Bullock, Bennett & Associates, LLC ∗ 165 N. Lampasas Street ∗ Bertram, Texas 78605
Telephone: 512.355.9198 ∗ Fax: 512.355.9197

May 15, 2018
BBA Project No. 16244

Mr. Robert Stevens, P.E.
Plant Manager
Coleto Creek Power, LP
P.O. Box 8
Fannin, TX 77960

**RE: Coleto Creek Power – December 2017 Primary Ash Pond (CCR Unit No. 141) Dike Inspection**

Dear Mr. Stevens:

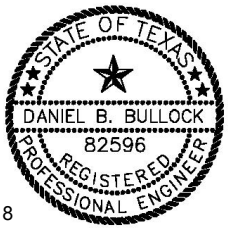
Bullock, Bennett, and Associates, LLC (BBA) performed a visual inspection of the Coleto Creek Primary Ash Pond dike system on December 20, 2017. The report for the 2017 inspection of the Primary Ash Pond is attached. Items requiring maintenance and observation are noted and summarized below.

- Maintain low Primary Ash Pond impoundment water levels to reduce or eliminate seepage at the toe of dike in the area of Station 84+00 to 90+00. Continue to monitor this historic seep area and repair erosional features as needed.
- Monitor the erosion observed at low elevations along the north dike interior and, if low impoundment water elevations are to be maintained on a long-term basis, consider extending the riprap to an elevation of approximately three feet below operating water surface levels.
- Pipe penetrations were observed in the dikes within the upper approximate 2 to 3 feet of the dike crest. No substantial dike erosion or indications of settlement were observed in these areas. However; one six-inch diameter steel pipe (near Sta 70+00) observed along the exterior dike slope appeared crushed and inoperable. Coleto Creek Power should review all pipes that penetrate the levee and consider proper removal of any pipes that may be identified as no longer planned for use. Additionally, given the pipes appear old, BBA recommends inspection of pipe sections that penetrate the dike and will not be removed and that are accessible for inspection via use of a remote camera system.
- Continue to mow the exterior dikes on a regular basis to improve ability to visually inspect the dike, encourage good vegetation, and maintain removal of trees and shrubs.
- Continue hog and rodent control measures. Repair areas of damaged vegetation as shown in photo 9551 and observed in localized surrounding areas.
- Repair minor erosion areas observed in photos 9710, 9718, and 9729.
- Treat fire ant mounds observed near approximate station 88+00 as shown in photo 9560 and repair area as appropriate. Implement regular fire ant control activities throughout the dike system.
- Replace the existing staff gauge with one that extends lower to capture low impoundment elevations. Reconcile staff gauge with dike spillway elevations.

BBA appreciates the opportunity to assist Coleto Creek Power with this project. If you have any questions regarding this inspection report, or if we can be of further assistance, please call us at (512) 355-9198.

Sincerely,

Bullock, Bennett & Associates, LLC




5/15/18

Dan Bullock, P.E.
Attachments

Texas PE No. 82596
Texas Engineering Firm Registration No. F-8542

**ATTACHMENT A**

**Inspection Report**

# Dam Inspection Report

Name of Dam: Primary Ash Pond  Dam ID No.: 141

Permit Number: NA  Class of Dam: Intermediate/Low Hazard

Location: _____ Section: _____ Township: _____ Range: _____

Owner: Coleto Creek Power, LP (Name)  800-633-4704 (Telephone Number (Day))

45 FM 2987 (Street)  same (Telephone Number (Night))

Fannin (City)  77905 (Zip Code)  County: Goliad

Type of Dam: Earth Embankment

Type of Spillway: Decant Weir Structure

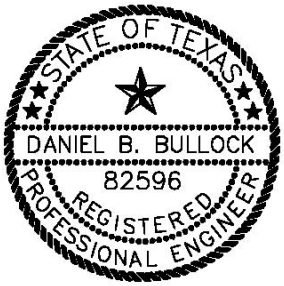
Date(s) Inspected: 20-Dec-17

Weather When Inspected: Pt. Cloudy

Temperature When Inspected: Approx. 70 deg F

Pool Elevation When Inspected: Approx. 127 ft MSL (below lowest demarcation of 128.0)

