

California Regional Water Quality Control Board
North Coast Region

**MONITORING AND REPORTING PROGRAM No. R1-2019-0031
(Rescinds and Replaces Monitoring and Reporting Program No. R1-2013-0047)
FOR
DG FAIRHAVEN POWER LLC WOOD FLY AND BOTTOM ASH REUSE PROJECT
Humboldt County
(WDID No. 1B07013RHUM)**

California Water Code (Water Code) section 13267 authorizes the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This monitoring and reporting program (MRP) establishes monitoring and reporting requirements, which implement state regulations. The failure to furnish any of the required reports, or the submittal of substantially incomplete reports or false information, is a misdemeanor, and may result in additional enforcement actions being taken against DG Fairhaven Power LLC, including issuance of an Administrative Civil Liability (ACL) Complaint pursuant to Water Code section 13268. Liability may be imposed pursuant to Water Code section 13268 in an amount not to exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

This Monitoring and Reporting Program rescinds and replaces Monitoring and Reporting Program No. R1-2013-0047.

Under the authority of California Water Code section 13267, the Discharger named above (DG Fairhaven LLC) is required to comply with the following:

FLY AND BOTTOM ASH SOIL AMENDMENT MONITORING

The reuse of fly and bottom ash generated during biomass combustion at the DG Fairhaven Power Facility is authorized in accordance with requirements under Order No. R1-2017-0039 Conditional Waiver of Waste Discharge Requirements for Specific Categories of Low Threat Discharge in the North Coast Region (Conditional Waiver), as a "Discharge of Industrial Wastes Utilized for Soil Amendments" category.

The fly and bottom ash (ash) shall be managed, processed, sampled and handled in accordance with DG Fairhaven LLC Best Management Practices (BMPs) for Reuse of Wood Fly Ash and BMPs for Reuse of Wood Bottom Ash. The BMPs are cited in the July 24, 2019 Regional Water Board Conditional Waiver Notice of Coverage letter.

A requirement of the Conditional Waiver coverage is that the cumulative land application of ash on an individual land application site not cause an exceedance of the following criteria:

- Code of Federal Regulations Part 503.13, Table III, Pollutant Concentrations
- California Department of Toxic Substances Control standard for dioxin in agricultural land (40 ng/kg [dry basis])

To confirm compliance with the Conditional Waiver requirements, DG Fairhaven LLC (Discharger) shall implement the following monitoring activities:

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method ¹
Feed Stock Composition ²	Dry-tons	Continuous	Monthly	---
Fly Ash Volume Generated	Dry-tons	Continuous	Monthly	---
Bottom Ash Volume Generated	Dry-tons	Continuous	Monthly	---
Fly Ash Liming Capacity	Equiv. % CaCo3	Grab	Annually ³	UC Davis Method 440 or AOAC 955.01 ⁴
Fly Ash Total Phosphorous	mg/kg	Grab	Annually ⁵	Title 40, section 136
Fly Ash CAM 17 Metals	mg/kg	Grab	Annually ⁶	EPA Method 6010B/7000A
Fly Ash Dioxin TEQ ⁷	mg/kg	Grab	Annually ⁸	EPA Method 1613
Bottom Ash CAM 17 Metals	mg/kg	Grab	Annually ⁹	EPA Method 6010B/7000A
Bottom Ash Dioxin TEQ ¹⁰	mg/kg	Grab	Annually ¹¹	EPA Method 1613
Soil Lime Requirement ¹²	T/A/8in ¹³	Composite ¹⁴	>8 T/ac	UC Davis Method 450 or WREP-125, 2nd Ed. S2.509 ¹⁵

¹ Upon approval from the Executive Officer, an alternative method providing equivalent or superior information/results may be substituted for the specified analytical method.

² The Discharger shall monitor and report nature, source(s), and volume of feed stock.

³ During the month of July or August.

⁴ A&L Western Agricultural Laboratories' Neutralizing value of liming materials (or percent calcium carbonate equivalency-CCE).

⁵ During the month of July or August.

⁶ During the month of July or August.

⁷ Dioxin equivalents, also known as the TEQ, is a calculated value which reflects the combined effect of dioxin and furan compounds (congeners). Results for dioxin TEQ shall include all congeners.

⁸ During the month of July or August.

⁹ During the month of July or August.

¹⁰ Dioxin equivalents, also known as the TEQ, is a calculated value which reflects the combined effect of dioxin and furan compounds (congeners). Results for dioxin TEQ shall include all congeners.

