



40 CFR Parts 257

Checklist for P.E. Annual Inspection for CCR Surface Impoundments, § 257.83(b)

Sikeston BMU Sikeston Power Station Bottom Ash Surface Impoundment

Annual Inspection

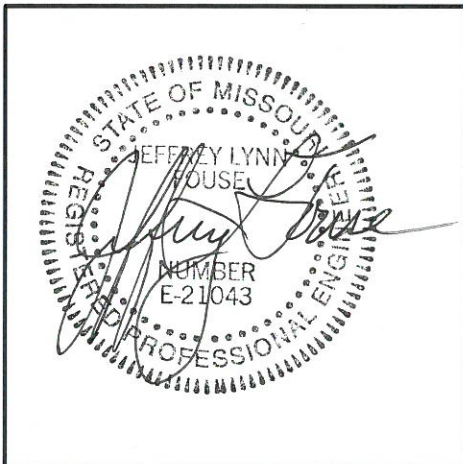
Requirements	Signs of actual or potential structural weakness (257.83(b)(v))	Disruptions or potential disruption to the operation and safety of the unit (257.83(b)(vi))
CCR Unit and appurtenant structures 257.83(b)(ii)	None Observed	None Observed
Hydraulic structures underlying the base of the CCR unit 257.83(b)(iii)	None Observed	None Observed

The 2015 Annual Inspection included a review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record in general accordance with 257.83(b)(i).

Minor maintenance items associated with routine upkeep observed during the 2015 Annual Inspection, presently do not impact the structural integrity of the embankment. Sikeston BMU plans to address these items in a timely manner through normal maintenance.

REITZ & JENS, INC.

Engineer's Seal



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Date: January 19, 2016

SIKESTON POWER STATION
Bottom Ash Pond
Annual Inspection Check Sheet

Date	October 6, 2015
Inspector	Jeffrey Fouse, P.E.
Pool Level	Estimated el. 315.9
Temperature	60°s
Weather	Partly cloudy, dry

Date of Previous Annual Inspection: Not Applicable (First Annual Inspection under §257.83(b).)

Date of Previous Periodic Inspection: Not Applicable.

Description of Emergency (EC) or Immediate Maintenance (IM) conditions observed since the last annual inspection:

None

Describe any action taken to restore or improve safety and integrity of impounding structure:

None

Describe any modifications to the geometry of the impounding structure since the previous annual inspection:

None

Describe any modifications to the operation of the impounding structure since the previous annual inspection:

None (Scrubber sludge has not been placed in the Pond since 1998. The Water Recirculation Structure (NE corner) is no longer operational.) The emergency outfall is not operational. Impounded fly ash is blocking the outlet of the emergency outfall.

List the approximate remaining storage capacity (Cubic Yards) of the impounding structure:

Estimated available storage is 342,000 CY below el. 320 (allowing 2 feet of freeboard)

List the approximate maximum, minimum and present depth and elevation of the impounded water since the previous annual inspection: Estimated from inspection reports since Oct. 2015:

Max. Elev. 319.0 (Depth 17.0'); Min. Elev. 315.9 (Depth 13.9'); Avg. Elev. 318.5 (Depth 16.5')

List the approximate maximum, minimum and present depth and elevation of the impounded CCR since the previous annual inspection: CCR occupies approximately 41 acres at an approx.

Max. Elev. 325.0 (Depth 23.0'). Min. depth is estimated to be less than 5' or Elev. 307 located beneath the surface of the impounded water.

Approximate volume of impounded water and CCR at the time of the inspection:

Estimated Volume CCR 1,192,000 CY. Estimated Volume of water 254,000 CY.

Describe any changes to the downstream watershed since the last annual inspection:

This is the first Annual Inspection under §257.83(b). No record of changes.

