



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

June 25, 2007

Department of Commerce  
ATTN: William L. Reichert, Ph.D.  
NOAA, NMFS, EC Division  
Northwest Fisheries Science Center  
2725 Montlake Boulevard, East  
Seattle, Washington 98112-2097

SUBJECT: LICENSE AMENDMENT

**On November 21, 2005, the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), Northwest Fisheries Science Center (NMFS) contacted the U.S. Nuclear Regulatory Commission (NRC) and indicated they would like to remove the location of use at Mukilteo Research Station from their radioactive materials license. In support of the request, a "Radiological Decommissioning Survey and Report" was provided. Regulatory compliance with the radiological criteria for unrestricted use in 10 CFR 20.1402, was demonstrated by the screening approach described in Appendix H to NUREG-1757, Volume 2, "Consolidated NMSS Decommissioning Guidance."**

The U.S. Department of Commerce used guideline levels that were comparable to the derived concentration guideline levels (DCGLs) developed by the NRC which comply with the dose criterion in 10 CFR 20.1402. These DCGLs define the maximum amount of residual radioactivity allowed on building surfaces and materials in soils that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted use. The measured radioactivity as documented in the licensee's "Radiological Decommissioning Survey and Report" was less than the DCGLs. Therefore, the facility at Mukilteo Research Station is acceptable for unrestricted use in accordance with 10 CFR 20.1402, "Radiological criteria for unrestricted use." Based on these conclusions, no further remediation or actions with respect to NRC regulated material is required at the Mukilteo Research Station.

An Environmental Assessment (EA) was performed in accordance with 10 CFR Part 51 and published in the Federal Register on June 8, 2007 (72 FR 31864). On the basis of the EA, the NRC concluded there were no significant environmental impacts from the proposed license amendment and therefore, determined not to prepare an environmental impact statement. A copy of the EA is enclosed for your records.

Please find enclosed Amendment No. 40 to NRC License No. 46-06377-04, **authorizing the release of the Mukilteo Research Station for unrestricted use and removal of the facility from the license, in accordance with 10 CFR 20.1402**. You should review the enclosed document carefully and be sure that you understand all conditions. If there are any questions, please contact me at 817-276-6552.

In addition, please note that NRC Form 313 requires the applicant, by signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant. Since the NRC also accepts a letter requesting amendment of an NRC license, the signatory for such a request should also be the licensee or certifying official rather than a consultant.

NRC will periodically inspect your radiation safety program. Failure to conduct your program according to NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the NRC Enforcement Policy. The NRC Enforcement Policy is available on the following internet address:  
<http://www.nrc.gov/what-we-do/regulatory/enforcement/enforc-pol.pdf>.

The NRC no longer publishes the NRC Rules and Regulations loose leaf supplements. However, an electronic version of the NRC's regulations is available on the NRC Web site at [www.nrc.gov](http://www.nrc.gov). To view these regulations, highlight "Electronic Reading Room" and choose "Regulations" on the drop down menu. An electronic version of the NUREG-1556 Series publications is also available on the NRC Web site. To view these guidance documents, highlight "Electronic Reading Room," choose "All Collections" on the drop down menu; choose "NUREGS (NRC Reports)" and select "Publications Prepared by the NRC Staff." Then, choose "NUREG-1556" from the table and select the appropriate volume(s) for your license type.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and the subject license amendment will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at: <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,

/RA/

Rachel S. Browder, Health Physicist  
Nuclear Materials Licensing Branch

Docket: 030-08203  
License: 46-06377-04  
Control: 470863

Enclosures: As stated

**MATERIALS LICENSE**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with letter dated November 21, 2005	
1. Department of Commerce NOAA, NMFS, EC Division		3. License number 46-06377-04 is amended in its entirety to read as follows:	
2. Northwest Fisheries Science Center 2725 Montlake Boulevard, East Seattle, Washington 98112-2097		4. Expiration date November 30, 2013	
		5. Docket No. 030-08203	
		Reference No.	
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license	
A. Carbon 14	A. Any	A. 50 millicuries	
B. Hydrogen 3	B. Any	B. 200 millicuries	
C. Iodine 131	C. Any	C. 1 millicurie	
D. Phosphorus 32	D. Any	D. 40 millicuries	
E. Sulfur 35	E. Any	E. 2 millicuries	
F. Phosphorus 33	F. Any	F. 2 millicuries	
G. Iodine 125	G. Any	G. 10 millicuries	
9. Authorized Use:			
A. through G. For use in research and development as defined in 10 CFR 30.4.			

**CONDITIONS**

10. Licensed material shall be used only at the licensee's facilities located at 2725 Montlake Boulevard, East, Seattle, Washington.
11. A. Licensed material shall be used by, or under the supervision of, William L. Reichert, Penny Swanson, Linda K. Park, Mark S. Strom, Keri Baugh, Kathy Cooper, Jon Dickey, Cathy Laetz, and Vera Trainer.  
B. The Radiation Safety Officer for this license is Ann Byar, M.S., C.I.H.
12. Sealed sources or detector cells containing licensed material shall not be opened or the sources removed from the source holder by the licensee.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
**46-06377-04**Docket or Reference Number  
**030-08203**

Amendment No. 40

13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made, within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested and the test results received.
- C. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- D. Sealed sources need not be tested if they are in storage and are not being used; however, when they are removed from storage for use or transferred to another person and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- E. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed, within 5 days of the date the leak test result is known, with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- F. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. Records of leak test results shall be kept in units of microcuries and shall be maintained for 3 years.
14. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.
15. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory, and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

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16. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:
- Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and
  - Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and
  - Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.
17. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
18. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- Application dated May 7, 2003
  - Letter dated November 21, 2005
  - Facsimile dated January 30, 2006

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Date: June 25, 2007

By:

Rachel S. Browder, Health Physicist  
Nuclear Materials Licensing Branch  
Region IV  
Arlington, Texas 76011