Prepared for:
Marquette Board of Light and Power
Marquette, MI

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CCR Fugitive Dust Control Plan

Shiras Steam Plant

Table of Contents

1 Introduction 1-1

1.1 Facility Information 1-1
1.2 Certification 1-1

2 CCR Fugitive Dust Control Measures and Appropriateness 2-1

2.1 Management of CCR in the CCR Units 2-1
2.2 Handling of CCR 2-2
2.3 Transportation of CCR 2-3

3 Procedures for Periodic Assessment of the Plan 3-1
4 Recordkeeping, Notification, Internet Site 4-1

4.1 Annual CCR Fugitive Dust Control Report 4-1

4.1.1 Annual CCR Fugitive Dust Control Report Outline 4-1
4.1.2 Annual CCR Fugitive Dust Control Report Timeline and Retention 4-1

4.2 Retention of CCR Fugitive Dust Control Plan in Operating Record 4-1
4.3 Notifications 4-1

5 Procedures to Log Citizen Complaints 5-1
6 Regulatory Cross Reference 6-1
7 Amendments 7-1

List of Tables

Table 2-1. Control Measures for CCR Management in CCR Units 2-1
Table 2-2. Control Measures for Handling CCR 2-2
Table 2-3. Control Measures for Transportation of CCR 2-3
Table 6-1. CCR Fugitive Dust Control Plan Regulatory Cross Reference 6-1
Table 7-1. CCR Fugitive Dust Control Plan Amendments 7-1

1 Introduction

This Coal Combustion Residuals (CCR) fugitive dust control plan has been prepared for the Marquette Board of Light & Power's (MBLP) Shiras Steam Plant, located in the City of Marquette, Marquette County, Michigan. This plan addresses the 40 CFR 257.80 air operating criteria of the United States Environmental Protection Agency's CCR rule, which requires the owner or operator of a CCR unit to adopt measures that will effectively minimize CCR from becoming airborne at the facility and to prepare and operate in accordance with a CCR fugitive dust control plan.

1.1 Facility Information

- Facility Name: Shiras Steam Plant
- Facility Address: 400 East Hampton Street, Marquette, MI 49855
- Owner/Operator: Marquette Board of Light & Power

1.2 Certification

The owner or operator must obtain a certification from a qualified professional engineer that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of 40 CFR 257.80.

I certify under penalty of law that, to the best of my knowledge, this plan meets the requirements of 40 CFR 257.80. This certification is based on my review of the document and conditions at the site and on my inquiry of the person or persons who managed the preparation of this document.

Ivan Martysz, P.E.

Printed Name of Qualified Professional Engineer

Signature of Qualified Professional Engineer and Date

6201048113 - Michigan

Registration Number and State

2 CCR Fugitive Dust Control Measures and Appropriateness

CCR is the material that remains after pulverized coal is burned within the boilers to generate electricity. There are several different types of CCR materials produced from this process including:

- Fly Ash - a very fine, powdery material composed mostly of silica which is carried up through the boiler by the flue gases and is removed within the fabric filter baghouse.

- Bottom Ash and boiler slag are coarser particles too large to be carried up through the boiler by the flue gases; these fall to the bottom of the combustion chamber of the boiler into water impounded bottom ash hoppers.

These materials have a wide range of beneficial uses in the construction, manufacturing, environmental remediation and other industries. CCR that is not recycled for beneficial use is disposed of in third party landfills.

CCR fugitive dust has the potential to become airborne at the facility during periods of CCR management in the CCR units (surface impoundments), CCR handling and CCR transport. Areas at the facility that have the potential for airborne CCR fugitive dust are the CCR surface impoundments, CCR handling equipment and CCR transport in trucks. This section identifies and describes the control measures selected and adopted by the facility to minimize CCR from becoming airborne at the facility and explains how the selected measures are applicable and appropriate for site conditions. The control measures may be adjusted or modified based on observed effectiveness of minimizing CCR from becoming airborne and weather conditions.

