OFFICE OF RIVER PROTECTION
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

MAY 2 2 2013

13-ECD-0049

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)

Mr. Martell:

U.S. DEPARTMENT OF ENERGY, OFFICE OF RIVER PROTECTION (ORP) APPROVAL OF CONDITION CHANGE FOR AIR OPERATING PERMIT (AOP), EMISSION UNIT NUMBER 93, NOTICE OF CONSTRUCTION (NOC) IDENTIFICATION NUMBER 840, "LICENSE TO OPERATE VENTILATION OF THE 241 AY/AZ TANK FARM"

ORP is requesting approval of the attached NOC/AOP, "NOC Application/Permit Revision/AOP Off-Permit Change Notification" form, Project Title, "License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 782)," to the Washington State Department of Health for their incorporation into the FF-01 "Radioactive Air Emissions License."

ORP has discussed submittal of this NOC Application/Permit Revision/AOP Off-Permit Change Notification with members of your staff.

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

Stacy Charboneau for
Kevin W. Smith
Manager

ECD:DWB

Attachment

cc: See page 2

cc w/attach:
L. Bostic, BNI
B. G. Erlandson, BNI
J. A. Bates, CHPRC
J. Cox, CTUIR
S. Harris, CTUIR
K. A. Conaway, Ecology
P. M. Gent, Ecology
D. Bartus, EPA (Region 10, Seattle)
D. Zhen, EPA (Region 10, Seattle)
R. H. Anderson, MSA
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D. E. Jackson, RL
J. W. Schmidt, WDOH
R. M. Allen, WRPS
L. L. Penn, WRPS
B. P. Rumburg, WRPS
R. Jim, YN
Administrative Record
BNI Correspondence
Environmental Portal, LMSI
WRPS Correspondence

Attachment
13-ECD-0049
(3 Pages)

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

Dennis W. Bowser

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

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

REASON FOR CHANGE

Submittal Date: _____

☐ **NOC Application Revision**
:

☒ **Condition Change/ Clarification**
WDOH Condition Number: 3
AOP Condition Number: 3

☐ **ALARACT Revision**
New ALARACT Rev Number: _____

PROJECT IDENTIFICATION

Project Title: License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 782)
Current NOC Application Number: 08-ESQ-085
AEI ID Number (AOP Emission Unit Number(s): 93
Current WDOH Approval Letter Number(s): AIR 12-319
WDOH NOC ID Number: 840

DESCRIPTION OF CHANGE

Number of Attachments 0

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

The compliance status for this emission unit for the annual possession quantity (APQ) limit was cited as intermittent during the annual Air Operating Permit (AOP) certification reported in 2012. In this case, it was reported that 5 of the 46 isotopes found in TWINS were over their permitted limits. These were Nb-93m, AC-227, Th-229, U-233, and Pu-238. These isotopes contribute to the overall unabated dose only a combined total 0.06% of the total permitted 5,750 mrem unabated value. Those isotopes contributing over 10% of the dose are Sr-90, Cs-137, and Am-241. In fact, combined, these isotopes represent 98.6% of the dose. As such it is requested that the APQ listed in the subject approval condition be simplified to represent only these isotopes.

Proposed Change (provide original and proposed wording):

Original wording from AIR 12-319 condition 3):

Annual Possession Quantity (Ci)

Isotope	Quantity	Isotope	Quantity	Isotope	Quantity
Ac-227	1.60E-02	Am-241	8.20E+04	Am-243	3.90E+01
Ba-137m	1.00E+07	C-14	2.20E+01	Cd-113m	1.00E+03
Cm-242	7.00E+01	Cm-243	8.90E+00	Cm-244	2.10E+02
Co-60	2.40E+03	Cs-134	2.90E+03	Cs-137	1.10E+07
Eu-152	8.30E+02	Eu-154	3.60E+04	Eu-155	3.40E+04
H-3	2.20E+02	I-129	1.30E+00	Nb-93m	4.20E+02
Ni-59	1.00E+02	Ni-63	9.80E+03	Np-237	4.50E+01

