Mitigated Determination of Nonsignificance (MDNS)
Operation of Rotary Core Sampler in High Gas Mode at Hanford Tank Farms

Description of proposal:

The United States Department of Energy – Office of River Protection (ORP) proposes to collect core samples of dangerous waste managed inside underground tanks. ORP is seeking approval from the state of Washington for emissions of toxic and criteria pollutants, including methyl mercury, that would result from collecting the samples.

ORP submitted to the Washington State Department of Ecology a Notice of Construction (NOC) that included a second tier review petition. The NOC requested approval to operate the core sampling system in a high gas mode with a portable exhauster to maintain negative pressure in the passively ventilated tank being sampled. The second tier review petition is for the operation of the core sampler in high gas mode.

In the Notice of Construction, ORP estimated emissions of criteria and toxic pollutants from the sampling system. ORP used the same source term for the pollutants as the one used in the Approval Order DE11NWP-001, Revision 1, which Ecology granted. The analyses showed that none of the criteria pollutants exceeded the exemption criteria in Washington Administrative Code (WAC) 173-400-100(4).

Of the 91 toxic air pollutants that might be in the tank head space, only 4 were at levels above the de minimis screening levels. Those pollutants are dimethyl mercury, ammonia, hexavalent chromium, and n-nitrosodimethylamine. Of those, all but ~~hexavalent chromium~~ exceeded the small quantity emission rate. Dimethyl mercury exceeded the acceptable source impact limit. amonia RS 6/1/15

ORP performed a Tier I impact analysis of the release of methyl mercury. As a result of the Tier I analysis, ORP submitted a Tier II health impact analysis (HIA) to address the potential impacts of the methyl mercury on public health.

The Ecology Air Program reviewed the HIA and agreed that the total exposures to people in publicly accessible areas are negligible and the possibility of any adverse effect is extremely low.

Ecology established conditions on ORP's proposal through requirements included in Approval Order DE11NWP-001 issued under Chapter 173-460 WAC.

Proponent: United States Department of Energy
Office of River Protection
PO Box 550
Richland, Washington 99352

Location of proposal: The United States Department of Energy and its Tank Operations contractor manage the underground storage tanks at the Hanford Site in south-central Washington State. The tanks lie below the ground surface in the 200 East and West Areas approximately 32 miles northwest of Richland, Washington.

Lead agency: Washington State Department of Ecology Nuclear Waste Program

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under the Revised Code of Washington 43.21C.030 (2)(c). This decision was made after review of information on file with the lead agency. This information is available to the public on request.

X This MDNS is issued under WAC 197-11-340(2). The lead agency will not act on this proposal until the conclusion of the public comment period on the Draft Approval Order DE11NWP-001, Revision 2. That comment period ends July 3, 2015.

Responsible official: Jane A. Hedges

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Date 5/29/15 **Signature** Jane A. Hedges by [illegible]

X There is no agency appeal.