



OFFICE OF RIVER PROTECTION

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MAY 14 2019

19-ECD-0038

Ms. Alexandra K. Smith, Program Manager
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Washington State
Department of Ecology
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Ms. Smith:

RESPONSE TO NOTICE OF INCOMPLETENESS DETERMINATION FOR THE CRITERIA AND TOXICS AIR EMISSIONS NOTICE OF CONSTRUCTION FOR THE OPERATION OF PORTABLE EXHAUSTERS SUPPORTING SINGLE-SHELL TANK WASTE RETRIEVAL AT THE 241-A AND 241-AX TANK FARMS, (TOC-ENV-NOC-5252)

- References:
1. Ecology letter from L. Murphy, to B.T. Vance, ORP, "Notice of Incompleteness Determination for the Criteria and Toxics Air Emissions Notice of Construction for the Operation of Portable Exhausters Supporting Single-Shell Tank Waste Retrieval at the 241-A and 241-AX Tank Farms, (TOC-ENV-NOC-5252)," 19-NWP-063, dated April 18, 2019.
 2. ORP letter from K.W. Smith to J.A. Hedges, Ecology, "U.S. Department of Energy, Office of River Protection Submits TOC-ENV-NOC 5252, Rev. 00, Criteria and Toxics Air Emissions Notice of Construction for the Operation of Portable Exhausters Supporting Single-Shell Tank Waste Retrieval at the 241-A and 241-AX Tank Farms," 16-ECD-0008, dated February 23, 2016.
 3. Ecology letter from A.K. Smith to D.S. Shoop, RL, and B.T. Vance, ORP, "Hanford Site Ambient Air Boundary Concerns," 18-NWP-177, dated December 3, 2018.

On April 18, 2019, the U.S. Department of Energy (DOE), Office of River Protection (ORP) received Washington State Department of Ecology's (Ecology) determination that the A/AX exhauster notice of construction (NOC) application (16-ECD-0008), which ORP had submitted on February 23, 2016, was incomplete (19-NWP-063). WAC 173-401-500(4) establishes that an application is deemed complete 60 days after Ecology receives it unless the agency notifies an applicant in writing that the application is incomplete.

DOE urges Ecology to grant the A/AX exhauster permit both because the incompleteness determination is untimely and because the application is complete as submitted and as described below.

Ecology's first item is:

In order to adequately demonstrate that emissions are sufficiently low to protect human health and safety, the application must include an acceptable source impact level analysis for each toxic air pollutant emitted by the new or modified emission units in accordance with WAC 173-460-080(1). To address this requirement, the NOC application used dispersion modeling and the historical ambient air boundary. As the apparent ambient air boundary is located closer to the emission unit, the currently submitted model does not adequately evaluate compliance with all applicable rules and regulations. Dispersion modeling must evaluate concentrations in ambient air, and any areas excluded from the analysis, must demonstrate adequate control to prevent public access.

ORP's permit application included appropriate modeling, with results presented in Section 6.3 and dispersion factors presented in Table 5, Air Dispersion Factors. ORP completed the modeling using information Ecology has recently accepted. Specifically, by letter dated January 21, 2016, from Christopher Hanlon-Meyer, Science and Engineering Section Manager, Ecology Air Quality Program to Ron Skinnerland, Waste Management Section, Nuclear Waste Program, Ecology approved a health impact analysis for dimethyl mercury required under WAC 173-460-090. In that approval letter, Ecology explained:

The US Department of Energy and their contractor, Washington River Protection Solutions (DOE-WRPS), anticipate they will need numerous air toxic Notice of Construction (NOC) approvals to permit tank waste retrieval, transfer, and treatment processes at the Hanford tank farms and at the Waste Treatment and Immobilization Plant (WTP). Ordinarily, each of these applications would require a separate HIA. For efficiency, DOE-WRPS prepared a single HIA encompassing extreme emissions scenarios. The resulting HIA is highly precautionary.

