



OFFICE OF RIVER PROTECTION

P.O. Box 450, MSIN H6-60
Richland, Washington 99352

DEC 05 2013

13-ECD-0087

Ms. Jane A. Hedges, Program Manager
Nuclear Waste Program
Washington State
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

Mr. John Martell, Manager
Radioactive Air Emissions Section
Washington State Department of Health
309 Bradley Blvd., Suite 201
Richland, Washington 99352
(Hanford Mailstop: B1-42)

Addressees:

U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) SUBMITS TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY) AND THE WASHINGTON STATE DEPARTMENT OF HEALTH (WDOH), RESPONSE TO 13-NWP-095 ECOLOGY LETTER REQUEST FOR MODIFICATION TO NOTICE OF CONSTRUCTION (NOC) ORDER DE05NWP-001, REVISION 1

Reference: Ecology letter from J.A. Hedges and E. Fordham, WDOH, to K.W. Smith, ORP, and L.D. Olson, WRPS, "200 Area Hanford, 242-A Evaporator and 241-AW-102 Double Shell Tank (DST) Joint Ecology Air Operating Permit (AOP # 00-05-006) and DOH (FF-01 License) Audit # 820 Inspection on September 18, 2012," 13-NWP-095, dated September 11, 2013.

The purpose of this letter is to submit a modification to NOC Order DE05NWP-001, Revision 1, as requested by Ecology and WDOH (Attachment 1). The modification consists of a demonstration of As Low As Reasonably Achievable Control Technology for air pathways from AW Tank Farm to the 242-A Evaporator, the environment, and to other facilities or structures. The demonstration includes details of barriers and controls associated with the 241-AW Tank Farm exhaust system.

This letter transmits the requested information with the ORP Certification for Administrative Amendment to Non-Radiological Air Emissions Notice of Construction for Operation of Ventilation Systems in AN and AW Farms, (Attachment 2).

The remainder of the Corrective Action items identified in the letter will be addressed in a second correspondence to be transmitted on or before January 11, 2014, in accordance with the approved time frame.

Ms. Jane A. Hedges
13-ECD-0087

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If you have any questions, please contact Dennis W. Bowser, Environmental Compliance Division, (509) 373-2566.



Kevin W. Smith
Manager

ECD:DWB

Attachments: (2)

cc w/attachs:

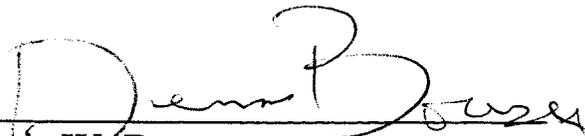
D.E. Jackson, RL
Administrative Record
BNI Correspondence
Environmental Portal, LMSI
WRPS Correspondence

cc w/o attachs:

L. Bostic, BNI
B.G. Erlandson, BNI
J. Cox, CTUIR
S. Harris, CTUIR
K.A. Conaway, Ecology
S.L. Dahl, Ecology
S.L. Derrick, Ecology
P.M. Gent, Ecology
D. Zhen, EPA (Region 10, Seattle)
R.H. Anderson, MSA
P.C. Miller, North Wind
G. Bohnee, NPT
K. Niles, Oregon Energy
D.R. Hildebrand, RL
J.W. Schmidt, WDOH
R.M. Allen, WRPS
T.G. Beam, WRPS
S.E. Killoy, WRPS
L.L. Penn, WRPS
B.P. Rumburg, WRPS
R. Jim, YN

Attachment 1
13-ECD-0087
(9 Pages)

Notice of Construction Application


Dennis W. Bowser



Notice of Construction Application

This application applies statewide for facilities under the Department of Ecology's jurisdiction. Submit this form for review of your project to construct a new or modified source of air emissions. Please refer to Ecology Forms ECY 070-410a-g, "Instructions for NOC Application," for general information about completing the application.

Ecology offers up to two hours of free pre-application assistance. We encourage you to schedule a pre-application meeting with the contact person specified for the location of your proposal, below. If you use up your two hours of free pre-application assistance, we will continue to assist you after you submit Part 1 of the application and the application fee. You may schedule a meeting with us at any point in the process.

