.

The following documents were used in the preparation of this permit:

1. Permit # 17680-011-HO and all documents references therein, issued May 27, 2015.
2. Permit Application dated December 11, 2019.
3. Request for Additional Information (RAI) dated December 30, 2019.
4. Responses to RAI / Supplemental Information dated March 25, 2020.

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PART I – GENERAL AND STANDARD CONDITIONS

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The Permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Sections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the Permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The Permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the Permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. This permit or a copy thereof shall be kept at the work site of the permitted activity. In the event that there is no building or reasonable repository for such a copy at the work site, an alternate location must be approved by the Department in writing.
8. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted for the activities below. Reasonable time may depend on the nature of the concern being investigated.

- a. Have access to and copy any records that must be kept under conditions of the permit.
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit.
 - c. Sample or monitor any substances or parameters at any time or location reasonably necessary to assure compliance with this permit or Department rules.
9. The conditions in this permit shall take precedence over the permit application documents where there are differences between those documents and the permit conditions.
10. In accepting this permit, the Permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of the permitted activity which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted activity arising under the Florida Statutes or Department rules, except where such use is prescribed by Section 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
11. The Permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the Permittee does not waive any other rights granted by Florida Statutes or Department rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule 62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.
12. The Permittee shall comply with the following notification and reporting requirements:
- a. If for any reason the Permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Department's RCRA Manager with the following information:
 - (1) A description of and cause of noncompliance.
 - (2) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.
 - b. The Permittee will report any event requiring emergency response or noncompliance that may endanger human health or the environment from fires and explosions or releases of hazardous waste that may endanger public drinking water supplies. The Permittee will report to the Department's RCRA Manager verbally within 24 hours and provide a written report of the incident to the Hazardous Waste Program & Permitting Section at the address in Part I.15 or by alternate means (*e.g.*, e-mail) as approved by the Department, within five calendar days. It is the responsibility of the Permittee to ensure receipt of the written report. The Department of Environmental Protection's 24-hour emergency telephone number is (850) 413-9911 or (800) 320-0519. During normal business hours, the Hazardous Waste Program & Permitting

Section in Tallahassee may be contacted at 850-245-8707, or the DEP District Office may be contacted at (904) 256-1700 (Jacksonville).

- (1) The verbal report shall include the following information:
 - (a) The name, address, I.D. number, e-mail address, and telephone number of the facility and its owner or operator.
 - (b) The date, time, and type of incident.
 - (c) The identity and quantity of materials involved.
 - (d) The extent of any injuries.
 - (e) An assessment of actual or potential hazards.
 - (f) The estimated quantity and disposition of recovered materials.
- (2) The written report shall include all of the information in the verbal report and the following information:
 - (a) A description and cause of the noncompliance.
 - (b) If not corrected, the expected time of correction, and the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
- c. Within 15 calendar days of discovery per Part V.A.1.b, the Permittee shall notify the Department' RCRA Manager in writing of any newly discovered release(s) of contaminant(s) to the environment resulting in a de Minimis cleanup (Part V.A.4) or a suspected new AOC(s) and/or SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means.
 - (1) The notification shall include, at a minimum, the location of the release, AOC or SWMU (hereinafter referred to collectively as "site"), and all relevant information (*e.g.*, location of site(s) on a map of appropriate scale; general dimensions of affected area; media affected; hazardous constituents released; and magnitude of release).
 - (2) The Department may conduct, or require that the Permittee conduct, confirmatory sampling in order to determine whether contamination is present (Part V.A.3). The Department will notify the Permittee in writing of the final determination as to the status of the newly discovered or suspected site.
 - (3) Depending upon the type of discovery, notification requirements of Part I.12.b may also be required.
- d. The Permittee shall comply with the "Notices" provisions of Rules 62-780.220, F.A.C., and 62-730.225, F.A.C.
 - (1) Prior to performing field activities.
 - (2) When contamination beyond the facility boundary is confirmed by laboratory analysis.
 - (3) When a Temporary Point of Compliance (TPOC) is established beyond the boundary of the source property in conjunction with monitored natural attenuation or active remediation.
 - (4) When a fifth-year update to the status of a TPOC is issued.

- (5) By placing warning signs at facilities where there may be a risk of exposure to the public of environmental media contaminated with hazardous waste.
 - e. The Permittee shall give written notice to the Department's RCRA manager at least 15 days prior to physical alterations or additions to the facility that could affect activities covered by this permit. The notice shall include a summary description of the project, an evaluation of the effect it will have on: the operation of a hazardous waste facility, postclosure care, the ability to investigate contamination at or from a contaminated site, and an evaluation of the effect it might have on the known or suspected contamination.
 - f. Operating and Postclosure Permittees that generate hazardous waste, and all HSWA Corrective Action Permittees that are also a large quantity generator (LQG) of hazardous waste, shall submit a Biennial Report covering facility activities during the previous calendar year by March 1 of each even numbered year pursuant to Chapter 62-730, F.A.C.
13. The Permittee shall comply with the following recordkeeping requirements:
- a. Upon request, the Permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The Permittee shall hold all information required by the permit at the facility or other location designated by this permit. This includes records of all monitoring information (including all calibration and maintenance records and all original recordings for continuous monitoring instrumentation); copies of all reports; records of all data used to complete the permit application; and all monitoring data required by 40 CFR Part 264 and Part IV and when applicable, Part VI of this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. Any Remedial Action Plan as applicable for each contaminated site and associated cost estimate(s) shall be held until a Site Rehabilitation Cleanup Order is issued.
 - c. Records of monitoring information shall include all required items in Chapter 62-160, F.A.C., and the following information:
 - (1) The date, exact place, and time of sampling or measurements.
 - (2) The person responsible for performing the sampling or measurements.
 - (3) The dates that analyses were performed.
 - (4) The person responsible for performing the analyses.
 - (5) The analytical techniques or methods used.
 - (6) The results of such analyses.
 - d. If the Permittee generates hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced to comply with land disposal restrictions (40 CFR Part 268 and Rule 62-730.183, F.A.C.) for at least three years from the date that the waste which is the subject of such documentation was last sent to an on-property or off-property facility for treatment, storage, or disposal, or until remedial activity is completed, whichever date is later. These periods may be extended by request of the Department at any

time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

14. Within the timeframe requested by the Department, the Permittee shall furnish any information required by law which is needed to determine compliance with the permit. If the Department's request does not include a timeframe, the time of response is 30 days. If the Permittee becomes aware that the relevant facts were not submitted or were incorrect in the permit application or any report submitted to the Department, such facts or information shall be corrected promptly.
15. Except as otherwise specifically provided in this permit, all submittals in response to permit conditions shall be provided as described below. Submittals may be directed to alternative addresses (*i.e.* electronic submittal) and will not require a permit modification. Technical submittals (*e.g.* workplans, reports) provided in digital format must be in optical media format (Cd or DVD) or through a secured internet port (*i.e.* username/password encryption) when one is available.

Environmental Administrator
Hazardous Waste Program and Permitting, M.S. 4560
Department of Environmental Protection
2600 Blair Stone Road, Tallahassee, Florida 32399-2400

In addition to copies sent to Hazardous Waste Program and Permitting in Tallahassee, submittals in response to postclosure or operating permit conditions shall be sent to:

Waste & Air Resource Program Administrator
Department of Environmental Protection – Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

16. All documents submitted pursuant to the conditions of this permit shall be accompanied by a cover letter stating the name and date of the document submitted, the number(s) of the Part(s) and Condition(s) of the permit affected, the E.P.A. I.D. number, and the permit number and project name of the permit involved.
17. All documents proposing modifications to the approved permit and involving the practice of engineering must be submitted to the Department for review and be signed, sealed, and certified by a Professional Engineer registered in the State of Florida, in accordance with Chapter 471, F.S., and Subsection 62-730.220(9), F.A.C. All submittals incorporating interpretation of geological data shall be signed and sealed by a Professional Geologist registered in the State of Florida in accordance with Chapter 492, F.S., and Subsection 62-730.220(10), F.A.C.
18. All work plans, reports, schedules and other documents ("submittals") required by this permit are subject to approval by the Department prior to implementation. The Department will review the submittals and respond in writing. Upon written approval by the Department, the Permittee shall implement all work plans, reports and schedules as

provided in the approved submittal. If the Department disapproves a submittal, the Department will do one of the following:

- a. The Department will notify the Permittee in writing of the reason(s) why the submittal does not contain information adequate to support the conclusion, alternative, plan, proposal or recommendation, or why the conclusion, alternative, plan, proposal or recommendation is not supported by the applicable criteria. In this case, the Permittee shall submit a revised submittal within 60 days of receipt of the Department's disapproval unless an alternative deadline is approved in writing by the Department.
 - b. The Department will revise the submittal, or approve the submittal with conditions, and notify the Permittee of the revisions or conditions. In the case of work plans, the Department may notify the Permittee of the start date of the schedule within the revised or conditionally approved work plan.
19. The Permittee shall revise "Part I – General" of the Application for a Hazardous Waste Facility Permit [DEP Form 62-730.900(2)(a)] and submit the revised form to the Department within 30 days of any changes in the Part I information. Changes in the Part I information may also require changes to the Department's 8700-12FL form.
20. The Permittee may claim that any information required to be submitted by this permit is confidential in accordance with Chapter 403.73, F.S.
21. This permit is transferable only upon written Department approval in accordance with Rule 62-4.120 and Subsection 62-730.290(6), F.A.C., as applicable. The Permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. Before transferring ownership or operation of this facility during the term of this permit, the Permittee must notify the new owner or operator in writing of the requirements of 40 CFR Part 264 and Chapter 62-730, F.A.C.
22. The following conditions apply to renewal, modification and revocation of this permit:
- a. The Permittee shall submit a complete application for the renewal of this permit a minimum of 180 calendar days before the expiration of the permit. The permit renewal application shall be submitted in accordance with Rules 62-4 and 62-730, F.A.C.
 - b. The Department may modify, revoke, reissue, or terminate for cause this permit in accordance with Chapters 62-4 and 62-730, F.A.C.
 - c. The Permittee may submit any permit modification to the Department for approval. The filing of a request for a permit modification, revocation, reissuance, termination, notification of planned changes, or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.
 - d. The Permittee shall submit the application for a permit renewal or modification to the addresses in Part I.15.
 - (1) The Permittee shall submit a fee with the permit renewal or modification application that meets the requirements of Rule 62-730.293, F.A.C. A

Permittee choosing to pay the fee on an annual basis shall submit the annual fee payment no later than the anniversary date of permit issuance.

- (2) The Permittee shall submit a copy of the cover letter accompanying the permit renewal or modification application and the fee to the following address:

Florida Department of Environmental Protection
Hazardous Waste Program and Permitting
Post Office Box 3070, Tallahassee, Florida 32315-3070

- (3) The Permittee shall also submit notification of fee submittal, or notification of annual fee submittal, to the addresses in Part I.15.a., or by an alternate means (*e.g.*, e-mail) as approved by the Department.
- (4) The permit renewal or modification application fee may alternately be submitted electronically. If the Permittee intends to submit the application fee electronically, the Permittee shall obtain instructions from the Department on the proper procedures, and shall follow such instructions in making the electronic submittal. Notification per Part I.22.d.(3) is still required.
- e. The timeframes for permit review begin on the date when the Department has received both the permit renewal or modification application and the application fee.
- f. If the Permittee allows this permit to expire prior to Department acceptance of the certification of postclosure and termination of all corrective action, the Permittee must reapply for a permit in accordance with DEP Form 62-730.900(2), F.A.C.
- g. Any request to modify a permit for the treatment, storage, or disposal of hazardous waste generated off-site shall include an evaluation of the applicability of, and Permittee's compliance with, the siting criteria of Section 403.7211, F.S., and Rule 62-730.182, F.A.C.

23. If and when the Permittee intends to transfer parcels to third parties, the Permittee may remove a parcel from the Facility covered by this permit, and the Department will approve the removal of the parcel so long as the parcel never contained a contaminated site, or so long as any contamination associated with the contaminated site has been addressed to the satisfaction of the Department. The Department will approve the transfer or removal of a parcel in writing.