2.1 Management of CCR in the CCR Units

The facility manages CCR in two surface impoundments consisting of a holding pond and an adjacent stock pile area, located at the facility. Table 2-1 below identifies CCR fugitive dust control measures that have been selected for use by the facility during CCR management in the CCR units, including placement of CCR into either of the two surface impoundments, and explains how the selected measures are applicable and appropriate for site conditions. The facility will use the identified measures during CCR management in the CCR units to minimize CCR from becoming airborne at the facility.

CCR Activity	CCR Fugitive Dust Control Measure	Applicability and Appropriateness of Control Measure
Management of CCR in the facility's CCR units	Wet management of CCR bottom ash in CCR surface impoundments.	Wet management of CCR minimizes the potential for CCR fugitive dust generation.
	Water areas of exposed CCR in CCR units, as necessary.	Water will be applied to areas of exposed CCR to maintain moisture content to minimize the potential for CCR fugitive dust generation in excessively dry or windy conditions.

Table 2-1. Control Measures for CCR Management in CCR Units

2.2 Handling of CCR

CCR is regularly removed from the boiler system and conveyed to the ash handling building, which includes a fly ash silo, bottom ash dewatering bins, and truck loading areas. CCR fly ash is conveyed in an enclosed system from the boiler system to a storage silo located in the ash handling building. When unloading the CCR fly ash silo for transport to and emplacement in an off-site third-party CCR landfill, trucks are loaded from an elevated fly ash hopper located in the ash handling building which is a partially enclosed structure. The fly ash material in the truck is covered with a screen for off-site transport to either a third-party CCR landfill or a third-party for re-use. CCR bottom ash from the boiler system is wet sluiced to a pair of dewatering bins located in the ash handling building. Bottom ash that settles out from the dewatering bins is gravity fed into trucks, covered with a screen, and transported off-site to either a third-party CCR landfill or a third-party for re-use. CCR bottom ash that is too wet when loaded into the trucks can be sent to an on-site stockpile area for dewatering until it can be transported off-site. Sluicing water which contains CCR bottom ash that does not settle out in the dewatering bins is directed to a holding pond (surface impoundment) for further settling. Bottom ash that settles out in the holding pond is periodically removed from the CCR surface impoundment by draining the pond and using a frontend loader to remove the CCR and relocating it to the on-site stockpile area for dewatering. The on-site stockpile area is located adjacent to the holding pond. Following dewatering of the CCR, the material is subsequently loaded in trucks, covered with a screen, and transported off-site. CCR from these activities are conditioned prior to emplacement into the off-site landfill, as determined by the owner of the landfill. Table 2-2 below identifies CCR fugitive dust control measures that have been selected for use by the facility during handling of CCR and explains how the selected measures are applicable and appropriate for site conditions. The facility will use the identified measures when handling CCR to minimize CCR from becoming airborne at the facility.

CCR Activity	CCR Fugitive Dust Control Measure	Applicability and Appropriateness of Control Measure
Handling of CCR at the facility	Wet sluice CCR bottom ash to CCR surface impoundments.	Wet sluicing CCR minimizes the potential for CCR fugitive dust generation.
	CCR bottom ash removed from CCR surface impoundments, dewatered, and loaded into trucks for transport remains conditioned during handling.	Conditioned CCR allows CCR to bind together and thus minimizes the potential for CCR fugitive dust generation when CCR is handled.
	Pneumatically convey dry CCR fly ash to storage silos in an enclosed system.	Conveying CCR fly ash in an enclosed system minimizes the potential for CCR fugitive dust generation.
	Load CCR transport trucks from the CCR fly ash silos in a partially enclosed area.	Partial enclosure of the CCR transport truck loading area reduces the potential for wind to cause CCR fugitive dust to become airborne.
	Perform housekeeping, as necessary, in the fly ash loading area.	Good housekeeping measures that includes washing the floor of CCR into drains which lead to the surface impoundment to reduce fugitive dust generation during handling activities.
	Operate fly ash handling system in accordance with good operating practices.	Operation in accordance with good operating practices minimizes the potential for CCR fugitive dust generation.
	Maintain and repair as necessary dust controls on the fly ash handling system.	Maintenance and repairs are performed as needed to maintain dust controls in good operating condition to minimize the potential for CCR fugitive dust generation.

