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Department of Energy  
Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

07-SED-0310

JUL 9 2007

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State of Washington  
Department of Ecology  
3100 Port of Benton Blvd.  
Richland, Washington 99354

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Addressees:

TRANSMITTAL OF RADIOACTIVE AIR EMISSIONS NOTICE OF CONSTRUCTION  
(NOC) FOR OPERATION OF TRANSURANIC WASTE RETRIEVAL PROJECT

This letter transmits the Revision Form for the Radioactive Air Emissions NOC for Operation of the Transuranic Waste Retrieval Project. This NOC is required by Washington Administrative Code (WAC) 246-247. This letter also transmits the Notification of Off-Permit Modification Request, which is required by WAC 173-401.

Enclosure 1, the NOC Revision Form, is provided to the State of Washington, Department of Health, consistent with its authority to administer and enforce the State radioactive air emissions regulations, including licensing.

Enclosure 2, the Notification of Off-Permit Change, is being provided to the State of Washington, Department of Ecology consistent with its role as lead for the Hanford Site Air Operating Permit, and for forwarding to the Tribes point of contact.

If you have any questions, please contact me, or your staff may contact Doug S. Shoop, Assistant Manager for Safety and Engineering, on (509) 376-0108.

Sincerely,

Michael J. Weis  
Acting Manager

SED:MFJ

Enclosures

cc: See page 2

Addressees  
07-SED-0310

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JUL 9 2007

cc w/encls:

J. A. Bates, FHI

G. Bohnee, NPT

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J. W. Schmidt, WDOH, MSIN B1-42

F. M. Simmons, FHI

D. Zhen, EPA Region 10, Seattle, WA.

Administrative Record [(file: Transuranic Waste Retrieval Project/NOC ID #719 (formerly #582), Emission Unit ID #455 (formerly #486)] *H-0-9*

Environmental Portal, LMSI, A3-95

Enclosure 1

**NOC Application/Permit Revision/AOP Off-Permit Change Notification**

NOTE: Any increase to abated or unabated PTE requires a full NOC modification

**REASON FOR CHANGE**

Submittal Date: \_\_\_\_\_

Submittal Type: Other type submittal

X **NOC Application Revision**

**Condition Change/ Clarification**

WDOH Condition Number: \_\_\_\_\_

AOP Condition Number: \_\_\_\_\_

**ALARACT Revision**

New ALARACT Rev Number: \_\_\_\_\_

**PROJECT IDENTIFICATION**

Project Title: Operation of the Transuranic Waste Retrieval Project

Current NOC Application Number: DOE/RL-2001-57, Rev. 4 Reissue

AEI ID Number (AOP Emission Unit Number(s)): 1181

Current WDOH Approval Letter Number(s): AIR -07-307

WDOH NOC ID Number: 719

**DESCRIPTION OF CHANGE**

Number of Attachments 0

*WDOH will provide a new approval letter containing any new or modified conditions that result from the following proposed change.*

Proposed Change (provide original and proposed wording):

5.2.2. DVS2 (Drum Venting System 2)

Original text:

A vent system utilizing a pneumatic drill DVS2 is remotely actuated to vent the drum. After the drum is vented, a filter is hand-installed, the headspace of the drum is sampled and the drum is staged in a designated area for diffusion.

Glove bags may be used to contain potential contamination. A portable HEPA vacuum with a variable speed is connected to the HEPA filter on the glovebag and will be used for exhausting the glovebag. The vacuum will be operated during venting and for a short time following venting at a low flow. Glovebags will also have ports to check for contamination or hazardous gases.

As many as three venting assemblies will be installed in a weather enclosure such as a Conex box. Connections for the third assembly may be used with the TRU Retrieval Drum Restraint in the event of a bulged or high DE-Ci drum.

## 6.2.2 DVS2

The DVS2 will be exhausted with a HEPA vacuum as shown in figure 7, to contain potential contamination. Glovebags will have ports to check for contamination or hazardous gases after venting. DVS2 unit will be installed within an enclosure such as a Conex box or trailer, and within CWC, with side doors that will open to accommodate loading and unloading the drums.

Proposed text:

### 5.2.2 DVS2 (Drum Venting System 2)

The DVS2 vent system, utilizing a pneumatic drill, is remotely actuated to vent the drum. After the drum is vented, a filter is hand-installed, the headspace of the drum is sampled and analyzed in the DVS2 via a sample port on the filter. The analysis process involves withdrawing a sample directly from the container head space through flexible tubing to a gas chromatograph (GC) for analysis. During analysis, the sample is heated up to 212°F (100°C) within the GC and subsequently allowed to cool to 70°F (21°C) or below before it is emitted to the atmosphere. Up to 150 of these samples are planned to be done per week per GC. No more than 9,000 drums per year will be analyzed by the combined HSGS units.

