

**TEXAS MUNICIPAL POWER AGENCY
GIBBONS CREEK STEAM ELECTRIC STATION
COAL COMBUSTION RESIDUE SURFACE IMPOUNDMENTS**

INTRODUCTION

Coal combustion residue (CCR) ponds are required to be inspected annually by a qualified professional engineer in accordance with 40 CFR §257.83(b). This inspection occurred on December 16, 2020 accompanied by Daniel Meadows, TMPA Compliance Specialist.. The previous inspection report is dated December 4, 2019. Annual inspections and reporting is being performed by the end of each calendar year. CCR ponds at the Gibbons Creek Steam Electric Station (GCSES) include Ash Ponds A, B and C and the Scrubber Sludge Pond. It should be noted that the power plant is not operating at this time.

40 CFR §257.83(b) – Annual Inspection by a qualified professional engineer

§257.83(b)(1) Annual inspections by a qualified professional engineer are required for coal combustion residue (CCR) surface impoundments. These inspections must, at a minimum, include:

(i) Review of Available Information

CCR ponds located at the GCSES include Ash Ponds A, B and C and the Scrubber Sludge Pond. A review of available information is limited to a review of the annual inspection report from last year and available weekly inspection reports from January, 2020 through December, 2020. The ponds were originally constructed in 1977 and 1978. Issues noted in the weekly inspection reports generally duplicate the issues noted below from the visual inspection. The annual inspection was performed on December 16, 2020.

(ii) Visual Inspection of CCR Units

Ash Ponds

General: An inspection was performed on December 16, 2020 of Ash Ponds A, B and C. The ponds and embankments appear to be in overall good condition. Water levels in the Ash Ponds were lower than normal operating years due to lack of plant process water since plant shutdown (i.e. bottom ash transport and FGD blowdown) coupled with less leachate being pumped into them and low rainfall amounts during the year. Minor seepage was observed on the north bank of the ponds where piping is located just south of the Ash Pond pump complex. These areas are being monitored for changing conditions but continue to be stable (clarity and flow). Vegetation/grass should to be mowed and kept at 6 inch height or less. Most areas were properly mowed at the time of the inspection. Minor areas of wave action erosion at the water line should also be monitored and repaired if necessary. No new problems were observed since last year's inspection.

Scrubber Sludge Pond

General: An inspection of the Scrubber Sludge Pond was also performed on December 16, 2020. The pond and embankment appear to be in overall good condition. The water level was low due to low rainfall amounts and because the power plant is not operating (nothing is being pumped to

this pond). TMPA is intentionally keeping the pond's water level low. Vegetation needs to be mowed and kept at 6 inches height or less. Most areas were properly mowed at the time of the inspection. Some brush and vegetation is growing through the holes in the liner. A few small animal burrows were observed that should be monitored and repaired but are not a problem at this time. No new problems were observed since last year's inspection. Plant personnel indicated that the pond will continue to be pumped out to keep the water level low.

(iii) Visual Inspection of any hydraulic structures underlying the base of the CCR Units or passing through the dike of the CCR units

Based on available copies of the original site plans, there is underground piping under the south and north ends of the Ash Ponds and along the most eastern side of Pond A. Concrete box culverts are located at the north and south ends of the interior dikes to allow overflows between Ponds C and B and Ponds B and A. Drop inlets are located at the south ends of the interior dikes that accept overflows (above elevation 266.0 ft-msl) and take the effluent to the Ash Pond pump house. A visual inspection of these areas indicated no apparent signs of any problems other than minor seepage along the north bank between the ponds and pump station complex. According to plant personnel, this seepage is not new and is continuing to be monitored during routine inspections.

(2) Inspection Report

The inspection was performed on December 16, 2020 by Wayne B. Godsey, P.E.. In accordance with §257.83(b)(2), the following items are addressed:

(i) Any changes in geometry of the impounding structure since the previous annual inspection.

No significant changes in the geometry of Ash Ponds A, B or C are noted since their original construction with the exception of a rail spur loop that was constructed around the ponds in the mid 1990's. The Scrubber Sludge Pond geometry also appears to be the same as originally constructed except that a liner was installed over the clay liner in 1983.

(ii) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection.

Instrumentation consists of staff gage's to measure the water levels.

(iii) The approximate minimum, maximum and present depth and elevation of the impounded water and CCR since the previous annual inspection.

<u>Pond</u>	<u>Minimum Depth (ft)</u>	<u>Maximum Depth (ft)</u>	<u>Current Depth (ft)</u>	<u>Minimum Elevation¹</u>	<u>Maximum Elevation¹</u>	<u>Current Elevation¹</u>
Sludge Pond ²	1.0	17.0	1.0	261.0	277.0	261.0
Ash Pond A	16.1	18.5	16.1	266.1	268.5	266.1
Ash Pond B	16.1	18.5	16.1	266.1	268.5	266.1
Ash Pond C	16.1	18.5	16.1	266.1	268.5	266.1

¹ Elevation in ft-msl

² The Plant has maintained a low water level in 2020. CCR solid material elevation, at its highest point, is approximately 2 feet below the embankment (277 ft-msl).

Water surface elevations for 2020 were provided by plant personal as reported in the regular inspection reports. The current elevations were obtained during the site inspection. The Ash Ponds typically equalize so the depth and elevation numbers are the same for each cell.

(iv) The storage capacity of the impounding structure at the time of the inspection.

The capacities shown are to the top of the perimeter berm elevations. Top of berm elevations are 270.0 ft-msl for the Ash Ponds and 279.0 ft-msl for the sludge pond. Originally constructed pond bottom elevations are 250.0 ft-msl for the ash ponds and 260.0 ft-msl for the Scrubber Sludge Pond. The approximate storage capacity of the Ash Ponds is 150 ac-ft per cell and 115 ac-ft for the Scrubber Sludge Pond.

(v) The approximate volume of the impounded water and CCR at the time of the inspection.

<u>Pond</u>	<u>Approx. Volume (acre-feet)</u>
Scrubber Sludge Pond	79
Ash Pond A	118
Ash Pond B	118
Ash Pond C	118

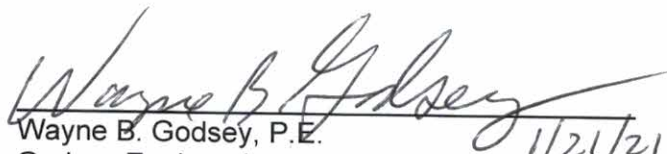
(vi) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures.

There were no appearances of structural weakness conditions of the CCR units at the time of inspection other than the liner issues noted on the Scrubber Sludge Pond and minor seepage noted on the Ash Ponds. These conditions will continue to be monitored during all inspections.

(vii) Any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection.

To my knowledge, there were no recent changes noted or observed that have affected the stability or operation of the CCR units except that the Scrubber Sludge Pond has had most of the water pumped out and will continue to stay pumped out. The plant is not operating at this time. Nothing is being pumped into the sludge pond. Only small amounts of leachate and water from the Plant Collection Pond were being pumped to the Ash Ponds during 2020.

This inspection report was prepared by:


Wayne B. Godsey, P.E.
Godsey Engineering
Texas Firm Registration No. F-5593