Tailwater Elevation When Inspected: NA




Professional Engineer's Seal

Inspection Personnel:

| Name | Title |
|---|---|
| Dan Bullock | Bullock, Bennett & Associates, LLC<br>Principal Engineer |
| Rick Coleman | Coleto Creek Power, LP<br>EHS Coordinator |
| Jason Campbell | Dynegy Inc.<br>Dam Safety Manager |
| Bruce Birbeck | Dynegy Inc.<br>Environmental Manager - ERCOT |

The Department of Nautural Resources is requesting information that is necessary to accomplish the statutory purpose as outlined under the River, Lakes and Streams Act, 615 ILCS 5. Submittal of this information is REQUIRED. Failure to provide the required information could result in the initiation of non-compliance procedures as outlined in Section 3702.160 of the "Rules for Construction and Maintenance of Dams".

## CONDITION CODES

NE - No evidence of a problem

GC - Good condition

MM - Item needing minor maintenance and/or repairs within the year, the safety or integrity of the item is not yet imperiled

IM - Item needing immediate maintenance to restore or ensure its safety or integrity

EC - Emergency condition which if not immediately repaired or other appropriate measures taken could lead to failure of the dam

OB - Condition requires regular observation to ensure that the condition does not become worse

NA - Not applicable to this dam

NI - Not inspected - list the reason for non-inspection under deficiencies

# EARTH EMBANKMENT

| ITEM | CONDITION CODE | DEFICIENCIES | RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE |
|---|---|---|---|
| Surface Cracks | NE | | |
| Vertical and Horizontal Alignment of Crest | NE | | |
| Unusual Movement or Cracking At or Beyond Toe | NE | | |
| Sloughing or Erosion of Embankment and Abutment Slopes | NE | | |
| Upstream Face Slope Protection | MM | Generally in good condition but minor erosion was observed along the north dike below existing rip rap. | If low water surface elevations are to be maintained long term, consider extending riprap further down slope to an elevation of approximatley 3' lower than water surface. |
| Seepage | OB | Moist areas observed between Sta 84+00 to 90+00. No flow or ponding observed and appeared to be considerably drier and less extensive than 2016. | Continue monitoring for changes that would indicate seepage is worsening. Area lacked vegetation and appeared to have minor and surficial hog damage that should be addressed. |
| Filter and Filter Drains | GC | There are no internal chimney drains within the dike system. The existing seepage collection system was visually inspected to verify it was operational. | |

## EARTH EMBANKMENT

(Continued)

| ITEM | CONDITION CODE | DEFICIENCIES | RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE |
|---|---|---|---|
| Animal Damage | MM | Evidence of minor animal rooting/grubbing observed in sporadic locations. Possible animal burrows near Sta 38+00. Fire ant mounds observed near Sta 88+00. | Use compacted earth fill in animal burrows as necessary. Animal and fire ant control should be implemented as necessary. |
| Embankment Drainage Ditches | NA | | |
| Vegetative Cover | GC | Generally in good condition except as noted between Sta 84+00 and 90+00. | |
| Staff Gauge | MM | Water level below lowest demarcation. Staff gauge elevation approximately 0.4 ft above actual NAVD88 elevation. | Replace existing staff gauge with one that extends lower to capture low impoundment elevations. Reconcile staff gauge with survey elevations. |
| Piping | MM | Several pipes penetrate the top 2 to 3 ft of the dike. One near Sta 70+00 appears to be crushed at the outlet. | Consider removing any piping that is not in use, and completing internal inspections (with use of remote camera) for pipes that will remain. |
| Other | | | |
| Other | | | |

## OUTLET WORKS
## IF SEPARATE FROM PRINCIPAL SPILLWAY STRUCTURE

| ITEM | CONDITION CODE | DEFICIENCIES | RECOMMENDED REMEDIAL MEASURES AND IMPLEMENTATION SCHEDULE |
|---|---|---|---|
| Erosion, Spalling, Cavitation | NE | | |
| Joint Separation | NA | | |
| Seepage Around or Into Conduit | NA | | |
| Intake Structure | NI | Weir structure intake was submerged and therefore could not be inspected. | |
| Outlet Structure | NI | The outlet structure is located below the water level of the Secondary Pond and therefore could not be inspected. | |
| Outlet Channel | NA | | |
| Riprap | NA | | |
| Walkway | GC | | |
| Other | | | |

SUMMARY OF MAINTENANCE DONE AND/OR

REPAIRS MADE SINCE THE LAST INSPECTION

DATE OF PRESENT INSPECTION 20-Dec-17

DATE OF LAST INSPECTION 14-Dec-16

1. EARTH EMBANKMENT DAMS

Placed earth fill in localized hog rooting areas, cut the grass and treated site for ants.

