



INDIANAPOLIS POWER & LIGHT COMPANY

HARDING STREET GENERATING STATION CCR FUGITIVE DUST CONTROL PLAN

Prepared for

Indianapolis Power & Light Company

Issue: For Use, Rev. 0

Date: October 12, 2015

Project No.: 10572-088

Prepared by



55 East Monroe Street • Chicago, IL 60603 USA • 312-269-2000



Harding Street Generating Station
CCR Fugitive Dust Control Plan
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ISSUE SUMMARY PAGE
CCR FUGITIVE DUST CONTROL PLAN
HARDING STREET GENERATING STATION
FOR
INDIANAPOLIS POWER & LIGHT COMPANY

<i>Purpose of Issue</i>	<i>Date</i>	<i>Pages Affected</i>
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CONTRIBUTORS

PREPARED BY:

A handwritten signature in black ink, appearing to read 'Erwin Prater', written over a horizontal line.

Erwin Prater

REVIEWED BY:

A handwritten signature in black ink, appearing to read 'David Helm', written over a horizontal line.

David Helm

APPROVED BY:

A handwritten signature in blue ink, appearing to read 'Larry Illingworth', written over a horizontal line.

Larry Illingworth
Project Manager



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CERTIFICATION PAGE

I certify that this CCR fugitive dust control plan meets the requirements set forth in 40 CFR 257.80 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.

Certified By:  Date: Oct. 13, 2015

Seal:





TABLE OF CONTENTS

EXECUTIVE SUMMARY	ES-1
1. INTRODUCTION.....	1-1
1.1 PURPOSE OF THIS PLAN	1-1
1.2 STATION DESCRIPTION	1-1
1.3 SOURCES OF CCR FUGITIVE DUST	1-2
2. MONITORING	2-1
2.1 FREQUENCY OF MONITORING	2-1
2.2 MONITORING METHODS	2-1
2.3 CONTROL MEASURES.....	2-1
3. RECORDKEEPING	3-1
3.1 CONTENT OF RECORDS.....	3-1
3.2 RECORD STORING AND RETENTION	3-1
4. REPORTING.....	4-1
4.1 NOTIFICATION REQUIREMENTS	4-1
4.2 CITIZEN COMPLAINTS	4-1
4.3 ANNUAL CCR FUGITIVE DUST CONTROL REPORT	4-1
5. QUALITY CONTROL.....	5-1
5.1 EVALUATING FUGITIVE DUST CONTROL PLAN EFFECTIVENESS	5-1
5.2 FUGITIVE DUST CONTROL PLAN COMPLETION	5-1
5.3 FUGITIVE DUST CONTROL PLAN AMMENDMENTS	5-1
5.4 PROFESSIONAL ENGINEER (PE) CERTIFICATION	5-1

APPENDICES

A - Fugitive Dust Monitoring Report



EXECUTIVE SUMMARY

Indianapolis Power & Light Company (IPL) is committed to protecting the quality of the environment through feasible and effective measures. As one of these measures, IPL has prepared this Coal Combustion Residuals (CCR) Fugitive Dust Control Plan to minimize fugitive dust generated through its operations. This Fugitive Dust Control Plan was developed to meet the requirements of 40 CFR 257.80.

This CCR Fugitive Dust Control Plan is intended to apply to all employees and to all CCR operations activities which create fugitive dust at the Harding Street Generating Station (HSS). Employees shall minimize fugitive dust generated on site and shall implement and follow this plan. Operations activities shall also be conducted in accordance with this plan.



1. INTRODUCTION

1.1 PURPOSE OF THIS PLAN

The purpose of this plan is to minimize Coal Combustion Residuals (CCR) fugitive dust from becoming airborne at the Harding Street Generating Station (HSS). The primary sources of fugitive dust are listed in this plan. This Fugitive Dust Control Plan was developed to meet the requirements of 40 CFR 257.80.

1.2 STATION DESCRIPTION

HSS is located approximately four miles southwest of downtown Indianapolis in Marion County, Indiana. The station began operating in 1941. The generating station consists of three coal-fired units (Unit 5-7). Units 5-6 are currently in outage and are refueling from coal to natural gas. Unit 7 is currently operating with coal. However, Unit 7 is expected to cease coal operation by the April 16, 2016 deadline for compliance with the U.S. EPA Mercury and Air Toxics Standard (MATS) Rule. Unit 7 is scheduled to begin refueling to natural gas thereafter.

