



LB# 3823

AIR 14-202  
NOC 914

STATE OF WASHINGTON  
DEPARTMENT OF HEALTH  
OFFICE OF RADIATION PROTECTION  
309 Bradley Blvd., Suite 201 • Richland, Washington 99352  
TDD Relay Service: 1-800-833-6388

February 7, 2014

**CERTIFIED MAIL**

7008 1300 0001 5989 9833

Mr. Kevin W. Smith, Manager  
United States Department of Energy  
Office of River Protection  
P.O. Box 450, MSIN: H6-60  
Richland, Washington 99352

Dear Mr. Smith:

Pursuant to Chapter 246-247 of the Washington Administrative Code (WAC), your revised application will be approved according to the enclosed License for:

**Operation of the AZ-301 Tanker for Condensate Collection and Transport  
(NOC 914; EU 1406)**

The Washington State Department of Health (DOH) considers the conditions, controls, monitoring requirements, and limitations of the License integral to approval of your application.

This approval shall take effect, and a final approval letter issued, twenty-eight (28) days after you receive it unless you apply for an adjudicative proceeding, as described below.

If you accept the conditions and limitations of this approval and do not wish to apply for an adjudicative proceeding, but wish to proceed under this approval before the 28 days have elapsed, please notify us in writing and the DOH will issue the final approval letter. Your notice should be mailed or faxed to:

DOH – Office of Radiation Protection  
Radioactive Air Emissions Section  
309 Bradley Blvd., Suite 201  
Richland, Washington 99352  
FAX: (509) 946-0876



If there are concerns with the conditions and limitations of the approval, please notify the DOH. If attempts to resolve the concerns fail, the DOH will deny your application and you may contest the conditions and limitations of this approval, within 28 days of receipt, by filing the enclosed Request for Adjudicative Proceeding or a document providing substantially the same information with the DOH, Adjudicative Service Unit (ASU), in a manner that shows proof of service on the ASU. The ASU's address is:

DOH - Adjudicative Service Unit  
310 Israel Road SE  
P.O. Box 47879  
Olympia, Washington 98504-7879

You must include a copy of this approval with your application. FILING SHALL NOT BE DEEMED COMPLETE UNTIL THE ADJUDICATIVE SERVICE UNIT ACTUALLY RECEIVES YOUR APPLICATION.

If you have any questions regarding this draft approval, please contact John Schmidt at (509) 946-3874.

Sincerely,



John Martell, Manager  
Radioactive Air Emissions Section

Enclosures: (1) Conditions and Limitations for (NOC 914) (EU 1406)  
(2) Request for Adjudicative Proceeding

cc: Ruth Allen, WRPS  
Robert Anderson, MSA  
Matthew Barnett, PNNL  
Tom Beam, MSA  
Lee Bostic, BNI  
Dennis Bowser, USDOE-ORP  
Cliff Clark, USDOE-RL  
Jack Donnelly, WRPS  
Rick Engelmann, CHPRC  
Dennis Faulk, EPA  
Phil Gent, Ecology  
Michael Greene, WRPS  
Robert Haggard, BNI  
Dale Jackson, USDOE-RL  
Jessica Joyner, WRPS  
Paul Karschnia, CHPRC  
Crystal Mathey, WDOH  
Ernest McCormick, WDOH  
Valarie Peery, Ecology  
Crystal Rau, Ecology  
John Schmidt, WDOH  
Maria Skorska, Ecology  
Jeff Voogd, WRPS  
Joan Woolard, WRPS  
Davis Zhen, EPA  
Environmental Portal  
RAES Tracking: Line# 792; NOC  
914; EU 1406; (Resp. to IM# 7,879)

Emission Unit ID: 1406

**200 W-AZ-301 Tanker-001**

**A-AZ301 Tanker-001**

This is a MINOR, PASSIVELY ventilated emission unit.

