



Oregon

Kate Brown, Governor

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June 5, 2020

Chemical Waste Management of the Northwest, Inc.
18177 Cedar Springs Ln.
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Mr. Denson,

We have reviewed the revised source test plan submitted by Chemical Waste Management of the Northwest, Inc. (CWM) on April 30, 2020 as required by the Cleaner Air Oregon (CAO) process. Based on our review of the source test plan, DEQ requires that the following issues be addressed in a revised source test plan. A revised source test plan is due at least 15 days prior to the planned testing. CWM has informed DEQ that testing is currently scheduled to occur the week of June 29, 2020.

Test Method General Comments

The isokinetic sampling methods listed in the source test plan all have specific requirements when used on sources with high temperatures. The method descriptions in the test plan should include these specific elevated temperature requirements when applicable.

All modifications and/or alternatives to testing methods or procedures that are performed to satisfy DEQ testing requirements must receive approval from DEQ prior to their use in the field. Changes not acknowledged by the DEQ could be basis for invalidating an entire test run and potentially the entire testing program.

Test Method Specific Comments

1. EPA Method 5
 - a. The Method 5 description in the testing plan indicates that glass nozzles and probes will be used. Method 5 allows the use of either borosilicate or quartz glass. Method 5 requires the use of quartz glass liners for temperatures between 900 and 1,650 °F. (*See General Comments above.*)
 - b. The Oregon Source Sampling Manual specifies the analytical detection limit for EPA Method 5 as 3 mg. Update the In-Stack Detection Limit.
 - c. The minimum sample volume must be the greater of 31.8 dscf or sufficient to ensure a minimum In-Stack Detection Limit of one-half (1/2) the emission standard. Update the In-Stack Detection Limit.
2. EPA Method 26A
 - a. Various places in the source test plan list the analytes as only HCl, HCl and Cl₂, or HCl, HBr and HF. Method 26A sampling shall include analysis for all of the hydrogen halides and halogens listed in the method. Update the test plan accordingly.
 - b. The Method 26A description says that glass nozzles and probes will be used. Method 26A allows the use of either borosilicate or quartz glass. Due to the elevated temperature of this source quartz glass shall be used. Method 26A specifies that a one-piece nozzle/liner assembly be used when the stack temperature exceeds 410 °F. Method 26A also recommends water-cooling the stainless steel sheath when temperatures exceed 932 °F. (*See General Comments above.*)
 - c. The Oregon Source Sampling Manual specifies that all toxic air contaminants and hazardous air pollutants (HAPs) sampling programs must ensure adequate sample

volumes so that the mass recovered is at least five (5) times the limit of detection for the analytical method chosen. Additional sample volume greater than the minimum required for the Method 5 testing should be considered to achieve lower detection limits. Update the In-Stack Detection Limits.

3. EPA Method 29
 - a. The Method 29 description says that glass nozzles and probes will be used. Method 29 references Method 5 which allows the use of either borosilicate or quartz glass and requires the use of quartz glass liners for temperatures between 900 and 1,650 °F. (*See General Comments above.*)
4. EPA Method 23
 - a. The Method 23 description says that glass nozzles and probes will be used. Method 23 allows the use of either borosilicate glass, quartz glass or Teflon. Method 23 requires the use of quartz glass liners and integrated quartz glass nozzle for temperatures between 572 and 2,192 °F. (*See General Comments above.*)
 - b. The proposed Method 23 revisions referenced in the source test plan do not require a methylene chloride rinse of the probe.
 - c. The PAH analyte list shall include all of the PAHs listed in the proposed Method 23 revisions and all PAH and PAH derivatives listed in OAR 340-245-8020 Table 2.
 - d. Due to the toxicity of some of these compounds, the minimum sample volume shall be at least 120 dscf in order for DEQ to consider allowing the use of zero for non-detects in the risk analysis.
5. SW846 Method 0061
 - a. DEQ agrees with the assertion that Method 0061 cannot be used at temperatures of 1600 °F. Method 0061 has been successfully demonstrated at temperatures up to 800 °F. Hexavalent chromium emissions shall be determined using one of the following options (update the source test plan accordingly):
 - i. Method 306 may be used if the stack temperature is greater than 800 °F.
 - ii. Method 0061 shall be used if the stack temperature is less than 800 °F.
 - iii. Emissions can conservatively be assumed to be 100% of the total chromium emissions measured by Method 29.
6. EPA Method TO-15
 - a. EPA Method TO-15 is an ambient test method that does not have as rigorous QA/QC as EPA Method 18. DEQ recognizes that EPA Method 18 may not be practicable for the entire TO-15 list of compounds. DEQ will approve the use of TO-15 as a screening method at the exhaust during this test. Any Toxic Air Contaminants (TACs) that have concentrations greater than 1 ppm shall be retested using EPA Method 18 to better quantify emissions within 45 days of receiving lab results.

Page Specific Comments

7. Page 5. Feed analysis test methods listed are for metals, Cl, F, Br, NO₃, NO₂, PO₄, and SO₄. No BTEX method listed. The parameters (analytes) listed should match the test method analytes. Update the source test plan.
8. Pages 6 & 12. Metals analysis on the feed material should match the compounds tested for on the exhaust with Method 29 – include Al, Co, Cu, Mn and P.
9. Page 10. Operating data recorded during the source test should include the amount of organics recovered.

DEQ recognizes the unique challenges this testing poses to your facility and appreciates the continued assistance with this process. The results will provide valuable information for completing the CAO emissions inventory. If you have any questions or concerns please contact me directly. Thank you for your continued efforts with this process.

Sincerely,

Thomas Rhodes

Thomas Rhodes
DEQ CAO Source Test Coordinator

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