

# Hanford Site Air Operating Permit Semiannual Report for July 1, 2007 Through December 31, 2007

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management



**United States**  
**Department of Energy**  
P.O. Box 550  
Richland, Washington 99352

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N. A. Homan  
Fluor Hanford, Inc.

Date Published  
February 2008

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*A. D. Aardal*      *02/12/2008*  
Release Approval      Date

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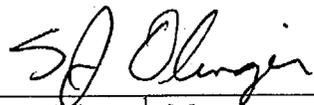
**Certification For**

**Hanford Site Air Operating Permit  
Number 00-05-006 Renewal 1**

**Semiannual Report July 1, 2007 through December 31, 2007**

**Certification:**

In accordance with WAC 173-401-200(29)(c) as the responsible official, I certify, pursuant to WAC 173-401-520, that, based on information and belief formed after reasonable inquiry, the statements and information provided in this Semiannual Report are true, accurate, and complete.

	
<u>S. J. Olinger<sup>1</sup>, Manager</u>	<u>D.A. Brockman<sup>2</sup>, Manager</u>
<u>U.S. Department of Energy</u>	<u>U.S. Department of Energy</u>
<u>Office of River Protection</u>	<u>Richland Operations Office</u>
<u>2/28/08</u>	<u>3/14/08</u>
Date	Date

<sup>1</sup> For emission units under control of the U.S. Department of Energy, Office of River Protection.

<sup>2</sup> For emission units under control of the U.S. Department of Energy, Richland Operations Office.

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## EXECUTIVE SUMMARY

The Hanford Site Air Operating Permit (AOP) requires submittal of a semiannual report to regulatory agencies by March 15<sup>th</sup> and September 15<sup>th</sup> each year. The report provides status on monitoring and reporting requirements and in general provides confirmation that required monitoring for specific air emissions units was completed for the reporting period. It also includes a list of any permit deviations, summaries of complaint investigations formally forwarded to DOE by Ecology, and any other monitoring reports or permit deviation documentation submitted during the reporting period. The report must be certified for truth, accuracy, and completeness by a Responsible Official.

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## ACRONYMS

AKI	annular kinetic impactor
AOP	Air Operating Permit
BCAA	Benton Clean Air Agency
CAM	continuous air monitor
CFR	Code of Federal Regulations
CH2M	CH2M Hill
CSB	Canister Storage Building
CVDF	Cold Vacuum Drying Facility
CWC	Central Waste Complex
DAC	derived air concentration
DOE	U.S. Department of Energy
DOE-RL	U.S. Department of Energy, Richland Operations Office
DOE-ORP	U.S. Department of Energy, Office of River Protection
DP	differential pressure
dpm	disintegrations per minute
DVS	drum venting system
Ecology	Washington State Department of Ecology
ETF	200 Areas Effluent Treatment Facility
EU ID	emission unit identification number
FFTF	Fast Flux Test Facility
HAMMER	Hazardous Materials Management and Emergency Response Training Center
HEGA	high-efficiency gas adsorber
HEPA	high-efficiency particulate air
ISA	Interim Storage Area
LERF	Liquid Effluent Retention Facility
MEI	maximally exposed individual
mrem	millirem
NDA	nondestructive assay
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOC	notice of construction
PFP	Plutonium Finishing Plant
PNNL	Pacific Northwest National Laboratory
PTRAEU	portable temporary radioactive air emission unit

**ACRONYMS (cont)**

REDOX	Reduction Oxidation (Plant)
SST	single shell tank
STGC	standard terms and general conditions
WAC	Washington Administrative Code
WDOH	Washington State Department of Health
WRAP	Waste Receiving and Processing Facility
WSCF	Waste Sampling and Characterization Facility
WTP	Hanford Tank Waste Treatment and Immobilization Plant

## HANFORD SITE AIR OPERATING PERMIT SEMIANNUAL REPORT FOR JULY 1, 2007 THROUGH DECEMBER 31, 2007

### 1.0 INTRODUCTION

The Hanford Site Air Operating Permit (AOP), Number 00-05-006 Renewal 1 was effective on January 1, 2007. One condition contained in AOP Standard Term and General Conditions (STGC) Section 4.3.3, *Semiannual Reports*, is the requirement to submit semiannual reports by March 15th and September 15th each year. The reports are required to be certified by a Responsible Official for truth, accuracy, and completeness.

Copies of semiannual reports are transmitted to the Washington State Department of Ecology (Ecology), the Washington State Department of Health (WDOH), the Benton Clean Air Agency (BCAA), and the U.S. Environmental Protection Agency (EPA), Region 10.

This semiannual report contains information from July 1, 2007 through December 31, 2007.

