Annual CCR Fugitive Dust Report - 2017

TS Power Plant

Eureka County, Nevada

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1.0 Introduction

Newmont Nevada Energy owns and operates the TS Power Plant (TSPP), a coal-fired electrical generating facility located in Eureka County, Nevada. The TS Power Plant facility includes an ash landfill to accommodate the dry disposal of coal combustion residue (CCR). As such, TSPP is subject to the provisions of the 2015 Coal Combustion Residuals Rule (40CFR §257.8). The CCR Rule established national minimum criteria for CCR landfills, including: location restrictions, design and operating criteria, groundwater monitoring and corrective action, closure requirements and post-closure care, and recordkeeping, notification, and internet posting requirements.

One of the requirements of the CCR Rule is for facilities to develop a Fugitive Dust Control Plan (Plan) to document procedures that are undertaken at the facility to minimize CCR from becoming airborne (§257.80). TSPP completed the Plan, obtained certification from a Professional Engineer that the plan met the requirements of the CCR Rule and uploaded the Plan

to the TSPP publically available website in October 2015. The Plan included procedures related to:

- Management of CCR from the combustion process to temporary storage in silo's or impoundments near the TSPP boiler building.
- Management of CCR during transfer from fly ash storage silo to dry bulk tractor trailer for transport off- site
- Management of CCR during transfer from the fly ash storage silo to haul truck for transport to TSPP ash landfill.
- Management of CCR during transport to TSPP ash landfill
- Management of CCR during and after disposal at TSPP at TS Power Plant
- Documentation of any citizen complaints, corrective action, and follow-up engagement

The CCR Rule requires that the owner or operator of a CCR unit prepare an annual CCR Fugitive Dust Control Report the will (1) describe actions taken by the facility to control CCR fugitive dust, (2) document citizen complaints during the previous 12 months with associated corrective actions, and (3) evaluate procedures to control CCR fugitive dust at the facility. This document represents the 2017 Fugitive Dust Control Report for TSPP.

2.0 Operations Summary

Operations at TSPP during the previous 12 months period (Nov. 1, 2016 – Oct. 31, 2017) was characterized by low to mid load operation, that resulted in the reduced generation of CCR. During the period, approximately 31,000 tons of fly ash was generated from coal combustion. Of this total, approximately 82% was shipped off-site for beneficial reuse. The overall potential for fugitive dust during the period was significantly decreased by the low volume of fly ash that was managed on site.

The following sections describe the actions being undertaken to control CCR fugitive dust at TSPP and an evaluation of effectiveness of these actions.

2.1 Management of CCR from the Combustion Process to Temporary Storage

Fly ash collects in bins in the bottom of the bag house compartments and is transported pneumatically to the fly ash silo, an 800-ton capacity silo adjacent to the baghouse. The silo is equipped with a dust collector to prevent the fugitive release of particulates during ash transfer. A vacuum producer located adjacent to the silo drives the pneumatic system for the transport of ash from the baghouse to the storage silo.

Procedures that are in place to monitor these activities include:

- Weekly Inspections of the Fly Ash Silo Bin Vent Filter – in accordance with manufacturer's recommendations. Documentation of the inspections is maintained in the TSPP scheduled maintenance records.
- Monthly visible emission inspection of the Fly Ash silo bin vent filter. If visible emissions are observed, a Method 9 visible emission test is to be conducted. Records are maintained in the TSPP environmental files.
- Weekly inspections of the vacuum blower filtration system for visible emissions.
- Quarterly preventive maintenance of the vacuum producer and associated dust filters.

➢ *The procedures that are in place are effective at preventing the generation of airborne emissions of fly ash. No modification of procedures are warranted.*

2.2 Management of CCR during Transfer from Fly Ash Storage Silo to Bulk Tractor Trailer for Transport Off- Site

During loading, the trailers are pulled into the truck loading bay, and an extendible dry unloading chute is fitted to one of the hatches of the trailer. A return airline in the chute creates a negative pressure in the trailer and forms a vacuum seal between the unloading chute and the trailer. This permits the loading of bulk trailers with virtually no fugitive particulate emissions.

Trained site personnel make the connections of the unloading chute to the truck, initiate the truck loading operation and retract the chute when loading has been completed. A checklist has been developed that guides the process in a step-by-step format and ensures the truck loading operation is conducted in a safe manner without the release of fugitive emissions. The checklist requires a documented visible emission observation during the loading process and instructs the operator to stop loading operations and contact plant maintenance personnel if visible emissions are present. The checklist is completed for every load and kept on file in the plant operations files.

TSPP policy is that all hatches on the trailers are closed and latched prior to loads of ash leaving the site. The bulk trailers are equipped for pneumatic unloading from hose connections located in the rear of the trailer, so there is no potential for release of ash from leaking bottom hatches.

- *The procedures that are in place are effective at preventing the generation of airborne emissions of fly ash from the transfer activities. No modification of procedures are warranted.*

2.3 Management of CCR during Transfer from Fly Ash Storage Silo to Haul Truck for Transport to CCR Landfill.

Ash is removed from the bottom of the silo to a 20-ton articulated dump truck pulled into the truck loading bay. All ash unloaded in this manner passes through a mixing device, called a pug mill, that mixes the ash with water before it is discharged to the truck. The addition of water in the pug mill conditions the ash, producing an agglomerated, wetted ash for transport. The conditioned ash drops from the pug mill through a shroud to the haul truck. The shroud acts as a wind barrier to prevent exposure of the fly ash to wind during silo unloading to trucks. When properly operated, the silo unloading process is free of fugitive dust.