Upon completion of the application, please enclose a check for the initial fee and mail to:

**Department of Ecology
Cashiering Unit
P.O. Box 47611
Olympia, WA 98504-7611**

For Fiscal Office Use Only:
001-NSR-216-0299-000404

Check the box for the location of your proposal. For assistance, call the contact listed below:		
	Ecology Permitting Office	Contact
<input type="checkbox"/>	Chelan, Douglas, Kittitas, Klickitat, or Okanogan County Ecology Central Regional Office – Air Quality Program	Lynnette Haller (509) 457-7126 lynnette.haller@ecy.wa.gov
<input type="checkbox"/>	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Stevens, Walla Walla or Whitman County Ecology Eastern Regional Office – Air Quality Program	Greg Flibbert (509) 329-3452 gregory.flibbert@ecy.wa.gov
<input type="checkbox"/>	San Juan County Ecology Northwest Regional Office – Air Quality Program	David Adler (425) 649-7082 david.adler@ecy.wa.gov
<input type="checkbox"/>	For actions taken at Kraft and Sulfite Paper Mills and Aluminum Smelters Ecology Industrial Section – Waste 2 Resources Program Permit manager: _____	Garin Schriever (360) 407-6916 garin.schriever@ecy.wa.gov
<input checked="" type="checkbox"/>	For actions taken on the US Department of Energy Hanford Reservation Ecology Nuclear Waste Program	Philip Gent (509) 372-7983 philip.gent@ecy.wa.gov



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Check the box below for the fee that applies to your application.

New project or equipment:

<input type="checkbox"/>	\$1,500: Basic project initial fee covers up to 16 hours of review.
<input type="checkbox"/>	\$10,000: Complex project initial fee covers up to 106 hours of review.

Change to an existing permit or equipment:

<input checked="" type="checkbox"/>	\$200: Administrative or simple change initial fee covers up to 3 hours of review Ecology may determine your change is complex during completeness review of your application. If your project is complex, you must pay the additional \$675 before we will continue working on your application.
<input type="checkbox"/>	\$875: Complex change initial fee covers up to 10 hours of review
<input type="checkbox"/>	\$350 flat fee: Replace or alter control technology equipment under WAC 173-400-114 Ecology will contact you if we determine your change belongs in another fee category. You must pay the fee associated with that category before we will continue working on your application.

Read each statement, then check the box next to it to acknowledge that you agree.

<input checked="" type="checkbox"/>	The initial fee you submitted may not cover the cost of processing your application. Ecology will track the number of hours spent on your project. If the number of hours Ecology spends exceeds the hours included in your initial fee, Ecology will bill you \$95 per hour for the extra time.
<input checked="" type="checkbox"/>	You must include all information requested by this application. Ecology may not process your application if it does not include all the information requested.
<input checked="" type="checkbox"/>	Submittal of this application allows Ecology staff to visit and inspect your facility.



Notice of Construction Application

Part 1: General Information

I. Project, Facility, and Company Information

1. Project Name Request for Administrative Amendment to Non-Radiological Air Emissions Notice of Construction (NOC) for Operation of Ventilation Systems in AN and AW Tank Farms
2. Facility Name United States Department of Energy, Office of River Protection
3. Facility Street Address Hanford Site, Richland, Washington, 99352
4. Facility Legal Description Hanford Site, 200E Area
5. Company Legal Name (if different from Facility Name)
6. Company Mailing Address (street, city, state, zip) P.O. Box 550, MSIN H6-60

II. Contact Information and Certification

1. Facility Contact Name (who will be onsite) Dennis W. Bowser, Physical Scientist	
2. Facility Contact Mailing Address (if different than Company Mailing Address) P.O. Box 550, MSIN H6-60	
3. Facility Contact Phone Number (509) 373-2566	4. Facility Contact E-mail <u>Dennis_W_Bowser@ORP.DOE.GOV</u>
5. Billing Contact Name (who should receive billing information) Same as above	
6. Billing Contact Mailing Address (if different than Company Mailing Address)	
7. Billing Contact Phone Number	8. Billing Contact E-mail
9. Consultant Name (optional – if 3 rd party hired to complete application elements)	
10. Consultant Organization/Company	
11. Consultant Mailing Address (street, city, state, zip)	
12. Consultant Phone Number	13. Consultant E-mail
14. Responsible Official Name and Title (who is responsible for project policy or decision-making) Kevin W. Smith	
16. Responsible Official Phone (509) 372-2315	17. Responsible Official E-mail <u>Kevin_W_Smith@ORP.DOE.GOV</u>
18. Responsible Official Certification and Signature I certify, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate and complete.	



Notice of Construction Application

1. Facility Contact Name (who will be onsite) Dennis W. Bowser, Physical Scientist	
2. Facility Contact Mailing Address (if different than Company Mailing Address) P.O. Box 550, MSIN H6-60	
3. Facility Contact Phone Number (509) 373-2566	4. Facility Contact E-mail Dennis W. Bowser@ORP.DOE.GOV
5. Billing Contact Name (who should receive billing information) Same as above	
6. Billing Contact Mailing Address (if different than Company Mailing Address)	
7. Billing Contact Phone Number	8. Billing Contact E-mail
9. Consultant Name (optional – if 3 rd party hired to complete application elements)	
10. Consultant Organization/Company	
11. Consultant Mailing Address (street, city, state, zip)	
12. Consultant Phone Number	13. Consultant E-mail
Signature _____ Date _____	

Part 2: Technical Information

The Technical Information may be sent with this application form to the Cashiering Unit, or may be sent directly to the Ecology regional office with jurisdiction along with a copy of this application form.

