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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
1315 W. 4th Avenue • Kennewick, Washington 99336-6018 • (509) 735-7581

February 6, 2002

Ms. Laurie Kral
Office of Air Quality Program
United States Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

RECEIVED
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EDMC

Mr. Andy Ginsburg, Administrator
Air Quality Division
Oregon Department of Environmental Quality
811 SW Sixth Avenue
Portland, Oregon 97204

Mr. Russell Jim
Yakama Indian Nation
P.O. Box 151
Toppenish, Washington 98948

Mr. Gary Burke, Chairman
Confederated Tribes of the Umatilla Indian Reservation
P.O. Box 638
Pendleton, Oregon 97801

Dear Ms. Kral, Messrs. Ginsburg, Jim and Burke:

Re: Issuance of Revision E to the Hanford Site Title V Air Operating Permit (AOP) for inclusion of specific modifications to the pumping and sluicing on the Single-Shell Tank 241-C-106

The Washington State Department of Ecology (Ecology) formally issues the attached minor modification to the Hanford Site Air Operating Permit (AOP) as Revision E. This revision involves the inclusion of specific modifications to the pumping and sluicing on the Single-Shell Tank 241-C-106, as described in the Notice of Construction (NOC) approval order AIR 02-1107 issued by Washington State Department of Health under Washington Administrative Code (WAC) 246-247. Please insert the enclosed Revision E package after Attachment 2 of the Hanford AOP for your record and future reference.

In accordance with WAC 173-401-800 for public involvement, the public comment period started on January 10, 2003, and ended on January 31, 2003. There were no public comments received by Ecology.

The terms and conditions of the revision become effective immediately. If you have any questions regarding the issuance of this revision, please contact Oliver Wang of my staff at (509) 736-3040.

Sincerely,

Mike Wilson
Program Manager
Nuclear Waste Program

Oliver Wang
Professional Engineer
Nuclear Waste Program

MW:OW:nc
Enclosure: Revision E insertion to the Hanford Site Title V AOP.

cc w/enclosure:

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United States Department of Energy
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United States Department of Energy
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Administrative Record: Hanford AOP

cc w/o enclosure:

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Revision E: Modification of liquid pumping and enhanced sluicing on Tank 241-C-106

NOC/AOP Application: DOE-ORP Memo 02-ED-038, "Submittal of Minor Permit Modification request for modification of liquid pumping and enhanced sluicing on Tank 241-C-106," Dated December 18, 2002.

WDOH Approval Order: AIP 02-1107, Dated November 25, 2002

AOP Revision Issuance Date: February 6, 2003

Total 12 pages: E-1 to E-12

Approval Number: AIR 02-1107 NOC ID: 540

DEPARTMENT OF HEALTH
RADIOACTIVE AIR EMISSIONS
NOTICE OF CONSTRUCTION
APPROVAL FOR

PROJECT TITLE: LIQUID PUMPING AND ENHANCED SLUICING ON TANK 241-C-106

Date Approved: 25-Nov-02

Emission Unit Name: 200 AREA DIFFUSE/FUGITIVE **Emission Unit ID** 486

This is a MAJOR, FUGITIVE, non-point source emission unit.

This emission unit requires the following Abatement Technology:

Applicable Requirements: **BARCT** ALARACT [WAC 246-247-040(4)]
BARCT [WAC 246-247-040(3)]

Zone or Area:	Abatement Technology	Required # of Units	Additional Description/Conditions
			Abatement controls as required in the following Conditions and Limitations.

Additional abatement technologies required by this Notice of Construction will be listed in the Conditions and Limitations section.

This emission unit has the following Monitoring and Sampling Requirements:

Applicable Requirements: Monitoring, Testing and Quality Assurance WAC 246-247-075

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075[3]	Appendix B, Method 114	All radionuclides which could contribute 10% of the potential EDE.	As listed in the following Conditions and Limitations.

Sampling Requirements: Existing near-facility monitoring stations.

Additional monitoring or sampling requirements established by this NOC will be listed in the Conditions and Limitations section.

Change History

1 1/21/2002 NOC, Modification for Liquid Pumping and Enhanced Sluicing on Tank 241-C-106, approved via AIR 02-1107 on November 25, 2002. Approval of this NOC obsoletes NOC 310, 241-C-106 Tank Sluicing, Phase II.