SIKESTON POWER STATION – BOTTOM ASH POND
ANNUAL INSPECTION CHECK SHEET

Inlet and Outlet Works

Item	Condition Code	Comments
Outlet Condition	GC	Concrete intake with stop logs, discharges into buried 12-inch pipe that runs north and then west to Process Waste Pond. (Water Recirculation Structure is not operated and the emergency overflow is blocked by impounded fly ash at the emergency overflow outlet.)
Gate Condition/ Operability	GC	Stop logs originally controlled water level but were missing. Valves north of the discharge are reported operable by Sikeston Power Station personnel.
Leakage	NE	
Outfall Condition	GC	Discharge pipe is at Process Waste Pond. Approximately 1.5' of the discharge pipe is damaged along the east side of the pipe at the outfall, but does not compromise the operation of the discharge pipe
Discharge (color and/or sediment)	NE	Clear.
Obstructions	NE	Flow to outlet structure appeared to be unobstructed.
Instrumentation	MM	Water level is measured by staff gage at the Recycle Water Recirculation Structure (inactive). Gage needs to be repositioned and markings painted. The maximum recorded reading of the staff gauge between October 19, 2015 and December 31, 2015 was 3.1 feet or elevation 319.0 feet. Six piezometers installed in August 2011 have been dry or shown very little change.
Inlet Piping Condition	MM	Inlet pipe for bottom ash is in good condition. Storm water inlet pipe was not visible due to vegetation. Vegetation around storm water inlet pipe should be kept low so that pipe is visible.
Emergency Spillway	Not Operational	A buried 30-inch pipe was designed to convey excess water from the Bottom Ash Pond to the Fly Ash Pond as needed. This is reportedly not in use. The discharge in the Fly Ash Pond is blocked by CCR and vegetation. Swing gate on Bottom Ash Pond inlet is closed.
Other: Buried Storm Water Box Culvert	GC (Interior not inspected)	A buried box culvert conveys offsite storm water from the east side of the Bottom Ash Pond (west end of Compress Road) to the west side of the Pond. The inlet appeared to be in good condition, with some minor erosion around the wing walls. The outlet pipes in the open channel on the west side were obscured by vegetation. The inlet was dry, and there was no visible discharge. There was also no evidence of loss of CCR above the culvert inside the Pond. We conclude that the buried culvert is intact and not leaking. We recommend a visual inspection of the interior of the culvert (by video camera) before the Periodic Structural Assessment due in October 2016.

SIKESTON POWER STATION – BOTTOM ASH POND
ANNUAL INSPECTION CHECK SHEET

Earth Embankment

Item	Condition Code	Comments
Vertical & Horizontal Alignment of Crest	GC	No visible evidence of deformation of embankment. Some soil fill has been dumped on the exterior slope on the south side and near the NE corner. This does not affect slope stability.
Seepage/Wetness / Ponding Areas	NE (Seepage) / MM (Ponding)	Water ponds occasionally in the perimeter flat bottom ditch. This does not appear to be seepage. This is only a problem with maintenance of the ditch (i.e. mowing). An area of high grass and vegetation exists along the toe of the north embankment (see plan). Determined the high grass is because the area was too wet to mow. This is a low area of the adjacent field where runoff collects. There was no evidence of seepage or soft area along the north embankment of the Bottom Ash Pond.
Erosion/Rutting	MM	Minor rutting along west exterior slope from mowers. Minor rutting in gravel road in NE and NW corners and along NE ramp (see plan).
Fencing	NI	Fencing is not adjacent to the Bottom Ash Pond.
Vegetation	GC	Vegetation on exterior slopes is generally maintained at less than 6 inches.
Sloughs/Slides/ Cracks	NE	No evidence.
Animal Control	NE	No evidence of animal burrows or holes.
Other		

- Condition Codes:
- EC Emergency Condition – a serious safety condition exists that requires immediate action.
 - IM Immediate Maintenance – an item that requires maintenance within about 30 days to ensure safety or operation.
 - MM Minor Maintenance – item needing minor maintenance or repair within 6 months.
 - OB Observation – condition requires regular observation to ensure that the condition does not become worse.
 - GC Good Condition.
 - NE No Evidence of a problem.
 - NI Not Inspected. State reason in comments.

Note location of observations on attached plan sheet.

