



U.S. Department of Energy
Office of River Protection

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

IM# 07,462

RECEIVED

OCT 30 2012

Wa Dept of Health - Office
of Radiation Protection

OCT 25 2012

12-ECD-0055


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)

Dear Mr. Martell:

U.S. DEPARTMENT OF ENERGY (DOE), OFFICE OF RIVER PROTECTION (ORP)
SUBMITS CORRECTIONS REQUEST FOR NOTICE OF CONSTRUCTION (NOC)
IDENTIFICATION NUMBER 831, LICENSE TO OPERATE THE 222-S LABORATORY,
FOR THE AIR OPERATING PERMIT (AOP) EMISSION UNIT NUMBER 254

DOE ORP requests that the State of Washington Department of Health (WDOH) review the attached "NOC Application/Permit Revision/AOP Off-Permit Change Notification" form, for AOP Emission Unit Number 254, to WDOH for their incorporation into the FF-01 "Radioactive Air Emissions License." If you have any questions, please contact me, or your staff may contact Dennis W. Bowser, Environmental Compliance Division, (509) 373-2566.

Sincerely,


Scott L. Samuelson, Manager
Office of River Protection

ECD:DWB

Attachment

cc: See page 2

NOC 831
Eu 254

Mr. John Martell
12-ECD-0055

-2-

OCT 25 2012

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
T. G. Beam, MSA
K. A. Peterson, MSA
G. Bohnee, NPT
K. Niles, Oregon Energy
D. E. Jackson, RL
R. Jim, YN
J. W. Schmidt, WDOH
R. M. Allen, WRPS
L. L. Penn, WRPS
B. P. Rumburg, WRPS
Administrative Record
BNI Correspondence
Environmental Portal, LMSI
WRPS Correspondence

Attachment
12-ECD-0055
(4 Pages)

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

“License to Operate the 222-S Laboratory (Replaced NOC ID 716)”

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 the 222-S Laboratory (Replaced NOC ID 716)

Current NOC Application Number: _____

AEI ID Number (AOP Emission Unit Number(s)): 254

Current WDOH Approval Letter Number(s): AIR 12-313

WDOH NOC ID Number: 831

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.

Discrepancies between Annual Possession Quantity (APQ) values in Table 1 of the NOC Application and values in Appendix A (Total Effective Dose Equivalent to the Maximally Exposed Individual) of the NOC Application have resulted in an incorrect value identified for 241-Am in condition 3 of the permit – reference letter 08-ESQ-104, from Shirley J. Olinger (ORP), to Mr. John Martell (WDOH), subject Request for Approval of Modification to Notice of Construction Approval Order for Operation of the 296-S-21 Exhauster, and Amendment to Hanford Site Air Operating Permit (AOP) for Emission Unit 200W P-296S21, dated June 06, 2008.

The NOC Application Table 1 values are as follows:

Radionuclide	APQ (Ci)	Radionuclide	APQ (Ci)
³ H	3.12E-01	²²⁶ Ra	7.29E-07
¹⁴ C	4.58E-02	²²⁷ Ac	2.94E-04
⁵⁹ Ni	1.19E-01	²²⁸ Ra	4.09E-04
⁶⁰ Co	5.16E-01	²²⁹ Th	1.09E-04
⁶³ Ni	1.09E+01	²³¹ Pa	3.79E-04
⁷⁹ Se	1.17E-02	²³² U	5.79E-04
⁹⁰ Y	9.00E+03	²³² Th	5.02E-04

Radionuclide	APQ (Ci)	Radionuclide	APQ (Ci)
⁹⁰ Sr	9.00E+03	²³³ U	4.96E-04
⁹³ Zr	2.72E-01	²³⁴ U	1.73E-02
^{93m} Nb	2.19E-01	²³⁵ U	7.10E-04
⁹⁹ Tc	1.97E+00	²³⁶ U	4.69E-04
¹⁰⁶ Ru	1.27E-02	²³⁷ Np	8.98E-03
^{113m} Cd	3.46E-01	²³⁸ Pu	1.56E-01
¹²⁵ Sb	8.28E-01	²³⁸ U	1.58E-02
¹²⁶ Sn	3.07E-02	²³⁹ Pu	6.85E+01
¹²⁹ I	2.24E-03	²⁴⁰ Pu	8.38E-01
¹³⁴ Cs	2.00E-01	²⁴¹ Pu	6.76E+01
¹³⁷ Cs	3.16E+03	²⁴¹ Am	1.17E+01
^{137m} Ba	2.97E+03	²⁴² Pu	5.93E-05
¹⁵¹ Sm	3.00E+02	²⁴² Cm	9.08E-03
¹⁵² Eu	1.71E-01	²⁴³ Am	5.32E-03
¹⁵⁴ Eu	5.39E+00	²⁴³ Cm	8.90E-04
¹⁵⁵ Eu	3.44E+00	²⁴⁴ Cm	2.05E-02