To facilitate timely cleanup, AQP expedited review of the HIA and related documents. Ecology carefully scrutinized the potential health risks posed by dimethyl mercury (DMM) and the other toxic air pollutants (TAPs) defined in WAC 173-460. DMM was the only TAP whose concentration exceeded its Acceptable Source Impact Level (listed WAC 173-460-150).

DOE recognizes that Ecology is "concerned that the Hanford ambient air boundary appears to have changed from what it was when currently enforceable emission conditions were established" (18-NWP-177). DOE is meeting with Ecology in hopes of resolving those concerns. DOE also sought information from staff at the Environmental Protection Agency who are discussing these boundary issues with Ecology. Meanwhile, Hanford Site cleanup must continue and Ecology should issue required permits, including the A/AX exhauster NOC.

Ecology's second item is:

Since the A/AX permit application submission in February 2016, USDOE has submitted permit applications for other projects related to tank waste emissions that have identified new toxic air pollutants and higher pollutant concentrations. USDOE needs to clarify how these new pollutants and pollutant concentrations apply to the A/AX project. If the new pollutants and pollutant concentrations apply to the A/AX project, USDOE must, in accordance with WAC 173-460-050, update the source term data used for the A/AX permit application to identify all currently known or suspected air pollutants, and use this data in the evaluation of public exposure.

WAC 173-401-510(2)(c) requires a permittee to identify, among other things, an appropriate source term for the facility being permitted. ORP reviewed data sources and process descriptions and applied good engineering practices and judgment to establish source terms submitted in this application. ORP agrees an applicant who learns of new information or incorrect information on a previously-submitted permit application has a "duty to supplement or correct application" under WAC 173-401-500(6). ORP has not identified any new pollutants or higher pollutant concentrations requiring it to update or supplement the A/AX exhauster application.

Ecology's third item is:

The submitted Best Available Control Technology for Toxics (tBACT) evaluation, RPP-20773, is insufficient to determine appropriate control technologies for the project pursuant to WAC 173-400-113(2) for criteria pollutants and WAC 173-460-060(2) for toxics. The underlying assumptions of the submitted evaluation are inconsistent with the proposed project and the current regulations. Best Available Control Technology (BACT) for emissions of criteria pollutants and tBACT for emissions of toxic pollutants must be reevaluated in accordance with the proposed project, incorporating results of the above items.

WAC 173-460-060(2) requires a source to demonstrate the modified emission unit will employ Best Available Control Technology for Toxics for all toxic air pollutants "for which the increase in emissions will exceed de minimis emission values as found in WAC 173-460-150." Should ORP identify new pollutants being emitted at a level requiring treatment, then ORP will update its control analysis. No update is needed to support the A/AX exhauster NOC application.

Ecology's fourth item is:

Section 1.0 of the application states *"Upon issuance of the approval order for this notice of construction application, DE05NWP-002, Revision 2, "Non-Radioactive Air Emissions Notice of Construction Approval Order Conditions and Restrictions" for Single-Shell Tank Retrieval Exhausters, will no longer apply to 241-A and 241-AX Tank Farm waste*

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retrieval activities." In order to ensure that this change is made, USDOE must submit an application and pay the applicable fees to modify DE05NWP-002, Revision 2, and remove A/AX waste retrieval activities from the approval order. Issuance of a new approval order for the A/AX project alone will not modify the existing approval order.

Removing the A/AX exhausters from the older permit (DE05NWP-002) is a separate action from issuing a new permit for these exhausters. The removal of the A/AX exhausters from DE05NWP-002 can happen any time after, or at the same time as, the new permit is issued and is not a basis for Ecology to make an incompleteness determination. Until DE05NWP-002 is modified, ORP will comply with the more restrictive of the requirements.

ORP requests that Ecology proceed expeditiously with processing the A/AX exhauster NOC application in order to support retrieval of these Single-Shell Tanks and support the continued progress being made by the DOE to safely reduce worker, public, and environmental risk at the Hanford Site.

If you have any questions, please contact Bryan R. Trimberger, Environmental Compliance Division, (509) 376-2674.



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