ENVIRONMENTAL MANAGEMENT SERVICES, INC.

October 12, 2016

Mr. Brian Hocutt
South Mississippi Electric Power Association
P.O. Box 15849
Hattiesburg, MS 39402

Re: Hazard Potential Classification Assessment – CCR Impoundments
R.D. Morrow Power Generating Plant
Purvis, Lamar County, Mississippi

Dear Mr. Hocutt:

South Mississippi Electric Power Association (SMEPA) retained Environmental Management Services, Inc. (EMS) to perform a "Hazard Potential Classification Assessment" for the R.D. Morrow Sr. Generating Station Emergency Scrubber Surge Pond and Scrubber Supply Pond (surface impoundments) located as shown on Figure 1. The purpose of this classification assessment is to provide SMEPA with current information relative to the potential loss of human life, in addition to potential economic, environmental, and infrastructure losses in terms of possible adverse incremental consequences related to failure of the impoundments in accordance with the federal Coal Combustion Residual Rule (CCR Rule) 40 CFR 257 that was finalized on April 17, 2015.

Site Information

The R.D. Morrow Sr. Generating Station is located near Purvis in Lamar County, Mississippi just north of Old Okahola School (Okahola) Road. The subject surface impoundments are located just south of the main power block and are located such that discharges or overflows would be conveyed by overflow piping to the Coal Pile Runoff Collection Area immediately down gradient (to the south) from the subject surface impoundments. Discharge or overflow from the Coal Pile Runoff Collection Area is conveyed via culvert to Pond 4A which is separated from the Coal Pile Runoff Collection Area by a large railroad spur embankment. The railroad spur is owned by SMEPA and serves to allow storage/routing of rail cars used to deliver coal to the facility. Downstream of Pond 4A is Okahola Road which is a county-maintained paved public road. Excess water from Pond 4A is routed via culvert underneath Okahola Road to the Cooling Tower Blowdown Pond, from where it is eventually discharged under the provisions of a NPDES permit.

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Background

The hazard potential classification for a dam (i.e., impoundment) is intended to rank dams in terms of potential losses to downstream interests if the dam should fail for any reason. The classification is based on the incremental adverse consequences (pre- vs. post event) of failure or mis-operation of the dam, and has no relationship to the current structural integrity, operational status, flood routing capability, or safety condition of the dam or its appurtenances. The hazard potential classification is based on potential adverse impacts/losses in four categories: environmental, infrastructure, economic, and/or human life.

The selection of a hazard potential classification for a dam is made using a phased approach utilizing three levels of effort: presumptive, incremental hazard assessment (dam break studies), and risk-based assessment. It is intended that the engineer making the classification determination will proceed from the simplest method (presumptive) using existing data and field reconnaissance, to the most complex (risk based assessment) in a step sequence. In most cases, all three methods will not be required.

The hazard potential classification for a dam may change over time. New downstream development, raising of a dam to increase storage, the finding of an endangered or threatened plant or animal species, revisions to National Weather Service Hydro-meteorological Reports, or downstream land use changes could warrant changing the hazard potential classification of the dam. Thus, it will be necessary to periodically review and update the classification of each dam based on the prior documented classification. The owner or operator of the CCR unit must conduct and complete/review the hazard potential classification assessment every five years. The date of completing the initial assessment is the basis for establishing the deadline to complete the first subsequent assessment.

This assessment was performed in accordance with 40 CFR §257.73 (Hazard Potential Classification Assessments) regarding the disposal of Coal Combustion Residuals (CCR) from electric utilities. From the preamble of the rule, the following definitions apply:

Low Hazard Potential—Dams assigned the low hazard potential classification are those where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the owner's property.

Significant Hazard Potential—Dams assigned the significant hazard potential classification are those dams where failure or mis-operation results in no probable loss of human life, but can cause economic loss, environment damage, disruption of lifeline facilities, or impact other concerns. Significant hazard potential classification dams are often located in predominantly rural or agricultural areas, but could be located in areas with population and significant infrastructure.