- a. The satisfaction of the Department may be conditioned on a sale with certain legal restrictions on the future use and/or remedial activity requirements on the parcel being transferred.
- b. Following the legal transfer of the property, a permit modification request to transfer the parcel from the permit must be made per Part I.22 within 30 days. A new facility map denoting the current property boundary and new property boundary legal description shall be submitted with the permit modification request.
- c. Even though a parcel is no longer defined as part of the facility as a result of the permit modification (using the minor modification requirements of Subsection 62-730.290(4), F.A.C.), in the event that a previously unknown contaminated site is found on the parcel, and such contamination resulted from activities which occurred prior to the sale, the Permittee will be responsible for any corrective action along with

any other persons who may have legal responsibility for the contamination (see Part V.A.1.b. regarding discovery of a new SWMU).

24. The following conditions apply to land disposal (placement) of hazardous wastes:
- a. 40 CFR Part 268 and Rule 62-730.183, F.A.C., identify hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage, or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR Part 268. Where the Permittee has applied for an extension, waiver, or variance under 40 CFR Part 268, the Permittee shall comply with all restrictions on land disposal under this Part pending final written approval of such application.
 - b. Waste identified in 40 CFR Part 268 Subpart C may not be placed in a land disposal unit without treatment unless the requirements of 40 CFR Part 268 Subparts C and/or D are met.
 - c. The storage of hazardous wastes restricted from land disposal in 40 CFR Part 268 is prohibited unless the requirements of 40 CFR Part 268 Subpart E are met.
25. The Permittee is not relieved of responsibility to clean up a release that has migrated beyond the facility boundary where off-property access is denied or revoked.
- a. The Permittee shall use all reasonable efforts, including but not limited to correspondence, telephone calls, personal contacts, drafting and redrafting agreements, and payment of a fee, to obtain access to real property necessary for work to be performed in the implementation of this permit.
 - b. If necessary access cannot be obtained by the Permittee, or if obtained, is revoked by owners or entities controlling access to the properties to which access is necessary, the Permittee shall notify the Department within five business days of such refusal or revocation. The Department may at any time thereafter seek to obtain such access as is necessary to implement the terms of this permit.
 - c. The Permittee shall reimburse the Department for any expenses that the Department is ordered to pay, or that the Department incurs in connection with its efforts to obtain necessary access to said property. The Permittee shall pay these sums to the Department, or arrange a payment schedule with the Department, within 30 days of demand by the Department. Payments shall be performed in accordance to Part I.22.d.
26. The Permittee shall maintain compliance with 40 CFR Part 264, Subpart H - Financial Requirements and Subsection 62-730.180(6), F.A.C. Financial assurance shall be based on estimates of the costs to close the facility and to implement postclosure care and/or corrective action (including the assessment phase and interim measures - collectively referred to hereinafter as "remedial activities") for a continuing (rolling) period of 30 years, unless this period is shortened or increased by the Department in a permit renewal or modification. Federal and State of Florida facilities are exempt from financial assurance requirements.

- a. The cost estimates must be based on the cost to the owner or operator of hiring a third party to conduct remedial activities.
- b. The Permittee shall include cost estimates with every work plan required by this permit. Cost estimates are subject to review and written approval by the Department
- c. In the event the total cost estimate for all remedial activities exceeds the amount provided by Permittee, the financial assurance instrument(s) must be increased accordingly within 60 days of the exceedance, or, for those facilities using a financial test, in the next scheduled submittal.
- d. If the cost estimate increase causes the inability of the facility to provide financial assurance through its currently selected mechanism, alternate financial assurance must be provided within 60 days.
- e. All submittals relating to financial assurance shall be submitted to the following address. Where financial institutions allow digital submissions, alternate submittal mechanisms may be used without requiring a permit modification.

Financial Assurance
Hazardous Waste Program and Permitting, M.S. 4560
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

27. Any dispute resolution will be conducted in accordance with Chapter 120, F.S. (Administrative Procedure Act), Chapter 28-106, F.A.C., and the Department's existing rules and procedures.

PART II – OPERATING CONDITIONS

Part II Subpart A – General Operating Conditions

1. The Permittee shall comply with those sections of 40 CFR Part 124 specified in Subsection 62-730.200(3), F.A.C., 40 CFR Parts 260 through 268, and 40 CFR Part 270 as adopted in Chapter 62-730, F.A.C., until all hazardous waste permitting operations have ceased and the facility has been closed and released from postclosure care requirements and all facility-wide corrective action requirements.
2. The Permittee shall comply with the manifest requirements of 40 CFR 264.71 and 264.72. All manifests, both electronic and paper, must be submitted to EPA's Hazardous Waste Electronic Manifest (e-Manifest) System. The Permittee must document the reconciliation of any manifest discrepancies.
3. The Permittee shall comply with the import and export provisions of 40 CFR 262 Subpart H, the notification requirements of 40 CFR 264.12, and maintain all applicable records for Department inspection.
4. The owner or operator of a facility that is authorized by the Department to receive hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that he has the appropriate permit(s) for, and will accept, the waste the generator is shipping.

- a. The Permittee that receives hazardous waste from an off-site source shall comply with the following notification and reporting requirements:
 - (1) Unmanifested Waste Report: The Permittee shall submit an Unmanifested Waste Report to the Department within 15 days of receipt of unmanifested waste.
 - (2) Manifest Discrepancy Report: If a significant discrepancy in a manifest is discovered, the Permittee shall attempt to rectify the discrepancy. If not resolved within 15 days after the waste is received, the Permittee shall immediately submit a letter report, including a copy of the manifest, to the Department.
5. Sampling and analysis of permitted and new hazardous wastes shall be conducted in accordance with the Waste Analysis Plan of the permit application.
 - a. The Permittee is liable for waste profiles supplied by generators.
 - b. Prior to acceptance of new waste codes, a permit modification per Condition I.22 is required. The need for a substantial modification should be evaluated using the criteria in Subsection 62-730.182(4), F.A.C.
6. The Permittee shall comply with 40 CFR 264.17, 264.176, and 264.198, with respect to ignitable and reactive wastes. The Permittee shall comply with 40 CFR 264.17, 264.177 and 264.199, with respect to incompatible wastes.
7. If this facility has suspected or confirmed environmental contamination where there may be a risk of exposure to the public, then upon direction from the Department the Permittee must comply with the warning sign requirements of Section 403.7255, F.S. and Rule 62-780.220, F.A.C. The Permittee is responsible for supplying, installing and maintaining the warning signs.
8. The Permittee shall comply with the security provisions of 40 CFR 264.14 and the facility security provisions of the permit application.
9. Facility personnel must successfully complete the approved training program indicated in the permit application, within six months of employment or assignment to a facility or to a new position at the facility. Verification of this training must be kept with the personnel training records and maintained at the facility. Personnel shall not work unsupervised until training has been completed. The training must be reviewed by facility personnel at least annually. The Permittee shall maintain an updated list of personnel handling hazardous waste and their respective job titles at the facility.
10. The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.
11. The Permittee shall comply with the following conditions concerning preparedness and prevention:

- a. At a minimum, the Permittee shall have the equipment available at the facility which is described in the Prevention and Preparedness Plan (PPP) of the permit application. The Permittee shall visually inspect and maintain the facility emergency and safety equipment (40 CFR 264.32) listed in the PPP, in accordance with 40 CFR 264.15, 40 CFR 264.33 and the permit application, during permitted activities. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, in accordance with the requirements of 40 CFR 264.15(c). A schedule for the inspection of the facility emergency and safety equipment must be maintained in the operating record of the facility. Changes, additions, or deletions to the schedule must be approved in writing by the Department.
 - b. The Permittee shall maintain immediate access to an internal communications or alarm system, fire protection equipment, spill control equipment and decontamination equipment.
 - c. The Permittee shall maintain arrangements with State and local authorities as required by 40 CFR 264.37, and with local medical facilities and emergency response personnel. If State or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record. Authorities/facilities include local fire and police departments, sheriff's office, state police, hospitals, ambulance services and emergency medical technicians, and state and local emergency response centers.
 - d. The Permittee shall maintain aisle space, as required pursuant to 40 CFR 264.35, to allow the unobstructed movement of personnel, fire protection, and emergency response equipment to any area of the facility.
12. The Permittee shall comply with the following conditions concerning the Contingency Plan (CP):
- a. The Permittee shall immediately carry out the provisions of the permit application, and follow the emergency procedures described by 40 CFR 264.56, whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment. The Permittee shall give proper notification if an emergency situation arises and, within five calendar days, must submit to the Department's RCRA Manager a written report which includes all information required in Condition I.12.b.
 - b. The Permittee shall comply with the requirements of 40 CFR 264.53. Electronic copies of the CP must be submitted to the authorities/facilities in Condition II.A.11.c., provided the entity has the capability to receive electronic submittals.
 - c. Within seven calendar days of meeting any criterion listed in 40 CFR 264.54(a), (b) or (c), the Permittee shall amend the plan and submit the amended plan for Department approval. Any other changes to the plan must be submitted to the Department within seven days of the change. Amendments to the plan must be approved in writing by the Department. All approved amendments or plans must be distributed to the State and local authorities in Condition II.A.11.c.
 - d. The Permittee shall comply with the requirements of 40 CFR 264.55, concerning the emergency coordinator.

- e. The Permittee shall perform at a minimum, an annual review of the Contingency Plan to ensure that it is up to date and contains current information. The date of review should be noted in the written operating record at the facility.
13. The Permittee shall develop and maintain a Waste Minimization Program Plan. The Permittee shall maintain copies of the certification required by this Condition in the facility operating record for a minimum of three years. The Permittee must certify, no less often than annually, the following:
 - a. The Permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable.
 - b. The proposed method of treatment, storage or disposal is the most practicable method available to the Permittee, which minimizes the present and future threat to human health and the environment.
 14. The Permittee shall keep a written operating record at the facility that includes the following:
 - a. The results of any waste analysis.
 - b. Copies of hazardous waste manifests for three years. For e-manifests, this condition is satisfied by the retention of the facility's electronic manifest copies in its account on the e-Manifest system, provided such copies are readily available for viewing and production if requested by the Department inspector.
 - c. The results of inspections.
 - d. The closure plan, postclosure plan, and remedial action (corrective measures) plans as applicable for each contaminated site, along with cost estimates for each plan.
 - e. Inspections of emergency and safety equipment.
 - f. Biennial reports.
 - g. Personnel training records.
 - h. The Waste Minimization Program Plan and annual certification of waste minimization.
 - i. The description and quantity of each hazardous waste received or generated.
 - j. The location and quantity of each hazardous waste within the facility.
 - k. Notices to generators as specified in 40 CFR 264.12(b).
 - l. A log of dates of operations and unusual events.
 - m. A summary report and details of incidents that require implementation of the contingency plan.
 - n. The date of annual review of the Contingency Plan.
 - o. Monitoring and test data for 40 CFR 264 Subparts AA, BB, and CC requirements.
 - p. Documentation that local officials have refused to enter into preparedness prevention arrangements with the Permittee, when applicable.

Part II Subpart B – Specific Operating Conditions

Part II Subpart B.1-Miscellaneous Treatment Units

1. The Permittee shall conduct the Perma-Fix I® Process (PF-I) and Perma-Fix II® Process (PF-II) treatment in accordance with specifications and procedures described in the permit application and/or subsequent revisions.
2. The Permittee shall not treat in the PF-II process more than 3,000 pounds on any single day. The maximum quantity of hazardous waste treated in any single batch shall not exceed 85 gallons for the existing PF-II process.
3. The Permittee is allowed to treat, in the PF-II reactor vessel, wastes contaminated with the volatile organic hazardous constituents up to the maximum concentrations, listed in Table 1 in the Air Toxic Modeling Report dated August 2005 and Table 1 Proposed Waste Codes in the Substantial Modification Demonstration dated December 2009. The waste codes permitted for treatment are listed in Table 1 of Appendix II-A-4 of the permit application and/or subsequent revisions and Attachment A of this Permit.
4. The Permittee shall only conduct hazardous debris treatment, as described in Appendix I.H. of the permit application and/or subsequent revisions. Also, the Permittee shall capture all solids and liquid residuals generated from the debris treatment activities inside the primary containment vat unit and manage them as described in the permit application and/or subsequent revisions.
5. The Permittee is allowed to treat only hazardous debris with the waste codes listed in Attachment A of this Permit. Also, the extent of treatment shall achieve compliance with 40 CFR 268.45.
6. The Permittee shall not conduct hazardous debris treatment with any equipment that the facility uses in the LSV Process. Furthermore, the Permittee shall not commingle any non-liquid waste from the hazardous debris unit into the LSV Process.
7. The Permittee shall comply with waste compatibility requirements of 40 CFR 264.17(b).
8. All treatment of the hazardous waste shall be conducted by qualified trained personnel, experienced in handling such material. [40 CFR 264.16]
9. The Permittee shall verify and record in the operating records, that the Air Emission Control System (AECS) is engaged and operating properly prior to performing any hazardous waste or hazardous debris treatment activities, including opening, loading or unloading waste containers. Additionally, the Permittee shall verify and record in the operating records that the Treatment and Operations Building (TOB) is under negative pressure prior to performing PF-II treatment. The AECS shall remain in operation and the primary chamber temperature be maintained at 1,300°F to 1,500°F while treatment operations are conducted.
10. The Permittee shall remove treated waste and other residues from the treatment unit(s) and ancillary equipment, and decontaminate the equipment, in accordance with the deactivation and decontamination procedures described in Appendix I-F of the permit application and/or subsequent revisions.