CONDITIONS AND LIMITATIONS

1) The U.S. Department of Energy shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2) The total abated emission limit for this Notice of Construction is limited to 2.55E-03 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 4.67E+00 mrem/year to the Maximally Exposed Individual (WAC 246-247-030(21)).

3) **No activities, other than those explicitly described within this approval, shall be conducted without prior written approval. The approved activities are limited to:**

   The following actions:

Step 1:

- Fix and/or remove contamination and blown in soil/debris in the 241-C-06B heel pit in accordance with ALARACT 4, ALARACT 6, ALARACT 14, and ALARACT 15.
- If necessary, a HEPA vacuum will be used in accordance with the sitewide NOC.
- Remove a heel pit pump out of riser R-13 in the 241-C-06B heel pit in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT15, and ALARACT 16.
- Place conduit in a trench in accordance with ALARACT 5.
- Remove a thermoucouple out of riser R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16.
- Install slurry pump for the sluicing operation in riser R-9, R-13 or R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.

Step 2:

- Fix and/or remove any contamination and blown in soil/debris in the 241-C-06C sluice pit in accordance with ALARACT 4, ALRACT 6, ALARACT 14 and ALARACT 15.
- If necessary, a HEPA vacuum will be used per the sitewide NOC.
- Remove the old sluicer and install new sluicer equipment in the R-3 riser, if needed, in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.

Step 3:

- Fix and/or remove any contamination and blown in soil/debris in the 241-C-06A pump pit in accordance with ALARACT 4, ALRACT 6, ALARACT 14 and ALARACT 15.
- If necessary, a HEPA vacuum will be used per the sitewide NOC.
- Remove the failed pump equipment out of R-9 and R-6 riser used for prior sluicing operation in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.
- Install new sluicer equipment in the R-6, R-7, R-5 or R-9 riser, if needed, in with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.
- Place an in-tank closed circuit television camera or television monitoring system in riser R-1, R-7, R-8 and R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.

Step 4:

- Pump out remaining free liquid in the tank to the DST system through a pump installed in either riser R-9, R-13 or R-14 under passive ventilation in accordance with ALARACT 11.

Step 5: (applies only to the 296-P-47 emission unit)

- Sluice and pump the solids that become a slurry into the DST system using raw water (or recirculated 241-C-106 water) as the sluicing agent. This activity shall only be performed

during operation of the 296-P-47 portable exhauster. The emission unit shall be sampled continuously with a shrouded probe. The sample location, shrouded probe assembly, transport line and sample collection shall be qualified in accordance with the requirements of ANSI N13.1-1999.

Step 6:

- After sluicing an "in tank vehicle" (ITV) could be used, if necessary, to collect the remaining tank contents to be slurried through the sluicing pump to bring the tank contents down to <360 cubic feet in volume. This activity shall only be performed during operation of the 296-P-45 portable exhauster. The ITV shall be installed through a riser in accordance with ALARACT 1 and ALARACT 13. The ITV will be used to push the remaining tank material into the center of the tank to be pumped. The ITV shall not move faster than 2 mph. If big chunks of sludge need to be broken, the tracks or plow blade could be used to break up the material so it can be pumped. The "water cannon" on the ITV shall not be used in tank 241-C-106. Upon removal of the tank the ITV shall be decontaminated with in the tank using ultrasonic decontamination and then go through a spray ring.

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

Ac - 227	2.31E-03	Am - 241	2.25E+02	Am - 243	2.20E-03
Ba - 137 m	1.66E+04	C - 14	5.73E-02	Cd - 113 m	1.77E+01
Cm - 242	3.56E-01	Cm - 243	2.81E-02	Cm - 244	6.03E-01
Co - 60	1.40E+00	Cs - 134	7.07E-02	Cs - 137	1.75E+04
Eu - 152	3.28E+00	Eu - 154	2.67E+02	Eu - 155	1.89E+02
H - 3	1.55E+00	I - 129	1.70E-02	Nb - 93 m	1.28E+01
Ni - 59	6.53E+00	Ni - 63	6.08E+02	Np - 237	2.62E-01
Pa - 231	3.37E-03	Pu - 238	3.50E+00	Pu - 239	7.56E+01
Pu - 240	1.54E+01	Pu - 241	1.85E+02	Pu - 242	1.65E-03
Ra - 226	4.10E-04	Ra - 228	3.15E-05	Ru - 106	1.69E-05
Sb - 125	2.83E+00	Se - 79	2.88E-01	Sm - 151	1.19E+04
Sn - 126	2.14E+00	Sr - 90	2.82E+05	Tc - 99	3.14E+00
Th - 229	2.43E-05	Th - 232	2.54E-03	U - 232	5.30E-04
U - 233	2.18E-03	U - 234	4.31E-02	U - 235	1.84E-03
U - 236	7.66E-04	U - 238	4.40E-02	Y - 90	2.82E+05
Zr - 93	1.44E+01				

