



NRG Texas Power LLC
W. A. Parish Station, Units 5, 6, 7, & 8

Analysis of Hydrologic and Hydraulic Capacity for CCR Surface Impoundments

Prepared by



Revised by



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1 PURPOSE

Pursuant to 40 CFR 257.82(c), this document serves as the revised written inflow design flood control system plan for the existing coal combustion residual (CCR) surface impoundments at NRG Texas Power LLC’s (NRG) W. A. Parish Station. Based on the applicability criteria of 40 CFR 257.82(a), the following CCR surface impoundments are addressed herein:

- FGD Emergency Pond, and
- Air Preheater Pond.

2 RESULTS AND CONCLUSIONS

The inflow design flood control system was analyzed for each surface impoundment to assess how the inflow design flood was collected and managed in each CCR unit. The results from this analysis are summarized below for each CCR surface impoundment.

CCR Unit	Hazard Potential Classification	Design Flood Event ¹	Total Storm Water Inflow (cu. Ft.)	Estimated Available Volume (cu. Ft.)	Top of Surface Impoundment Dike Elevation (ft)
FGD Emergency Pond	N/A (Incised)	25-year	71,221	96,240	71.0
Air Preheater Pond	Low	100-year	93,352	191,380	75.0

1 - NOAA Atlas 14, Volume 11, Version 2 from NOAA Hydrometeorological Design Studies Center, Precipitation Frequency Data Server (PFDS)

Both CCR surface impoundments are able to collect and control the inflow design flood events specified by 40 CFR 257.82(a)(3). The dikes of each surface impoundment are not overtopped since the estimated volume from the inflow design flood remains lower than the top of dike elevation.

3 CERTIFICATIONS

This inflow design flood control system plan meets the requirements of 40 CFR 257.82(c).

I certify that this document was revised by me or under my supervision and that I am a registered professional engineer under the laws of the State of Texas.

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