Table 2-2. Control Measures for Handling CCR

2.3 Transportation of CCR

CCR is transported via truck from the facility using a combination of paved and unpaved facility roads. Table 2-3 below identifies CCR fugitive dust control measures that have been selected for use by the facility during transport of CCR. The facility will use the identified measures when transporting CCR to minimize CCR from becoming airborne at the facility.

CCR Activity	CCR Fugitive Dust Control Measure	Applicability and Appropriateness of Control Measure
Transportation of CCR at the facility	Cover or enclose trucks used to transport CCR fly ash.	Covering or enclosing trucks transporting CCR on facility roads minimizes the potential for CCR fugitive dust generation from the CCR transport trucks.
	Limit the speed of vehicles to no more than 15 mph on facility roads.	Limiting the speed of vehicles traveling on facility roads minimizes the potential for CCR fugitive dust generation from the CCR transport trucks.
	Cover or enclose trucks used to transport CCR other than fly ash, as necessary.	Covering or enclosing trucks transporting CCR on facility roads minimizes the potential for CCR fugitive dust generation from the CCR transport trucks.
	Sweep or rinse off the outside of the trucks transporting CCR, as necessary.	Removing CCR present on the outside of the truck minimizes the potential for movement of the truck or wind to cause CCR fugitive dust to become airborne.
	Remove CCR, as necessary, deposited on facility road surfaces during transport.	Removing CCR deposited on facility road surfaces as a result of transport minimizes the potential for CCR fugitive dust generation from vehicle traffic.

Table 2-3. Control Measures for Transportation of CCR

3 Procedures for Periodic Assessment of the Plan

The facility conducts inspections associated with CCR fugitive dust control. The facility also uses the procedures identified in section 5 of this plan to log citizen complaints involving CCR fugitive dust events at the facility. These inspections and the investigations of citizen complaints will be used to periodically assess the effectiveness of the CCR fugitive dust control plan.

The facility routinely performs inspections to verify the effectiveness of the CCR fugitive dust control measures used at the facility. Inspections are conducted during daylight working hours and include observing for the presence of CCR fugitive dust emissions from vehicles transporting CCR on facility roads, CCR handling and CCR management, including CCR placement in CCR units. Inspection records include information such as the name of the person conducting the inspection, the date and time of the inspection, the results of the inspection, and any corrective action taken.

When a CCR fugitive dust event is observed or a citizen complaint involving a CCR fugitive dust event at the facility is received, current CCR management practices will be reviewed to see that the selected control measures are being properly implemented. If the control measures are not being properly implemented, relevant operating personnel will be notified and, as warranted, re-trained in the proper implementation of CCR fugitive dust control measures. If appropriate, use of revised and/or additional control measures will be evaluated. As warranted, revised and/or additional control measures found to be applicable and appropriate to control CCR fugitive dust emissions will be incorporated into an amended CCR fugitive dust control plan.

The plan will be reassessed in the event of material changes in site conditions potentially resulting in CCR fugitive dust becoming airborne at the facility.

4 Recordkeeping, Notification, Internet Site

The written CCR fugitive dust control plan, any amendment of the written plan, and the annual CCR fugitive dust control report required by 40 CFR 257.80(c) will be placed in the facility's written operating record and posted to the Internet site in accordance with 40 CFR 257.105(g) and 257.107(g). Notification of the availability of the CCR fugitive dust control plan, any amendment of the plan, and the annual CCR fugitive dust control report will be provided to the State Director in accordance with 40 CFR 257.106(g).

4.1 Annual CCR Fugitive Dust Control Report

The owner or operator will prepare an annual CCR fugitive dust control report.