5) These Conditions and Limitations must be documented in an established procedure prior to starting activities granted by this approval (WAC 246-247-040(5)) and (WAC 246-247-060(5)).

6) If this emission unit is not in compliance with the standards in WAC 246-247-040 during construction or operation, the department reserves the right to require modifications to bring it into compliance (WAC 246-247-060-(2)(d)).

7) The facility shall notify the department seven days in advance of any planned pre-operational testing of the emission unit's control, monitoring or containment systems. The department reserves the right to observe such tests (WAC 246-247-060(4)).

8) The facility must be able to demonstrate that it has a quality assurance program compatible with

applicable national standards (WAC 246-247-075(6)).

9) The department retains the right to conduct stack sampling, environmental monitoring or other testing around this unit to assure compliance. If directed by the department, the facility must make provision for such testing (WAC 246-247-075(9) and (10)).

10) The facility must be able to demonstrate that workers associated with this emission unit are trained in the use and maintenance of control and monitoring systems, and in the performance of associated tests and emergency procedures (WAC 246-247-075(12)).

11) The facility must be able to demonstrate the reliability and accuracy of emissions data and other test results from this emission unit (WAC 246-247-075(13)).

12) The department reserves the right to inspect and audit all construction activities, equipment, operations, documents, data and other records related to compliance with the requirements of this chapter (WAC 246-247-080(1)).

13) The department may require an ALARACT demonstration at any time (WAC 246-247-080(1)).

14) The facility must meet all reporting and record keeping requirements of 40 CFR 61, Subpart H (WAC 246-247-080(2)).

15) The facility shall report all measured or calculated emissions annually (WAC 246-247-080(3)).

16) The facility shall report to the department within 24 hours, any unexpected release of radioactivity, shutdown or other condition that, if allowed to persist, or lasts more than four hours, would result in the emission of radionuclides in excess of any standards or limitation in the license. Applicable standards (WAC 246-247-040) include unit specific emission limits (paragraph 5), the offsite dose standard (paragraph 1), BARCT (paragraph 3) or ALARACT (paragraph 4), whichever is applicable, or any limitation included in this approval (paragraph 5) (WAC 246-247-080(5)).

17) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shutdown or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity.

All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with (WAC 246-247-080(8)). (WAC 246-247-080(6))

18) The facility shall maintain readily (promptly) retrievable storage areas (on site) for all records and documents related to, and which may help establish compliance with, the requirements of this chapter. The facility shall keep these records available for department inspection for at least five years (WAC 246-247-080(8)).

19) The facility shall ensure all emissions units are fully accessible to department inspectors. In the event the hazards associated with accessibility to a unit require training and/or restriction or requirements for entry, the facility owner or operator shall inform the department, prior to arrival, of those restrictions or requirements. The owner or operator shall be responsible for providing the necessary training, escorts, and support services to allow the department to inspect the facility. At a minimum for unannounced inspections, such requirements or restrictions must be told to inspectors to provide an opportunity for inspectors to meet those requirements prior to the inspection (WAC 246-247-080(9)).

20) The facility shall make available, in timely manner, all documents requested by the department for review. The facility shall allow the department to review documents in advance of an inspection. The facility shall allow access to classified documents by representatives of the department with the appropriate security clearance and a demonstrable need-to-know (WAC 246-247-080(10)).

21) Diffuse/Fugitive emissions shall be monitored using the 200 East Area near-field ambient air monitors. Sample collection and analysis shall follow that of the near field monitoring program. Analytical results shall be reported in the Annual Air Emissions Report. Any change to this near-field ambient monitoring program must be approved by the department.

22) Prior to pump of liquid from 241-C-106 the breather filter shall be verified to be valved open.