Units 5 and 6 were equipped with electrostatic precipitators (ESPs) for particulate control when they were in operation as coal-fired units. Unit 7 is equipped with an ESP and a wet flue gas desulfurization (FGD) system for SO₂ control when using coal as a fuel source. The FGD system uses limestone to control SO₂ emissions.

The combustion byproducts of coal are bottom ash, fly ash, and FGD waste. Bottom ash and fly ash are sluiced with water and piped into on-site settling ponds. The wet FGD system uses limestone to reduce SO₂ emissions and produces gypsum slurry as a byproduct. The slurry is conveyed to a waste handling facility where the material is dewatered. Some of the dewatered gypsum is stored in a covered building on site and sold for beneficial use. Other FGD waste not suitable for sale is sluiced to on-site settling ponds.



Waste fly ash, bottom ash and FGD waste is sent to a series of eight settling ponds. The waste is first sluiced to primary settling ponds which allow larger material to settle out. The settling ponds will be phased out of operation in early 2016 after Unit 7 ceases coal operation.

1.3 SOURCES OF CCR FUGITIVE DUST

Primary sources of fugitive CCR dust at HSS are:

- a. Small spills of fly ash and bottom ash around pipes and other equipment
- b. Equipment malfunction
- c. Dried portions of the settling ponds
- d. Incidental CCR material on plant roads adjacent to the settling ponds



2. MONITORING

2.1 FREQUENCY OF MONITORING

Fugitive dust is monitored as part of normal plant operations.

2.2 MONITORING METHODS

For purposes of this fugitive dust control plan, fugitive dust is monitored visually. Action levels would be implemented as weather conditions, road conditions, and source conditions warrant.

2.3 CONTROL MEASURES

The CCR handling equipment at HSS is designed to minimize CCR dust. The equipment handles boiler bottom ash, fly ash and FGD waste. Bottom and fly ash is sluiced to on-site settling ponds. Sluicing reduces the amount of fugitive dust that may be generated.

The wet FGD system uses limestone to reduce SO₂ emissions and produces gypsum slurry as a byproduct. The slurry is conveyed to the dewatering facility. Though the consistency of the slurry is such that it has minimal potential to generate dust, the enclosed sides of the conveying system further reduce the potential for fugitive dust. The dewatered gypsum is stored in a covered building. The building reduces the amount of dust that may be generated. Some of the gypsum is sold to local and regional farmers as soil amendment. FGD waste material not suitable for sale is sluiced to on-site settling ponds.

Evaporation at the edges of the settling ponds produces CCR material that may become airborne. Some of the CCR material may also settle on plant roads adjacent to the ponds. Water sprays on those plant roads and adjacent edges of the ponds can be applied as necessary to control incidental fugitive dust emissions. Water sprays are suitable for a range of climate conditions, including warm humid conditions like those of central Indiana where HSS is located.

Frequent inspections of piping and other CCR handling equipment at the plant and routine preventive maintenance help to minimize CCR emissions.



Table 1 lists corrective measures applicable to the respective potential dust source. Some sources have multiple means of controlling dust, while others are controlled most effectively by a single method. In practice, some activities may require multiple measures at a time. Application of these control measures is considered IPL's best effort to minimize fugitive dust at HSS.

Table 1: Corrective Measures		
<u>Sources</u>	<u>Corrective Measure</u>	<u>Description</u>
Small spills of fly ash resulting in fugitive dust emissions (example: windblown dust from small spills around leaking fly ash pipes)	1	Remove small fly ash spill
	2	Repair leak or other cause of the spill
Equipment malfunction	1	Repair equipment
	2	Reduce flows
Dried portions of settling ponds	1	Apply water as needed
Incidental CCR material on plant roads adjacent to the settling ponds	1	Apply water as needed



3. RECORDKEEPING

3.1 CONTENT OF RECORDS

The CCR Fugitive Dust Monitoring Report form (Appendix A) shall be completed when corrective measures are taken to reduce CCR fugitive dust over and above routine control measures. The completed reports shall serve as a record of visual monitoring and any control measures taken (to satisfy Final CCR Rule 257.80(b)(1)). It shall also serve as a means to assess the effectiveness of the dust control plan (Final CCR Rule 257.80(b)(4)). The report shall include:

- a. The date and local time of monitoring.
- b. Description of the fugitive dust source.
- c. The observer.
- d. Corrective actions taken and results of those actions. Depending upon the dust source, it may be necessary to apply multiple control measures.

