

# INFLOW DESIGN FLOOD CONTROL PLAN

**CFR 257.82**

Wastewater Sludge Pond - CCR Surface Impoundment

Oklaunion Plant  
Vernon, Texas

December 2022

Prepared for: Oklaunion Industrial Park, LLC

Vernon, Texas

Prepared by: Burns & McDonnell Engineering Company, Inc.

Kansas City, Missouri

**PROFESSIONAL ENGINEER CERTIFICATION**

This Inflow Design Flood Control Plan fulfills the CCR Rule requirements for 40 CFR 257.82.

I, Jeffery L. Pope, P.E., a registered professional engineer in the State of Texas, do hereby certify, to the best of my knowledge, information, and belief, that the information contained in this certification has been prepared in accordance with the accepted practice of engineering and is based on my review of the Inflow Design Control Flood Plan (December 2022). I certify that this Inflow Design Control Flood Plan for the Oklaunion Power Station Wastewater Sludge Pond meets the requirements of 40 CFR § 257.82.

**Jeffery L. Pope**

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Printed Name of Professional Engineer

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Signature

89750  
Registration No.

Texas  
Registration State

12/2/2022  
Date

Stamp/Seal:



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### **Attachment A – Oklaunion Industrial Park Letter**

## **1.0 OBJECTIVE**

***40 CFR §257.82 (a) The owner or operator of an existing ... CCR surface impoundment ... must design, construct, operate, and maintain an inflow design flood control system as specified in paragraphs (a)(1) and (2) of this section. (1) The inflow design flood control system must adequately manage flow into the CCR unit during and following the peak discharge of the inflow design flood specified in paragraph (a)(3) of this section. (2) The inflow design flood control system must adequately manage flow from the CCR unit to collect and control the peak discharge resulting from the inflow design flood specified in paragraph (a)(3) of this section. (3) The inflow design flood is: (i) For a high hazard potential CCR surface impoundment, ..., the probable maximum flood; (ii) For a significant hazard potential CCR surface impoundment, ..., the 1,000-year flood; (iii) For a low hazard potential CCR surface impoundment, ..., the 100-year flood; or (iv) For an incised CCR surface impoundment, the 25-year flood. (b) Discharge from the CCR unit must be handled in accordance with the surface water requirements under §257.3-3.***

This report was prepared by Burns & McDonnell Engineering to fulfill requirements of CCR 257.82 for the hydrologic and hydraulic evaluation of CCR surface impoundment Wastewater Sludge Pond.

## **2.0 DESCRIPTION OF THE CCR UNIT**

The Oklaunion Power Station is located near the City of Vernon, Texas. The Wastewater and Sludge Pond (WWSP) is one of five surface impoundments used for the disposal of CCR. The WWSP is located at the south-central edge of the main evaporation pond complex of the generating station. It is formed by a side hill embankment approximately 25-feet in height and encompasses 23-acres. The pond was constructed as a continuous up ground earthen embankment with 3H:1V inboard and outboard slopes and crest width of 20 feet. The Wastewater Sludge Pond, based on the geometry of its design, does not receive any run-on from the surrounding areas. There is no uncontrolled storm water runoff that enters the Wastewater Sludge Pond. The only flows that enter the Wastewater Sludge Pond are direct rainfall on the surface of the pond. The operational pipes that previously carried the CCR sluice material to the Wastewater Sludge Pond were cut and blind-flanged in 2020. The Wastewater Sludge Pond does not have any outlet structures or spillways and relies on evaporation to manage water in the impoundment. The impoundment retains the CCR wastes deposited after it is sufficiently dry.

The embankment dams within this report do not fall under the Texas Dam Safety Jurisdiction therefore they do not contain a state identification number.

## **3.0 INFLOW DESIGN FLOOD 257.82(a)(3)**

The Wastewater Sludge Pond is classified as a Low Hazard Potential Dams. Therefore, the Inflow Design Flood is the 100-year flood.

## **4.0 DISCHARGE FROM THE CCR UNIT 257.82(b)**

***40 CFR §257.82(b) provides that the discharge from the CCR unit must be handled in accordance with the surface water requirements under 40 CFR §257.3-3, which states the following: (a) For purposes of section 4004(a) of the Act, a facility shall not cause a discharge of pollutants into waters of the United States that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES) under section 402 of the Clean Water Act, as amended. (b) For purposes of section 4004(a) of the Act, a facility shall not cause a discharge of dredged material or fill material to waters of the United States that is in violation of the requirements under section 404 of the Clean Water Act, as amended. (c) A facility or practice shall not cause non-point source pollution of waters of the United***

*States that violates applicable legal requirements implementing an areawide or Statewide water quality management plan that has been approved by the Administrator under section 208 of the Clean Water Act, as amended. (d) Definitions of the terms Discharge of dredged material, Point source, Pollutant, Waters of the United States, and Wetlands can be found in the Clean Water Act, as amended, 33 U.S.C. 1251 et seq., and implementing regulations, specifically 33 CFR part 323 (42 FR 37122, July 19, 1977).*

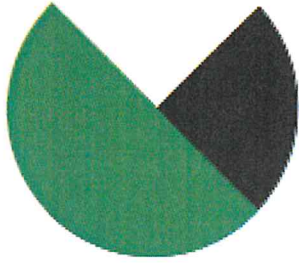
The Wastewater Sludge Pond does not have any outlet structures or spillways and relies on evaporation to manage water in the impoundment. The impoundment retains the CCR wastes deposited after it is sufficiently dry.

## **5.0 FLOOD CONTROL PLAN 257.82(c)**

As briefly noted, the only inflow to the Wastewater Sludge Pond is direct rainfall on the surface of the pond. The Wastewater Sludge Pond has been permitted by the TCEQ as a wastewater pond. The TCEQ requires that a 2-ft minimum freeboard be maintained during normal operations of all wastewater ponds. Therefore, the Wastewater Sludge Pond operates with a minimum of 2-feet of freeboard. The 100-year, 24-hour rainfall event is approximately 9 inches. In addition, the plant has the ability to install temporary pumping systems to empty the water within the ponds if necessary. Therefore, the Wastewater Sludge Pond has adequate capacity to store the required inflow design flood based on maintaining a 2-ft freeboard during normal operating conditions.

**ATTACHMENT A**

**Oklahoma Industrial Park  
Letter**



# OKLAUNION INDUSTRIAL PARK

September 6, 2022

Job Number: 20-0005

To Whom It May Concern:

Frontier Industrial Corp. has removed all Sulci pipes that transported CCR waste from the Oklaunion Powerplant to CCR ponds located on Site. They were cut and blind flanged prior in December 2020 shortly after Oklaunion Industrial Park LLC (OIP) purchased the Site. Also, as part of the purchase agreement the plant can never run again utilizing coal and is in the process of converting to run on natural gas. Thus, no material has been placed in the CCR ponds since 2020

The only liquid that presently enters the CCR ponds is from rainwater. The accumulated rainwater is not discharged it is removed by evaporation.

If there are any questions on this submittal, feel free to contact me at your earliest convenience.

Jeffrey D. Wind

Environmental Compliance Manager

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