



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

## Hazard Potential Classification Assessment of CCR Surface Impoundments

Prepared by



Revised by



14701 St. Mary's Lane, Suite 500  
Houston, TX 77079

Rev. 1

Issue Date: September 30, 2016

Revision Date: August 9, 2021

## 1 PURPOSE

This document provides the five-year review of the hazard potential classification assessment for the coal combustion residual (CCR) surface impoundments at NRG Texas Power LLC's (NRG) W. A. Parish Station for compliance with 40 CFR 257.73(a)(2). Based on its applicability criteria, 40 CFR 257.73(a)(2) applies to the Air Preheater Pond at W. A. Parish Station.

## 2 BASIS FOR HAZARD POTENTIAL CLASSIFICATION

This assessment considered hypothetical dike breaches at any of the Air Preheater Pond's dikes regardless of potential causes and/or apparent dike stability. The surface impoundment was considered to be filled with liquid to its design depth at the time of the hypothetical failure.

### 2.1 POTENTIAL FOR LOSS OF HUMAN LIFE

The following items were considered when evaluating the potential for a general loss of human life should a hypothetical failure or mis-operation occur at the Air Preheater Pond:

- Absence of nearby residences, business, and public buildings,
- Absence of nearby campgrounds and public spaces, and
- Proximity to public roads and/or highways.

The Air Preheater Pond's southeastern dike is approximately parallel to Smithers Lake Road, which is a two-lane paved road that is traversable by the general public. In general, the adjacent ground surface rises from the dike's toe towards NRG's property line before sloping down towards Smithers Lake Road. In addition, the station access road and rail lines between the Air Preheater Pond and Smithers Lake Road generally slope down towards the south. Thus, the adjacent topography should preclude the roadway from being inundated by a release from a breach of the Air Preheater Pond. Therefore, a loss of human life along Smithers Lake Road is not probable.

Based on the preceding observations, the loss of human life in areas accessible to the general public is not probable should a hypothetical failure or mis-operation occur at the Air Preheater Pond.

The following items were considered when evaluating the potential for loss of Station personnel lives should a hypothetical failure or mis-operation occur at the Air Preheater Pond:

- Absence of plant facilities,
- Frequency of station personnel activity near the impoundment, and
- Proximity to station rail lines.

Although the surface impoundment is not located near any significant Station facilities or other areas regularly occupied by Station personnel, it is situated near two rail lines. The traffic traveling on these rail lines consists of rail cars delivering coal to the Station. Although the close proximity of the rail lines to the surface impoundment – one approximately 90 feet to the north and the other approximately 50 feet to the southeast – makes it probable that debris resulting from a breach would interfere with rail operations, human activity on these rail lines during such a hypothetical failure is not probable. Thus, the loss of human life along these rail lines is not probable.

Per the preceding observations, a loss of human life is not probable should a hypothetical failure or mis-operation occur at the Ash Preheater Pond.

## **2.2 POTENTIAL FOR ECONOMIC & ENVIRONMENTAL LOSSES**

The following items were considered when evaluating the risks of economic and environmental losses should a hypothetical failure or mis-operation occur at the Air Preheater Pond:

- Potential damage to and/or disruption of nearby rail lines,
- Proximity to NRG's property line,
- Topography adjacent to the Air Preheater Pond, and
- Probable extent of areas impacted by released CCR.

Due to the close proximity of the aforementioned rail lines to the Air Preheater Pond's dikes, a hypothetical failure has the potential of depositing materials onto these rail lines that could temporarily prevent the delivery of coal to the station. The resulting impact to the Station's power generating operations should be minimal, however, as the facility should have an adequate storage of coal available on site to overcome a delay in its coal delivery schedule while the rail lines are being cleaned, repaired, and/or replaced.

The Air Preheater Pond's southeastern dike is situated approximately 100 feet northwest of NRG's property line, which is marked by a chain-link fence. As previously discussed, the topography of the ground surface adjacent to this dike should make it unlikely for flow resulting from a hypothetical breach to extend beyond NRG's property line. Thus, should a hypothetical failure or mis-operation occur at the Air Preheater Pond, any subsequent losses should be principally limited to NRG's property.

## **2.3 SUMMARY OF HAZARD POTENTIAL CLASSIFICATION ASSESSMENT**

A hypothetical failure or mis-operation at the Air Preheater Pond results in no probable loss of human life and low economic and/or environmental losses that are principally limited to NRG's property.

## **3 CONCLUSION**

A "low hazard potential" classification has been assigned to the Air Preheater Pond at the W. A. Parish Station in accordance with 40 CFR 257.73(a)(2).

#### 4 CERTIFICATION

This five-year renewal hazard potential classification assessment meets the requirements of 40 CFR 257.73(a)(2).

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.

Name: Bruce M. Daniel

(seal)

Registration No.: 48121

State: TX

Firm Registration: 3775, TRC Environmental

Signature: *Bruce M. Daniel*

Date: 8/9/21