23) Periodic confirmatory measurements of the breather filter shall be a monthly smear taken on the downstream side of the breather filter, during sluicing operations. Any positive results above background shall be reported to the WDOH.

24) The Breather Filter shall be tested annually in-place with a minimum efficiency of 99.95% in accordance with requirements ASME N510 Section 10.

25) WDOH approved logs shall be used to track the Annual Possession Quantities for Pit Cover Removal and the abated offsite dose shall not exceed 5.96E-06 mrem/yr.

26) A WDOH approved log shall be used to track total days of liquid pumping under passive ventilation, and shall not exceed 60 days.

27) Total soil excavated shall not exceed 500 cubic feet.

28) WDOH approved logs shall be used to track the Annual Possession Quantities for Equipment Removal and the abated offsite dose shall not exceed 6.3E-03 mrem/yr.

29) WDOH approved logs shall be used to track the Annual Possession Quantities for Soil Excavation and the abated offsite dose shall not exceed 1.69E-04 mrem/yr.

Approval Number: AIR 02-1107 NOC ID: 540

DEPARTMENT OF HEALTH
RADIOACTIVE AIR EMISSIONS
NOTICE OF CONSTRUCTION
APPROVAL FOR

PROJECT TITLE: LIQUID PUMPING AND ENHANCED SLUICING ON TANK 241-C-106

Date Approved: 25-Nov-02

Emission Unit Name: 296-P-47 **Emission Unit ID 498**

This is a MAJOR, ACTIVELY ventilated emission unit.

This emission unit requires the following Abatement Technology:

Applicable Requirements: **BARCT** ALARACT [WAC 246-247-040(4)]
BARCT [WAC 246-247-040(3)]

Zone or Area:	Abatement Technology	Required # of Units	Additional Description/Conditions
	Heater		
	Demister		
	Prefilter		
	HEPA		Two HEPA filters in series
	Fan		

Additional abatement technologies required by this Notice of Construction will be listed in the Conditions and Limitations section.

This emission unit has the following Monitoring and Sampling Requirements:

Applicable Requirements: Monitoring, Testing and Quality Assurance WAC 246-247-075

Federal and State Regulatory	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075	40 CFR 61, Appendix B, Method 114, latest revision.	All radionuclides which could contribute 10% of the potential EDE.	Change record sample every 2-weeks during emission unit operation.

Sampling Requirements: Continuous during emission unit operation.

Additional monitoring or sampling requirements established by this NOC will be listed in the Conditions and Limitations section.

Change History

11/21/2002 NOC, Modification for Liquid Pumping and Enhanced Sluicing on Tank 241-C-106, approved via AIR 02-1107 on November 25, 2002. Approval of this NOC obsoletes NOC 310, 241-C-106 Tank Sluicing, Phase II.

CONDITIONS AND LIMITATIONS

1) The U.S. Department of Energy shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2) The total abated emission limit for this Notice of Construction is limited to 2.55E-03 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 4.67E+00 mrem/year to the Maximally Exposed Individual (WAC 246-247-030(21)).

3) **No activities, other than those explicitly described within this approval, shall be conducted without prior written approval. The approved activities are limited to:**

The following actions:

Step 1:

- Fix and/or remove contamination and blown in soil/debris in the 241-C-06B heel pit in accordance with ALARACT 4, ALARACT 6, ALARACT 14, and ALARACT 15.
- If necessary, a HEPA vacuum will be used in accordance with the sitewide NOC.
- Remove a heel pit pump out of riser R-13 in the 241-C-06B heel pit in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT15, and ALARACT 16.
- Place conduit in a trench in accordance with ALARACT 5.
- Remove a thermoucouple out of riser R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16.
- Install slurry pump for the sluicing operation in riser R-9, R-13 or R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.

Step 2:

- Fix and/or remove any contamination and blown in soil/debris in the 241-C-06C sluice pit in accordance with ALARACT 4, ALRACT 6, ALARACT 14 and ALARACT 15.
- If necessary, a HEPA vacuum will be used per the sitewide NOC.
- Remove the old sluicer and install new sluicer equipment in the R-3 riser, if needed, in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.