Upon completion of analysis, the drum is staged in a designated area for diffusion.

Glove bags may be used to contain potential contamination. A portable HEPA vacuum with a variable speed is connected to the HEPA filter on the glovebag and will be used for exhausting the glovebag. The vacuum will be operated during venting and for a short time following venting at a low flow. The vacuum may or may not be operated during the headspace analyses activities. Glovebags will also have ports to check for contamination or hazardous gases.

As many as three venting assemblies will be installed in a weather enclosure such as a Conex box. Connections for the third assembly may be used with the TRU Retrieval Drum Restraint in the event of a bulged or high DE-Ci drum.

## 6.2.2 DVS2

The DVS2 will be exhausted with a HEPA vacuum as discussed in section 5.2.2 and as shown in figure 7, to contain potential contamination. In line HEPA-like filters will be located between the GC unit and the HEPA vacuum. No abatement credit is taken for these HEPA-like filters. Glovebags will have ports to check for contamination or hazardous gases after venting. The DVS2 unit will be installed within an enclosure such as a Conex box or trailer, and within the CWC complex, with side doors that will open to accommodate loading and unloading the drums.

The HSGS analysis unit in the DVS2 will exhaust through the HEPA vacuum, although the vacuum may or may not be operating when the analysis is performed. A small percentage (0.5%) of the sample stream will be released as diffuse and fugitive.

**15.0 TOTAL EFFECTIVE DOSE EQUIVALENT TO THE MAXIMALLY EXPOSED INDIVIDUAL**

With regard to this section, the following text is provided for clarification.

HSGS analysis activities provide a new process within the DVS2 activities, but do not provide an increase to the estimated PTE because they are a fractional part of emissions already accounted for in DVS2 activities. Sampling and analysis of the headspaces represents  $<2.0E-03\%$  of the PTE associated with DVS2 activities and does not numerically change the estimated total unabated or abated PTE. The total unabated PTE to the MEI remains  $9.01E-02$  mrem/yr and the abated PTE to the MEI remains  $3.44E-03$  mrem/yr for this NOC.

**SIGNATURES**

Reviewed by Contractor	Reviewed by RI/ORP	Approved by WDOH
<i>Darrin Fayllk</i>		
<i>Robert D. Thorne</i>	<i>Monte J. ...</i>	
Date: <i>5/23/07</i>	Date: <i>7/9/07</i>	Date:

**FOR WDOH USE ONLY**

Data Entry Completed By: \_\_\_\_\_ Date: \_\_\_\_\_

Enclosure 2

## HANFORD SITE AIR OPERATING PERMIT

### NOTIFICATION OF OFF-PERMIT CHANGE

**Permit Number: 00-05-006 Renewal 1**

This notification is provided to Washington State Department of Ecology, with copy to the Washington State Department of Health and the U.S. Environmental Protection Agency, as notice of an off-permit change described as follows.

This change is allowed pursuant to WAC 173-401-724(1), WAC 173-401-724(2), and WAC 173-401-724(6):

1. Change is not specifically addressed or prohibited by the permit terms and conditions,
2. Change does not weaken the enforceability of the existing permit conditions,
3. Change is not a Title I modification or a change subject to the acid rain requirements under Title IV of the FCAA,
4. Change meets all applicable requirements and does not violate an existing permit term or condition,
5. Change has complied with applicable preconstruction review requirements established pursuant to RCW 70.94.152.

Provide the following information pursuant to WAC-173-401-724(3):

<b>Description of the change:</b>
DOE/RL-2001-57, revision 4 has been revised to include headspace gas sampling analysis in the DVS2 process description.
<b>Date of Change:</b> (To be provided in the agency approval order.)
<b>Describe the emissions resulting from the change:</b>
The analysis activities consist of point source and diffuse/fugitive emissions. However, these sources will be blended with existing emissions, so no new emission points are generated. The existing, approved estimates for unabated and abated PTE to the MEI for emission unit # 1181 remain unchanged.
<b>Describe the new applicable requirements that will apply as a result of the change:</b> (To be provided in the agency approval order.)
<b>For Hanford Use Only:</b>
AOP Change Control Number: _____ Date Submitted: _____