AOP STGC Section 4.3.3, *Semiannual Reports*, identifies the following content for inclusion in the Semiannual Report.

1. "Each semiannual report will provide a reference to reports submitted to the regulatory agencies as required by General Conditions Section 4.5, Permit Deviation Reporting".

This information is provided in Section 2.0 of the Semiannual Report.

2. "Each semiannual report will consist of reports of any required monitoring not submitted according to Section 4.3 or reference to reports of required monitoring that were submitted previously during the reporting period".

This information is provided in Section 4.0 of the Semiannual Report.

3. "Each semiannual report will contain a summary of any substantiated air emission complaint investigation(s) required in Table 1.2 of Attachment 1 and issued during the reporting period".

This information is provided in Section 3.0 of the Semiannual Report.

4. "For all minor radioactive emission points (potential to emit <0.1 mrem to the maximally exposed individual (MEI)) listed in Attachment 2, each semiannual report will contain a general statement confirming that any required monitoring was conducted to verify low emissions during the reporting period for those emission units with specific periodic monitoring required during that period".

This information is provided in Section 5.0 of the Semiannual Report.

5. "For all emission units with continuous monitoring, a general statement will be provided stating that required monitoring operated continuously".

This information is provided in Section 5.0 of the Semiannual Report.

6. "For an emission unit(s) that operated for any part of the calendar year, and was not closed per WAC 246-247-080(6), (reference to FF-01 Attachment 2) monitoring data will be reported in the annual NESHAP report. Diffuse and fugitive minor emission units listed in AOP, Attachment 2, are not required to be reported on except annually as a composite portion of the annual NESHAP report".

Diffuse and fugitive emission units are not included in the Semiannual Report.

7. "Each semiannual report will list any new regulatory orders (e.g., Notice of Construction or License to Operate) imposed during the reporting period by Ecology or Health".

This information is provided in Section 6.0 of the Semiannual Report.

## 2.0 DEVIATION REPORTS

Table 1 contains reports or notifications submitted directly to the regulatory agencies during this reporting period as required by AOP STGC Section 4.5, *Permit Deviation Reporting*. The date column represents the date the agency was notified. Additional detail is available in the reference if one exists.

Table 1 Deviations Reported for the Period July 1, 2007 through December 31, 2007.

Date	Agency	Area	Location	Reference number	Description
7/3/07	WDOH	200E	241-AN Farm	CH2M-0700692	296-A-30 A-Train was found shut down due to an unknown cause.
7/5/07	WDOH	200E	241-C Farm	CH2M-0700693	296-P-47 exhauster shut down due to low seal pot level.
7/5/07	WDOH	200E	241-AN Farm	CH2M-0700694	296-A-30 was found shut down due to an unknown cause.
7/10/07	WDOH	200W	PFP		296-Z-5, temporary loss of ventilation during unrelated maintenance work.
7/16/07	WDOH	200E	241-C Farm	CH2M-0701021	296-P-47 exhauster shut down due to a seal pot alarm.
7/20/07	WDOH	200	Central Plateau		AIR 06-1053, failure to submit annual emissions log by due date.
7/25/07	Ecology	300	336 Building		DE06NWP-002, failure of diesel engines to meet Tier 2 emission limitations.
7/27/07	WDOH	200W	241-S Farm	CH2M-0701022	S-102 retrieval system spill of liquid to environment discovered during entry at S-102.

Table 1 Deviations Reported for the Period July 1, 2007 through December 31, 2007.