2. CONCRETE MASONRY DAMS

3. PRINCIPAL SPILLWAY

4. OUTLET WORKS

Repaired loose hand rails, and repaired sign supports near the walkway.

5. EMERGENCY SPILLWAY

**ATTACHMENT B**

**Inspection Site Plan and Photographs**


APPROXIMATE SCALE: 1" = 400'

0 200 400 800

## EXPLANATION

2276 — PHOTO # AND DIRECTION OF PHOTO

50+00 — PRIMARY ASH POND STATIONING

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER

Daniel B. Bullock

5-15-2018

SOURCE: AERIAL PHOTO PROVIDED BY IMAGEPATCH.COM EARTHSTAR GEOGRAPHICS, DATE: MAY-OCT 2011.

**Coleto Creek Power, LP**

Figure 1

# PRIMARY ASH POND DIKE INSPECTION (December 2017)

| PROJECT: 16244 | BY: RR | DATE: MAY 2018 | CHECKED: DBB |
|---|---|---|---|


Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127



Plot Date: 05/15/18 - 4:15pm. Plotted by: roodtj
Drawing Path: K:\clients\bba\Coleto Ck\, Drawing Name: C-ST-PL134.dwg


9516 - Exterior / Pipe Corridor


9517 - Exterior


9522 - Top of Levee / Exterior


9526 - Top of Levee

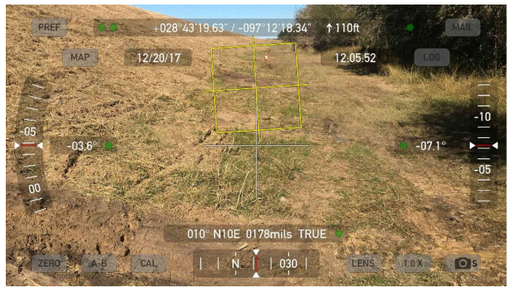

9534 - Exterior


9538 - Interior

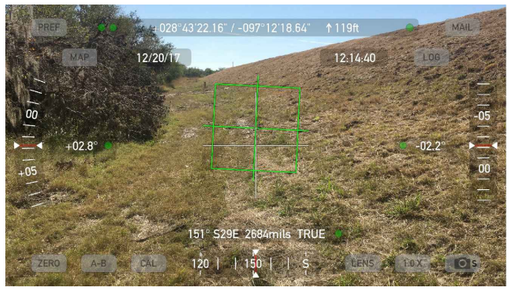

9539 - Interior Slope Protection


9551 - Exterior, Hog Damage

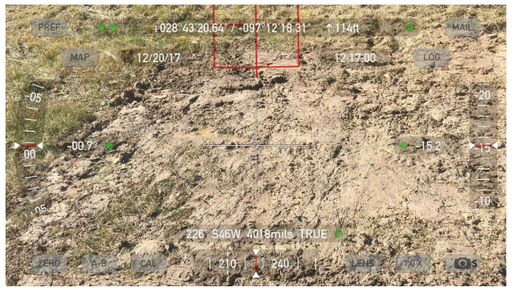

9560 - Exterior, Fire Ant Mounds




9563 - Exterior, Apparent Seep Area




9574 - Exterior




9577 - Exterior, Apparent Seep Area

NOMENCLATURE

"Interior" means interior side slope of Primary Ash Pond dike.