Tank Farms

**Abatement Technology** BARCT WAC 246-247-040(3), 040(4)

state only enforceable: WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # of Units	Additional Description
	Radial HEPA Filter	1	Tanker trailer breather, Radial HEPA filter

**Monitoring Requirements**

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93[b][4][i] & WAC 246-247-075[3]	40 CFR 61, Appendix B Method 114	Total Alpha and Total Beta/Gamma.	Annually at a minimum

**Sampling Requirements** Smear survey on the outside of the outlet of the vent.

**Additional Requirements**

Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status**

**This Emission Unit has 1 active Notice(s) of Construction.**

Project Title	Approval #	Date Approved	NOC_ID
Operation of the AZ-301 Tanker for Condensate Collection and Transport		Not Approved	914

**Conditions (state only enforceable: WAC 246-247-040(5), 060(5) if not specified)**

- 1) The total abated emission limit for this Notice of Construction is limited to 1.07E-05 mrem/year to the Maximally Exposed Individual (WAC 246-247-040(5)). The total limit on the Potential-To-Emit for this Notice of Construction is limited to 2.14E-02 mrem/year to the Maximally Exposed Individual (WAC 246-247-030(21)).
- 2) This approval applies only to those activities described below. No additional activities or variations on the approved activities that constitute a "modification" to the emission unit, as defined in WAC 246247-030(16), may be conducted.

The AZ-301 Tanker project consists of operation of a pumping system to transport condensate from catch tank AZ-301 into the tanker. A tanker would be deployed outside of the 241-AY/AZ Tank Farm. The condensate is transported to another permitted facility, such as Liquid Effluent Retention Facility, or Effluent Treatment Facility.

241-AY and 241-AZ Tank farms are ventilated by the 296-A-42 primary exhauster. Condensate from various points in the primary exhauster are collected and routed to the AZ-301 catch tank. The AZ-301 catch tank has a nominal 1,200 gallon capacity and condensate is currently routed to AZ-102 or AZ-101. Alternate options are needed as AY and AZ tanks are nearing capacity.

Emission from the AZ-301 Tanker project, in conjunction with other operations on the Hanford site, will not exceed the National Emission Standard of 10 millirem (mrem) per year (40 CFR 61, Subpart H).

The pumping operation shall follow As Low As Reasonably Achievable (ALARA) practices. The hose from AZ-301 to the tanker shall be hose in hose design so that any leak in the primary hose is contained. The hose is also elevated with a slant back toward the tank. The tanker has a catch basin.

The AZ-301 Tanker Project is designed to minimize potential emissions. A radial HEPA filter is used to vent the

tanker while it is being filled. To prevent the potential for inadvertent release during the connection and disconnection of the hoses "dry-break" connections are used. The top of the tanker where the condensate is pumped into the truck has a catch basin so that any condensate does not reach the ground. ALARA practices are employed during pumping operations and the loading and unloading of the tanker.

The truck loading area will have a tent like enclosure for weather protection and to retain heat in the winter.

3) **The Annual Possession Quantity is limited to the following radionuclides (Curies/year):**

Alpha - 0	9.57E-01	Beta - 0	9.36E+01
All Alpha radioactivity was attributed to Pu-239		All Beta radioactivity was attributed to Sr-90	

4) **ABATEMENT CONTROL-Tanker Loading Activities**

All work shall be performed in accordance with approved radiological control methods and ALARA program requirements. These requirements shall be carried out through work packages, operating procedures, radiological work permits, or other work instructions. The general chemical and physical processes associated with tanker loading activities shall consist of the following.

Appropriate hookups shall be made between the source and the tanker (e.g., pumps, hoses, etc.). Connections will be periodically surveyed to verify that no leaks are occurring.

Spill prevention measures shall be in place to mitigate release of condensate to the atmosphere and/or to the ground during hookup, transfer, and disconnect operations. These measures include provisions to catch and retain any inadvertent release of liquid (e.g. the catch basin and the connection to the tanker) and the use of "dry-break" connections to connect the transfer line to the truck. The tanker shall be equipped with a High Efficiency Particulate Filter (HEPA) to allow for venting while the tanker is being filled. (WAC 246-247-040(5))

5) **ABATEMENT CONTROL-Prior to Transport**

After filling the tanker, fittings shall be disconnected and closed and shall remain closed until commencement of unloading operations at the LERF or ETF

All liquid/gas release points on the tanker shall be closed prior to transport

The valve under the HEPA filter shall be closed during transport to ensure that the liquid does not wet the HEPA filter during transport.