Date	Agency	Area	Location	Reference number	Description
7/30/07	WDOH	200W	LLBG		218-W-4B Trench 7, notification was not provided within the required 24 hours for encountering removable contamination above permit limits.
8/3/07	WDOH	600	WSCF		696-W-1, temporary loss of ventilation train 2 due to associated chiller malfunction.
8/11/07	WDOH	200E	241-AW Farm	CH2M-0701023	296-A-27 (241-AW Primary) exhauster shut down due to an unknown cause.
8/17/07	WDOH	600	WSCF		696-W-1, train 1 temporarily shut down as a precaution to range fire.
8/22/07	WDOH	200E	241-AW Farm	CH2M-0701025	241-AW-104 annulus inlet filter failed the annual aerosol test with a reading of 99.86%.
8/23/07	WDOH	200E	241-AZ Farm	CH2M-0701026	296-A-42 continuous monitoring of the exhauster and operation of the primary condenser were interrupted by an unplanned shutdown of the chiller pumps.
8/25/07	WDOH	200E	241-AW Farm	CH2M-0701027	296-A-28 exhauster shutdown due to CAM alarm.
8/30/07	WDOH	200E	241-C Farm	CH2M-0701028	A ductwork transition piece was found contaminated at 27,500 dpm beta/gamma.
9/19/07	WDOH	200W	241-S Farm	CH2M-0701029	296-S-15 (241-S Tank Exhauster), a slow leak of condensate was discovered from the duct condensate return line.
10/3/07	WDOH	200E	241-C Farm	CH2M-0701030	During weekly smear surveys upstream of the filter housing between flanges #2 and #3 there was 20,000 dpm beta/gamma found.
10/4/07	WDOH	200E	241-BY Farm	CH2M-0701031	241-BY-101/-102/-103/-104/-105/-106 annual breather filter smears and annual aerosol testing was not performed on time.
10/6/07	WDOH	200W	241-S Farm	CH2M-0701033	S-102 dilution hose removal activities, one AKI sample from within a High Contamination Area/High Radiation Area/Airborne Radioactivity Area had a 0.37 Derived Air Concentration.
10/9/07	WDOH	200E	241-AP Farm	CH2M-0701034	296-A-40 (AP-Primary Exhauster) A-Train went down when transferring from temporary to permanent electrical power.
10/12/07	WDOH	200W	PFP		234-5Z Filter Rooms, aerosol testing procedures required changes to bring testing closer to requirements to assure HEPA filtration.
10/17/07	WDOH	200E	241-A Farm	CH2M-0701035	241-A-105 breather filter failed its annual aerosol challenge test.
10/19/07	WDOH	200W	PFP		296-Z-7, temporary loss of supply and exhaust fans during fire system maintenance.
10/20/07	WDOH	200W	241-SY	CH2M-0701036	296-P-23 B-Train was found shutdown due to an unknown cause.
10/23/07	WDOH	200E	242-A Evaporator	CH2M-0701037	296-A-22 shutdown after a loss of power to the facility that lasted approximately 1 second.

Table 1 Deviations Reported for the Period July 1, 2007 through December 31, 2007.

Date	Agency	Area	Location	Reference number	Description
10/24/07	WDOH	200W	241-SY Farm	CH2M-0701038	241-SY Tank Farm B-Train exhauster was found shutdown due to instrument interlock(s).
11/1/07	WDOH	200W	241-SY Farm	CH2M-0701040	296-P-23, 241-SY ventilation system B-Train shutdown due to an unknown cause.
11/1/07	WDOH	200E	241-AY Farm	CH2M-0702567	296-A-18 annulus exhauster record sample loop instruments overdue for calibration.
11/7/07	WDOH	200E	241-AY/AX Tank Farm	CH2M-0702568	296-A-42 exhauster B-Train failed its halide test of its HEGA filter.
11/7/07	WDOH	200W	219-S Sample Gallery	CH2M-0702569	296-S-23 HEPA filters failed at 99.94% efficiency during vent and balance test.
11/7/07	WDOH	600	WSCF		696-W-1, temporary shutdown of one exhaust train due to unexpected power surge during unrelated maintenance work.
11/9/07	WDOH	200W	PFP		234-5Z Filter Room 315 was not able to be aerosol tested in an acceptable manner due to existing distribution manifold design.
11/13/07	WDOH	100K	CVDF		296-K-142, maintenance shutdown longer than the allowed 8 hours within a 24 hour period.
11/13/07	WDOH	200W	REDOX		291-S-1, temporary shutdown most likely due to high winds.
11/15/07	WDOH	200E	241-BY Farm	CH2M-0702570	241-BY-105 and 241-BY-112 breather filters failed their annual flow testing with low dps.
11/17/07	WDOH	200E	241-AP Farm	CH2M-0702572	296-A-41, AP-Annulus Exhauster "A" Train was found shut down; the instrument building High Rad and CAM Failure alarms were locked in and could not be cleared.
12/3/07	WDOH	200W	241-S Farm	CH2M-0702574	241-S-102 airborne radioactivity area/high contamination area/high radiation area work place air sample was above the reporting criteria of 0.2 DAC alpha. The 7-day decay value was 0.3392 DAC alpha.
12/5/07	WDOH	200W	241-S Farm	CH2M-0702575	241-S-102 airborne radioactivity area/high contamination area/high radiation area work place air sample was above the reporting criteria of 0.2 DAC alpha. The 7-day decay value was 1.6205 DAC alpha.
12/18/07	WDOH	200W	Ambient Air		Sample Station N165, PU-239/240 concentration greater than 10% of 40 CFR 61 Appx. E Table 2.
12/18/07	WDOH	200W	PFP		234-5Z Filter Rooms inspection revealed maintenance needs for most filter rooms potentially impacting abatement function.
12/25/07	WDOH	200E	241-AZ Farm	CH2M-0702576	296-A-42 chiller shut down causing a HI-HI Temperature alarm, shutting down flow to the CAM.

