

# **Coal Combustion Residual Landfill Annual Inspection Report Corrective Actions Resolution**

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Boardman Generating Facility

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*April 2018*



**Portland General Electric**

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### Introduction

Pursuant to 40 CFR §257.84(b)(2), PGE conducted an annual inspection of the Coal Combustion Residual (CCR) landfill at the Boardman Generating Facility in November 2017. Upon completion of this inspection, an inspection report prepared by Mathew Quigley, P.E. was filed and listed the following corrective actions to be taken as soon as practicable in 2018.

- The northeast vehicle entrance should have additional gravel placed upon the roadway approaching the entrance from the north and along the perimeter roadway directly adjacent to the entrance. Prior to placing gravel, any CCR materials that have tracked out over the entrance from the landfill area should be graded back into the landfill. Gravels applied should reestablish a roadway grade sufficiently high enough to maintain the stormwater conveyance ditch passing through the entrance area with a minimum depth of 1.5 feet, utilizing side slopes of 4H:1V maximum, and graded with a slope of at least 0.30 percent toward the retention area.
- Efforts should be undertaken to grade existing bottom ash material and fly/economizer ash material, if possible, to infill the ditch formed between the materials in a manner that establishes a stormwater ditch to convey runoff flows to the stormwater retention area. As more ash is added to the site, the ditch should either be maintained or completely infilled to convey stormwater runoff to the site perimeter ditches. Should the ditch be maintained, it should maintain a minimum depth of 1.5 feet, utilize side slopes of 4H:1V maximum to prevent hazards to site vehicles grading the ash, and be graded with a slope of at least 0.30 percent toward the retention area.
- As additional fly/economizer ash is disposed of, material deposition should focus on building up the southeast corner of the landfill site to mitigate what appears to be a minor low spot in relation to adjacent landfill grades. Care should be taken to maintain current stormwater ditch profiles between the deposited ash and the perimeter roadway.
- As seasonal restrictions permit, brush should continue to be removed from the perimeter ditches.

The following summarizes completed and ongoing activities in 2018 by PGE to address these corrective actions.

## **Corrective Actions Undertaken**

Work to fill in a ditch between the bottom and fly/economizer ash piles was undertaken on March 26<sup>th</sup> and completed on March 27<sup>th</sup>, 2018. Existing bottom ash materials were moved north toward the fly/economizer ash pile with a small dozer. The resulting slopes between the two piles now form a broad valley that can be filled and graded as more ash is deposited to form a uniform pile with slopes draining toward the site perimeter ditches. As this valley is filled, grading will be maintained to allow stormwater to drain east or west to reach site perimeter ditches and/or the stormwater retention area.

Upon completion of grading activities described above, additional gravels were added to the northeast vehicle entrance as needed to reestablish the roadway and entrance slopes. Truck traffic is expected to compact new materials placed at the entrance. Therefore the entrance will continue to be monitored to insure the necessary ditch profile to convey stormwater runoff is maintained. Minor grading may be required throughout the year to maintain the profile.

Field observations of work described above were made on March 26<sup>th</sup> and 27<sup>th</sup> as work was performed. At the time of the observations, the Boardman Coal Plant was not in operation therefore no ash disposal activities were underway to observe if material placement was being undertaken to fill in noted low spots upon the site. Ash disposal activities are expected to recommence later in 2018.

Minor brush was observed in some portions of the site and it is understood the brush will be removed when staff availability and environmental conditions permit. At the time observations were made, no brush appeared to negatively impact the function of the site runoff collection ditches.

Photos of completed work as of March 27<sup>th</sup>, 2018 are contained in Appendix A.

**Appendix A: Inspection Photos**



*Bottom ash being graded north over large ditch between bottom and fly/economizer ash piles.*



*Small dozer used for grading bottom ash toward fly/economizer ash.*



*Completed grading of bottom ash to form slopes to be graded and filled with new ash to form uniform pile.*



*Completed grading of bottom ash to form slope westward to stormwater retention area over previous ditch between bottom and fly/economizer ash*



*New gravel placed upon northeast vehicle entrance. Note: ditch profile to be maintained as new gravel materials compact with use.*