STATE OF TEXAS
DANIEL B. BULLOCK
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REGISTERED
PROFESSIONAL ENGINEER

Daniel B. Bullock

5-15-2018

**Coleto Creek Power, LP**

FIGURE 2
PRIMARY ASH POND
DIKE INSPECTION
(December 2017)

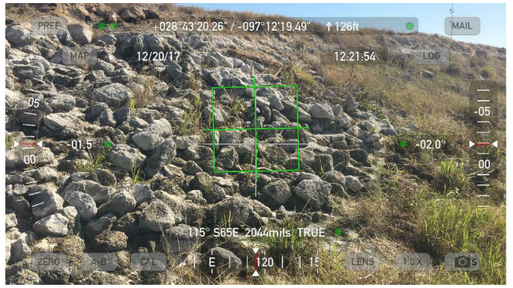
| PROJECT: 15-202 | BY: RJR | DATE: MAY 2018 | CHECKED: DBB |
|---|---|---|---|

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 05/15/18 - 4:16pm, Plotted by: roodrj
Drawing Path: K:\clients\bba\Coleto Ck\, Drawing Name: C-ST-Photos4-2018.dwg


9578 - Exterior, Piezometer


9584 - Interior




9585 - Interior Slope Protection


9589 - Interior Slope

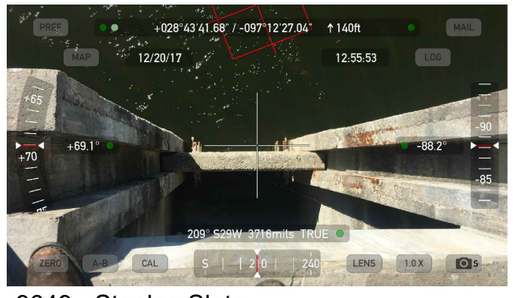

9633 - Top of Levee, Dike Interior


9636 - Pipe Penetration

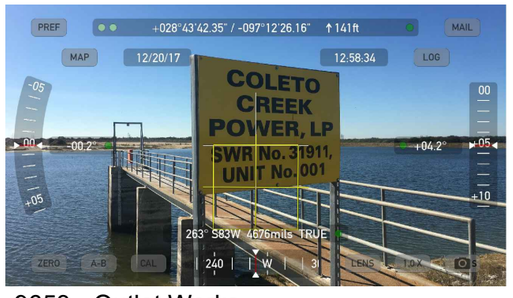

9641 - Outlet Works


9644 - North Dike Interior, Erosion Below Slope Armor


9645 - North Dike Interior, Erosion Below Slope Armor




9649 - Stoplog Slots




9653 - Outlet Works


9710 - Exterior Erosion, Burrow

NOMENCLATURE

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5-15-2018

**Coleto Creek Power, LP**

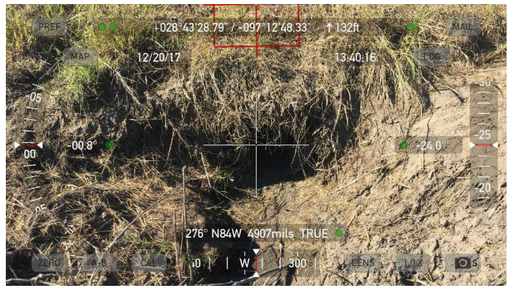
FIGURE 3
PRIMARY ASH POND
DIKE INSPECTION
(December 2017)

| PROJECT: 15-202 | BY: RJR | DATE: MAY 2018 | CHECKED: DBB |
|---|---|---|---|

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 05/15/18 - 4:16pm, Plotted by: roodrj
Drawing Path: K:\clients\bba\Coleto Ck\, Drawing Name: C-ST-Photos4-2018.dwg


9715 - West Dike Exterior / Evaporation Pond




9729 - Interior Erosion


9647 - Staff Plate on Outlet Works


9718 - Exterior Erosion, Possible Borrow Near Toe


9642 - Primary Ash Pond / Secondary Pond Separator Dike


9659 - Discharge from Primary Ash Pond to Secondary Pond


9672 - Pipe Discharge to Evaporation Pond

NOMENCLATURE

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PROFESSIONAL ENGINEER
5-15-2018

**Coleto Creek Power, LP**

FIGURE 4
PRIMARY ASH POND
DIKE INSPECTION
(December 2017)

| PROJECT: 15-202 | BY: RJR | DATE: MAY 2018 | CHECKED: DBB |
|---|---|---|---|

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 05/15/18 - 4:16pm Plotted by: roodrj
Drawing Path: K:\clients\bba\Coleto Ck\...Drawing Name: C-ST-Photos4-2018.dwg