The plant's existing environmental management system will be used to log citizen complaints and the corrective actions taken (Final CCR Rule 257.80(c)). Logged complaints will be placed in the annual CCR fugitive dust control report (Section 4.3).

3.2 RECORD STORING AND RETENTION

This plan is complete when it is placed in the station's operating record (Final CCR Rule 257.105(g)(1)). Within 30 days of placing the control plan in the station's operating record, it must be posted to the IPL CCR website (Final CCR Rule 257.107(d) and (g)(1)).

IPL will amend this written plan whenever there is a change in conditions that would substantially affect the written plan in effect, such as closing a CCR unit (Final CCR Rule 257.80(b)(6)). The amended plan, when placed in the station's operating record, is considered the most recent control plan. Only the most recent control plan must be maintained in the station's operating record (Final CCR Rule 257.105(g)(1)). Similarly, the most recent dust control plan must also be maintained on the IPL CCR website (Final CCR Rule 257.107(g)(1)).



The completed CCR Fugitive Dust Monitoring Report forms (Appendix A) will be kept for use in the annual CCR fugitive dust control report but are not required to be individually placed in the station's operating record.

Logged citizen complaints will be placed in the annual CCR fugitive dust control report. However, the logged complaints are not required to be placed in the station's operating record.



4. REPORTING

4.1 NOTIFICATION REQUIREMENTS

Within 30 days of placing this CCR fugitive dust control plan or future amendments and updates (Sections 4.3 and 5.3 below) in the station's operating record and on the IPL CCR website, IPL will notify the Indiana Department of Environmental Management (IDEM) that the document is available (Final CCR Rule 257.106(d) and (g)(1)).

4.2 CITIZEN COMPLAINTS

Citizen complaints regarding CCR fugitive dust will be logged into an existing external communications log maintained by the plant that is part of the plant's environmental management system (Final CCR Rule 257.80(b)(3)). The log will use the existing environmental management system communications process. The log of citizen complaints will be kept for use in the annual CCR fugitive dust control report but is not required to be placed in the station's operating record.

4.3 ANNUAL CCR FUGITIVE DUST CONTROL REPORT

IPL will prepare an annual CCR fugitive dust control report that includes the following:

- a. A description of the actions taken to control CCR fugitive dust.
- b. A record of all citizen complaints
- c. A summary of corrective actions taken.

IPL will complete an initial annual fugitive dust control report no later than 14 months after placing the initial CCR fugitive dust control plan in the HSS operating record. The deadline for completing each subsequent report is one year after the date of completing the previous report. Each fugitive dust control report will be deemed complete when IPL has entered the report into the HSS operating record (Final CCR Rule 257.80(7)(c)). The annual fugitive dust control reports are placed on IPL's CCR website (Final CCR Rule 257.107(g)(2)).



5. QUALITY CONTROL

5.1 EVALUATING FUGITIVE DUST CONTROL PLAN EFFECTIVENESS

IPL will review and evaluate the effectiveness of this Fugitive Dust Control Plan (Final CCR Rule 257.80 (b)(4)). IPL will evaluate this plan by reviewing the CCR Fugitive Dust Monitoring Report forms periodically. Revisions to this plan will only be made with approval of IPL environmental staff.

5.2 FUGITIVE DUST CONTROL PLAN COMPLETION

The Final CCR Rule requires preparation of an initial CCR fugitive dust control plan by October 19, 2015. Per Final CCR Rule 257.80 (b)(5), IPL will place a copy of this plan into the HSS operating record and the initial plan will be deemed complete.

5.3 FUGITIVE DUST CONTROL PLAN AMMENDMENTS

IPL will revise this Fugitive Dust Control Plan when there is a significant change in operating conditions that would substantially affect this Plan (Final CCR Rule 257.80 (b)(6)).

5.4 PROFESSIONAL ENGINEER (PE) CERTIFICATION

IPL will obtain a certification from a qualified professional engineer that the Fugitive Dust Control Plan and subsequent amendments meet the air criteria requirements of Final CCR Rule (Final CCR Rule 257.80 (b)(7)).



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APPENDIX A

Fugitive Dust Monitoring Report

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