

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

29-08636-02

Docket or Reference number

030-11318

Amendment No. 08

"OFFICIAL RECORD COPY"

EMR Photoelectric  
P.O. Box 44  
Princeton, New Jersey 08540

In accordance with letter dated May 20, 1985, License Number 29-08636-02 is amended as follows:

Items 6., 7., 8., and 9. are amended to read:

- |   |  |  |
|---|--|--|
| 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. Hydrogen 3   | A. Gas   | A. 1,500 curies  |
| B. Americium 241                                      | B. Sealed neutron source (Monsanto Research Corp. Model 2721B) | B. 135 millicuries   |
| C. Americium 241                                      | C. Sealed Sources (Isotope Products)                           | C. Not to exceed 100 microcuries per source                                    |
| D. Americium 241                                      | D. Sealed source (Amersham Model AMC-62)                       | D. 1 millicurie  |
| E. Strontium 90                                       | E. Sealed source (Isotope Products Model BF-90-SS)             | E. 1 millicurie  |
| F. Cesium 137   | F. Sealed source (Amersham Model CDC.701.)                     | F. 1 millicurie  |

9. Authorized use

- A. To be used in the manufacture of sealed neutron generator tubes containing a maximum of 1.5 curies of hydrogen 3 each.
- B. To be used for the calibration of neutron detectors.
- C. through F. For use as instrument check sources.

Conditions 10., 11., 12., 13., 14., 15., 16., and 17. are amended to read:

10. Licensed material shall be used only at the licensee's facilities, 20 Wallace Road, Princeton Jct., New Jersey
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions, and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."
12. Licensed material shall be used by, or under the supervision of, Stuart M. Johnson, Jr., Arthur D. Liberman, or Gordon Riggs. Licensed material in the form of sealed sources may also be used by, or under the supervision of Daniel B. Lister.
13. A. Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

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(13. continued)

- B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened.
15. Neutron tubes manufactured under this license shall be transferred only to Schlumberger Well Services, 500 Gulf Freeway, Houston, Texas.
16. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions."
17. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated July 11, 1980; and letters dated February 6, 1981, May 26, 1981, September 9, 1981, June 15, 1982, April 16, 1984, May 8, 1984, May 30, 1984, June 7, 1984, September 12, 1984, and May 20, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

For the U.S. Nuclear Regulatory Commission

Original Signed By:

By Jenny M. Johansen

Nuclear Materials Safety and  
Safeguards Branch, Region I  
King of Prussia, Pennsylvania 19406

Date JUL 12 1985