11. The Permittee shall not store more than twenty (20) drums, 55-gallons or less in size, in the TOB processing area at any time, as listed in Part II, Table II-7 of the permit application and/or subsequent revisions. The Permittee is authorized to store wastes in totes, B-12 containers, or B-25 containers in the TOB processing area in a single stack as long as these containers do not significantly affect the capacity of secondary containment in the TOB processing area (e.g., containers provided with legs/supports). The Permittee shall remove all treated waste and treatment residues from the treatment areas of the TOB and hazardous debris unit areas within twenty-four (24) hours of completion of the treatment event. Furthermore, staging of waste containers for treatment in the treatment areas of the TOB or hazardous debris unit area will be limited to twenty-four (24) hours prior to beginning treatment. The Permittee shall not store any waste in the treatment unit areas for a period greater than forty-eight (48) hours, including treatment time.
12. The Permittee shall maintain a written record of the date, time, and number of all waste containers being transferred in and out of the TOB treatment area or hazardous debris unit treatment area and shall record this information in the facility operating record.
13. The Permittee shall provide adequate fire protection to ensure confinement and control of any fire resulting from operation, as specified in the Contingency Plan of the permit application, and/or subsequent revisions.
14. The Permittee shall maintain an operational record describing treatment activities for PF-I, PF-II and Debris treatment processes. The operational record shall be kept as part of the operating records for a period of 3 years and shall include the following information:
 - a. Description and quantity of each hazardous waste received and treated at the unit(s) and dates of treatment;
 - b. Concentration of volatile organic hazardous constituents for each waste stream placed in the PF-II reactor vessel, pursuant to the Specific Condition 3 of this Part. The Permittee may use generator knowledge (e.g., land ban notifications) or analytical data for the purpose of this record keeping requirement;
 - c. List of personnel present during each treatment operation on a given day;
 - d. Operating conditions of the Air Emission Control System including flow rate and temperature recorded once per day during treatment operation after the proposed PF-II process is implemented. Until then, the Regenerative Thermal Oxidizer (RTO) temperature will be recorded on a daily basis on each day treatment is performed; and
 - e. Details of any problems discovered during inspections conducted pursuant the Specific Conditions 15 and 16 of this Part and details of remedial actions taken.
15. The Permittee shall conduct internal inspections of the PF-II reactor vessel and accumulator tank, as specified in the permit application and/or subsequent revisions, for the existing process. The Permittee shall also inspect the thermal oxidizer and calibrate the temperature in the primary chamber at least once a year, in accordance with 40 CFR 264.1088. The Permittee shall conduct an internal inspection of the proposed PF-II reactor vessel at least once a year unless the reactor vessel is out of service. In that case, the reactor vessel shall be inspected prior to being returned to service.

16. The Permittee shall conduct inspections of the miscellaneous unit(s) on each day treatment is conducted in accordance with the permit application and/or subsequent revisions for the existing PF-II process. Inspection of the proposed PF-II process will be conducted on each day treatment is performed, in accordance with the permit application and/or subsequent revisions. If a significant deterioration of the concrete pad, joint sealant material or protective coating (due to accidental spills) is noted in these inspections, the Permittee shall re-evaluate the need for a more resistant protective coating or seal material. All the inspection reports including corrective actions must be recorded and kept as part of the operating records [40 CFR 264.15].
17. The Permittee shall implement appropriate remedial actions for the problems discovered during the inspections conducted pursuant to the Specific Condition 15 and 16 of this Part. For problems that cannot be remedied within forty-eight (48) hours, the Permittee shall notify the Department within three (3) working days and follow up with a written report within fourteen (14) days of discovering such problems. The report must include descriptions of the remedy actions taken. The Permittee shall cease operation of the miscellaneous treatment unit until completion of the necessary repairs.
18. The Permittee shall provide a written report to the Department within thirty (30) days of removing any component of the PF-II treatment unit or its ancillary equipment from service and shall include a description of the decontamination procedures. The Permittee shall follow the facility Closure Plan, Appendix II-K-1 (and Section K of Part II) of the permit application and/or subsequent revisions, for the decontamination procedures.

Part II Subpart B.2-Container Storage Areas/Units

1. The Permittee is allowed to store the wastes listed in Attachment A of this permit only in the Processing and Storage Building (PSB), Treatment and Operations Building (TOB), and in the Liquid Scintillation Vial (LSV) Processing and Waste Storage Warehouse. Containers must conform to D.O.T. requirements. If a container holding hazardous waste is not in good condition, or begins to leak, the waste shall be transferred to another container that is in good condition [40 CFR 264.171] or it will be over-packed. Containers shall be kept closed, except when adding or removing waste and be handled in a manner that will not allow the containers to rupture or leak [40 CFR 264.173].
2. The Permittee shall not store any hazardous waste which is not listed in Specific Condition 1 of this Part. Non-hazardous waste, or raw materials/products are authorized to be stored in the permitted container storage areas as long as the total storage does not exceed the permitted capacity.
3. The Permittee shall not store, in a single container, chemical constituents above the quantities listed in the third column "Maximum Container Quantity (lbs)" of Attachment B. The attachment was developed from Tables 5 and 8 from the "Final Report Offsite Consequence Analysis and Air Modeling" dated January 2006 and from Tables 5 and 8 from the "Substantial Modification Demonstration" revised March 2010. If a constituent was present in both tables the more restrictive data, (i.e. the small number in the "amount released" column) was listed in Attachment B of this Permit.

4. The Permittee shall use only those containers made of or lined with materials which will not react with and are otherwise compatible with the waste to be stored in them [40 CFR 264.172].
5. The Permittee shall conduct daily, visual inspections of the permitted container storage area for each working day, to detect leakage in the hazardous waste areas or their associated loading/unloading zones [40 CFR 264.174]. Inspections shall be documented on a weekly basis, at a minimum in accordance with 40 CFR 264.174. If, in spite of the inspections, a significant deterioration of the concrete pad or joint sealant material is noted, the Permittee shall re-evaluate the need for a protective coating or more resistant seal material.
6. The Permittee shall remove spilled or leaked waste and accumulated precipitation from the secondary containment areas in as timely a manner as is necessary to prevent overflow of the secondary containment, per the requirements of 40 CFR 264.175.
7. The Permittee shall comply with the waste compatibility requirements of 40 CFR 264.177 as indicated in the permit application and/or subsequent revisions.
8. The Permittee shall comply with the following conditions concerning operation of the PSB, TOB, and LSV container storage areas:
 - a. The Permittee shall maintain and operate the facility as required by 40 CFR 264.175 and in accordance with the permit application and/or subsequent revisions.
 - b. The Permittee shall store a maximum of 35,200 gallons of waste in containers in sizes up to 718 gallons (B-25 box) or less, in the TOB storage area as shown in the permit application and/or subsequent revisions. The containers shall meet D.O.T. specifications.
 - c. The Permittee shall store a maximum of 72,105 gallons of waste in containers and in sizes up to 718 gallons (B-25 box) or less, in the PSB storage area as shown in the permit application and/or subsequent revisions. The containers shall meet D.O.T. specifications.
 - d. The Permittee shall store a maximum of 54,340 gallons in containers in sizes up to 718 gallons (B-25 box) or less, in the LSV Processing and Waste Storage Warehouse, as shown in the permit application. The containers shall meet D.O.T. specifications.
 - e. The Permittee must place the drums on standard pallets when they are single stacked. The Permittee must use pallets and banding when drums are double stacked, except for the storage inside the chemotherapy and pharmaceutical wastes in the Cage in the PSB.
 - f. For storage of drums larger than fifty-five gallons, the Permittee shall not place more than three (3) drums per pallet and shall not stack them more than two high.
9. The Permittee shall keep all containers and associated equipment used for the fuel blending and phase separation activities inside the secondary containment area of the PSB.

10. All fuel blending and phase separation activities shall be conducted by qualified personnel experienced in handling such material. [40 CFR 264.16].
11. The Permittee shall maintain a written record for tracking the date and quantity of all waste processed in the fuel blending and phase separation activities and include quantity of waste solvent transferred out of the LSV 3000-gallon storage tank for use in the fuel blending operation. This information shall be entered in the facility operating record.

Part II Subpart B.3-Tanks

1. The Permittee is allowed to operate one (1) Aboveground Storage Tank (AST) in accordance with the design plans and specifications in the permit application and/or subsequent revisions.
2. The Permittee is authorized to store only radioactive mixed waste in the AST that is generated from the Liquid Scintillation Vials (LSV) process wastes as described in the permit application and/or subsequent revisions.
3. The Permittee shall store a maximum of 3,000 gallons of waste in the tank.
4. The Permittee shall notify the Department when the volume of waste stored in the tank reaches ninety-five (95) percent capacity of the tank, i.e., 2,850 gallons. An electronic notification is acceptable.
5. The Permittee shall not place ignitable or reactive waste in the tank system unless the waste is stored in such a way that it is protected from any material or conditions that may cause the waste to ignite or react. [40 CFR 264.198(a)]
6. The Permittee shall comply with the protective distance requirements for the tank placement as set forth in The Florida Fire Prevention Code (January 2015) and any subsequent revisions [40 CFR 264.198(b)].
7. The Permittee shall handle incompatible wastes in accordance with the requirements of 40 CFR 264.199, by not introducing hazardous waste into the tank system, which previously held incompatible waste or material, until the tank system is adequately decontaminated.
8. For new tank components which may be required by the repair options of 40 CFR 264.196(f), the Permittee must submit a written assessment, reviewed and certified by an independent professional engineer registered in the State of Florida, which attests to the component's structural integrity. This assessment shall meet the requirements of 40 CFR 264.192.
9. The Permittee shall prevent the release of hazardous waste or hazardous constituents to the environment. The secondary containment system shall be maintained according to the permit and/or subsequent revisions and shall comply with the requirements of 40 CFR 264.193, including the requirements set forth below:

- a. All new components shall have secondary containment as required by parts (b) and (c) of this condition prior to being placed into service.
 - b. Pursuant to 40 CFR 264.193, the secondary containment system shall be:
 - (1) Maintained to prevent any migration of wastes or accumulated liquid to the soil, groundwater or surface waters;
 - (2) Capable of detecting and collecting releases and run-on until the collected material is removed;
 - (3) Lined with materials compatible with the waste to be stored and have sufficient structural strength to sustain the stresses induced by a failure of the primary containment system as well as other stresses, which may be induced by the environment;
 - (4) Placed on a foundation or base capable of providing support to the secondary containment system;
 - (5) Provided with a leak detection system designed and operated to detect failure of either the primary or secondary containment structures or the presence of any release within 24 hours;
 - (6) Sloped or otherwise designed and operated to drain or remove liquids resulting from leaks, spills, or precipitation; and
 - (7) Designed and operated, to contain 110% of the capacity of the largest tank within its boundary.
 - c. Ancillary equipment shall be provided with secondary containment, except as provided for in 40 CFR 264.193(f).
10. Pursuant to the general operating requirements of 40 CFR 264.194, the Permittee shall:
- a. Not place hazardous wastes in the tank system if the possibility exists that this may cause the tank system to fail;
 - b. Use appropriate controls and practices to prevent spills and overflows;
 - c. Follow the operating procedures described in the permit application and/or subsequent revisions; and
 - d. Comply with the requirements of 40 CFR 264.196 if a leak or spill occurs from the storage tank system.
11. The Permittee shall inspect the tank system in accordance with the permit application and/or subsequent revisions, as required by 40 CFR 264.195.
12. The Permittee shall follow the procedures outlined in the permit application and/or subsequent revisions and satisfy the requirements of 40 CFR 264.196 when a tank system or secondary containment system produces a leak or spill, or is determined to be unfit for use. As required by 40 CFR 264.196, these requirements shall include following items:
- a. Cessation of use; prevention of flow or addition of waste;
 - b. Removal of waste from tank system or secondary containment system;

- c. Containment of visible releases to the environment;
- d. Notifications, reports;
- e. Provision of secondary containment, repair or closure; and
- f. Certification of major repairs.