All operators are trained in the operation of pug mill to properly condition the fly ash and minimize the potential for fugitive dust during transport. This is done largely by observation and making adjustments to ash unloading rates or water addition rates to ensure the proper

consistency of the conditioned fly ash. A "Fly Ash Storage Silo Wet Unloading Operating Procedure" has been developed and is posted in the pug mill area to guide operations.

The monitoring of ash during unloading includes monthly visible emission observations to ensure the process is working properly and fugitive dust is not being generated. Records are maintained in the TSPP environmental files.

- *The procedures that are in place are effective at preventing the generation of fugitive emissions of fly ash from the transfer activities. No modification of procedures are warranted.*

2.4 Management of CCR during Transport to TS Power Plant CCR landfill

Ash is transported to the landfill, located approximately 0.5 miles north of the plant in open haul trucks with tailgates to minimize spillage. The conditioned fly ash is in a damp, agglomerated state that does not contribute to fugitive dust during transport. TS Power Plant facility roads, including the landfill haul road, are paved to control fugitive dust. The speed limit along the road is posted and enforced at 10 mph. The road is periodically washed with an on-site water truck to remove incidental spillage from the road surface that could contribute to the generation of fugitive dust.

- *The procedures that are in place are effective at preventing the generation of fugitive emissions of fly ash from the transport activities. No modification of the existing procedures are warranted.*

2.5 Management of CCR During and After Disposal at TS Power Plant at TS Power Plant

Fly Ash is end-dumped from the haul truck in an active area of the landfill and periodically dozed into position. As a result of conditioning, the ash maintains a damp consistency and does not generate fugitive dust during disposal. Due to the self-cementing character of the conditioned ash, a surface crust forms on the ash which stabilizes the material and reduces the potential for fugitive dust generation. Following disposal, the crust continues to form as a result

of periodic rain fall events. To prevent the disruption of the crust, vehicle activities are limited to active areas of the landfill that are designated by boundary markers. This is an effective method for maintaining the integrity of the crust.

If fugitive dust becomes an issue at the landfill, operations personnel apply water from an on-site water truck as a dust control measure.

Issue - The TSPP ash landfill is permitted as a Class III landfill by the Nevada Division of Environmental Protection – Bureau of Waste Management. During an annual inspection of the facility (26 June, 2017), a Bureau of Waste Inspector noted excessive dust being generated along the haulage ramp to the active dump area of the landfill. The dusting issue was the result of a ramp with a steep grade combined with a sharp turn near the top of the landfill. The configuration made it difficult to stabilize the area due to constant disruption of the running surface by truck traffic.

The ramp design has been modified to address the issue. The modification involved changing the active dump area of the landfill from the top of the ash pile to a new dump area north of the ash pile that is at ground level. To accommodate the new dump area, the ramp was redesigned as a straight roadway with lesser grade. The running surface of the ramp was mantled with a layer of clean gravel to stabilize the surface and reduce the potential for dust generation. Combined with the application of dust control water, the redesign has been effective at preventing the generation of fugitive dust emissions.

- The recent haulage modifications described above, combined with existing procedures are effective at preventing the generation of fugitive emissions of fly ash from the transfer activities.

3.0 Citizen Complaints During Previous Twelve Months

Any citizen complaints regarding fugitive dust at TSPP are handled in accordance to with an *Issues and Concerns Management, and Resolution Procedure* developed and implemented by Newmont's External Relations Department. The procedure is applicable to all Newmont Nevada sites, including TSPP.

Complaints and concerns may be received in verbal or written format directed to: the TS Power Plant, Newmont External Relations representatives or other Newmont personnel in nearby communities, and the Newmont North American Regional Offices. In order to ensure any complaints are properly documented and addressed, recipients fill out and submit an External Relations Opportunity/Issues form which is submitted electronically to the assigned External Relations Representative (ERR) for the site. The ERR enters the information into StakeTracker® stakeholder management software; a tracking system to document community concerns, follow-up activities and corrective actions.

Once entered into the system, procedures include:

- ERR acknowledges receipt of the concern with the complainant with three (3) business days and describes the process to be undertaken to resolve the complaint.
- Appropriate corrective actions will be determined and undertaken at TS Power Plant to modify procedures as appropriate to resolve fugitive dust issues.
- ERR will discuss corrective actions with complaintant to close the issue.
- ➢ *During the previous 12 month period, no citizen complaints were received regarding fugitive dust from the TSPP CCR landfill. Therefore, a program of corrective actions was not required.*

4.0 Summary

TSPP has prepared a *CCR Fugitive Dust Control Plan* (Oct. 2016) that documents procedures to control fugitive dust during the generation, transport and landfill disposal of CCR. These procedures have proven effective at controlling fugitive dust at TSPP. During the previous 12 month period, there was one issue regarding fugitive dust generation that was identified during a state agency inspection. Corrective actions were taken that will result in long term resolution of the issue. During the period, there were no documented citizen complaints regarding fugitive dust from the CCR landfill.