High Hazard Potential—Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life.

Hazard Classification

Based on the definitions above, CCR Surface Impoundment classifications outlined in CFR 40 Part 257, and review of inspection reports, instrumentation data, plans and other engineering-related documentation pertaining to the design, construction, operation, and maintenance of the impoundments, the Emergency Scrubber Surge Pond and Scrubber Supply Pond (surface impoundments) Hazard Potential is classified as **"LOW"**. This classification rating is based on engineering judgment, review of the above-mentioned documents and data, and the engineer's visual field inspection of the impoundments and surrounding topography. Key rating criteria used in the hazard potential classification assessment should either or both of the surface impoundments fail included:

- Loss of human life is NOT expected
- Economic and environmental losses would be low and limited to SMEPA's property
- Downstream areas are SMEPA owned and undeveloped
- Other downstream structures are in place that would contain the maximum volume to SMEPA property and prevent public roadway damage
- Flowrates/Instrumentation Readings
- Recent annual inspection reports noted no impoundment issues based on visual observations for the embankments, interior/exterior slopes, or outlet works.

Certification

I hereby certify, as a Professional Engineer in the State of Mississippi, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by South Mississippi Electric Power Association or others without specific verification or adaptation by the Engineer. This Hazard Potential Classification was conducted in accordance with the requirements of 40 CFR Part 257 §73.

Christopher Taylor Johnson, P.E. MS #15761
Qualified Professional Engineer

Date: 10/12/2016

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Should you have any questions regarding this document please contact the undersigned at (601) 544-3674. We appreciate the opportunity to assisst SMEPA on this project.

Sincerely,
Environmental Management Services, Inc.

Chris T. Johnson, P.E., P.S.

Enclosures

EMS Project No. SOU2-16-002

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FIGURES

REVISIONS		
REV	DATE	REMARKS

N

SCALE 1 INCH = 1500 FEET

375 750 1500

0 375 750 1500 3000

GRAPHIC SCALE

LEGEND

SMEPA PROPERTY BOUNDARY

CAP BOUNDARY

REFERENCE: 7.5 MIN. SERIES TOPOGRAPHIC MAP
PURVIS, MISSISSIPPI

ENVIRONMENTAL MANAGEMENT SERVICES, INC.
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PREPARED FOR

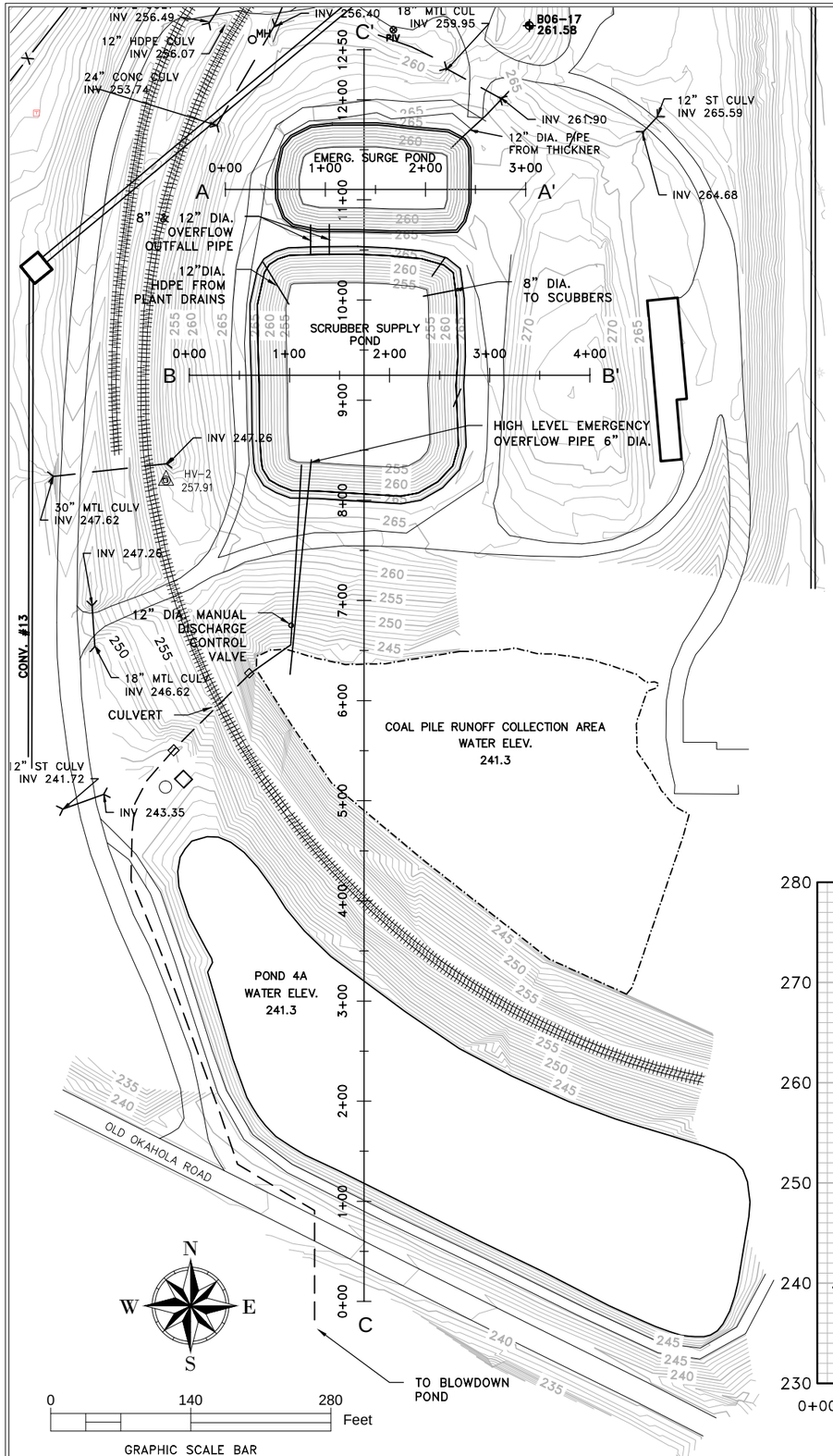
SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION
P.O. BOX 15849
HATTIESBURG, MS 39404-5849