¹¹ During the month of July or August.

¹² The requirement for this parameter may be substituted by sampling cation exchange capacity, pH, and buffer index of the soil.

¹³ Tons per acre of 100% CaCO₃ required based on an 8-inch furrow slice weighing 2.4 million pounds.

¹⁴ Composite sample shall be representative of the intended area/field of application.

¹⁵ A&L Western Agricultural Laboratories' lime requirement for soil (Sikora buffer pH).

(footnote continued on next page)

Parameter	Units	Sample Type	Sampling Frequency	Required Analytical Test Method ¹
Soil CAM 17 Metals	mg/kg	Composite	Cumulative ¹⁶	EPA Method 6010B/7000A
Soil Dioxin TEQ ¹⁷	mg/kg	Composite	Cumulative ¹⁸	EPA Method 1613
Fly Ash Volume Distributed ¹⁹	Dry-tons	Continuous	Annually	---
Fly Ash Volume Distributed ²⁰	Dry-tons	Continuous	Annually	---

ANNUAL MONITORING REPORT

DG Fairhaven LLC shall submit an Annual Report to the Regional Water Board regarding implementation of the required BMPs during the previous year. The Annual Report shall be submitted to: [Link to email address \(NorthCoast@waterboards.ca.gov\)](mailto:NorthCoast@waterboards.ca.gov) or on disk (CD or DVD) in a Portable Document Format (PDF) file in lieu of paper-sourced documents, by March 15 of each year. The Annual Report shall include, but not be limited to, the following:

1. A cover letter that cites “DG Fairhaven LLC Ash Reuse Project, WDID No. 1B07013RHUM”, and the applicable annual reporting year;
2. A description of the activities that took place during the previous year;
3. A tabular summary of the monitoring results and laboratory analytical data for constituents listed in Table 1 of this Order. The tabular summary shall include analytical results presented for the previous five years of sampling and be accompanied by laboratory data sheets for the current year’s results;
4. Completed copies of Land Owner Agreements;
5. A scaled map of each site where ash was applied during the previous year. The map(s) shall display U.S Geological Survey topographic contours (if available within the applicable site boundaries) and include parcel boundaries; adjacent public roadways; loading and unloading area(s) if different from the application area; application area boundaries; all setbacks identified in the BMPs; the location of domestic and agricultural water wells, water bodies including drainage ditches, creeks, and ponds within 100 feet of the application site, and loading/unloading areas;
6. Photo documentation of each loafing bed, watering trough, or, livestock traffic lane receiving ash amendment during the calendar year;

¹⁶ When the CAM 17 accumulative loading model, for a specific land application area, demonstrates that the accumulative metals loading is nearing the maximum CAM 17 limits in Code of Federal Regulations Part 503, Table 2.

¹⁷ A&L Western Agricultural Laboratories’ Neutralizing value of liming materials (or percent calcium carbonate equivalency-CCE).

¹⁸ When the dioxin accumulative loading model, for a specific land application area, demonstrates that the accumulative dioxin load is nearing the maximum dioxin accumulation limit of 40ng/kg.

¹⁹ The volume, location, and use type (i.e., field application or loafing bed) shall be reported.

²⁰ The volume, location, and use type (i.e., field application, loafing bed, etc.) shall be reported.

7. Completed copies of the agronomic rate calculation worksheet for each application area developed during the previous year;
8. The accumulated loading rate of CAM 17 metals and dioxins, as calculated per the accumulative loading models, for each land application area receiving ash that year;
9. An interpretation of how the monitoring data and accumulated loading rates demonstrate the Discharger's implementation of the approved BMPs for Reuse of Wood Fly Ash and BMPs for Reuse of Wood Bottom Ash. Identification of any corrective actions taken or planned, which may be needed to implement the BMPs for Reuse of Wood Fly Ash and BMPs for Reuse of Wood Bottom Ash.
10. If Discharger monitors the parameters in Table 1 more frequently than required by this Order, the results of that monitoring shall be included in the Annual Report.

CERTIFICATION

All reports required by this Monitoring and Reporting Program or other information requested by the Regional Water Board for compliance determination with the conditions of the approved BMPs shall be signed by the Chief Executive Officer or a duly authorized representative of that person. Any person signing a document under this requirement shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Ordered by: _____
Matthias St. John
Executive Officer