# ANNUAL CCR SURFACE IMPOUNDMENT INSPECTION REPORT (per 40 CFR 257.83(b)(2))

Power Station: Joppa Power Station

Owner: Electric Energy, Inc.

CCR Impoundment: East Ash Pond

Date of Inspection: 10/26/2016

Name of Qualified Professional Engineer: James Knutelski, P.E. and Jason Campbell, P.E.

In accordance with 40 CFR § 257.83(b)(1), an existing or new CCR surface impoundment or any lateral expansion of the CCR surface impoundment that is subject to the periodic structural stability assessment requirements under § 257.73(d) or § 257.74(d) must be inspected on a periodic basis (annually per 40 CFR § 257.83(b)(4)) by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The inspection must, at a minimum, include: (i) 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 (e.g., CCR unit design and construction information required by §§ 257.73(c)(1) and 257.74(c)(1), previous periodic structural stability assessments required under §§ 257.73(d) and 257.74(d), the results of inspections by a qualified person, and results of previous annual inspections); (ii) A visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and (iii) A visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

## Inspection Report 40 CFR § 257.83(b)(2)

The 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, previous periodic structural stability assessments required under §§ 257.73(d) (if any), and the results of inspections by a qualified person and previous annual inspections; a visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and a visual inspection of hydraulic structures (if any) underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

Based on the inspection, the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. The following information is provided in accordance with 40 CFR § 257.83(b)(2).

i) Have there been any changes in geometry of the impounding structure since the previous annual inspection? If yes, please explain.

Based on a visual inspection of the impoundment and any hydraulic structures present, as well as a review of previous inspection report there are no changes.

ii) Instrumentation
(Please see following page for instrumentation location map)

| Instrument ID # | Type | Maximum recorded reading since previous annual inspection (ft) |
|---|---|---|
| See Attached | | |

iii)

| Since previous annual inspection: | Approximate Depth / Elevation | | | | | |
|---|---|---|---|---|---|---|
| | Elevation (ft) | | | Depth (ft) | | |
| | Minimum | Present | Maximum | Minimum | Present | Maximum |
| Impounded Water | | 375 | | | 29 | |
| CCR | 375 | | 380 | 66 | | 71 |

iv) Storage capacity of the impounding structure at the time of the inspection (acre-ft): 8900

v) Approximate volume of the impounded water and CCR at the time of the inspection (acre-ft):2745

vi) Are there any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures?

None

vii) Are there any other changes which may have affected the stability or operation of the impounding structure since the previous annual inspection?