For all sections, check the box next to each item as you complete it.

III. Project Description

Please attach the following to your application.

- Written narrative describing your proposed project.
- Projected construction start and completion dates.
- Operating schedule and production rates.
- List of all major process equipment with manufacturer and maximum rated capacity.
- Process flow diagram with all emission points identified.
- Plan view site map.

- Manufacturer specification sheets for major process equipment components.
- Manufacturer specification sheets for pollution control equipment.
- Fuel specifications, including type, consumption (per hour & per year) and percent sulfur.

SEE ATTACHED INFORMATION.



Notice of Construction Application

IV. State Environmental Policy Act (SEPA) Compliance

Check the appropriate box below.

SEPA review is complete:

Include a copy of the final SEPA checklist and SEPA determination (e.g., DNS, MDNS, EIS) with your application.

SEPA review has not been conducted:

If review will be conducted by another agency, list the agency. You must provide a copy of the final SEPA checklist and SEPA determination before Ecology will issue your permit.

Agency Reviewing SEPA:

If the review will be conducted by Ecology, fill out a SEPA checklist and submit it with your application. You can find a SEPA checklist online at www.ecy.wa.gov/programs/sea/sepa/docs/echecklist.doc



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V. Emissions Estimations of Criteria Pollutants

Does your project generate criteria air pollutant emissions? Yes No

If yes, please provide the following information regarding your criteria emissions in your application.

The names of the criteria air pollutants emitted (i.e., NO_x, SO₂, CO, PM_{2.5}, PM₁₀, TSP, VOC, and Pb)

Potential emissions of criteria air pollutants in tons per hour, tons per day, and tons per year (include calculations)

If there will be any fugitive criteria pollutant emissions, clearly identify the pollutant and quantity

VI. Emissions Estimations of Toxic Air Pollutants (No Changes)

Does your project generate toxic air pollutant emissions? Yes No

If yes, please provide the following information regarding your toxic air pollutant emissions in your application.

The names of the toxic air pollutants emitted (specified in WAC 173-460-150¹)

Potential emissions of toxic air pollutants in pounds per hour, pounds per day, and pounds per year (include calculations)

If there will be any fugitive toxic air pollutant emissions, clearly identify the pollutant and quantity

VII. Emission Standard Compliance (No Changes)

Provide a list of all applicable new source performance standards, national emission standards for hazardous air pollutants, national emission standards for hazardous air pollutants for source categories, and emission standards adopted under Chapter 70.94 RCW.

Does your project comply with all applicable standards identified? Yes No

VIII. Best Available Control Technology (No Changes)

Provide a complete evaluation of Best Available Control Technology (BACT) for your proposal.

IX. Ambient Air Impacts Analyses (No Changes)

Please provide the following:

Ambient air impacts analyses for Criteria Air Pollutants (including fugitive emissions)

Ambient air impacts analyses for Toxic Air Pollutants (including fugitive emissions)

¹ <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-460-150>



Notice of Construction Application

Discharge point data for each point included in air impacts analyses (include only if modeling is required)

- Exhaust height
- Exhaust inside dimensions (ex. diameter or length and width)
- Exhaust gas velocity or volumetric flow rate
- Exhaust gas exit temperature
- The volumetric flow rate
- Description of the discharges (i.e., vertically or horizontally) and whether there are any obstructions (ex., raincap)
- Identification of the emission unit(s) discharging from the point
- The distance from the stack to the nearest property line
- Emission unit building height, width, and length
- Height of tallest building on-site or in the vicinity and the nearest distance of that building to the exhaust
- Whether the facility is in an urban or rural location

Does your project cause or contribute to a violation of any ambient air quality standard or acceptable source impact level? Yes No



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III. Project Description

Please attach the following to your application.

Written narrative describing your proposed project.