Step 3:

- Fix and/or remove any contamination and blown in soil/debris in the 241-C-06A pump pit in accordance with ALARACT 4, ALRACT 6, ALARACT 14 and ALARACT 15.
- If necessary, a HEPA vacuum will be used per the sitewide NOC.
- Remove the failed pump equipment out of R-9 and R-6 riser used for prior sluicing operation in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.
- Install new sluicer equipment in the R-6, R-7, R-5 or R-9 riser, if needed, in with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.
- Place an in-tank closed circuit television camera or television monitoring system in riser R-1, R-7, R-8 and R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15 and ALARACT 16.

Step 4:

- Pump out remaining free liquid in the tank to the DST system through a pump installed in either riser R-9, R-13 or R-14 under passive ventilation in accordance with ALARACT 11.

Step 5: (applies only to the 296-P-47 emission unit)

- Sluice and pump the solids that become a slurry into the DST system using raw water (or recirculated 241-C-106 water) as the sluicing agent. This activity shall only be performed during operation of the 296-P-47 portable exhauster. The emission unit shall be sampled continuously with a shrouded probe. The sample location, shrouded probe assembly, transport line and sample collection shall be qualified in accordance with the requirements of ANSI N13.1-1999.

Step 6:

- After sluicing an "in tank vehicle" (ITV) could be used, if necessary, to collect the remaining tank contents to be slurried through the sluicing pump to bring the tank contents down to <360 cubic feet in volume. This activity shall only be performed during operation of the 296-P-45 portable exhauster. The ITV shall be installed through a riser in accordance with ALARACT 1 and ALARACT 13. The ITV will be used to push the remaining tank material into the center of the tank to be pumped. The ITV shall not move faster than 2 mph. If big chunks of sludge need to be broken, the tracks or plow blade could be used to break up the material so it can be pumped. The "water cannon" on the ITV shall not be used in tank 241-C-106. Upon removal of the tank the ITV shall be decontaminated with in the tank using ultrasonic decontamination and then go through a spray ring.

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

Ac - 227	2.31E-03	Am - 241	2.25E+02	Am - 243	2.20E-03
Ba - 137 m	1.66E+04	C - 14	5.73E-02	Cd - 113 m	1.77E+01
Cm - 242	3.56E-01	Cm - 243	2.81E-02	Cm - 244	6.03E-01
Co - 60	1.40E+00	Cs - 134	7.07E-02	Cs - 137	1.75E+04
Eu - 152	3.28E+00	Eu - 154	2.67E+02	Eu - 155	1.89E+02
H - 3	1.55E+00	I - 129	1.70E-02	Nb - 93 m	1.28E+01
Ni - 59	6.53E+00	Ni - 63	6.08E+02	Np - 237	2.62E-01
Pa - 231	3.37E-03	Pu - 238	3.50E+00	Pu - 239	9.10E+01
Pu - 241	1.85E+02	Pu - 242	1.65E-03	Ra - 226	4.10E-04
Ra - 228	3.15E-05	Ru - 106	1.69E-05	Sb - 125	2.83E+00
Se - 79	2.88E-01	Sm - 151	1.19E+04	Sn - 126	2.14E+00
Sr - 90	2.82E+05	Tc - 99	3.14E+00	Th - 229	2.43E-05
Th - 232	2.54E-03	U - 232	5.40E-04	U - 233	2.18E-03
U - 234	4.31E-02	U - 235	1.84E-03	U - 236	7.66E-04
U - 238	4.40E-02	Y - 90	2.82E+05	Zr - 93	1.44E+01

5) These Conditions and Limitations must be documented in an established procedure prior to starting activities granted by this approval (WAC 246-247-040(5)) and (WAC 246-247-060(5)).

6) If this emission unit is not in compliance with the standards in WAC 246-247-040 during construction or operation, the department reserves the right to require modifications to bring it into compliance (WAC 246-247-060-(2)(d)).

7) The facility shall notify the department seven days in advance of any planned pre-operational testing of the emission unit's control, monitoring or containment systems. The department reserves the right to observe such tests (WAC 246-247-060(4)).

8) The facility must be able to demonstrate that it has a quality assurance program compatible with applicable national standards (WAC 246-247-075(6)).

9) The department retains the right to conduct stack sampling, environmental monitoring or other testing around this unit to assure compliance. If directed by the department, the facility must make provision for such testing (WAC 246-247-075(9) and (10)).