Appropriate decontamination measures shall be performed to reduce residual external smearable radioactive contamination to transport release criteria before releasing the tanker for overland transport.

Removable contamination levels on the truck must be less than or equal to 1,000 dpm/100 cm<sup>2</sup> beta/gamma and less than or equal to 20 dpm/100 cm<sup>2</sup> alpha prior to transport

Inspections of the tanker vents and valves shall be performed and documented prior to transport.

Waste liquid shall be characterized (at a minimum of annually), and acceptability at the ETF and/or LERF shall be documented.(WAC 246-247-040(5))

6) **EFFLUENT MONITORING-WDOH documentation:**

a) A single WDOH approved record shall be maintained, of the tanker shipments and an estimate of annual emissions shall be reported. Records of the operator rounds (which shall serve as the WDOH approved record) can be used for this documentation. (WAC 246-247-040(5))

b) Information from shipment records shall be used to estimate annual emissions. The estimated emissions shall be determined using one of the following methods:

Method 1: From the characterization of the liquid being loaded, gross alpha and gross beta/gamma activities shall be determined. The emission shall be determined using the volume of liquid transferred, an assumed release fraction of 0.001, the most recent location-specific dose conversion factors of 1.88E-01 mrem/Ci beta/gamma and 4.00E+00 mrem/Ci alpha, assuming gross alpha is Pu-239 and gross beta/gamma is Sr-90

Method 2: From the characterization of the liquid being loaded, a complete isotopic distribution of radionuclides shall be determined. The emission shall be determined using the volume of liquid transferred, an assumed release fraction of 0.001, the most recent location-specific dose conversion factors of 1.88E-01 mrem/Ci beta/gamma and 4.00E+00 mrem/Ci alpha for the known isotopes. (WAC 246-247-040(5), WAC 246-247-080(7), WAC 246-247-075(3))

7) **EMISSION UNITS IDENTIFIED**

The emission unit shall be clearly identified by Emission Unit ID and AEI ID number (WAC 246-247-040(5))

8) ABATEMENT CONTROL-Fill level limits

The tanker has an 8,000 gallon capacity. The condensate will be periodically transported when the tanker is filled with approximately 7,000 gallons. (WAC 246-247-040(5))

9) ABATEMENT CONTROL-Air flow rates

The HEPA filter shall be rated for a flow rate higher than the maximum flow rate when being filled. (WAC 246-247-040(5))

10) ABATEMENT CONTROL-Volume documentation

Volume of tanker contents shall be documented each day of filling operations. (WAC 246-247-040(5))

**STATE OF WASHINGTON  
DEPARTMENT OF HEALTH  
ENVIRONMENTAL HEALTH PROGRAMS  
OFFICE OF RADIATION PROTECTION**

Docket No:  
**REQUEST FOR ADJUDICATIVE PROCEEDING**

In Re The Approval of:  
**Operation of the AZ-301 Tanker for Condensate Collection and Transport**

Draft Approval No:   **AIR 14-202**

THE STATE OF WASHINGTON TO:           **Mr. Kevin W. Smith, Manager  
United States Department of Energy  
Office of River Protection  
P.O. Box 450, MSIN: H6-60  
Richland, Washington 99352-0450**

If you wish to request an adjudicative proceeding, you or your attorney must COMPLETE AND FILE THIS FORM OR A DOCUMENT PROVIDING SUBSTANTIALLY THE SAME INFORMATION WITH THE DEPARTMENT OF HEALTH ADJUDICATIVE SERVICE UNIT WITHIN TWENTY-EIGHT (28) DAYS OF YOUR RECEIPT of this Request for Adjudicative Proceeding form and a copy of the Office of Radiation Protection's approval, **AIR 14-202**.