13. The Permittee shall decontaminate any ancillary equipment including pumps, pipes and valves, within thirty (30) days of removing it from service or if the Permittee fails to repair the ancillary equipment within that time. The decontamination shall be in accordance with the closure plan in the permit and/or subsequent revisions and entered into the facility operating record.
14. The facility shall provide a written report to the Department within forty-five (45) days of removing the AST unit or ancillary equipment from service and shall include a description of the decontamination procedures.

Part II Subpart B.4-Air Emissions Standards

1. The Permittee shall inspect, maintain and operate all the facility and equipment including tanks, pumps, compressors, pressure relief devices, flanges and valves as described in Sections R and S of Part II of the permit application and/or subsequent revisions, in accordance with 40 CFR 264 - Subpart AA and BB requirements.
2. The Permittee shall operate the facility in accordance with 40 CFR 264 – Subpart CC requirements.
3. The Permittee shall keep, as part of its operating records, results of inspections, monitoring reports, repairs, and other documents required by 40 CFR 264 Subparts AA, BB, and CC for a minimum of three years.
4. The Permittee shall submit a report of noncompliance, if applicable, with the exemption provisions of 40 CFR 264, Subpart CC outlined at 40 CFR 264.1082(c)(1) or (c)(2) within fifteen (15) calendar days of becoming aware of such noncompliance [40 CFR 264.1090(a)].

Part II Subpart B.5-Construction Requirements

1. The Permittee is authorized to construct/replace the PF-II treatment process as described in the permit application. The Permittee will initiate partial closure activities as provided for under the facility Closure Plan, Appendix II-K-1 (and Section K of Part II in the permit application) for the closure of the existing PF-II treatment process.
2. Within thirty (30) days of completion of construction of any new storage or treatment unit, the Permittee shall submit to the Department by certified mail or hand delivery, a certification signed by both the Permittee and an independent professional engineer registered in the State of Florida, stating the construction has been completed in accordance with the design parameters specified in the permit application and/or subsequent revisions. The Certification shall include as-built drawings and a report

describing any changes made during construction, with the seal and signature of a professional engineer registered in the State of Florida.

3. The Permittee may begin to operate constructed storage and/or treatment unit(s) twenty (20) days after submitting the as-built certification, required pursuant Specific Condition 2 of this Part, unless the Department notifies the Permittee not to begin operation.
4. The closure cost for the facility will be revised after construction of the continuous PF-II process equipment prior to its operation.

Part II Subpart C – Closure Conditions

1. The Permittee shall close any storage or treatment unit in a manner that minimizes or eliminates, to the extent necessary to protect human health and the environment, postclosure escape of hazardous waste, hazardous waste constituents, hazardous waste decomposition products, contaminated leachate or run-off to the groundwater, surface waters, or to the atmosphere (40 CFR Part 264.111).
2. The Permittee shall have a written Closure Plan as required by 40 CFR 264.112(a). The Closure Plan and all revisions to the plan must be kept at the facility until closure is completed, certified in accordance with 40 CFR 264.115, and accepted by the Department.
3. Modifications to the approved Closure Plan shall be in accordance with the requirements of 40 CFR 264.112(c) and Rule 62-730.290, F.A.C.
4. The Permittee shall notify the Department within seven calendar days of any determination that actions undertaken as part of closure or associated monitoring programs no longer satisfy the requirements set forth in this permit. If the Department determines that a modification of the permit is required, the Permittee shall, within 60 calendar days of notice by the Department, submit an application for a permit modification in accordance with Part II.C.3.
5. Within 90 days after receiving the final volume of hazardous waste or upon notification by the Department that closure of a unit is required, the owner or operator must treat or remove from the unit all hazardous waste.
6. The Permittee shall complete closure activities within 180 days after notification to the Department of closure and in accordance with the closure schedule in the permit application. Any changes in the time allowed for closure activities or reporting requirements shall require prior written Department approval. At least 30 calendar days prior to initiating physical closure activities, the Permittee shall prepare and submit a Closure Activities Report.
 - a. The Closure Activities Report will be in columnar format (*i.e.* a table or spreadsheet) with columns for “closure activity,” “schedule date,” and “completed date.”
 - b. The Closure Activities Report shall be maintained and updated by the Permittee throughout the closure period, with copies submitted monthly to the Department, unless an alternate submittal schedule is approved by the Department in writing.

Each report must be submitted to the Department by the tenth day of each month for the preceding month until the acceptance of physical closure by the Department. These reports can be submitted electronically.

- c. Any deviation from the schedule or described tasks shall be fully documented in the Closure Activities Report.
7. The Permittee shall notify the Department 45 days prior to the date on which the Permittee expects to begin partial or final closure of a unit(s).
8. The Permittee shall properly decontaminate or dispose of all equipment, structures, and residues used during or resulting from the closure activities.
9. The Permittee shall manage all hazardous wastes, residues, sludges, spilled or leaked waste, or contaminated liquids and soils removed during closure of the unit(s) in accordance with the applicable provisions of 40 CFR Parts 260 through 268, including the manifest requirements. A copy of each manifest required as a result of closure activities shall be submitted to the Department with the Closure Certification.
10. The Permittee shall provide opportunities for site inspections by the Department by informing the Department at least seven days in advance of any major physical closure activity (*e.g.*, unit decontamination or removal, cap installation, soil sampling, soil removal, etc.).
11. Within 30 days of determining that all contaminated soil cannot be practically removed or decontaminated, the Permittee shall notify the Department of such determination. Within 90 days of the determination the Permittee shall submit an application for permit modifications to close the facility as a landfill (land disposal unit) and perform postclosure care as required by 40 CFR 264.
12. Within 60 calendar days of the completion of closure, the Permittee shall submit to the Department, by certified mail or hand delivery, a Closure Certification Report signed by the Permittee and an independent Professional Engineer registered in the State of Florida, stating that the unit has been closed in compliance with the Closure Plan and the conditions of this permit. The Closure Certification must be based on the Professional Engineer's own observation and knowledge of the closure activities. The Closure Certification Report must include, but not be limited to the following:
 - a. Environmental sampling data to verify closure activities.
 - b. Decontamination data.
 - c. Copies of manifests or other appropriate shipping documents for removal of all hazardous wastes and all contaminated residues.
 - d. A description of final closure activities.
 - e. A final Closure Activities Report (Condition II.C.6 of this Subpart).
13. Within 30 calendar days of submitting a Closure Certification Report for a land disposal unit, including a land disposal unit identified under Part II.C.11, the Permittee shall submit to the Department and to the local zoning authority, or the authority with jurisdiction over local land use, a survey plat indicating the type, location, and quantity of hazardous wastes disposed of within the unit with respect to permanently surveyed

benchmarks in accordance with 40 CFR 264.116. For hazardous wastes disposed of before January 12, 1981 the owner or operator must identify the type, location, and quantity of the hazardous wastes to the best of the Permittee's knowledge and in accordance with any existing records. This notice is in addition to the requirement to execute a formal land use control (*e.g.*, a restrictive covenant) in order to obtain a site rehabilitation completion order based on restricted exposure risk assumptions under Chapter 62-780, F.A.C.

PART III – POSTCLOSURE CONDITIONS

1. Not applicable at this time.

PART IV – ENVIRONMENTAL MONITORING CONDITIONS

1. Not applicable at this time.

PART V – CORRECTIVE (REMEDIAL) ACTION CONDITIONS

Part V Subpart A – General Corrective Action Conditions

1. The Conditions of this Part apply to the following:
 - a. The SWMUs and AOCs identified in Appendix A.
 - b. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means. As used in this Part, the terms “discover”, “discovery”, or “discovered” refer to the following:
 - (1) The date the Permittee visually observes evidence of a new SWMU or AOC.
 - (2) The date the Permittee visually observes evidence of a previously unidentified release of contaminant(s) to the environment.
 - (3) The date the Permittee receives information from a credible source of the presence of a new release of contaminant(s) to the environment.
 - c. Contamination that has migrated beyond the facility boundary, if applicable.
2. The Permittee shall comply with the notification requirements for the discovery of a new SWMU in Part I.12.c.
3. Upon notification by the Department, the Permittee shall prepare and submit a Confirmatory Sampling (CS) Work Plan for known, suspected, or newly discovered sites. The Work Plan shall be submitted within 60 calendar days of notification by the Department unless the notification letter establishes a different time frame.
 - a. The CS Work Plan shall include schedules for implementation and completion of specific actions necessary to determine whether or not contamination has occurred in any potentially affected media. In order to partly or wholly satisfy the CS requirement, previously existing data may be submitted with the work plan for the Department's consideration.

- b. In accordance with the schedule in the approved CS Work Plan, or no later than 60 calendar days after Department's written approval of a CS Work Plan, the Permittee shall submit a Confirmatory Sampling Report identifying those sites that are contaminated and those sites that are not contaminated. The CS Report shall include an analysis of the analytical data to support all determinations. Based on the results of the CS Report, the Department will determine the need for further investigation at sites covered in the CS Report and notify the Permittee in writing.
4. De Minimis discharge is a release of a contaminant(s) that is removed from the soil, sediment, surface water, and groundwater to cleanup target levels or background concentrations within 30 days of discovery of the release. If the Permittee intends to treat a discharge under the De Minimis discharge provision of Rule 62-780.550 or Rule 62-780.560 F.A.C., the Permittee must meet the notification requirements of Part I.12.c and inform the Department's RCRA Manager that a De Minimis action is underway. A De Minimis Remediation Report must be submitted to the Department within 90 days of discovery of the release. The report must include a description of all actions taken in response to the discharge and the information required by the Interim Source Removal Report pursuant to Subsection 62-780.500(6)(a), F.A.C.
5. If contamination is confirmed by the Confirmatory Sampling Report, the Department will notify the Permittee to commence site rehabilitation in accordance with Rule 62-730.225 and Chapter 62-780, F.A.C., for all SWMUs and/or AOCs ("contaminated sites") identified in the notification. The Permittee shall commence and complete site assessment in the manner and within the time limits set forth in Rule 62-780.600, F.A.C., unless the notification letter specifically establishes a different time frame to commence or complete site assessment. An alternative schedule can be implemented with written Department approval.
6. The Permittee shall conduct Emergency Response Actions in accordance with Subsections 62-730.225 and 62-780.500, F.A.C. The Permittee may, or upon notification by the Department, shall conduct an Interim Source Removal action in accordance with Subsections 62-730.225 and 62-780.500 F.A.C. for any release, SWMUs, or AOCs determined necessary to minimize or prevent further migration of contaminants or to limit human or environmental exposure to contaminants.
7. If the Department or the Permittee at any time determines that any approved work plan no longer satisfies the requirements of Rule 62-730.225 or Chapter 62-780, F.A.C. or this permit for prior or continuing releases of contaminant(s) to the environment, the Permittee shall submit an amended work plan to the Department within 60 calendar days of such determination.

PART VI – REMEDY SELECTION AND IMPLEMENTATION

Part VI Subpart A – General Remedy Selection and Implementation Conditions

1. Within 90 calendar days of Department approval of a Site Assessment Report or Site Assessment Report Addendum the Permittee shall submit a Remedial Action Plan developed in accordance with Chapters 62-780 and 62-730, F.A.C. Remedial Action

Plans may be performance based, including remediation options to be implemented based on changing conditions at the site.