The Washington State Department of Ecology letter 13-NWP-095 requested the Department of Energy submit a request to modify NOC ORDER DE05NWP-0001 Revision 1. Ecology letter 13-NWP-095 stated the request could be satisfied by submitting the ALARACT demonstration contained in DOE – ORP letter 13-ECD-0014 dated February 27, 2013. Following is the ALARACT demonstration:



DEPARTMENT OF
ECOLOGY
State of Washington

Notice of Construction Application

Potential Communication Pathways with 241-AW Tank Farm and Interconnected Facilities; including 242-A Evaporator Building

Normal Pathway	(Qty.) Sources	Potential Pathway	Control Mechanism (Potential Path)	Indicator/Warning Device	Adequacy
242-A K-1 Building Exhauster (296-A-21A, EU ID: 1294)	Reboiler steam condensate discharge line	AW Exhauster(s) via connection to tank 241-AW-102 (296-A-46, EU ID: 855 & 296-A-47, EU ID: 856) should the divert valve activate	Seal loop, weekly rounds, water additions	Seal loop instrumentation	Record Sampler
242-A Vessel Vent (296-A-22, EU ID: 142)	(2) 242-A transfer lines to the valve pits (slurry lines)	AW Exhauster(s) via connection to pit (296-A-46, EU ID: 855 & 296-A-47, EU ID: 856)	Valves, blanks	Radiological surveys	Near Field Monitoring
	242-A C-A-1 Vessel Drain line (DR-335) from the 28-Inch Recirculation Line	AW Exhauster(s) via connection to tank (296-A-46, EU ID: 855 & 296-A-47, EU ID: 856)	Valves, Procedure(s)	Valve position indicator at 242A (MCS)	Record Sampler
	Process condensate transfer line	242-A K-1 Building Exhauster (296-A-21A, EU ID: 1294)	Liquid level of TK-C-100 creates a seal	Level indicator at 242A (MCS)	Record Sampler
	(4) Waste transfer lines AW to AP farm	AP exhauster via connection to pits (296-A-40, EU ID: 140)	Jumpers, process blanks, vapor seals, drop legs, valves	Radiological surveys	Near Field Monitoring
	(6) Central Pump Pits	Valve Pit cover / Diffuse	Tank vacuum, Pit Cover Blocks, Tape, ALARACT on opening, Survey upon loss of exhauster	Radiological surveys	Near Field Monitoring
	AW-02D and AW-02E Pits	Valve Pit cover / Diffuse	Tank vacuum, Pit Cover Blocks, Tape, ALARACT on opening, Survey upon loss of exhauster	Radiological surveys	Near Field Monitoring
	AW-A & AW-B Valve Pits	Valve Pit cover / Diffuse	Tank vacuum, Pit Cover Blocks, Tape, ALARACT on opening	Radiological surveys	Near Field Monitoring
	(384) Primary Tank Risers; 64/tank, 6 tanks	Riser Cap / Instrumentation	Bolted Cover w/ gasket, ALARACT when open	Radiological surveys	Near Field Monitoring
	Drain Line 272-AW Decontamination Room	Decon Shower Drain	Seal Pot, with weekly water additions	Indicator light (daily rounds for status)	Routine Survey
	102-AW-ALC air lines	compressed air line	Check Valves		Near Field Monitoring
	102-AW-ALC dip tubes	compressed air line	Check Valves		Near Field Monitoring
	Instrument air lines	compressed air line	Check Valves, filter, pressure		Near Field Monitoring
	Instrument air signal lines	compressed air line	Valves		Near Field Monitoring
	242-A Drains, i.e., DR-334, DR-343, etc.	242-A K-1 Building Exhauster (296-A-21A, EU ID: 1294)	Valves, pump room sump, seal loops	Valve position indicator, level indicator at 242A (MCS), weekly water additions	Record Sampler
	(2) 102AW transfer lines to the evaporator (supermate lines)	242-A Vessel Vent (296-A-22, EU ID: 142)	Valves, blanks	Valve position indicator at 242A (MCS)	Record Sampler
	AW Service Water Building Drain Line	Building drain	Check valve and gasket	Radiological surveys	Near Field Monitoring
	(5) Isolated SST transfer lines from AW pits to SST systems	Pit Covers / Diffuse	Process blanks, vapor seals, sealed pits	Periodic inspections	Near Field Monitoring
	Flush Pit	Flush Pit Cover / Diffuse	Sealed (drain seal loop and covers) Weekly Rounds, water addition to drain in flush pit	Radiological surveys	Near Field Monitoring

Attachment 2
13-ECD-0087
(1 Page)

ORP Certification for Administrative Amendment to Non-Radiological
Air Emissions Notice of Construction for Operation of Ventilation
Systems in AN and AW Farms

U.S. Department of Energy, Office of River Protection Certification

I, Kevin W. Smith, ORP Manager, have responsibility for the overall operation of the Hanford Facility 242-A Evaporator and I am duly authorized to sign all reports and other information requested. As an authorized signatory, my certification is included below:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Kevin W. Smith, Manager
U.S. Department of Energy
Office of River Protection



Date