



**REPORT**

**2023 Annual Inspection Report for  
CCR Surface Impoundment**

*Gulf Clean Energy Center Gypsum Storage Area*

*Pensacola, Florida*

Submitted to:

**Florida Power & Light Company**

Submitted by:

**WSP USA Inc.**

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January 19, 2024



## Distribution List

Florida Power & Light Company

WSP USA Inc.

## INTRODUCTION

WSP USA Inc. (WSP; formerly known as Golder Associates USA Inc.) performed the annual inspection for a coal combustion residuals (CCR) surface impoundment at the Gulf Clean Energy Center (GCEC) Gypsum Storage Area, located in Pensacola, Florida. This facility is owned and operated by Florida Power & Light Company (FPL). The inspection, conducted on November 15, 2023, and this report are intended to meet the requirements of 40 CFR §257.83(b). WSP's inspection was performed by Kevin S. Brown, PE.

The Gulf Clean Energy Center Gypsum Storage Area is currently inactive following the facility ceasing coal fired operations in October 2020 and is undergoing engineering design evaluation for closure by removal in accordance with 40 C.F.R. §257.102(c). A notice of intent to initiate closure dated March 9, 2023 has been placed in the facility's operating record.

## REVIEW OF AVAILABLE INFORMATION – §257.83(b)1(i)

In accordance with §257.83(b)1(i), WSP reviewed available information regarding the status and conditions of the GCEC Gypsum Storage Area. The documents reviewed included:

- Closure Plan (Rev. 01 October 2021) – Gulf Clean Energy Center Gypsum Storage Area
- Structural Stability Assessment (Rev. 01 October 2021) – Gulf Clean Energy Center Gypsum Storage Area
- Safety Factor Assessment (Rev. 01 October 2021) – Gulf Clean Energy Center Gypsum Storage Area
- Hazard Potential Classification (Rev. 01 October 2021) – Gulf Clean Energy Center Gypsum Storage Area
- Inflow Design Flood Control System Plan (October 2021) – Gulf Clean Energy Center Gypsum Storage Area
- History of Construction (November 2021) – Gulf Clean Energy Center Gypsum Storage Area
- Emergency Action Plan (April 2022) – Gulf Clean Energy Center Gypsum Storage Area
- Report of Annual Inspection 2022 (January 2023) – Gulf Clean Energy Center Gypsum Storage Area

## INSPECTION SUMMARY – §257.83(b)1(ii) AND §257.83(b)1(iii)

WSP conducted a visual inspection of the GCEC Gypsum Storage Area on November 15, 2022. The inspection evaluated the geometry and conditions of the impoundment, exterior slopes, erosion and vegetative conditions, stormwater management controls, placement of coal combustion residuals (CCR), slope stability, and any other signs of distress or malfunction.

## CHANGES IN GEOMETRY – §257.83(b)2(i)

Since the past annual inspection, there were no observed changes in the geometry of the impounding structure.



**Figure 1: GCEC Gypsum Storage Area Aerial - 2023**

### **INSTRUMENTATION – §257.83(b)2(ii)**

There is currently no instrumentation equipment installed at GCEC Gypsum Storage Area. As such, there are no recorded readings of instruments since the previous annual inspection.

### **APPROXIMATE WATER AND CCR VOLUME– §257.83(b)2(iii)**

The approximate minimum and maximum depths of impounded water as of the previous annual inspection, as well as the present depth of impounded water as of November 15, 2023, are presented in Table 1 below. Note that the current area of impounded water (at the time of inspection) is localized within the center of the impoundment and the elevation is estimated based on visual observation. Similarly, the minimum depth of impounded water is assumed to be less than 3 feet as represented by current conditions while the maximum depth is estimated from discoloration of the liner on the side slope at the time of the latest inspection.

**Table 1: Impounded Water at GCEC Gypsum Storage Area – 2023**

Minimum Depth:	< 3 ft
Minimum Elevation:	~ 3 ft
Maximum Depth:	~ 12 ft
Maximum Elevation:	~ 41 ft-MSL(based on NAVD-88)
Present Depth:	< 3 ft
Present Elevation:	~32 ft-MSL

The approximate minimum and maximum depths of CCR as of the previous annual inspection, as well as the present depth of impounded CCR as of November 15, 2023, are presented in Table 2 below. Note that gypsum is actively being excavated for beneficial reuse; thus, the surface of the gypsum within the impoundment varies. The values provided below are estimated from comparing visual observations of gypsum grades to the design plan and the elevations have been corrected to mean sea level based on NAVD-88. Note that the maximum depth and elevation are based on localized stockpiles at the time of inspection, while the minimum depth and elevation are based on visual observation of areas with minimum amounts of gypsum.

**Table 2: Impounded CCR at GCEC Gypsum Storage Area – 2023 (All Elevations are Approximate)**

Minimum Depth:	2 ft
Minimum Elevation:	30 ft-MSL
Maximum Depth:	19 ft
Maximum Elevation:	52 ft-MSL
Present Depth:	4 ft (average)
Present Elevation:	32 ft-MSL

**STORAGE CAPACITY– §257.83(b)2(iv)**

The impoundment capacity of the GCEC Gypsum Storage Area at the time of the inspection is estimated to be approximately 251,680 cubic yards based on the current geometry of the impoundment.

**APPROXIMATE CCR AND WATER VOLUME – §257.83(b)2(v)**

The volume of materials in the GCEC Gypsum Storage Area at the time of the inspection is estimated to be approximately 5,700 cubic yards of impounded water and 115,000 cubic yards of impounded CCR. The volume of impounded water is estimated from visual inspection and estimate of the area of impounded water times the estimated depth of water. The volume of impounded water is not based on survey information.

## STRUCTURAL WEAKNESS AND DISRUPTING CONDITIONS – §257.83(b)2(vi)

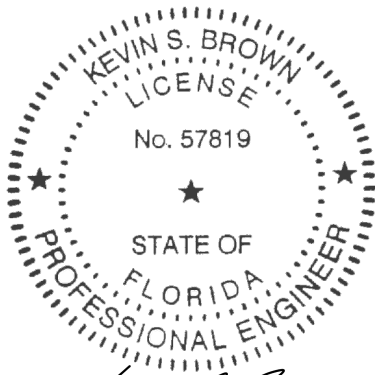
No indications of actual or potential structural weakness were noted during the November 15, 2023 inspection or during the review of available information.

## CHANGES AFFECTING STABILITY OR OPERATIONS – §257.83(b)2(vii)

Based on the November 15, 2023 inspection and review of available information, no changes from the previous inspection that may affect the operations or stability of the GCEC Gypsum Storage Area were observed.

## CERTIFICATION

Based on the review of the available information noted above and of the observations and results of the annual inspection, it is my professional opinion that this report has been completed in accordance with 40 CFR 257.83(b).



This item has been digitally signed and sealed by Kevin Brown on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Jan. 19, 2023

Kevin S. Brown, PE  
 Director, Civil Engineer  
 Florida Professional Engineer No. 57819

Date

KSB/LS/ljs



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