



May 15, 2025

Ms. Jessica Murphy
Manager, DWR Compliance and Enforcement Unit
Tennessee Department of Environment and Conservation
Davy Crockett Tower
500 James Robertson Pkwy, 9th Floor
Nashville, TN 37243

RE: Mount Pleasant May 2025 CAP/ER Status
Consent Order and Assessment, WPC 17-0004
City of Mount Pleasant

Dear Ms. Murphy:

In accordance with the requirements of the July 24, 2018, TDEC Consent Order and Assessment, WPC 17-0004, and the recently approved deadline extension request, a summary of the status of the corrective action plan / engineering report (CAP/ER) items is provided below.

As stated in previous consent order annual reports submitted to TDEC, the single CAP/ER item that remains for the City of Mount Pleasant to complete is the improvements at the wastewater treatment plant (WWTP). The WWTP construction project scope consists of rehabilitating a majority of the processes at the facility. A summary of the scope, broken down by facility area, is included in the attached table. The table also details the work that has been completed and the work remaining within that area.

During the last month, the work was completed to screen the mixed liquor in preparation for starting the membrane bioreactor (MBR) system. The re-screening process began in late April, and during the week of April 28th test results indicated that the re-screening process was successful. On May 6th, the contractor made the piping connection and initiated treatment with the MBR system. The system has been operating well while typical programming and mechanical issues are being resolved. A notice has been submitted to TDEC regarding updated permit limits based on the initiation of the MBR system. The contractor also completed the installation of the final new pump at the influent pump station. Over the next month from the date of this letter, the following construction progress is anticipated to be made:

- Continued refinement of the operation of the MBR system.
- Continued refinement of the overall plant SCADA system

Continued progress on punch list items. Photos of construction completed progress are included with this letter.

The current construction schedule shows approximately 2 months of duration following the initiation of the new MBR system.

If there are any questions regarding the attachments to this letter or if any additional information is needed, please contact me at 615-252-4236 or matthew.johnson@bargedesign.com.

Ms. Jessica Murphy
April 14, 2025
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Sincerely,

Barge Design Solutions, Inc.

A handwritten signature in black ink, appearing to read "Matthew Johnson".

Matthew Johnson, PE
Project Manager

c: Mr. Kareem Moxey, TDEC
Mr. Phillip Grooms, City of Mount Pleasant
Mr. Ted Howell, City of Mount Pleasant
Mr. Dale Brown, City of Mount Pleasant
Mr. Luke Burris, PE, Barge Design Solutions

Enclosures

Barge project # 34808-00

Plant Area	Scope	Work Completed	Work Remaining
Site	Repair disturbed areas, demolish of four older structures, install new sidewalks, asphalt paving of the plant driveway.	<ul style="list-style-type: none"> Disturbed areas have been repaired. Demolition of one structure. Final electrical and communication pull boxes and conduit. General grading and site clean up. 	<ul style="list-style-type: none"> Demolition of three structures. New sidewalks. Paving the driveway. Punch list items.
Influent Station	Pump Replace four pumps, select piping, and all associated instrumentation, controls, and electrical equipment.	<ul style="list-style-type: none"> Three new pumps are installed. Piping associated with pumps. New electrical gear, control panels, instrumentation are installed. Commissioned new pump. Installation and startup of final new pump. Completed 1 punch list items. 	<ul style="list-style-type: none"> New piping for return from lagoon system, including flow meter. Painting new piping. Install jib crane. Punch list items.
Headworks	Install new access platform, add overflow piping to screens, install concrete pad and trench drain for dumpster.	<ul style="list-style-type: none"> All items completed. 	<ul style="list-style-type: none"> Punch list items.
Treatment Basin 1	Install mixer, baffle wall, diffusers, sluice gate, effluent weir, dissolved oxygen (DO) probes, slide gate, splitter box	<ul style="list-style-type: none"> All items completed. Completed 2 punch list items. 	<ul style="list-style-type: none"> Punch list items.
Treatment Basin 2	Install mixer, baffle wall, diffusers, sluice gate, effluent weir, DO probes, PH probes, and slide gate.	<ul style="list-style-type: none"> All items completed. 	<ul style="list-style-type: none"> Punch list items.
Intermediate Mixed Liquor Recycle Pump Station	Replace existing pumps with new pumps, select piping, and all instrumentation, controls, and electrical equipment. Expand concrete area for valves and access.	<ul style="list-style-type: none"> All items completed. Completed installation of piping to allow additional screening prior to membranes. 	<ul style="list-style-type: none"> Punch list items.
Membrane Bioreactor and Equipment Building	Construct new building (shared with administration and lab) with tanks for MBR and rooms for equipment and chemicals. Systems include permeate pumps, return activated sludge (RAS) pumps, membrane blowers, backpulse tank, compressed air, sodium	<ul style="list-style-type: none"> All equipment, piping, instrumentation is installed and tested. MBR system commissioned and operational. Completed 12 punch list items. 	<ul style="list-style-type: none"> Additional controls/programming items to be finalized. Punch list items.

	hypochlorite and citric acid feeds, and instrumentation and controls.		
Administration and Lab Building	Construct new building (shared with MBR equipment) with lab, office, breakroom, bathroom, electrical room, and control room	<ul style="list-style-type: none"> • All items completed. 	<ul style="list-style-type: none"> • Punch list items.
Blower Building	Demolish existing blowers and generator. Install two process blowers, and two digester blowers. Replace main plant electrical feed and motor control centers (MCCs). Miscellaneous building improvements.	<ul style="list-style-type: none"> • All items completed. • Automation of aeration system. 	<ul style="list-style-type: none"> • Punch list items.
Digester	Install new 4-inch diameter ductile iron air piping, diffusers, sluice gate, check valve, and decant piping.	<ul style="list-style-type: none"> • Air piping installed. • Check Valve installed. 	<ul style="list-style-type: none"> • Correct sluice gate installation. • Decant piping. • Punch list items.
Lagoon Site	Install motor operated valve, piping to return flow to WWTP, SCADA panel.	<ul style="list-style-type: none"> • All items completed. 	<ul style="list-style-type: none"> • Punch list items.

Construction Progress Photos



1. Installing of piping into MBR system



2. Finishing site work



3. Adjusting basin weir elevations to alleviate scum build up.



4. Installing WAS piping.



5. Installing chemical piping.



6. MBR system in operation



7. Effluent from MBR system in chlorine contact basin