



## U.S. Department of Energy Hanford Site

September 23, 2020

20-ECD-0043

Ms. Alexandra K. Smith, Program Manager  
Nuclear Waste Program  
Washington State  
Department of Ecology  
3100 Port of Benton BLVD  
Richland, Washington 99354

Dear Ms. Smith:

### REQUEST FOR APPROVAL OF SAMPLING AND ANALYSIS OF 1,3-DICHLOROPROPENE VIA COMPENDIUM METHOD TO-15

This letter responds to 19-NWP-209, "Approval Order DE05NWP-001, Revision 2, for the 241-AN Tank Farm," dated December 20, 2019, which has set forth requirements for 1,3-dichloropropene sampling. The requirement states:

1,3-dichloropropene sampling and analysis will be in accordance with appropriate test method(s) specified in 40 CFR Part 60, unless an alternative method has been proposed in writing by the permittee and approved in writing by Ecology.

A potentially appropriate 40 CFR 60, "Standards of Performance for New Stationary Sources," Appendix A-6 Method 18, "Measurement of gaseous organic compound emissions by gas chromatography," has been explored and found to yield invalid 1,3-dichloropropene results. Method 18 is designed to measure gaseous organics emitted from an industrial source. The U.S. Environmental Protection Agency frequently asked questions for Method 18 states:

Method 18 is applicable to other sources where Volatile Organic Chemical's (VOC) are being emitted. However, the method should NOT be used at complex sources with a large number of VOCs, (Finding the appropriate columns and detectors for a large number of compounds is onerous and expensive).

The U.S. Department of Energy herein requests Washington State Department of Ecology approval of 1,3-dichloropropene sampling and analysis by application of a modified U.S. Environmental Protection Agency Method TO-15 of *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air*, Second Edition, for the execution of sampling required by DE05NWP-001, *Non-Radioactive Air Emissions Notice of Construction Approval Order Conditions and Restrictions*, Rev. 2.

Sampling and analysis of 1,3-dichloropropene will follow a modified method TO-15 as described in EPA/625/R-96/010b, *Compendium Method TO-15, Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)*. Modifications to the method are required in order to adapt sampling equipment for stack sampling. TO-15 is an ambient sampling method so the modification of the method is to take it from a stack with a larger evacuated sampler canister. The analytical methods applied in Method 18 and TO-15 are the same.

If you have any questions, please contact me, or your staff may contact Bryan R. Trimberger, Environmental Compliance Division, Office of River Protection, on (509) 376-2674.

Sincerely,



Digitally signed by Brian T. Vance  
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Brian T. Vance  
Manager

ECD:BRT

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