Table 2 lists other documentation discussed in AOP STGC Section 4.5, such as corrective actions or follow-up documentation to a reported deviation as requested by either WDOH or Ecology.

Table 2 Other Deviation Related Reports Submitted

Date	Title
7/27/07	Letter from Shirley J. Olinger (DOE-ORP) to Jane Hedges (Ecology), "Submittal of Second Quarter 2007 Assessment of Stack Samples per Washington State Department of Ecology (Ecology) Notice of Violation (NOV) Number DE 4218", 07-ESQ-116 dated July 27, 2007.
7/27/07	Letter from Shirley J. Olinger (DOE-ORP) to Jane Hedges (Ecology), "Hanford Site Air Operating Permit (AOP), 30-Day Notification Report for Discharge Point P-296A042-001 Annual Ammonia Sample Exceedance of Notice of Construction (NOC) Limit", 07-ESQ-113 dated July 27, 2007.
7/27/07	Letter from David A. Brockman (DOE-RL) to John P. Martell, (WDOH), "Response to Hanford Sitewide Actions in Notice of Violation (NOV) And Compliance Order on Emission Unit 296-S-21 at the 222-S Laboratory, 07-SED-0334 Re-issue, dated July 27, 2007.
8/6/07	Letter from David A. Brockman (DOE/RL) to John P. Martell, (WDOH), "Transmittal of the Plutonium Finishing Plant (PFP) Filter Room 310 Replacement Plan", 07-SED-0333 Dated August 6, 2007.
10/4/07	Letter from Rob G. Hasitngs (DOE-RL) to John P. Martell (WDOH), "Transmittal of the Ten-Day Report on the 326 Building Pu-238 Sealed Source Leak to the Washington State Department of Health", 07-SED-0381, dated October 4, 2007.
10/22/07	Letter from Shirley J. Olinger (DOE-ORP) to Jane Hedges (Ecology), "Submittal of Third Quarter 2007 Assessment of Stack Samples per Washington State Department of Ecology (Ecology) Notice of Violation Number DE 4218", 07-ESQ-193 dated October 22, 2007.
12/6/2007	Letter from David A. Brockman (DOE-RL) to Ron Skinnerland (Ecology), "Response to Notice of Violation and Requirement for Information for Excess Emissions Notification in the Operation of Two Diesel Engines at the High Bay Testing Facility (336 Building), Hanford Site Approval Order DE06NWP-002, 08-SED-0060, dated December 6, 2007.

### 3.0 AIR EMISSION COMPLAINT INVESTIGATIONS

No substantiated air emission complaints were received by the U.S. Department of Energy, Richland Operations Office (DOE-RL) or by the U.S. Department of Energy, Office of River Protection (DOE-ORP) from Ecology as specified in the AOP Attachment 1, Table 1.2, during this reporting period.

#### 4.0 PERMIT REQUIRED MONITORING REPORTS

Table 3 lists the required monitoring reports submitted during the reporting period.

Table 3 Permit Required Monitoring Reports.

Date	Title
7/31/07	HEPA Vacuum Log Sheets for the 2nd Quarter CY 2007
10/30/07	HEPA Vacuum Log Sheets for the 3rd Quarter CY 2007
11/1/07	08-SED-0019, dated November 1, 2007, <i>Transmittal of the Log to Meet Condition 11 of the Characterization &amp; Stabilization Involving Radioactive Contamination at Facilities on Central Plateau Notice of Construction (NOC)</i>

#### 5.0 STATUS OF REQUIRED MONITORING

Table 4 contains the status of required monitoring during this reporting period for minor radioactive emission units and all emission units with continuous monitoring requirements. The performance of monitoring is not required if the unit did not operate during the reporting period.

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-241C111-001 (241-C-111)	1	Smear survey, 1 per year	Yes	
W-296P045-001 (296-P-45)	50	Record Sample collected biweekly, Continuous	NA	Unit did not operate during the reporting period.
P-296P022-001 (296-P-22)	53	Record Sample, 4 week sample/ year	Yes	
P-296SY-001 (296-P-23)	56	Record Sample, 4 week sample/ year	Yes	SY Primary "B" Train exhauster
W-296P043-001 (296-P-43)	57	Record Sample collected biweekly, Continuous	NA	Unit did not operate during the reporting period.
W-296P044-001 (296-P-44)	58	Record Sample collected biweekly, Continuous	Yes	
S-296S025-001 (296-S-25)	59	Record Sample, 4 week sample/year	Yes	SY Primary "A" Train exhauster
S-6266-001 (696-W-1)	62	Record Sample, 2 week sample/quarter	Yes	
S-6266-002 (696-W-2)	63	Record Sample, 2 week sample/quarter	Yes	
P-296SX-001 (296-S-15)	64	Record Sample, 4 week sample/year	NA	Unit is physically closed. Preparing formal closure report.