Table 1 values corrected to match accurate values in Appendix A are as follows:

Radionuclide	APQ (Ci)	Radionuclide	APQ (Ci)
³ H	3.13E-01	²²⁶ Ra	7.33E-07
¹⁴ C	4.60E-02	²²⁷ Ac	2.96E-04
⁵⁹ Ni	1.19E-01	²²⁸ Ra	4.10E-04
⁶⁰ Co	5.18E-01	²²⁹ Th	1.09E-04
⁶³ Ni	1.09E+01	²³¹ Pa	3.81E-04
⁷⁹ Se	1.17E-02	²³² U	5.82E-04
⁹⁰ Y	9.00E+03	²³² Th	5.04E-04
⁹⁰ Sr	9.00E+03	²³³ U	4.98E-04
⁹³ Zr	2.73E-01	²³⁴ U	1.74E-02
^{93m} Nb	2.20E-01	²³⁵ U	7.13E-04
⁹⁹ Tc	1.98E+00	²³⁶ U	4.71E-04
¹⁰⁶ Ru	1.27E-02	²³⁷ Np	9.02E-03
^{113m} Cd	3.48E-01	²³⁸ Pu	1.56E-01
¹²⁵ Sb	8.31E-01	²³⁸ U	1.58E-02
¹²⁶ Sn	3.08E-02	²³⁹ Pu	6.85E+01

Radionuclide	APQ (Ci)	Radionuclide	APQ (Ci)
¹²⁹ I	2.25E-03	²⁴⁰ Pu	8.41E-01
¹³⁴ Cs	2.01E-01	²⁴¹ Pu	7.46E+00
¹³⁷ Cs	3.16E+03	²⁴¹ Am	6.76E+01
^{137m} Ba	2.98E+03	²⁴² Pu	5.96E-05
¹⁵¹ Sm	3.01E+02	²⁴² Cm	9.12E-03
¹⁵² Eu	1.71E-01	²⁴³ Am	5.35E-03
¹⁵⁴ Eu	5.41E+00	²⁴³ Cm	8.94E-04
¹⁵⁵ Eu	3.46E+00	²⁴⁴ Cm	2.06E-02

Based upon these corrections it is proposed that the following condition 3 permit changes be made. **Proposed Change** (*provide original and proposed wording*):

Original Wording:

Sr – 90 9.00E+03

Identified as contributing greater than 10% of the potential TEDE to the MEI, or greater than 25% of the TEDE to the MEI after controls.

Proposed Corrections:

Sr – 90 9.00E+03

Identified as contributing greater than 0.1 mrem/yr to the MEI.

Original Wording:

Cs – 137 3.16E+03

Identified as contributing greater than 10% of the potential TEDE to the MEI, or greater than 25% of the TEDE to the MEI after controls.

Proposed Corrections:

Cs – 137 3.16E+03

Identified as contributing greater than 0.1 mrem/yr to the MEI, greater than 10% of the potential TEDE to the MEI, and greater than 25% of the TEDE to the MEI after controls.

Original Wording:

Y – 90 9.00E+03

Contributes less than 0.1 mrem/yr to the MEI and represents less than 10% of the unabated PTE and represents less than 25% of the abated dose.

Proposed Corrections:

Y – 90

Contributes less than 0.1 mrem/yr to the MEI and represents less than 10% of the unabated PTE and represents less than 25% of the abated dose.

Original Wording:

Pu – 239 6.85E+01

Identified as contributing greater than 10% of the potential TEDE to the MEI, or greater than 25% of the TEDE to the MEI after controls.

Proposed Corrections:

Pu – 239 6.85E+01

Identified as contributing greater than 0.1 mrem/yr to the MEI, greater than 10% of the potential TEDE to the MEI, and greater than 25% of the TEDE to the MEI after controls.

Original Wording:

Am – 241 1.17E+01

Identified as contributing greater than 10% of the potential TEDE to the MEI, or greater than 25% of the TEDE to the MEI after controls.

Proposed Corrections:

Am – 241 6.76E+01

Identified as contributing greater than 0.1 mrem/yr to the MEI, greater than 10% of the potential TEDE to the MEI, and greater than 25% of the TEDE to the MEI after controls.

SIGNATURES

Reviewed by Contractor	Reviewed by RL/ORP	Approved by WDOH
Date:	Date:	Date: