



9/20/2023

Sent via electronic mail and Certified Mail #7022333000049845464
Return Receipt Requested

Leon Kiana
City of Aniak
PO Box 189
Aniak, AK 99557

RE: Aniak Landfill 2023 Inspection Summary

Dear Mr. Kiana:

On June 6, 2023, I inspected the Aniak Class III Community Landfill on behalf of the Alaska Department of Environmental Conservation (ADEC) Solid Waste program. I appreciate the help that you, Charlie Lang, and Stephen Simeon provided while I was in the community. The Aniak Landfill is operated as an area-fill landfill under permit number SW3A126-24, **expiring 11/20/2024**.

The inspection results are recorded in the attached Community Waste Management Index which shows your percentage score in each of the solid waste management categories and a total inspection score. The Waste Index also provides information on the steps needed to improve your score in each area as you look right in each row. Overall, the Aniak Landfill received 100 out of 155 possible points for an **inspection score of 65%**. This is compared to 80% in 2017 and 47% in 2014. I have included a chart below that breaks down how your landfill scored in each category of the Community Waste Management Index. This letter is also accompanied by a 2023 Aniak Landfill Inspection Photo Report that includes figures referred to in the following paragraphs, some of which were included in the letter.

Category	2017	2023	
	Score	Points Awards/Points Available	Score
Landfill Site Control	87%	11/15	73%
Burning	NA	5/15	33%
Landfill Operations	82%	33/45	73%
Landfill Water Impacts	93%	12/15	80%
Special Waste Management	73%	24/45	53%
Administration	75%	15/20	75%
TOTALS	80%	100/155	65%

Bolded scores represent areas that are not protective of human health and the environment. A score of 70% is considered the lowest score that you can achieve and still be protective of human health.

Before I discuss improvements, I wanted to say that Aniak is doing a good job in several areas. You are maintaining the landfill road, keeping it accessible and free of litter (see Figure 4). Your landfill records are excellent and provide a good history of the landfill's management (see Figure 5). Your operators are also working hard to manage the landfill site and keep your landfill equipment in good working condition. While it is sad to see Greg Hager retire, I was happy to see your new employees Stephen Simeon and Francis Vaska attending the Rural Alaska Landfill Operator training we held in

Aniak while we were there (see Figure 6). With the right training and guidance from Charlie, I think they can help return Aniak's landfill to a place that is protective of human health and subsistence resources. This is a worthwhile and achievable goal.

Significant effort is needed at the Aniak Landfill to improve in the categories of Burning and Landfill Operations to protect the health of your residents and the surrounding environment. Based on the Waste Index, I would recommend addressing the following three issues immediately:

- **Control Burning at the Landfill** – There is evidence of open burning on the ground at the Aniak Landfill, which is prohibited by your permit and can produce harmful black smoke (see Figure 7). Most often, this issue is caused by staff or residents burning wood waste or pallets near or on other trash, which then catches the surrounding trash on fire. This is not allowable. You have two options: A) Do not let your staff burn at the Aniak Landfill and pass an ordinance to discourage/fine any resident caught doing it. B) Burn properly, within the rules laid out in your permit:
 - Purchase a burn unit to burn in or, less preferred, dig a sperate burn trench. My recommendation for a burn unit in Aniak is the #2 or #4 Summit Burn Cage from [Summit Consulting Services](#).
 - All burnable waste **MUST** be separated from general trash, kept dry, and burned separately in the trench or burn unit. **No burning of plastics, asphalts, rubber, tars, oily wastes, or other materials in a way that gives off black smoke.**
 - The burn unit or trench is loaded, lit & monitored **ONLY** by an operator in appropriate weather (low wind, not during a fire ban, after a recent rain, etc.)
 - Finally, **DO NOT BURN AT THE CONSTRUCTION AND DEMOLITION (C&D) CELL**. Construction and Demolition Debris often contains harmful compounds like asbestos, insulation, PCBs, lead piping, and industrial adhesives that become toxic smoke if burned.

- **Consolidate your trash and properly grade the landfill to shed water outside the landfill boundary.** The landfill is graded, but the grading doesn't adequately control ponding and run-off. Your operators are currently pushing new waste to the back northeast fenced boundary, causing water runoff to come into the landfill center. I recommend that they instead pull the waste from the back corner, consolidate the waste near the center, compact it, cover it, and grade it so that the waste slopes down out of the landfill. They can then work on compacting any new waste on that slope out from the center towards the rest of the dump site (see Figure 8).