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-241T105-001	65	Smear survey, 1 per year	Yes	
P-241T106-001	66			
P-241T109-001	67			
P-241T102-001	68			
P-241T107-001	69			
P-241T111-001	70			
P-241T104-001	71			
P-241T112-001	72			
P-241T108-001	73			
P-241T203-001	74			
P-241T204-001	75			
P-241T110-001	76			
P-241T202-001	77			
P-241T103-001	78			
P-241T101-001	79			
P-241T201-001	80			
P-241TY106-001	81			
P-241TY102-001	82			
P-241TY105-001	83			
P-241TY104-001	84			
P-241TY103-001	85			
P-241TY101-001	86			
P-241A103-001	87			
P-241A104-001	88			
P-241A102-001	90			
P-241A105-001	91			
P-241A101-001	92			
P-296A042-001 (296-A-42)	93	Record Sample, Continuous	Yes	
P-241A106-001 (241-A-106)	94	Smear survey, 1 per year	Yes	
P-204AR-001 (296-A-26)	96	Record Sample, 4 week sample/year	NA	Facility is inactive. Exhauster operated only to test HEPA filters annually.
P-241U103-001	97	Smear survey, 1 per year	Yes	
P-241U108-001	98			
P-241U107-001	99			
P-241U203-001	100			
P-241U102-001	101			
P-241U201-001	102			
P-241U101-001	103			
P-241U204-001	104			
P-241U109-001	105			
P-241U202-001	106			

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-241U111-001	107	Smear survey, 1 per year	Yes	
P-241U112-001	108			
P-241U104-001	109			
P-241U110-001	110			
P-241U106-001	111			
P-241U105-001	112			
P-241TX117-001	113			
P-241TX107-001	114			
P-241TX112-001	115			
P-241TX105-001	116			
P-241TX113-001	117			
P-241TX104-001	118			
P-241TX114-001	119			
P-241TX103-001	120			
P-241TX110-001	121			
P-241TX116-001	122			
P-241TX108-001	123			
P-241TX102-001	124			
P-241TX115-001	125			
P-241TX106-001	126			
P-241TX101-001	127			
P-241TX109-001	128			
P-241TX118-001	129			
P-241TX111-001	130			
P-241S104-001	131			
P-241S101-001	132			
P-241S103-001	133			
P-241S102-001	134			
P-241S108-001	135			
P-241S109-001	136			
P-241S105-001	137			
P-241S110-001	138			
P-241S106-001	139			
P-241S107-001	140			
P-242A-001 (296-A-21)	141	Record Sample, 4 week sampler/year	Yes	
P-242A-002 (296-A-22)	142	Record Sample. One week sample/qtr, and continuous sampling during campaign	Yes	
P-242AL44-001 (LERF Basin #44)	146	Near Field Environmental Sampling. Every 2 weeks continuous/ deposition annually	Yes	

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-242AL43-001 (LERF Basin #43)	147	Near Field Environmental Sampling. Every 2 weeks continuous/ deposition annually	Yes	
P-242AL42-001 (LERF Basin #42)	148	Near Field Environmental Sampling. Every 2 weeks continuous/ deposition annually	Yes	
P-296AW-001 (296-A-27)	150	Record Sample , 4 week sample/year	Yes	
P-296A028-001 (296-A-28)	156	Record Sample , 4 week sample/year	Yes	
P-242T-001 (296-T-17)	162	Record Sample , 4 week sample/year	NA	Unit is physically closed. Preparing formal closure report.
P-242S-001 (296-S-18)	163	Record Sample , 4 week sample/year	Yes	
R-1706KE-001 (1706KE)	168	Record Sample, 4 week sample/year	Yes	
P-296A020-001 (296-A-20)	174	Record Sample , 4 week sample/year	Yes	
EP-318-01-S (EP-318-01-S)	175	Record Sample, 2 week sample/year	No	Sampling collected during first half of year.
P-296W004 001 (296-W-4)	193	Continuous, collect samples bi-weekly at a minimum	Yes	
P-241SX115-001 P-241SX113-001 P-241S111-001 P-241S112-001	200 201 202 203	Smear survey, 1 per year	Yes	
P-296AP-001 (296-A-40)	204	Record Sample , 2 week sample/quarter	Yes	
P-296A041-001 (296-A-41)	205	Record Sample, 4 week sample/year	Yes	
P-296P031-001 (296-P-31)	210	Record Sample, Continuous	Yes	
P-296A043-001 (296-A-43) P-296A018-001 (296-A-18) P-296A019-001 (296-A-19) P-296AN-001 (296-A-29) P-296A030-001 (296-A-30)	216 217 218 227 228	Record Sample, 4 week sample/year	Yes	

