



Indianapolis Power & Light Company
Harding Street Generating Station

Annual Inspection of CCR Surface Impoundments

Prepared by



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CERTIFICATION PAGE

**ANNUAL INSPECTION OF
CCR SURFACE IMPOUNDMENTS**

**AT THE
HARDING STREET GENERATING STATION**

INDIANAPOLIS POWER & LIGHT COMPANY


I certify that this Report was prepared by me or under my direct supervision and that I am a registered professional engineer under the laws of the State of Indiana.

This Report is released for use under the authority of David Nielson, Indiana PE # 10300076 on January 19, 2018.

Certified by: David E. Nielson

Date: 1-19-2018

Seal:



David E. Nielson
1-19-2018



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1 PURPOSE

Pursuant to 40 CFR 257.83(b)(2), this document provides the annual inspection report for the applicable existing coal combustion residual (CCR) surface impoundments at Indianapolis Power & Light Company (IPL) Harding Street Generating Station. The following applicable CCR units were visually inspected on November 28, 2017, by Mr. David Nielson, P.E. (Licensed in IN, IL, MI, NV, and WA):

- Pond 1,
- Pond 2A/2B, and
- Pond 3.

2 INSPECTION OF EXISTING CCR SURFACE IMPOUNDMENTS

Federal CCR Rule Reference: 40 CFR 257.83(b)(1)(i), 257.83(b)(1)(ii)

This annual inspection of the CCR surface impoundments included:

- 1) Review of previously generated information regarding the status and condition of each CCR surface impoundment, including, but not limited to, operating records, publicly accessible Internet site entries, design and construction drawings, and other documents and reports,
- 2) A visual inspection of the applicable CCR surface impoundments and appurtenant structures to identify signs of any distress or malfunction, and
- 3) A visual inspection of the accessible portions of known hydraulic structures underlying the base of the CCR surface impoundments and passing through the dike of the CCR surface impoundments for structural integrity and continued safe and reliable operation.

The following sections present the CCR surface impoundment inspection observations and findings.

2.1 CHANGES IN GEOMETRY

Federal CCR Rule Reference: 40 CFR 257.83(b)(2)(i)

No noticeable changes in geometry were observed while performing the visual inspection of dike surfaces of the CCR surface impoundments.

2.2 REVIEW OF EXISTING INSTRUMENTATION

Federal CCR Rule Reference: 40 CFR 257.83(b)(2)(ii)

Each CCR surface impoundment outlet structure is equipped with a staff gauge and piezometer. Maximum staff gauge readings, since the previous annual inspection, are reported in Section 2.3.

2.3 IMPOUNDMENT PARAMETERS

Federal CCR Rule Reference: 40 CFR 257.83(b)(2)(iii), 257.83(b)(2)(iv), 257.83(b)(2)(v)

Tables 1, 2 and 3 provide various measurable impoundment parameters required by 40 CFR 257.83(b)(2)(iii) through (v) that have been recorded since the last annual inspection in 2016 and at the time this annual inspection was performed.



**TABLE 1: APPROXIMATE DEPTH OF WATER AND WATER SURFACE ELEVATION
 OF CCR SURFACE IMPOUNDMENTS**

CCR Surface Impoundment	Minimum Depth ¹ (ft)	Maximum Depth ¹ (ft)	Present Depth ² (ft)	Minimum Elevation ¹ (ft)	Maximum Elevation ¹ (ft)	Present Elevation ² (ft)
Pond 1	0	0	0	NA ³	NA ³	NA ³
Pond 2A/2B	2	11	10	672	681	680
Pond 3	1	9	8	671	679	678

Notes:

- 1) Since the previous annual inspection on November 3, 2016.
- 2) At time of inspection on November 28, 2017.
- 3) NA - Pond 1 did not impound water at the time of the annual inspection nor during the prior year.

**TABLE 2: APPROXIMATE AVERAGE DEPTH OF CCR AND AVERAGE CCR SURFACE
 ELEVATION WITHIN CCR SURFACE IMPOUNDMENTS¹**

CCR Surface Impoundment	Minimum Depth ² (ft)	Maximum Depth ² (ft)	Present Depth ³ (ft)	Minimum Elevation ² (ft)	Maximum Elevation ² (ft)	Present Elevation ³ (ft)
Pond 1	14	14	14	684	684	684
Pond 2A/2B	14	14	14	684	684	684
Pond 3	3	3	3	673	673	673

Notes:

- 1) Depths and elevations presented are averages over the aerial extent of each impoundment.
- 2) Since the previous annual inspection on November 3, 2016.
- 3) At time of inspection on November 28, 2017.

**TABLE 3: APPROXIMATE STORAGE CAPACITY AND VOLUME
OF IMPOUNDED WATER AND CCR AT TIME OF INSPECTION**

CCR Surface Impoundment	Approximate Total Available Storage Capacity (ac-ft)	Approximate Actual Volume of Impounded Water (ac-ft)	Approximate Actual Volume of Impounded CCR (ac-ft)
Pond 1	101.8	0	95
Pond 2A/2B	39.5	5	27
Pond 3	120.0	45	28

2.4 VISUAL INDICATION OF ACTUAL OR POTENTIAL STRUCTURAL WEAKNESSES

Federal CCR Rule Reference: 40 CFR 257.83(b)(2)(vi)

S&L observed the exposed interior and exterior slopes, exterior toe of slopes and crests of slopes for the applicable CCR surface impoundments and did not observe any evidence of existing conditions that are disrupting or could plausibly have the potential to disrupt the operation and safety of the applicable CCR surface impoundments.

S&L observed accessible pipes running through and below the dikes and ponds. S&L did not observe any evidence of existing conditions that are disrupting or could plausibly have the potential to disrupt the operation and safety of the applicable CCR surface impoundments. It is noted that the Citizens Utilities sewer line could not be accessed for inspection.

2.5 OTHER CHANGES

Federal CCR Rule Reference: 40 CFR 257.83(b)(2)(vii)

No other changes were observed which may have affected the stability or operation of the CCR surface impoundments since the previous annual inspection.

3 CONCLUSION

This annual inspection confirmed that the design, construction, operation, and maintenance of the applicable existing CCR surface impoundments at IPL's Harding Street Generating Station are consistent with recognized and generally accepted good engineering standards.