- **Apply cover regularly.** Much of the trash at the Aniak Landfill is uncovered and exposed to the animals, flies, and rain. See Figure 9 for an example. First, work on getting regular supply of cover material from the Calista Corporation gravel pit and stockpile it at the landfill for use. Next, instruct your operators to apply cover regularly after consolidating any new waste and then compacting it. Applying cover in the middle of this procedure can lead to a marble effect of partially covered trash that sticks out of the ground. To avoid this, apply cover after consolidation and compaction have occurred. The marbling effect occurs most frequently with a dozer, so utilizing a different piece of equipment, such as a loader or excavator with a blade on it, can help create a smoot finish after cover is applied and graded. Additionally, begin to consolidate, compact, and cover any old waste that is exposed at the landfill. This will help with flies and windblown litter and will help shed water.

Once you can implement these three recommendations, the Aniak Landfill will be closer to compliance with the conditions of its permit and more protective of the health of its residents. As

discussed during my time in Aniak, these three recommendations can be achieved by establishing better control of the landfill. Control is established by setting regular hours at the landfill and closing and locking the gate outside of those hours. Outreach and education can also help develop community buy-in for the solid waste and recycling programs, and this can go a long way in preventing unauthorized dumping or burning. Many residents are willing to do the right thing, but without signage and clear instructions, it can be difficult for the public to know what you want them to do. Signs can be made with materials you already have available, so this is a low-cost option that you can implement right away. Small incremental positive changes can add up and make a big difference over time. Although there will be some growing pains among residents at locking the gate, this will reduce nefarious activity at the landfill and reduce the workload for your operators in cleaning up subsequent messes. Putting a large, after-hours drop-off bin at the gate can help those who are still adjusting to the regular hours, ideally one easy to empty into the landfill.

Once you have control of your landfill, here are some further recommendations that will help reduce the amount of harmful material that is going into the landfill:

- **Set up a compliant fridge/freezer disposal system with documented CFC removal.**
Staff are segregating the fridges and freezers (see Figure 10), but they are not removing and capturing the freon before disposal. This is a serious issue and one that has federal legal requirements (40 CFR 81.154-162). You can either 1) have your operators get training on freon removal and purchase a freon removal kit to properly collect the freon in pressurized containers before disposal of the appliances or 2) hire someone to come in and do freon-removal on a 3–5-year basis before crushing and disposing the appliances in the landfill. Total Reclaim in Anchorage sells a [Freon Removal kit](#) that includes all you need to get started.
- **Set up a household hazardous waste (HHW) (lead-acid batteries, fluorescent bulbs, solvents, paints, cleaners, glycol, pesticide) collection and backhaul system.** I understand that the Aniak Traditional Council (ATC) does a yearly week-long collection event for electronic waste and lead-acid vehicle batteries with Donlin Gold, timed around the barge schedule. This is a great idea and should be maintained, well-advertised and explained to users at the landfill. It's helpful to have a dedicated staging area at the landfill for electronics and batteries that can be brought to the collection event when the time comes. I suggest you partner with the ATC to do a similar staging area and collection event for the other listed HHW. It should be noted that you are doing an excellent job collecting used oil at the city shop and the fire station and burning it for energy recovery. Additionally, I will work with our contacts at Zender Environmental to enroll Aniak in a state-wide backhaul program called Backhaul Alaska.
- **Update your entrance sign to divert the above material.** Your entrance sign covers only part of what is required (see Figure 12). Please update your current sign to prohibit disposal of regulated hazardous waste, liquids over 1 gallon, and polychlorinated biphenyl (PCB) waste. You could also include where to take HHW, electronics, used oil and other things you are trying to divert from the landfill. I have attached an example set of entrance signs that we had made for Chalkyitsik.

Additionally, the Aniak Landfill has been expanding its boundaries, and recently opened a Construction and Demolition waste cell north of the fenced area to receive large project waste (see Fig. 2 below). This has been an excellent source of revenue for the landfill, and I would encourage you to continue to charge adequate tipping fees to any contractors disposing of waste there. As you expand, please be aware of your property boundaries, and make sure you remain in Tract 24 of the ANCSA 14(c) lands as was permitted (see the yellow arrow Figure 1). If you expand into Tract 25, you will need to submit a formal request for landfill expansion to our department.