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-241C107-001	230	Smear survey, 1 per year	Yes	
P-241C108-001	231			
P-241C112-001	232			
P-241C201-001	233			
P-241C204-001	235			
P-241C102-001	237	Smear survey, 1 per year	Yes	
P-241C203-001	242			
P-241C110-001	244			
P-241C109-001	245			
P-241C202-001	246			
P-241C101-001	247			
S-296S021-001 (296-S-21)	254	Record Sample, Continuous	Yes	
P-241BX104-001	255	Smear survey, 1 per year	Yes	
P-241BX110-001	256			
P-241BX103-001	257			
P-241BX107-001	258			
P-241BX101-001	259			
P-241BX112-001	260			
P-241BX106-001	261			
P-241BX102-001	262			
P-241BX109-001	263			
P-241BX111-001	264			
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P-241B201-001	267			
P-241B108-001	268			
P-241B101-001	269			
P-241B102-001	270			
P-241B204-001	271			
P-241B104-001	272			
P-241BX105-001	273			
P-241B112-001	274			
P-241B107-001	275			
P-241B111-001	276			
P-241B109-001	277			
P-241B110-001	278			
P-241B103-001	279			
P-241B202-001	280			
P-241B106-001	281			
P-241B203-001	282			

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-241BY101-001 P-241BY105-001 P-241BY106-001 P-241BY102-001 P-241BY112-001 P-241BY103-001 P-241BY104-001 P-241BY109-001 P-241BY108-001 P-241BY111-001 P-241BY110-001 P-241BY107-001	283 284 285 286 287 288 289 290 291 292 293 294	Smear survey, 1 per year	Yes	
P-2025E ETF (296-E-1)	301	4 week sample/year	Yes	
P-241AX104-001 P-241AX102-001 P-241AX103-001 P-241AX101-001	302 303 304 305	Smear survey, 1 per year	Yes	
P-291U001-001 (291-U-1)	310	Record Sample, 4 week sample/year	Yes	
P-291T001-001 (291-T-1)	314	Record Sample, Continuous	Yes	
P-296T007-001 (296-T-7)	315	Record Sample, Continuous (when operating), AIR 06-1013 Cond. 7	Yes	
P-291S001-001 (291-S-1)	332	Record Sample, 4 week sample/year	Yes	
P-296S016-001 (296-S-16)	337	Record Sample, 4 week sample/year	Yes	
P-296B010-001 (296-B-10)	340	Record Sample, Continuous	Yes	
EP-320-02-S	355	Record Sample, 2 week sample/year	Yes	
EP-320-04-S	357	Record Sample, 2 week sample/year	Yes	
EP-320-01-S	358	Record Sample, 2 week sample/year	Yes	
EP-323-01-S	359	Record Sample, 2 week sample/year	Yes	
EP-325-01-S	361	Record Sample - Continuous; Tritium by silica gel - monthly	Yes	
EP-326-01-S	362	Record Sample, 2 week sample/year	Yes	

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
EP-329-01-S	366	Record Sample, 2 week sample/year	Yes	
P-291A001-001 (291-A-1)	369	Record Sample, Continuous	Yes	
P-296A010-001 (296-A-10)	384	1 week sample/year (when operating)	NA	Unit did not operate during reporting period.
P-437MN&ST-001 437-MN&ST	385	Record Sample, 4 week sample/year	Yes	
P-296Z005-001 (296-Z-5)	389	Record Sample, 4 week sample/year	Yes	
P-296Z006-001 (296-Z-6)	390	Record Sample, 4 week sample/year	Yes	
P-291Z001-001 (291-Z-1)	393	Record Sample, Continuous	Yes	
P-FFTFRESB-001 (FFTF-RE-SB)	395	Record Sample, 4 week sample/year	Yes	
P-FFTFHTTR-001 (FFTF-HT-TR)	396	Record Sample, 4 week sample/year	Yes	
P-FFTFCBEX-001 (FFTF-CB-EX)	397	Record Sample, 4 week sample/year	Yes	
FFTF-402-1 (Sodium Storage Facility)	398	AIR 06-1007, Condition 5	Yes	
P-437-002 (437-1-61)	399	Record Sample, 4 week sample/year	Yes	
P-296B001-001 (296-B-1)	402	Record Sample, Continuous	Yes	
EP-331-01-V	412	Record Sample, Continuous	Yes	
EP-3730-01-S	417	Record Sample, 2 week sample/year	Yes	
P-340DECON-001 (340 Decon)	422	Record Sample, 4 week sample/year	Yes	
P-340NTEX-001 (340-NT-EX)	423	Record Sample, 4 one week samples each year	Yes	
P-296H212 001 (296-H-212)	435	Record filter replaced monthly and analyzed quarterly using gamma spectrometer calibrated to Cs-137. Record filter counted annually using gamma spectrometer calibrated to Cs-137	Yes	
P-296K142 001 (296-K-142)	436	Record Sample, Monthly sample	Yes	