2. The Permittee shall apply for a permit modification in accordance with Part I.22. of this permit within 30 days of a Department approved final remedy unless an alternative permit modification schedule has been approved by the Department. Final approval of remedial action which is achieved through interim measures shall be in accordance with this condition.
3. The Remedial Action Plan shall include a provision for the Permittee to submit periodic Remedial Action Status Reports in accordance with Subsection 62-780.700(12), F.A.C. The intent to implement a different approved remedy in a performance based Remedial Action Plan can be provided in the Remedial Action Status Report. Proposals to modify a previously approved remedy in a performance based Remedial Action Plan can be provided in the Remedial Action Status Report and implemented with written Department approval. The Remedial Action Status Reports may be combined with any Environmental Monitoring Report required by Part IV.
4. When site rehabilitation (remedial action) is complete, the Permittee shall submit to the Department a Site Rehabilitation Completion Report in accordance with Subsection 62-780.750(6), F.A.C. Site Rehabilitation Completion Reports can be part of a combined document with the Remedial Action Status Report.
5. For site rehabilitation involving the cleanup of groundwater contaminated by a release from a designated regulated unit, the Permittee must demonstrate that the concentration of constituents of concern remain below cleanup goals for three consecutive years after active remediation has ceased as per 40 CFR 264.100(f).
6. When appropriate, the Department will approve completion of site rehabilitation by inclusion in a permit renewal, permit modification, or separate Site Rehabilitation Completion Order.

Part VI Subpart B – Selected Remedies

7. Not applicable at this time.

APPENDIX A - SUMMARY OF FACILITY SITES - SOLID WASTE MANAGEMENT UNITS (SWMUs) AND AREAS OF CONCERN (AOC)

A.1 List of SWMUs / AOCs requiring Confirmatory Sampling				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified as requiring Confirmatory Sampling at this time pursuant to this permit.				

A.2 List of SWMUs / AOCs requiring a Site Assessment (a/k/a RCRA Facility Investigation [RFI]) or a Risk Assessment				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified at this time as requiring a Site or Risk Assessment.				

A.3 List of SWMUs / AOCs requiring a Remedial Action Plan or Natural Attenuation with Monitoring Plan (a/k/a RCRA Corrective Measures Study [CMS])				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified at this time requiring a Remedial Action Plan or a Natural Attenuation with Monitoring Plan.				

A.4 List of SWMUs / AOCs implementing a Remedial Action Plan or Natural Attenuation Monitoring Plan (a/k/a Corrective Measures Implementation [CMI])				
SWMU/AOC Number/Letter	SWMU/AOC Name	SWMU/AOC Comment and Basis for Determination	Dates of Operation	Potentially Affected Media
There are no units identified at this time undergoing a Remedial Action Plan or a Natural Attenuation with Monitoring Plan.				

A.5 List of SWMUs / AOCs at which Site Rehabilitation Completion Determinations With Controls have been made		
SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
There are no units identified at this time at which Site Rehabilitation Completion Determinations with controls have been made.		

A.6 List of SWMUs / AOCs at which Site Rehabilitation Completion Determinations Without Controls have been made		
SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
SWMU 23	North Drainage Ditch	June 27, 1990 RFA; & NFA December 2, 2019 (formalized in Permit 17680-012-HO) for January 2017 Roll-Off Incident.

A.7 List of SWMUs / AOCs where No Further Action Determinations have been made based on no suspected or confirmed contamination (i.e. not 'contaminated sites' as defined by 62-780 F.A.C.)		
SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
SWMU 1 ^a	North Unloading Area	June 27, 1990 RFA
SWMU 2 ^a	South Unloading Area	June 27, 1990 RFA
SWMU 3	Temporary Holding Area	June 27, 1990 RFA
SWMU 5 ^c	Incoming Bulk Waste Transfer Station	June 27, 1990 RFA
SWMU 7	Tanker/Liquids Loading Station Within PSB	June 27, 1990 RFA
SWMU 8	Outdoor Staging Area	June 27, 1990 RFA
SWMU 9	LSV Processing Area, formerly Indoor Staging Area	June 27, 1990 RFA
SWMU 9a ^c	Roller Conveyors in LSV Processing Area	June 27, 1990 RFA
SWMU 9b ^c	Lift in LSV Processing Area	June 27, 1990 RFA
SWMU 9c ^c	In-Feed Hopper in LSV Processing Area	June 27, 1990 RFA
SWMU 9d ^c	Shaker Table in LSV Processing Area	June 27, 1990 RFA
SWMU 9e ^c	Crusher/Shredder in LSV Processing Area	June 27, 1990 RFA
SWMU 9f ^c	Rinse Basket Trough in LSV Processing Area	June 27, 1990 RFA
SWMU 9g ^c	Three Chamber Rinse in LSV Processing Area	June 27, 1990 RFA
SWMU 9h ^c	Drain Table in LSV Processing Area	June 27, 1990 RFA

SWMU 9i	LSF Holding Tanks in LSV Processing Area	June 27, 1990 RFA
SWMU 10	Processing Area Ventilation System-HEPA Filter	June 27, 1990 RFA
SWMU 11	Carbon Adsorption System	June 27, 1990 RFA
SWMU 12	LSF Pipe	June 27, 1990 RFA
SWMU 13 ^c	Packing Material Wastes Drum Holding Area	June 27, 1990 RFA
SWMU 14	Empty Drums Holding Area	June 27, 1990 RFA
SWMU 15 ^c	Crushed Glass/Plastic Vials Drum Holding Area	June 27, 1990 RFA
SWMU 16 ^c	Crushed Vials Final Drainage Station	June 27, 1990 RFA
SWMU 17 ^c	Drained Crushed Vials Drum Holding Area	June 27, 1990 RFA
SWMU 18	Gondolas (10)	June 27, 1990 RFA
SWMU 19 ^c	Dumping Trailers	June 27, 1990 RFA
SWMU 20	Waste Handling Routes	June 27, 1990 RFA
SWMU 21	North Retention Pond	June 27, 1990 RFA
SWMU 22	East Retention Pond	June 27, 1990 RFA
SWMU 24	East Drainage Ditch	June 27, 1990 RFA
SWMU 25 ^c	Former Glass/Plastic Shredder Unit	June 27, 1990 RFA
SWMU 26 ^c	Field Trailers Service Area	June 27, 1990 RFA
SWMU 27 ^c	PCB Drummed Waste Storage Area	June 27, 1990 RFA
SWMU 28 ^c	Freon Distillation Waste Collection Unit	June 27, 1990 RFA
SWMU 29 ^c	Sand and Grit Drum Storage Area	June 27, 1990 RFA
SWMU 30 ^{c, d}	Laboratory Wastes Accumulation Area	June 27, 1990 RFA
SWMU 31 ^{c, d}	Laboratory Specimens Storage Building	June 27, 1990 RFA
SWMU 32 ^{c, d}	PCB Decontamination Test Site	June 27, 1990 RFA

SWMU 33	Laboratory	June 27, 1990 RFA
SWMU 36	East Loading Dock	June 27, 1990 RFA
SWMU 37	Clothes Washing Room	June 27, 1990 RFA
SWMU 39	Freon Distillation Unit	June 27, 1990 RFA
SWMU 40 (formerly SWMUs 1 and 2)	North-South Unloading Area	June 27, 1990 RFA
AOC A	Spray Paint Booth Area	NFA/Permit 17680-009-HC, 9/15/06 & 17680-010-HC, 9/16/10
AOC B	Equipment Laydown and Temporary Storage Area	NFA/Permit 17680-009-HC, 9/15/06 & 17680-010-HC, 9/16/10
AOC C	Soil Mound Area ^e	NFA/Permit 17680-009-HC, 9/15/06 & 17680-010-HC, 9/16/10

^a Per October 28, 2000 VSI conducted Sept. 14 & 15, 2000, these two SWMUs were combined into SWMU-40.

^b Formerly used to denote a Permitted Unit; relocated to Table A.8 of this Appendix (see below), effective as of Permit 17680-012-HO issuance.

^c Unit Identified in Final RFA dated June 27, 1990; but determined to be no longer in use after Supplemental VSI conducted September 14 and 15, 2000 (dated October 28, 2000).

^d SWMU no longer part of Perma-Fix facility.

^e September 15, 2006 and September 16, 2010 permits and call it “Print Shop Area”. Supplemental VSI conducted September 14 and 15, 2000 (dated October 28, 2000) called it “Print Shop Area-Mound in northwest corner of site.”

A.8 List of SWMUs / AOCs designated as “Permitted Units” which will be closed under a closure plan (also includes the NFA Determinations criteria of Table A.7 above).

SWMU/AOC Number/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA
SWMU 4	Container Storage Shed now known as Processing and Storage Building (PSB)	June 27, 1990 RFA; This permitted unit will be closed under a closure plan.
SWMU 6	3,000-Gallon Waste Liquids Tank	June 27, 1990 RFA; This permitted unit will be closed under a closure plan.
SWMU 9k	Grinder Crusher in LSV Processing Area	This unit will be closed under a closure plan.
SWMU 9m	Fines Removal System (FRS) in LSV Processing Area	This unit will be closed under a closure plan.
SWMU 34	Treatment and Operations Building (TOB), formerly West Warehouse	This permitted unit will be closed under a closure plan.

SWMU 35	Liquid Scintillation Vial (LSV) Warehouse, formerly East Warehouse	This permitted unit will be closed under a closure plan.
SWMU 38	Treatment Operations Building (TOB) Loading Ramp	This permitted unit will be closed under a closure plan.
SWMU 41	LSV Hazardous Waste Storage Area	This permitted unit will be closed under a closure plan.
SWMU 42	PCB Commercial Storage Area	This EPA permitted storage unit will be closed under its own closure plan.

EXECUTION AND CLERKING

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Kimberly A. Walker, Program Administrator
Permitting & Compliance Assistance Program
2600 Blair Stone Road, MS 4550
Tallahassee, Florida 32399-2400

FILING AND ACKNOWLEDGMENT

FILED on this date pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



Clerk

June 3, 2020

Date

ATTACHMENT A-PERMITTED WASTE CODES FOR STORAGE AND TREATMENT (EXCEPT FOR TANK STORAGE)

Permitted Waste Codes for Storage and Treatment (except for tank storage)											
D001	D039	K062	P030	P074	P122	U020	U060	U099	U140	U179	U221
D002	D040	K086	P031	P075	P123	U021	U061	U101	U141	U180	U222
D003	D041	K156	P033	P077	P127	U022	U062	U102	U142	U181	U223
D004	D042	K157	P034	P078	P128	U023	U063	U103	U143	U182	U225
D005	D043	K158	P036	P081	P185	U024	U064	U105	U144	U183	U226
D006	F001	K159	P037	P082	P188	U025	U066	U106	U145	U184	U227
D007	F002	K161	P038	P084	P189	U026	U067	U107	U146	U185	U228
D008	F003	K169	P039	P085	P190	U027	U068	U108	U147	U186	U234
D009	F004	K170	P040	P087	P191	U028	U069	U109	U148	U187	U235
D010	F005	K171	P041	P088	P192	U029	U070	U110	U149	U188	U236
D011	F006	K172	P042	P089	P194	U030	U071	U111	U150	U189	U237
D012	F007	P001	P043	P092	P196	U031	U072	U112	U151	U190	U238
D013	F008	P002	P044	P093	P197	U032	U073	U113	U152	U191	U239
D014	F009	P003	P045	P094	P198	U033	U074	U114	U153	U192	U240
D015	F010	P004	P046	P095	P199	U034	U075	U115	U154	U193	U243
D016	F011	P005	P047	P096	P201	U035	U076	U116	U155	U194	U244
D017	F012	P006	P048	P097	P202	U036	U077	U117	U156	U196	U246
D018	F019	P007	P049	P098	P203	U037	U078	U118	U157	U197	U247
D019	F020	P008	P050	P099	P204	U038	U079	U119	U158	U200	U248
D020	F021	P009	P051	P101	P205	U039	U080	U120	U159	U201	U249
D021	F022	P010	P054	P102	U001	U041	U081	U121	U160	U202	U271
D022	F023	P011	P056	P103	U002	U042	U082	U122	U161	U203	U278
D023	F026	P012	P057	P104	U003	U043	U083	U123	U162	U204	U279
D024	F027	P013	P058	P105	U004	U044	U084	U124	U163	U205	U280
D025	F028	P014	P059	P106	U005	U045	U085	U125	U164	U206	U328
D026	F032	P015	P060	P108	U006	U046	U086	U126	U165	U207	U353
D027	F034	P016	P062	P109	U007	U047	U087	U127	U166	U208	U359
D028	F035	P017	P063	P110	U008	U048	U088	U128	U167	U209	U364
D029	F037	P018	P064	P111	U009	U049	U089	U129	U168	U210	U367
D030	F038	P020	P065	P112	U010	U050	U090	U130	U169	U211	U372
D031	F039	P021	P066	P113	U011	U051	U091	U131	U170	U213	U373
D032	K001	P022	P067	P114	U012	U052	U092	U132	U171	U214	U387
D033	K048	P023	P068	P115	U014	U053	U093	U133	U172	U215	U389
D034	K049	P024	P069	P116	U015	U055	U094	U134	U173	U216	U394
D035	K050	P026	P070	P118	U016	U056	U095	U135	U174	U217	U395
D036	K051	P027	P071	P119	U017	U057	U096	U136	U176	U218	U404
D037	K052	P028	P072	P120	U018	U058	U097	U137	U177	U219	U409
D038	K061	P029	P073	P121	U019	U059	U098	U138	U178	U220	U410
											U411

ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8

Constituent	Waste Code	Maximum Container Quantity (lbs)
Allyl alcohol	P005	32
Thiophenol	P014	6,415
Dichloromethyl ether; Chloromethyl ether	P016	1.08
Bromoacetone	P017	46.5
Acetaldehyde, chloro-; Chloroacetaldehyde	P023	380
Benzyl chloride	P028	730
Aziridine; Ethyleneimine	P054	18.5
Fluorine	P056	16.1
Methane, isocyanato-; Methyl isocyanate	P064	0.25
Aziridine, 2-methyl-; 1,2-Propylenimine	P067	156
Methyl hydrazine	P068	9.3
2-Methylactonitrile; Acetone cyanohydrin	P069	195
Nickel carbonyl	P073	1.35
Nitrogen dioxide	P078	96
N-nitrosodimethylamine	P082	105
Parathion; Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	P089	11
Phosgene	P095	3
Phosphine	P096	4.9
Propargyl alcohol	P102	38
Tetraethyldithiopyrophosphate; Thiodiphosphoric acid, tetraethyl ester; Ethyl butyrate, TEDP	P109	10.5
Diphosphoric acid, tetraethyl ester; Tetraethyl pyrophosphate, TEPP	P111	5.5
Tetranitromethane	P112	17.8
Acetyl chloride	U006	0.32
Acrylic acid	U008	1,895
Acrylonitrile	U009	710
Benzenesulfonyl chloride	U020	1,105

ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8 (CONT.)

Constituent	Waste Code	Maximum Container Quantity (lbs)
Bis(2-chloroethoxy)methane	U024	235
Dichloroethyl ether; Ethane, 1,1'-oxybis [2-chloro-	U025	830
Carbon oxyfluoride; Carbonyl fluoride	U033	55.3
Trichloroacetaldehyde (Chloral)	U034	750
Epichlorohydrin, 1-chloro-2,3-epoxy propane	U041	1,007
Chloromethane (methyl chloride)	U045	2,000
Chloromethyl methyl ether (methyl chloromethyl ether)	U046	3.75
2-Chlorophenol	U048	523
1,2-Dibromo-3-chloropropane	U066	0.25
Ethylene dibromide (1,2-dibromomethane)	U067	4500
1,2-Benzenedicarboxylic acid, dibutyl ester; Dibutyl phthalate	U069	1,385
1,4-Dichloro-2-butene	U074	70
Dichlorodifluoromethane	U075	1,000,000
1,2-Dichloroethylene	U079	22,000
1,3-Dichloropropene	U084	125
1,2,3,4-Diepoxybutane; Diepoxybutane; 2,2-Bioxirane	U085	19
Diethyl phthalate	U088	6,636
Dimethylamine	U092	1,900
Cumene hydroperoxide	U096	6,122
Dimethylcarbamoyl chloride	U097	95
1,1-Dimethylhydrazine	U098	40.7
1,2-Dimethylhydrazine	U099	40.8
1,2-Benzenedicarboxylic acid, dimethyl ester; Dimethyl phthalate	U102	138
Dimethyl sulfate	U103	19
Di-n-octyl phthalate	U107	2,218
Ethyl acrylate	U113	1,970

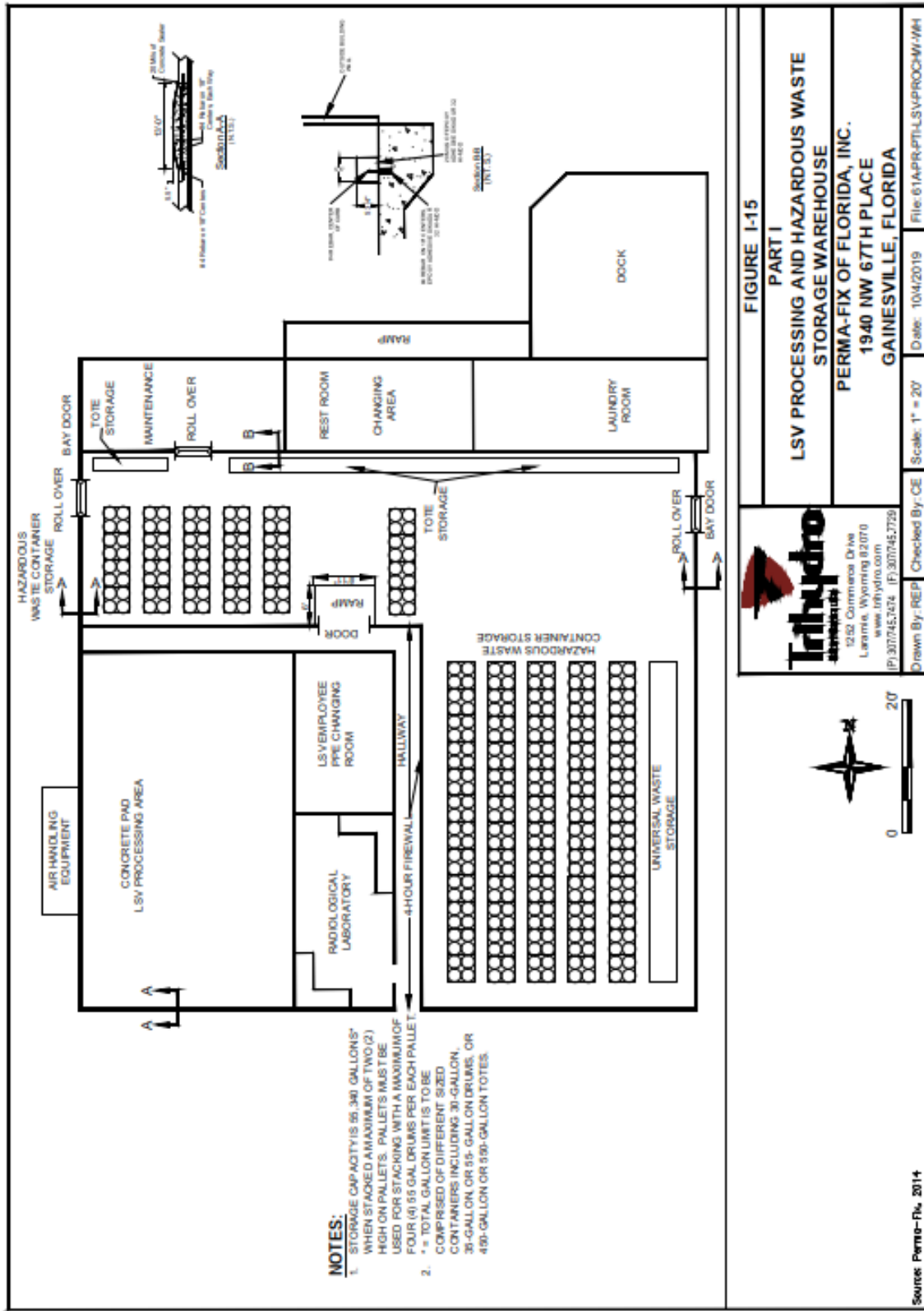
ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8 (CONT.)

Constituent	Waste Code	Maximum Container Quantity (lbs)
Ethylene oxide	U115	555
Ethyl methacrylate	U118	815
Formic acid	U123	64
Furfural	U125	391
Glycidylaldehyde	U126	8
Hydrazine	U133	32.2
Hydrogen fluoride	U134	108.8
Hydrogen sulfide	U135	104.5
Methane, iodo-; Methyl iodide	U138	5,100
Isosafrole	U141	6,696
Methacrylonitrile; Methylacrylonitrile	U152	280
Methyl Mercaptan; Thiomethanol; Methanethiol	U153	825
Methyl Chlorocarbonate; Methyl chloroformate	U156	5
Methyl methacrylate	U162	6,300
Paraldehyde	U182	710
Pentachloroethane	U184	8,900
1,3-Pentadiene	U186	2,000
2-Picoline	U191	5,638
n-Propylamine	U194	4,287
Toluene-2,4-di-isocyanate	U223	1.55
Toluene-2,6-di-isocyanate	U223	1.55
Bromoform (tribromomethane)	U225	75.1
Triethylamine	U404	65

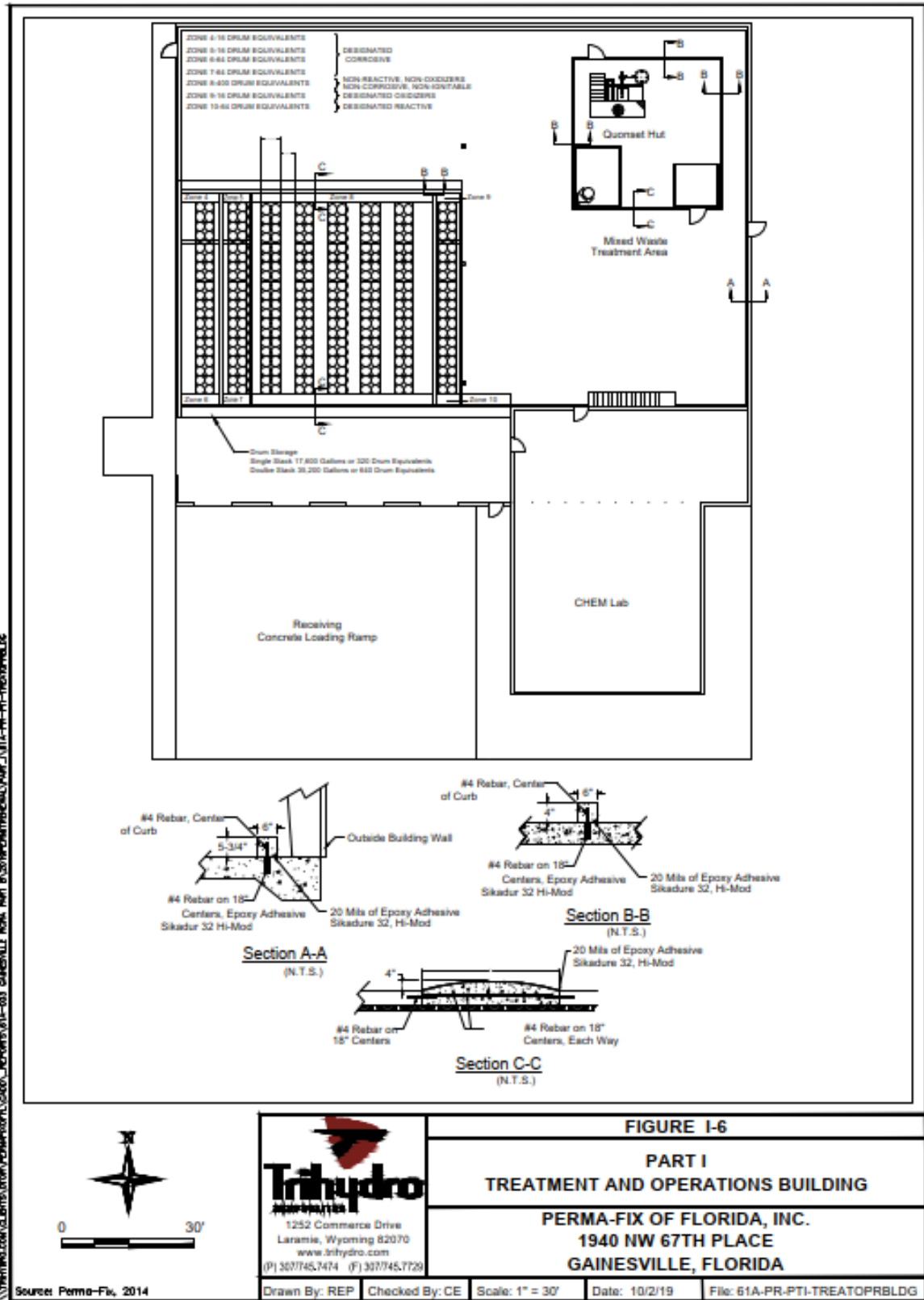
ATTACHMENT B-CONSOLIDATED DATA FROM TABLES 5 AND 8 (CONT.)