You must file your application in a manner that shows proof of service on the Adjudicative Service Unit, at the following address:

Department of Health  
Adjudicative Service Unit  
310 Israel Road S.E.  
P.O. Box 47879  
Olympia, WA 98504-7879

With your application, you must include a copy of the Office of Radiation Protection's approval.

**FILING SHALL NOT BE DEEMED COMPLETE UNTIL THE ADJUDICATIVE SERVICE UNIT ACTUALLY RECEIVES YOUR APPLICATION.**

**YOU HAVE THE RIGHT TO** a formal hearing in this matter conducted pursuant to Revised Code of Washington (RCW) 43.70.115, Chapter 34.05 RCW, and Chapter 246-10 of the Washington Administrative Code (WAC). Alternatively, you may waive the formal hearing and submit a written statement and supporting documents setting out your position, your defenses, and any mitigating circumstances that you wish to bring to the Department's attention.

You have the right to be represented by an attorney at your own expense.

**I.**

I **WILL BE** represented by an attorney. His/her name, address, and phone number are:

Name:

Address:

Phone:

I **WILL NOT BE** represented by an attorney.

*If after submitting this request, you obtain attorney representation or change attorneys, you must notify the Adjudicative Service Unit.*

## II.

I **DO NOT** waive my right to a formal hearing.

I **DO** waive my right to a formal hearing. I understand that if I waive my right to a formal hearing, the Department may decide this matter solely with reference to information in the Department's possession and to such written statements and supporting documents as I may have submitted.

If you choose to waive your right to a formal hearing, please complete the following:

I **AM NOT** submitting documents to the Department in support of my position.

I **AM** submitting a sworn statement and/or other documents to the Department in support of my position. Instructions - Please indicate your responses below:

If you are submitting documents to the Department, please list and briefly identify all such documents in the space provided below and on any additional sheet that may be necessary.

III.

ADMISSION/DENIAL OF CONDITIONS OR LIMITATIONS

The Office of Radiation Protection's approval AIR 14-202, dated February 7, 2014, contains conditions and limitations set out as numbered paragraphs. In the space below you must indicate, in good faith, whether you admit, or do not contest, or deny the conditions or limitations. Conditions or limitations denied or not contested may later be admitted. Conditions or limitations admitted or not contested shall be conclusively deemed true for further proceedings.

Instructions: I admit, deny, or do not contest the conditions or limitations as follows  
(fill in the appropriate paragraph number):

	<u>Admit</u>	<u>Deny</u>	<u>Do Not Contest</u>
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]
Paragraph _____	[ ]	[ ]	[ ]

Please attach any additional sheets that may be necessary to respond to all allegations.

If you have chosen not to waive your rights to a formal hearing, please state all grounds for contesting this matter in the space provided below and on any additional sheets that may be necessary.



IV.

You have the right to an interpreter, appointed at no cost, if you are a hearing impaired person or limited English speaking person. If any witness for you is a hearing impaired person or a limited English speaking person, an interpreter will be appointed at your expense.

I [DO] / [DO NOT] (circle one) request an interpreter be appointed. If an interpreter is requested, please indicate the person or persons for whom an interpreter is required and their primary language, and/or whether they are hearing impaired.

IF YOU FAIL TO FILE YOUR APPLICATION IN A TIMELY MANNER, OR IF YOU FILE YOUR APPLICATION TIMELY BUT FAIL TO APPEAR AT ANY SCHEDULED SETTLEMENT CONFERENCE, PREHEARING CONFERENCE, OR HEARING WITHOUT LEAVE TO DO SO, THE DEPARTMENT MAY DECIDE THIS MATTER WITHOUT YOUR PARTICIPATION AND WITHOUT FURTHER NOTICE TO YOU.

DATED this \_\_\_\_\_ day of \_\_\_\_\_,

\_\_\_\_\_  
Party

\_\_\_\_\_  
Party's Representative (if any)

WSBA #: \_\_\_\_\_