10) The facility must be able to demonstrate that workers associated with this emission unit are trained in the use and maintenance of control and monitoring systems, and in the performance of associated tests and emergency procedures (WAC 246-247-075(12)).

11) The facility must be able to demonstrate the reliability and accuracy of emissions data and other test results from this emission unit (WAC 246-247-075(13)).

12) The department reserves the right to inspect and audit all construction activities, equipment, operations, documents, data and other records related to compliance with the requirements of this chapter (WAC 246-247-080(1)).

13) The department may require an ALARACT demonstration at any time (WAC 246-247-080(1)).

14) The facility must meet all reporting and record keeping requirements of 40 CFR 61, Subpart H (WAC 246-247-080(2)).

15) The facility shall report all measured or calculated emissions annually (WAC 246-247-080(3)).

16) The facility shall report to the department within 24 hours, any unexpected release of radioactivity, shutdown or other condition that, if allowed to persist, or lasts more than four hours, would result in the emission of radionuclides in excess of any standards or limitation in the license. Applicable standards (WAC 246-247-040) include unit specific emission limits (paragraph 5), the offsite dose standard (paragraph 1), BARCT (paragraph 3) or ALARACT (paragraph 4), whichever is applicable, or any limitation included in this approval (paragraph 5) (WAC 246-247-080(5)).

17) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

    Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shutdown or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity.

    All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with (WAC 246-247-080(8)). (WAC 246-247-080(6))

18) The facility shall maintain readily (promptly) retrievable storage areas (on site) for all records and documents related to, and which may help establish compliance with, the requirements of this chapter. The facility shall keep these records available for department inspection for at least five years (WAC 246-247-080(8)).

19) The facility shall ensure all emissions units are fully accessible to department inspectors. In the event the hazards associated with accessibility to a unit require training and/or restriction or requirements for entry, the facility owner or operator shall inform the department, prior to arrival, of those restrictions or requirements. The owner or operator shall be responsible for providing the necessary training, escorts, and support services to allow the department to inspect the facility. At a minimum for unannounced inspections, such requirements or restrictions must be told to inspectors to provide an opportunity for inspectors to meet those requirements prior to the inspection (WAC 246-247-080(9)).

20) The facility shall make available, in timely manner, all documents requested by the department for review. The facility shall allow the department to review documents in advance of an inspection. The facility shall allow access to classified documents by representatives of the department with the appropriate security clearance and a demonstrable need-to-know (WAC 246-247-080(10)).

21) Prior to operation of the emission unit documentation, by a professional engineer, shall be provided to WDOH demonstrating compliance with the requirements of AG-1 Sections BA, SA, HA, FC, DA, CA, and ASME/ANSI N510 leak test criteria.

22) All ductwork connecting the tank to the exhauster shall be pressure tested in accordance with the requirements of AG-1 Section SA.

23) HEPA filters shall be individually tested in-place at least annually to the requirements ASME N510 Section 10, with a minimum efficiency of 99.95%.

24) The emission unit shall be operational during all sluicing activities.

25) The emission unit hours of operation shall be tracked on a WDOH approved log and shall not exceed 2880 hours of operation.

26) Monthly checks shall be performed on the exhaust duct to ensure there is no deterioration of the ductwork or leakage at the connections points.

27) Within one year of initial use of the exhauster the emission unit monitoring system shall have the following activities performed:

a. Inspect pitot tube systems for leaks, at least annually.
b. Inspect nozzles for alignment, presence of deposits, damage to sharp-edged nozzles, or other potentially degrading factors (corrosion, physical damage, etc) at least annually.
c. Check transport lines and if visible deposits are presents perform cleaning, at least annually.
d. Checks to ensure the tightness of all fittings and connections as well as a leak test of the sample system, at least annually.
e. Inspect rotameters of sampling systems for presence of foreign matter at the start of each sampling period.
f. Check the response of stack flow rate monitoring and control system at least quarterly.
g. A functional/calibration check of monitoring system instrumentation shall be performed at least annually.
h. USDOE shall provide to WDOH for review and approval copies of the procedures used to perform the above activities.

28) Prior to operation documentation verifying compliance to the qualification requirements of ANSI/HPS N13.1-1999 shall be provided to WDOH.

29) The curie value for Pu-239 identified in the Annual Possession Quantity also includes contributions from Pu-240.