Pa-231	1.40E-01	Pu-238	4.80E+02	Pu-239	5.30E+03
Pu-240	1.40E+03	Pu-241	2.40E+04	Pu-242	1.50E-01
Ra-226	7.20E-04	Ra-228	1.60E-01	Ru-106	1.90E+02
Sb-125	1.10E+04	Se-79	8.10E+00	Sm-151	7.90E+05
Sn-126	3.40E+01	Sr-90	1.80E+07	Tc-99	2.40E+03
Th-229	6.70E-04	Th-232	1.60E-01	U-232	1.70E-02
U-233	8.90E-01	U-234	5.40E+00	U-235	2.20E-01
U-236	4.00E-01	U-238	4.20E+00	Y-90	1.80E+07
Zr-93	7.00E+02				

Proposed wording:

Isotope	Isotope	Isotope
Ac-227 Contributes less than 10% of the unabated PTE.	Am-241 8.20E+04 Identified as contributing greater than 10% of the potential TEDE to the MEI,	Am-243 Contributes less than 10% of the unabated PTE.
Ba-137m Contributes less than 10% of the unabated PTE.	C-14 Contributes less than 10% of the unabated PTE.	Cd-113m Contributes less than 10% of the unabated PTE.
Cm-242 Contributes less than 10% of the unabated PTE.	Cm-243 Contributes less than 10% of the unabated PTE.	Contributes less than 10% of the unabated PTE.
Co-60 Contributes less than 10% of the unabated PTE.	Cs-134 Contributes less than 10% of the unabated PTE.	Cs-137 1.10E+07 Identified as contributing greater than 10% of the potential TEDE to the MEI,
Eu-152 Contributes less than 10% of the unabated PTE.	Eu-154 Contributes less than 10% of the unabated PTE.	Eu-155 Contributes less than 10% of the unabated PTE.
H-3 Contributes less than 10% of the unabated PTE.	I-129 Contributes less than 10% of the unabated PTE.	Nb-93m Contributes less than 10% of the unabated PTE.
Ni-59 Contributes less than 10% of the unabated PTE.	Ni-63 Contributes less than 10% of the unabated PTE.	Np-237 Contributes less than 10% of the unabated PTE.
Pa-231 Contributes less than 10% of the unabated PTE.	Pu-238 Contributes less than 10% of the unabated PTE.	Pu-239 Contributes less than 10% of the unabated PTE.
Pu-240 Contributes less than 10% of the unabated PTE.	Pu-241 Contributes less than 10% of the unabated PTE.	Pu-242 Contributes less than 10% of the unabated PTE.
Ra-226 Contributes less than 10% of the unabated PTE.	Ra-228 Contributes less than 10% of the unabated PTE.	Ru-106 Contributes less than 10% of the unabated PTE.
Sb-125 Contributes less than 10% of the unabated PTE.	Se-79 Contributes less than 10% of the unabated PTE.	Sm-151 Contributes less than 10% of the unabated PTE.
Sn-126 Contributes less than 10% of the unabated PTE.	Sr-90 1.80E+07 Identified as contributing greater than 10% of the potential TEDE to the MEI,	Tc-99 Contributes less than 10% of the unabated PTE.
Th-229 Contributes less than 10% of the unabated PTE.	Th-232 Contributes less than 10% of the unabated PTE.	U-232 Contributes less than 10% of the unabated PTE.
U-233 Contributes less than 10% of the unabated PTE.	U-234 Contributes less than 10% of the unabated PTE.	U-235 Contributes less than 10% of the unabated PTE.

U-236 Contributes less than 10% of the unabated PTE.	U-238 Contributes less than 10% of the unabated PTE.	Y-90 Contributes less than 10% of the unabated PTE.
Zr-93 Contributes less than 10% of the unabated PTE.		