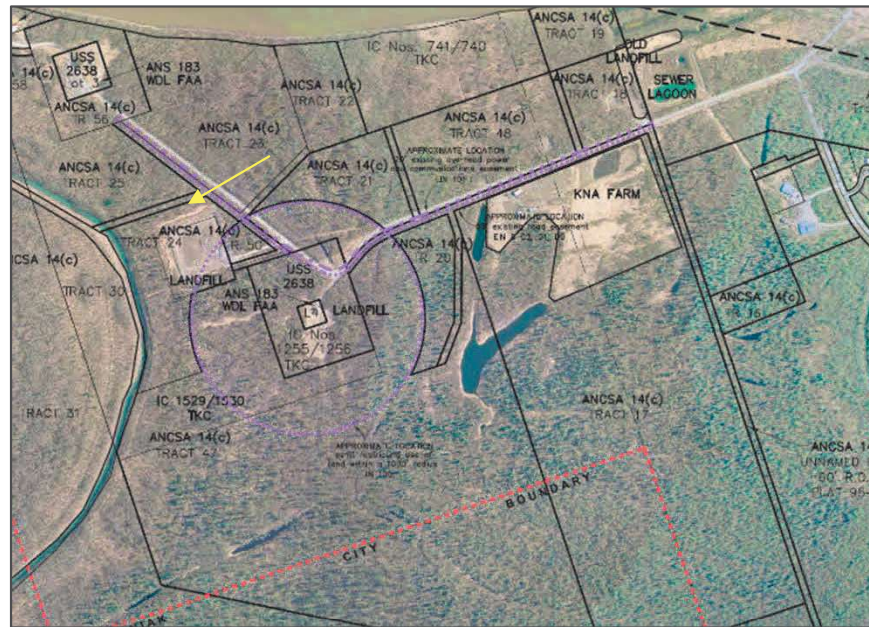


Figure 1: Yellow area denotes the property line that you need to remain within before formally applying for an expansion.

While expansion is a normal part of landfill operations, it is important to maintain control of this new area as well, especially considering the type of material that is going into that area. It is critical for any contractors disposing of waste in this landfill to identify RACM, non-RACM (asbestos), or other hazardous material during a [compliant building survey of the structure by an individual trained to identify these hazards](#). Any hazardous materials need to be removed before demolition and backhauled to a landfill permitted to accept that material. Your C&D cell cannot accept any asbestos-containing material, even non-regulated, if you continue to burn. Additionally, you will need to fence the area and clear a 50-foot buffer around the outside of the fence to limit fire risk. The City of Aniak could be financially liable if you don't have an adequate buffer. Finally, as you begin to demolish the Joe Parent Vocational Center, please send the Solid Waste Department the demolition plans, including a survey for asbestos or hazardous material, for plan approval before any material is disposed of. Please make sure that whatever contractor you hire understands the above disposal limitations, and any disposal costs.



Figure 2: C&D Cell

Finally, the City of Aniak has been collecting junk cars and other vehicles in an area further up the road on the right before the landfill, west of the sewage lagoon (see Figure 3 below). It is important to establish a procedure for fluid and battery removal from those vehicles before looking to dispose of them. You should plan to regularly backhaul the vehicles or bury them on site or at the landfill once you have removed the fluids and batteries. If you want to bury them on site, you will need to apply for an [inert waste monofill permit from our program](#). It may be easier to haul them to the landfill and dispose of them there, especially when you are getting ready to close certain sections of the landfill, as a crushed car makes a good cap, topped off with two feet of cover material. This vehicle disposal area can become a public safety issue if not controlled.



Figure 3: Junk Vehicle Disposal Area

One strategy that could help pay for some of these improvements is to establish a formal fee system for both commercial entities and residents, through city ordinance. This is an important step to establishing a regular source of funding for landfill operations and increasing buy-in amongst community members. You have done a good job charging commercial entities for disposal in the new C&D cell, and I would encourage you to remain consistent with all users. We discussed implementing a collection program as part of a fee roll out while I was there, to help justify to Aniak residents the need for the new residential fee. Our program, or your local government specialist in Bethel, Nicholas Martinez, (nicholas.martinez@alaska.gov, (907) 543-3475) can help you with the administrative parts of establishing a fee or waste collection program like this.

Please refer to the enclosed Community Waste Management Index form and Photo Report for other areas of improvement at your landfill. If you would like additional photos from the inspection, please let me know.

Thank you for your cooperation and dedication to improving the Aniak landfill and I appreciate you welcoming me into your wonderful community. I look forward to working with you to continue to improve solid waste management and compliance at the landfill and would appreciate if you would keep me informed of the progress you make on the recommendations above. I commend Greg Hager, your former Public Works Director, for his past efforts at the landfill, and wish him well in his retirement. I am excited to see what your newly trained operators do in the future. Please feel free to contact me at 907-451-2761 or by email at tait.chandler@alaska.gov if you have any questions or need any assistance.

Sincerely,

Tait Chandler
Rural Landfill Specialist

Attachments: 2023 Aniak Landfill Inspection Photo Report
2023 Aniak Community Waste Management Index
Chalkyitsik Entrance Sign examples

CC: Nicholas Martinez, Local Government Specialist Nicholas.martinez@alaska.gov
Lenore Kameroff, City of Aniak aniakcityfinance@gmail.com
Verdene Morgan, Aniak Traditional Council, verdenemorgan2003@yahoo.com