



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

January 21, 2005

Docket No. 030-04004  
Control No. 136039

License No. 10-10146-01

James L. Kitchens  
Radiation Safety Officer  
U. S. Environmental Protection Agency  
Environmental Research Laboratory  
960 College Station Road  
Athens, GA 30605

SUBJECT: U. S. ENVIRONMENTAL PROTECTION AGENCY, ISSUANCE OF LICENSE  
AMENDMENT, CONTROL NO. 136039

Dear Mr. Kitchens:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

*An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).*

Please note that on October 25, 2004, the NRC suspended public access to ADAMS, and initiated an additional security review of publicly available documents to ensure that potentially sensitive information is removed from the ADAMS database accessible through the NRC's web site. Interested members of the public may obtain copies of the referenced documents for review and/or copying by contacting the NRC Public Document Room pending resumption of public access to ADAMS. The NRC Public Document Room is located at NRC Headquarters in Rockville, MD, and can be contacted at 800-397-4209 or 301-415-4737 or [pdr@nrc.gov](mailto:pdr@nrc.gov).

Thank you for your cooperation.

Sincerely,

***Original signed by Bryan A. Parker***

Bryan A. Parker  
Health Physicist  
Commercial and R&D Branch  
Division of Nuclear Materials Safety

Enclosure:

J. Kitchens  
U. S. Environmental Protection Agency

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Amendment No. 16

J. Kitchens  
U. S. Environmental Protection Agency

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OFFICE	DNMS/RI	N	DNMS/RI		DNMS/RI			
NAME	BParker /BAP/							
DATE	1/21/05							

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**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  1. U. S. Environmental Protection Agency Environmental Research Laboratory  2. 960 College Station Road Athens, Georgia 30605		In accordance with the letter dated November 17, 2004,  3. License No. 10-10146-01 is amended in its entirety to read as follows: <hr/> 4. Expiration Date: August 31, 2012 <hr/> 5. Docket No. 030-04004
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6. Byproduct, source, and/or special nuclear material  A. Hydrogen 3 B. Carbon 14 C. Sulfur 35 D. Hydrogen 3 E. Nickel 63  F. Nickel 63	7. Chemical and/or physical form  A. Any B. Any C. Any D. Foils in detector cells E. Foils and/or plated sources in detector cells (AEA Technology Models NBC, NBCE and Custom Plated Source; DuPont Merck Pharmaceuticals Models NER-004 and NER-004P; Isotope Products Labs Model Custom Plated Source; New England Nuclear Model Custom Plated Source; NRD Model N-1001; Safety Light Models LAB 508-3 and LAB-847)  F. Any	8. Maximum amount that licensee may possess at any one time under this license  A. 15 millicuries B. 50 millicuries C. 5 millicuries D. 250 millicuries E. Not to exceed 15 millicuries per source  F. 1 millicurie
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## 9. Authorized use:

- A. - C. Research and development as defined in 10 CFR 30.4.
- D. and E. To be used for sample analysis in compatible gas chromatography devices that have been registered either with the U. S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State and have been distributed in accordance with a Commission or Agreement State specific license authorizing distribution to persons specifically authorized by a Commission or Agreement State license to receive, possess, and use the devices.
- F. For possession and use as an analysis standard.

**CONDITIONS**

10. Licensed material may be used or stored only at the licensee's facilities located at the Environmental Research Laboratory, College Station Road, Athens, Georgia, and the Bailey Street Annex, Athens, Georgia.
11. The Radiation Safety Officer (RSO) for this license is James L. Kitchens, or in his absence, Frank Stancil.
12. Licensed material shall be used by, or under the supervision of, James L. Kitchens, Frank Stancil, Demont Bouchard, Marirosa Molina, Lee Wolfe, Dalizza Colón, and Brenda Kitchens.
13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
14. A. Sealed sources 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 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

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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.
- F. Tests for leakage and/or contamination, limited to leak test sample collection, 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.
- G. Records of leak test results shall be maintained for three years.
15. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the U. S. Nuclear Regulatory Commission or an Agreement State to perform such services.
16. The licensee is authorized to perform cleaning of detector cell assemblies in accordance with the device manufacturer's written instructions and the statements and procedures contained in letters dated August 20, 1992 and August 25, 1992. Foil and/or plated sources containing licensed material shall not be removed from the detector by the licensee.
17. A. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents the foil temperatures from exceeding that specified in the certificate of registration referred to in 10 CFR 32.210.
- B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.
18. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U. S. Nuclear Regulatory Commission, to account for all 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.
19. The licensee shall not use licensed material in or on human beings or in field applications where it is released except as provided otherwise by specific condition of this license.
20. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
22. 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.
- A. Application dated February 26, 2002
  - B. Letter dated August 20, 1992
  - C. Letter dated August 25, 1992
  - D. Letter dated August 23, 2002



For the U. S. Nuclear Regulatory Commission

Date January 21, 2005

***Original signed by Bryan A. Parker***  
By \_\_\_\_\_  
Bryan A. Parker  
Commercial and R&D Branch  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406