Constituent	Waste Code	Maximum Container Quantity (lbs)
O-Chlorophenol (2-Chlorophenol)	K001	10,000
Ethyl Benzene	K048	10,000
Carbon Disulfide (Carbon bisulfide)	K049	7,000
Acetone	K086	3,600
Butyl Benzyl Phthalate	K086	2,750
Cyclohexanone	K086	3,175
Ethyl Acetate	K086	4,300
Methanol	K086	4,861
Methyl Ethyl Ketone (2-butanone, ethyl methyl ketone)	K086	3,300
Methyl Isobutyl Ketone (Hexone)	K086	3,100
Methylene Chloride	K086	10,000
N-Butyl Alcohol	K086	3,125
Nitrobenzene	K086	10,000
O-Dichlorobenzene (1,2-Dichlorobenzene)	K086	10,000
1,1,1-Trichloroethane (Methyl Chloroform)	K086	10,000
Trichloroethylene	K086	10,000
Acetonitrile	K156	1,475
Aniline	K156	10,000
Chlorobenzene (Benzene Chloride)	K156	4,000
Chloroform	K156	10,000
Pyridine	K156	3,375
Carbon Tetrachloride	K157	10,000
Ethyl Benzene	F037	2,750
<p>This attachment was generated from Tables 5 and 8 from the <i>Final Report Offsite Consequence Analysis and Air Modeling</i> dated January 2006 and <i>Substantial Modification Demonstration</i> dated December 2009. If a constituent was present in both tables the more restrictive data (<i>i.e.</i>, the smaller number in the “amount released” column) was listed in this table.</p>		

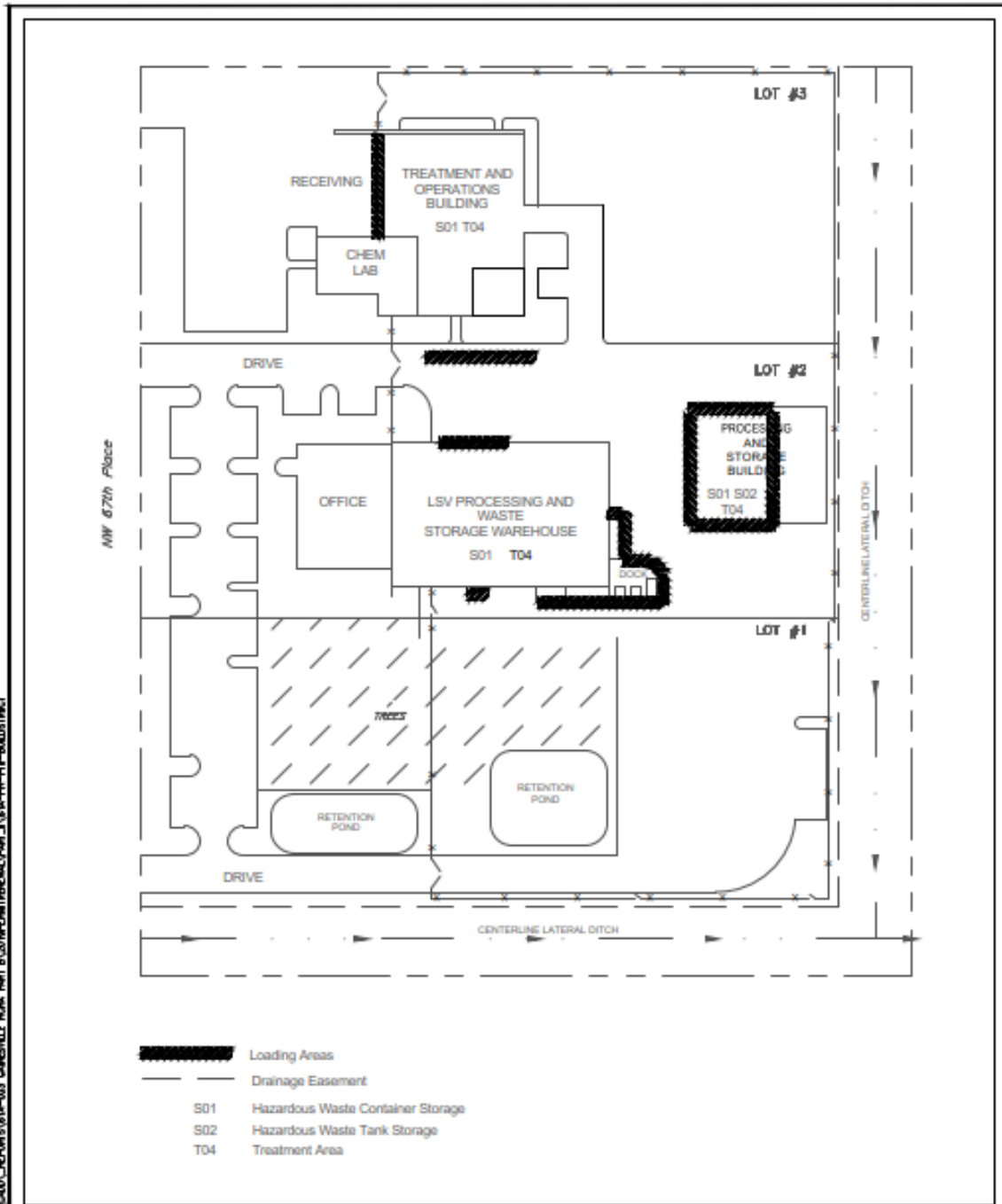
ATTACHMENT C-LSV PROCESSING AND WASTE STORAGE WAREHOUSE



ATTACHMENT D-TREATMENT AND OPERATIONS BUILDING



ATTACHMENT F-BUILDINGS LAYOUT



 Loading Areas
 Drainage Easement
 S01 Hazardous Waste Container Storage
 S02 Hazardous Waste Tank Storage
 T04 Treatment Area



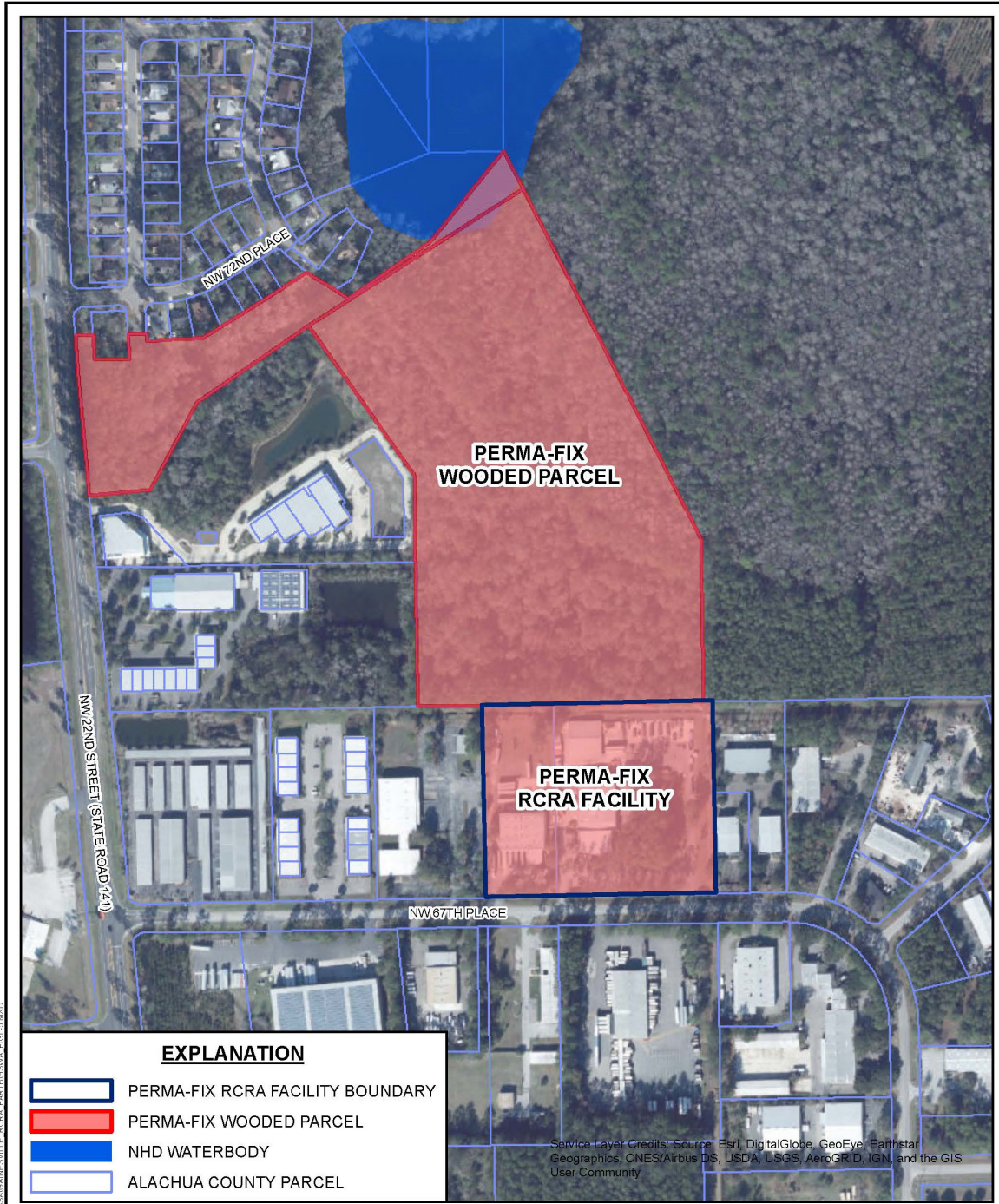

1252 Commerce Drive
 Laramie, Wyoming 82070
 www.trihydro.com
 (P) 307.745.7474 (F) 307.745.7729

FIGURE II-A-3
PART II
BUILDING AND OTHER STRUCTURES

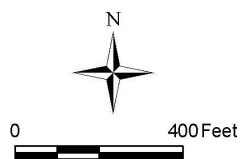
PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA

Source: Perma-Fix, 2014
 Drawn By: REP Checked By: CE Scale: 1" = 100' Date: 10/7/2019 File: 61A-PR-PTII-BUILDSTRUCT

ATTACHMENT G-PROPERTY



M:\OTR\PERMA-FIX\FIG1\SWAPPING\GAINESVILLE_SS\GAINESVILLE_RCRA_PART1\HSWA_FIG-5.MXD



Trihydro
CORPORATION

1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307.745.7474 (F) 307.745.7729

FIGURE I-5

PART I
PERMA-FIX FACILITY FOR HSWA PURPOSES

PERMA-FIX OF FLORIDA, INC.
1940 NW 67TH PLACE
GAINESVILLE, FLORIDA

Drawn By: DH	Checked By: CE	Scale: 1" = 400'	Date: 11/9/19	File: HSWA_Fig1-5.mxd
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ATTACHMENT J and K – COMPLIANCE HISTORY

Please see the attached facility compliance inspection reports for the five (5) years preceding this solicitation. The violations listed were considered minor in nature and were corrected immediately to the satisfaction of the inspection officers. Additional follow-up reports were not required.

Perma-Fix of Florida has no record of permit and/or license denials for conducting household hazardous waste events – mobile or permanent.