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
S-296S023-001 (296-S-23)	438	1 NDA every 2 years	Yes	NDA performed May 2007
J-CWC 001 (Central Waste Complex)	439	Near Field ambient monitoring program monitors N449, N457, N964 & N433	Yes	
Hanford Sitewide type-1, type-2, type-3 (PTRAEUs)	447	Annual unless specified by the NOC; NDA or record sampler or continuous air monitoring; AIR 06-1025, Condition 4	Yes	
Hanford Sitewide Vented Containers	448	Environment Sampling, Air every 2 weeks continuous/deposition -- annually	Yes	
200 Area ISA (200 Area Interim Storage Area)	454	Smear survey -- annual	Yes	
Hanford Sitewide W-PORTEX 007 (HEPA Vacuums)	455	None. See AIR 06-1024 Condition 5	Yes	
W-PORTEX 011 (Permacon Unit)	461	Quarterly for 2 weeks of operations	NA	Unit did not operate during the reporting period.
Hanford Sitewide Guzzler-001 (Guzzler™)	476	Radiation surveys, NDA testing HEPAs when replaced, and annually screening the HEPA filtration system	NA	Unit did not operate during the reporting period.
W-296P047-001 (296-P-47)	498	Record sample collected biweekly, Continuous	Yes	
P-296Z007 001 (296-Z-7)	503	Record Sample, Continuous	Yes	
P-Vadose-002 (Air Rotary Drilling)	539	Radiological field surveys, destructive or NDA of record filter counted annually	NA	Unit did not operate during the reporting period.
P-Vadose-003 (Air Hammer Drilling)	541	Field survey of passive HEPA filter housing after each borehole and record filter counted annually	NA	Unit did not operate during the reporting period.

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
P-241C-004 (241-C-106)	712	Smear survey, 1 per year	Yes	
P-244CR-002 (244-CR Vault Passive Filter A)	713			
P-241C-002 (241-C-104)	716			
P-241C-003 (241-C-105)	717			
P-296A044-001 (296-A-44)	735	Record sample collected biweekly, Continuous	NA	Unit never operated. Hot startup scheduled for 2008
P-296A045-001 (296-A-45)	736	Record sample collected biweekly, Continuous	NA	Unit never operated. Hot startup scheduled for 2008
P-241C103-001 (241-C-103)	737	Smear survey, 1 per year	Yes	
P-244A-002 (244-A Primary HEPA)	738			
P-244BX-002 (244-BX Primary HEPA)	740			
P-244S-002 (244-S Primary HEPA)	742			
P-244TX-002 (244-TX Primary HEPA)	744			
W-296P048-001 (296-P-48)	749	Record sample collected biweekly, Continuous	NA	Unit did not operate during the reporting period.
P-241AZ301-001 (241-AZ-301)	751	Smear survey, 1 per year	Yes	
DVS - Active (Drum Venting System – Active Vent)	755	Smears of the exhaust vent at the end of each shift of operation	Yes	
DVS - Passive (Drum Venting System – Passive Vent)	756	Smears of the exhaust vent at the end of each shift of operation	Yes	
P-296A046-001 (296-A-46)	855	Record sample collected biweekly, Continuous	NA	Unit not yet installed.
P-296A047-001 (296-A-47)	856	Record sample collected biweekly, Continuous	NA	Unit not yet installed.
Concrete Containers	874	Radiological surveys annual at a minimum	Yes	
P-BULKVIT-001 (Bulk Vit Demo Exhauster)	878	Record sample collected biweekly, and a continuous air monitor for beta and gamma. Continuous.	NA	Unit never operated.
W-296P049-001 (296-P-49)	885	Record sample collected biweekly, Continuous	NA	Unit not yet installed.

Table 4 Status of Required Monitoring.