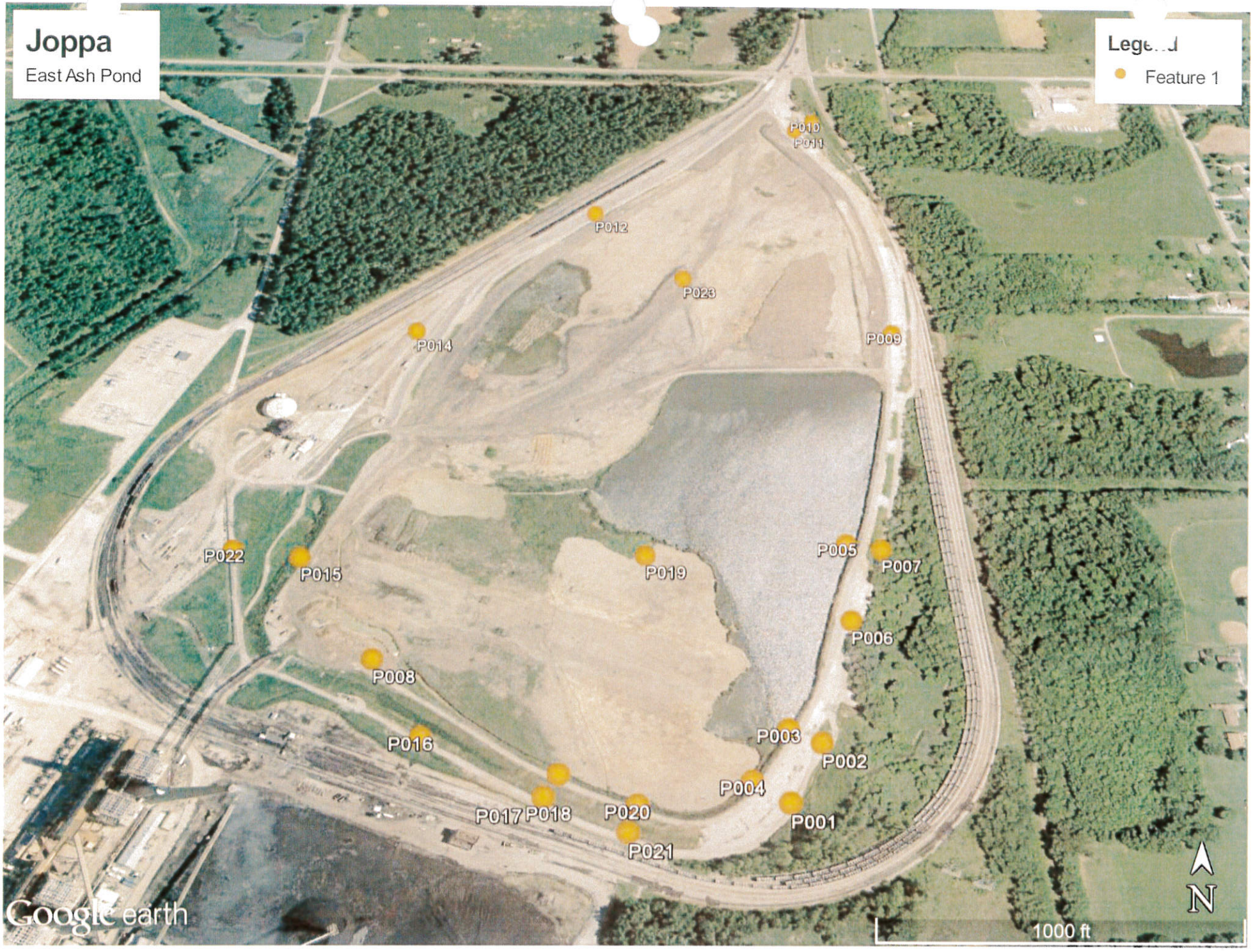
Since the 2015 inspection, the southeast corner of the embankment foundation has been modifed using a deep soil mixing technique to provide additional foundation strength.

I, James Knutelski, P.E, certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information herein is to the best of my knowledge and belief, true, accurate and complete.


4/18/17

| Piezometer | | |
|---|---|---|
| Number | Type | Max |
| JOP-B001 | VWP | 319.9' |
| JOP-B002 | VWP | ABD |
| JOP-B003 | VWP | ABD |
| JOP-B004 | VWP | 347.9' |
| JOP-B005 | VWP | 363.8' |
| JOP-B006 | VWP | ABD |
| JOP-B007 | VWP | 322.4' |
| JOP-B008 | VWP | 359.3' |
| JOP-B009 | VWP | 362.8' |
| JOP-B010 | VWP | 337.8' |
| JOP-B011 | VWP | 336.3' |
| JOP-B012 | VWP | 346.2' |
| JOP-B013 | VWP | ABD |
| JOP-B014 | VWP | 331.5' |
| JOP-B015 | VWP | 355.3' |
| JOP-B016 | VWP | 351.7' |
| JOP-B017 | VWP | ABD |
| JOP-B018 | VWP | ABD |
| JOP-B019 | VWP | ABD |
| JOP-B020 | VWP | 352.0' |
| JOP-B021 | VWP | 325.8' |
| JOP-B022 | VWP | ABD |
| JOP-B023 | VWP | 364.2' |

Legend:
VWP = Vibrating Wire Piezometer
ABD = Abandoned


Joppa
East Ash Pond
Legend
Feature 1
P010
P011
P012
P023
P014
P009
P022
P015
P019
P005
P007
P006
P008
P016
P003
P002
P004
P017
P018
P020
P001
P021
N
1000 ft
Google earth