Perma-Fix of Florida Compliance Summary

Perma-Fix of Florida was subject to the following Agency inspections during the period covering January 1, 2016 to the present

<u>Date of Inspection</u>	<u>Agency</u>	<u>Result</u>
2/15/16	Alachua County Env. Protection	No Violations
2/16/16	Florida Bureau of Radiation Control	No Violations
5/16/16	Florida Department of Health	No Violations
8/23/16	Florida Bureau of Radiation Control	No Violations
2/03/17	Florida Bureau of Radiation Control	No Violations
5/04/17	Florida Dept. of Env. Protection	Minor violations, corrected during inspection
8/02/17	Florida Bureau of Radiation Control	No Violations
9/22/17	Biomedical	No Violations
12/13/17	Florida Dept. of Env. Protection (Air)	No Violations
12/21/17	EPA (PCB)	No Violations
2/05/18	Florida Dept. of Env. Protection / EPA	Minor violations, corrected during inspection
3/21/18	Florida Bureau of Radiation Control	No Violations
9/20/18	Florida Department of Health	No Violations
3/26/19	Florida Bureau of Radiation Control	No Violations
8/02/19	Florida Bureau of Radiation Control	No Violations
11/21/19	Florida Dept. of Env. Protection	Minor violations, corrected during inspection
12/19/19	Florida Dept. of Env. Protection (NPDES)	No Violations
9/10/20	Florida Bureau of Radiation Control	No Violations
3/23/21	Florida Bureau of Radiation Control	No Violations

ATTACHMENT L THRU T – FORMS

The following forms are attached:

- l) Sworn Statement Pursuant to Section 287.133(3)(a), Fla. Stat., on Public Entity Crime form.
- m) Non-Collusion Affidavit Form.
- n) Bid Signature Form.
- o) Drug-Free Workplace Form (optional, but recommended).
- p) Conflict of Interest Disclosure Statement Form.
- q) W9 Form.
- r) Vendor Information Sheet.
- s) Scrutinized Contractors Certificate.
- t) Form Purchase Order Exception Form.

SWORN STATEMENT PURSUANT TO SECTION 287.133(3) (a),
FLORIDA STATUTES ON PUBLIC ENTITY CRIME

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted to Levy County Board of County Commissioners
By Kevin Schmuggerow, VP Southeast Ops.

(Print this individual's name and title)

For Perma-Fix of Florida, Inc.

(Print name of entity submitting statements)

Whose business address is 1940 NW 67th Place, Gainesville, FL 32653

And if applicable whose Federal Employer Identification Number (FEIN) is 59-3241888

If the entity has no FEIN, include Social Security Number of the individual signing this sworn Statement: _____

2. I understand that a "public entity crime" as defined in paragraph 287.133(1)(a), Florida Statutes, mean violation of any state or federal law by a person with respect to and directly related to the transactions of business with any public entity or with an agency or political subdivision of any other state or with the United States including, but not limited to any bid or contract for goods or services to be provided to any public entity or any agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1) (b), Florida Statutes, means a finding of guilt or conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a Jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in paragraph 287.133(1)(a), Florida Statutes, means:
- a. A predecessor or successor of a person convicted of public entity crime; or
 - b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
5. I understand that a "person" as defined in Paragraph 287.133(1) (e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, executives,

partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in a relation to the entity submitting this sworn statement. (Please indicate which statement applies).

Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or any affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime with the past 36 months AND (Please indicate which additional statement applies).

The entity submitting the sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months. However, there has been a subsequent proceeding before a Hearing Officers of the State of Florida, Division of Administrative Hearings and the Final Order by the Hearing Officer determined that it was not in the public interest place the entity submitting this sworn statement on the convicted vendor list. (Attached is a copy of the final order).

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THE PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED AND FOR THE PERIOD OF THE CONTRACT ENTERED INTO, WHICHEVER PERIOD IS LONGER. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

Kevin J. Schmuggerow
(Signature)

City of Gainesville

STATE OF FLORIDA

Sworn to (or affirmed) and subscribed before me by means of physical presence or _____
online notarization, this 28 day of September, 2021, by Kevin Schmuggerow (name),

as VP (title) for Derma-Fix of Florida, Inc. (name of bidder).

Personally known OR Produced Identification

(type of identification)

Brenda D. Siebert
(Signature) Notary Public – State of Florida



(Printed, typed or stamped commissioned name of notary public)

My commission expires 2/14/2022

(SEAL)

NON-COLLUSION AFFIDAVIT

I, Kevin Schmuggerow of the County of Alachua, FL

According to law on my oath, and under penalty of perjury, depose and say that:

1. I am Vice President, Southeast Operations of the firm of Perma-Fix of Florida, Inc. providing this proposal in response to the ITB, and that I executed the said proposal with full authority to do so.
2. This response has been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to qualifications or responses of any other responder or with any competitor; and no attempt has been made or will be made by the responder to induce any other person, partnership or corporation to submit, or not to submit, a response for the purpose of restricting competition;
3. The statements contained in this affidavit are true and correct, and made with full knowledge that Levy County relies upon the truth of the statements contained in this affidavit in awarding contracts for any services resulting from this ITB for said project.

Kevin Schmuggerow

9/28/21

Signature of Bidder Representative

Date

STATE OF: Florida

COUNTY OF: Alachua

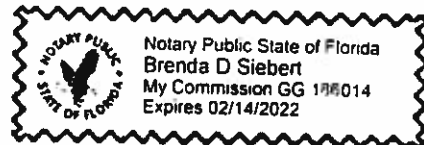
Sworn to (or affirmed) and subscribed before me by means of physical presences or online notarization, this 28 day of September, 2021, by Kevin Schmuggerow (name), as VP (title) for Perma-Fix of Florida, Inc. (name of bidder).

Personally known OR Produced Identification (type of identification).

Brenda D. Siebert

NOTARY PUBLIC

My Commission Expires: 2/14/2022



BID SIGNATURE FORM

The undersigned attests to his/her authority to submit this bid and to bind the entity/firm herein named to perform in accordance with an agreement entered into with the County, if the entity/firm is awarded the agreement by the County. The undersigned further certifies that he/she has read the entire Invitation to Bid package, and any other documentation relating to the Invitation to Bid, and that this bid is submitted with full knowledge and understanding of the requirements and time constraints noted herein, and that the prices bid herein are guaranteed for a period of ninety (90) days following the due date for bids.

Type of Organization (please check one):

- INDIVIDUAL
- PARTNERSHIP
- CORPORATION
- JOINT VENTURE
- LLC

Firm Name: Perma-Fix of Florida, Inc.

Home Office Address: 1940 NW 67th Place

City, State, Zip: Gainesville, FL 32653

Address (Servicing Levy County if Different from Above): n/a

Email Address: kschmuggerow@perma-fix.com

Name/Title of Levy County Rep: Alicia TRETHERWAY, Procurement Coord.

Telephone: 352-486-5218 x.2 Fax: 352-486-5167

Signature: [Handwritten Signature] Date: 9/28/21

Is Bidder a small or minority business, women's business enterprise, or labor surplus area firm?
 Yes No (Check which is applicable)

Cost/Fee Proposal (attached) Yes No

As Addenda are considered binding as if contained in the original Invitation to Bid, it is critical each Bidder acknowledge receipt of same. The submittal may be considered void if receipt of addendum is not acknowledged.

Receipt of Addenda Acknowledged: N/A

Addendum No. _____	Dated _____	Signature _____
Addendum No. _____	Dated _____	Signature _____
Addendum No. _____	Dated _____	Signature _____

DRUG FREE WORKPLACE FORM

The undersigned Bidder in accordance with Section 287.087, Florida Statutes hereby certifies that the Bidder Perma-Fix of Florida, Inc. (name of firm or individual) does:

1. Publish a statement notifying employees that the unlawful manufacture, distributions, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintain a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

NAME OF BIDDER:

Kevin Schmuggerow

Signature: 

Title: Vice President, Southeast Operations

Date: 9/28/21

CONFLICT OF INTEREST DISCLOSURE STATEMENT

The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. All bidders must disclose with their proposals or bids whether any officer, director, employee or agent is also an officer or an employee of the Board of County Commissioners. All bidders must disclose whether any officer, partner, director or proprietor is the spouse or child of one of the members of the Board of County Commissioners. All bidders must disclose the name of any County officer or employee who owns, directly or indirectly, an interest of five percent (5%) or more in the firm or any of its branches or affiliates. All bidders must also disclose the name of any employee, agent, lobbyist, previous employee of the Board, or other person, who has received or will receive compensation of any kind in connection with the response to this ITB. All bidders are also required to include a disclosure statement of any potential conflict of interest that the bidder may have due to other clients, contracts, or interest associated with the performance of services under this ITB and any resulting agreement. Use additional sheets if necessary.

Names of Officer, Director, Employee or Agent that is also an Employee of the Board:

Names of Officer, Partner, Director or Proprietor who is spouse or child of Board Member:

Names of County Officer or Employee that owns 5% or more in Bidders firm:

Names of applicable person(s) who have received compensation:

Description of potential conflict(s) with other clients, contracts or interests:

None of the above applicable: X

Signature:  Printed Name: Kevin Schmuggerow

Bidder Name: Perma-Fix of Florida, Inc.

Date: 9/28/21

Request for Taxpayer Identification Number and Certification

**Give Form to the
requester. Do not
send to the IRS.**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	<p>1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. Perma-Fix of Florida, Inc.</p> <p>2 Business name/disregarded entity name, if different from above</p> <p>3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.</p> <p><input type="checkbox"/> Individual/sole proprietor or single-member LLC</p> <p><input checked="" type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate</p> <p><input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____</p> <p><small>Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.</small></p> <p><input type="checkbox"/> Other (see instructions) ▶ _____</p>	<p>4 Exemptions (codes apply only to certain entities, not individuals. see instructions on page 3)</p> <p>Exempt payee code (if any) _____</p> <p>Exemption from FATCA reporting code (if any) _____</p> <p><small>(Applies to accounts maintained outside the U.S.)</small></p>
	<p>5 Address (number, street, and apt. or suite no.) See instructions. 1940 NW 67th Place</p> <p>6 City, state, and ZIP code Gainesville Florida 32653</p> <p>7 List account number(s) here (optional)</p>	<p>Requester's name and address (optional)</p>

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
OR									
Employer identification number									
5	9	-	3	2	4	1	8	8	8

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ▶ <i>B. Herbert</i>	Date ▶ 1/3/19
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

VENDOR INFORMATION SHEET

DATE: 09/21/2021

COMPANY NAME: Perma-Fix of Florida, Inc.

PHYSICAL ADDRESS: 1940 NW 67th Place, Gainesville, FL 32653

MAILING ADDRESS: 1940 NW 67th Place

CITY: Gainesville STATE: Florida ZIP: 32653

TELEPHONE NUMBER: 352-373-6066

FAX NUMBER: 352-433-1874

TOLL FREE NUMBER: 800-365-6066

EMAIL: kschmuggerow@perma-fix.com

FEID NUMBER: 59-3241888 OR SSN: _____

CONTACT PERSON: Kevin Schmuggerow

TITLE: Vice President, Southeast Operations

CONTACT NUMBER: 352-395-1351



The information requested above is necessary to update our files or to add your name to the County's vendor list. You are a vital part of the operation of Levy County and we want to thank you for your support. The information on this form will allow us to pay you for the goods and/or services we have received in a timely manner and give us the ability to contact the necessary person in case there is a problem or question in processing.

SCRUTINIZED CONTRACTORS CERTIFICATE

By executing this Certificate, the bidder certifies that it is not: (1) listed on the Scrutinized Companies that Boycott Israel List, created pursuant to section 215.4725, Florida Statutes, (2) engaged in a boycott of Israel, (3) listed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to section 215.473, Florida Statutes, or (4) engaged in business operations in Cuba or Syria. Pursuant to section 287.135(5), Florida Statutes, the County may disqualify the bid proper immediately or immediately terminate any agreement entered into for cause if the bidder is found to have submitted a false certification as to the above or if the Contractor is placed on the Scrutinized Companies that Boycott Israel List, is engaged in a boycott of Israel, has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or has been engaged in business operations in Cuba or Syria, during the term of the Agreement. If the County determines that the bidder has submitted a false certification, the County will provide written notice to the bidder. Unless the bidder demonstrates in writing, within 90 calendar days of receipt of the notice, that the County's determination of false certification was made in error, the County shall bring a civil action against the bidder. If the County's determination is upheld, a civil penalty shall apply, and the bidder will be ineligible to bid on any Agreement with a Florida agency or local governmental entity for three years after the date of County's determination of false certification by bidder.

As the person authorized to sign this statement, I certify that this firm complies fully with the above requirements.

DATE: 9/28/21

SIGNATURE: 

COMPANY: Perma-Fix of Florida, Inc.

NAME: Kevin Schmuggerow

(Typed or Printed)

ADDRESS: 1940 NW 67th Place
Gainesville
FL 32653

TITLE: Vice President, Southeast Operations

E-MAIL: kschmuggerow@perma-fix.com

PHONE NO.: 352-395-1351