4.1.1 Annual CCR Fugitive Dust Control Report Outline

The annual CCR fugitive dust control report will include the following sections:

- Description of the actions taken by the owner or operator to control CCR fugitive dust
- A list of all citizen complaints received by the owner or operator
- A summary of corrective measures taken in response to citizen complaints received by the facility

4.1.2 Annual CCR Fugitive Dust Control Report Timeline and Retention

The initial annual report will be completed and placed into the facility's operating record no later than 14 months [December 19, 2016] after the initial CCR fugitive dust control plan is placed in the facility's operating record [October 19, 2015]. Subsequent annual reports will be completed and placed into the facility's operating record no later than one year after the date of placing the previous annual report in the facility's operating record. Within 30 days of placement into the facility's operating record, annual reports will be posted on the publicly accessible Internet site maintained by the owner/operator. Annual reports required to be posted to the publicly accessible Internet site will be made available to the public for at least five years following the date on which the information was first posted to the Internet site.

4.2 Retention of CCR Fugitive Dust Control Plan in Operating Record

The initial CCR fugitive dust control plan for the facility was prepared by the owner/operator and placed in the facility's operating record before October 19, 2015. Subsequent amendments to the plan will be placed in the facility's operating record. The most recent CCR fugitive dust control plan will be maintained in the facility's operating record and maintained on the publicly accessible Internet site maintained by the owner/operator within 30 days of being placed in the facility's operating record.

4.3 Notifications

The owner or operator of the facility will notify the State Director of the availability of the CCR fugitive dust control plan, or any subsequent amendment of the plan. Notification will be sent to the State Director within 30 days of placing the CCR fugitive dust control plan, or subsequent amendments thereof, in the facility operating record.

The owner or operator of the facility will notify the State Director of the availability of the annual CCR fugitive dust control report. Notification will be sent to the State Director within 30 days of placing the annual CCR fugitive dust control report in the facility operating record.

5 Procedures to Log Citizen Complaints

In the event the owner or operator of the facility receives a citizen complaint involving a CCR fugitive dust event at the facility, relevant information about the complaint will be logged. Information that will be recorded includes, as applicable:

- Date/Time the complaint is received
- Date/Time and duration of the CCR fugitive dust event
- Description of the nature of the CCR fugitive dust event
- Name of the citizen entering the complaint
- Address & phone number of citizen entering the complaint
- Name of the personnel who took the complaint

All citizen complaints involving CCR fugitive dust events at the facility will be investigated promptly. As deemed appropriate or necessary, corrective measures will be taken and a follow-up response will be provided to the complainant.

6 Regulatory Cross Reference

40 CFR 257 Citation	Regulatory Requirement	CCR Fugitive Dust Control Plan Section
.80(b)(1)	Identify and describe CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. Explain how the CCR fugitive dust control measures selected are applicable and appropriate for site conditions.	2
.80(b)(3)	Procedures to log citizen complaints involving CCR fugitive dust events at the facility.	5
.80(b)(4)	Periodic assessment of effectiveness of CCR Fugitive Dust Control Plan.	3
.80(b)(5)	Date of initial CCR Fugitive Dust Control Plan.	7
.80(b)(6)	Amendment of CCR Fugitive Dust Control Plan.	7
.80(b)(7)	Certification of CCR Fugitive Dust Control Plan.	1.2
.80(c)	Annual CCR Fugitive Dust Control Plan	4.1
.80(d)	Recordkeeping (257.105(g))	4.2
	Notification (257.106(g))	4.3
	Publicly Assessable Internet Site (257.107(g))	4.2

Table 6-1. CCR Fugitive Dust Control Plan Regulatory Cross Reference

7 Amendments

The written CCR fugitive dust control plan may be amended at any time provided the revised plan is placed in the facility's operating record as required by 40 CFR 257.105(g(1). The written CCR fugitive dust control plan must be amended whenever there is a change in conditions that would substantially affect the written plan in effect. The plan amendment log is presented as Table 7-1.

Amendment Number and Date	Pages or Section	Description of Amendment	Professional Engineer Certifying Plan
Version 0 October 2015	--	Initial Plan	Ivan Martysz

Table 7-1. CCR Fugitive Dust Control Plan Amendments