Emission Point (Common Name)	EP ID	Required monitoring	Monitoring completed? Yes, No, NA	Comment
W-296P050-001 (296-P-50)	886	Record sample collected biweekly, Continuous	NA	Unit not yet installed.
Hanford Sitewide Tanker Loading of Contaminated Waste Water	888	As listed in the Conditions and Limitations	Yes	AIR 06-1050 Condition 5.
P-241UX302A-001 (241-UX-302A)	894	Smear survey, 1 per year	Yes	
P-241ER311-001 (ER311)	910			
P-244A-003 (244-A Annulus HEPA)	912			
P-244BX-003 (244-BX Annulus HEPA)	922			
P-244S-003 (244-S Annulus HEPA)	959			
P-244TX-003 (244-TX Annulus HEPA)	969			
P-241U301B-001 (241-U-301B)	1129			
P-241AZ154-001 241-AZ-154	1130	Smear survey, 1 per year	No	Smear surveys were performed on 1/3/2008 on RSR WTO-009458 and on 1/7/2008 on RSR WTO-009506
FFTF PTRAEU's	1176	Samples of waste water, prior to transfer or once per calendar year during operations	NA	Unit did not operate during the reporting period.
Drum Venting System 2 (DVS - 2)	1181	Smears of exhaust vent at end of each shift of operation	NA	Unit did not operate during the reporting period.
S-MO444-001 (WRAP Head Space Gas Sampling)	1183	None. See AIR 07-304, Condition 6	Yes	
Decon Trailer - Intermittent Powered Exhaust	1186	Per the sitewide ambient monitoring program	Yes	
Decon Trailer - Collection Tank Vents	1187	Per the sitewide ambient monitoring program	Yes	

<sup>TM</sup>Guzzler is a register trademark of Guzzler Manufacturing, Inc., Birmingham, Alabama.

**6.0 REGULATORY APPROVALS ISSUED DURING THE REPORTING PERIOD**

Table 5 lists the regulatory approvals issued by WDOH and Ecology during this reporting period. The information contained in Table 5 is an AOP permit only requirement not mandated in Chapter 173-401 Washington Administrative Code (WAC) Operating Permit Regulation.

Table 5 Regulatory Approvals Issued from July 1, 2007 through December 31, 2007.

Permit number	Date Issued	Title/Subject
00-05-006 Renewal 1, Rev. B	7/26/07	Hanford Site Title V Air Operating Permit Revision
00-05-006 Renewal 1, Rev. C	12/5/07	Hanford Site Title V Air Operating Permit Revision
FF-01	7/2/07	Hanford Site FF-01 License Update Via WDOH Website
FF-01	11/15/07	Hanford Site FF-01 License Update Via WDOH Website
AIR 07-701	7/2/07	Approval to Operate the Sitewide Vented Container Storage
AIR 07-1012	10/22/07	Approval to Operate the Transuranic Waste Retrieval Project
AIR 07-1020	10/30/07	Approval to Operate for the Installation of Radial Filters and the Re-issuance of the Approval for Removal of Liquid from Catch Tank 241-ER-311.
AIR 07-1021	10/30/07	Approval to Operate for the 222-S Lab Hot Cell Expansion
AIR 07-1102	11/15/07	Approval to Operate for the 200/600 Areas Facilities Support Decontamination Trailer
DE05NWP-001 Revision 1	7/31/07	Approval Order for the Operation of New Ventilation Systems in AN and AW Tank Farms
DE05NWP-002 Revision 2	7/31/07	Approval Order for Operations of Waste Retrieval Systems in SST Farms as supplemented with C Farm Exhauster Operation
DE07NWP-001, Amendment 1	7/31/07	Approval Order Amendment for Operation of the HAMMER Training Facility
DE07NWP-002, Amendment 1	10/30/07	Approval Order Amendment for the 100B Export Water Enhancements
DE07NWP-003, Amendment 1	8/7/07	Approval Order Amendment for the Operation of the Effluent Treatment Facility
DE07NWP-003, Amendment 2	9/27/07	Approval Order Amendment for the Operation of the Effluent Treatment Facility
DE07NWP-004	11/21/07	Approval Order for the WTP Construction Site Heaters and Dehumidifiers

## 7.0 REFERENCES

*Hanford Site Title V Air Operating Permit 00-05-006 Renewal 1*; effective January 1, 2007, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Authority.

*Hanford Site Title V Air Operating Permit 00-05-006 Renewal 1, Revision A*; effective May 3, 2007, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Authority.

*Hanford Site Title V Air Operating Permit 00-05-006 Renewal 1, Revision B*; effective July 26, 2007, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Authority.

*Hanford Site Title V Air Operating Permit 00-05-006 Renewal 1, Revision C*; effective December 5, 2007, Washington State Department of Ecology, Washington State Department of Health, and Benton Clean Air Authority.

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