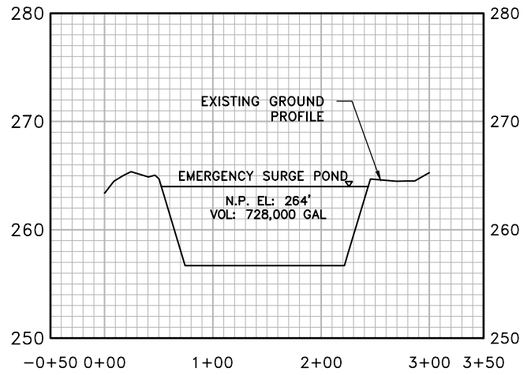
SHEET TITLE

SITE LOCATION

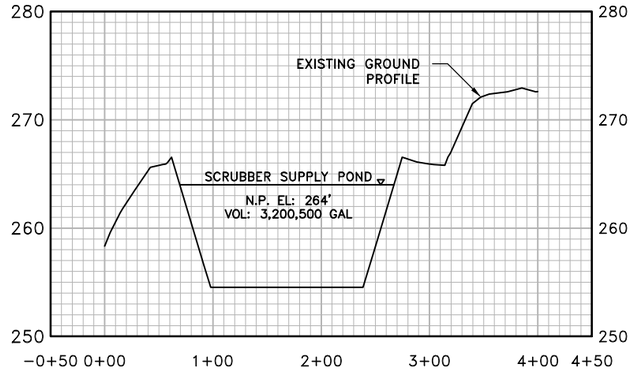
R.D. MORROW SR. GENERATING STATION
PURVIS, MISSISSIPPI

DATE	10/11/2016
SCALE	1" = 1500'
DRAWN BY	PDM
PROJECT NO.	SOU2-16-002
SHEET NO.	1

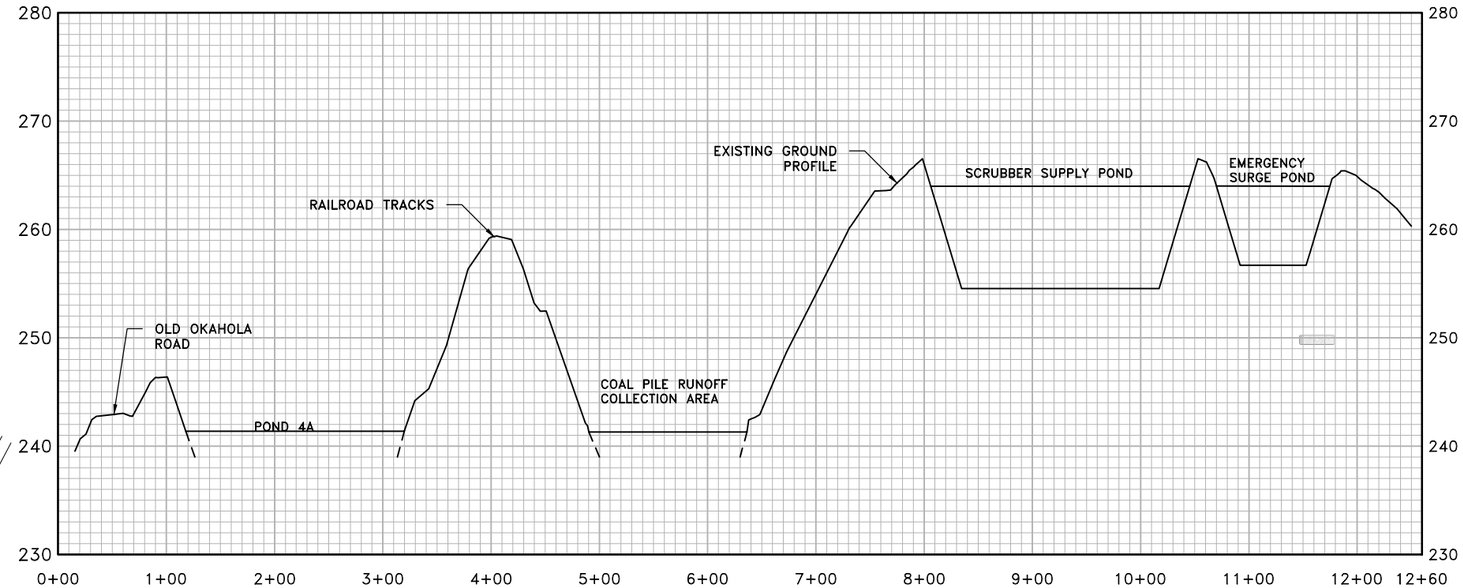




SECTION A - A'



SECTION B - B'



SECTION C - C'

ENVIRONMENTAL
MANAGEMENT SERVICES, INC.
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PREPARED FOR

SOUTH MISSISSIPPI ELECTRIC
POWER ASSOCIATION
P.O. BOX 15849
HATTIESBURG, MS 39404-5849

SHEET TITLE

CCR IMPOUNDMENT PLAN-PROFILE

R.D. MORROW SR. GENERATING STATION

DATE	10-06-2016
SCALE	AS SHOWN
SHEET NO.	2
PROJECT NO.	SOU2-16-002