

MATERIALS LICENSE

Amendment No. 43

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, 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.

<p style="text-align: center;">Licensee</p> <p>1. Aluminum Company of America Alcoa Technical Center</p> <p>2. P.O. Box 2970 Alcoa Center, Pennsylvania 15069</p>	<p>In accordance with letter dated ⁴ March 7, 1988,</p> <p>3. License number 37-07653-02 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date February 28, 1989</p> <hr/> <p>5. Docket or Reference No. 030-06172</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium 137 B. Nickel 63</p> <p>C. Hydrogen 3</p> <p>D. Krypton 85</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed sources</p> <p>B. Foil contained in Hewlett-Packard Model 18713-60520 or Perkin Elmer Model 330-0119 detector cells</p> <p>C. Foil contained in AID Model 510-6007 detector cells</p> <p>D. Sealed source (FIFE Model KAC/4)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. See Subitem 9.A.</p> <p>B. Not to exceed 15 millicuries per foil</p> <p>C. Not to exceed 200 millicuries per foil</p> <p>D. Not to exceed 100 millicuries per source</p>
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9. Authorized use
- A. For possession and use in Kay Ray, Accuray, Ohmart, LFE, or Texas Nuclear devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the Nuclear Regulatory Commission or an Agreement State.
 - B. and C. For use in gas chromatographs for sample analysis.
 - D. For use in FIFE Series 8500, Type NS601 source holders, to measure density of material in pipeline.

CONDITIONS

- 10. Licensed material shall be used only at Alcoa Technical Center, Alcoa Center, Pennsylvania and at Alcoa Research Laboratory, New Kensington, Pennsylvania.
- 11. Licensed material shall be used by, or under the supervision of, Haig G. Sakoian or D. Ray Scott, RS0.
- 12. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number

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030-06172

Amendment No. 43

(Continued)

CONDITIONS

13. A. Any sealed source(s) or detector cell(s) specified in Item(s) 7.B. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Sealed sources contained in devices manufactured by Kay Ray, Accuray, Ohmart, LFE, or Texas Nuclear, shall be tested for leakage and/or contamination at intervals not to exceed 6 months. The test may be conducted at 3 year intervals provided the sources have been authorized by the Commission (or an Agreement State) for a three year leak test interval. Any source which is received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
 - B. Any sealed source or detector cell in storage and not being used need not be tested. When the source or detector cell is removed from storage for use or transfer to another person, it shall be tested before use or transfer.
 - C. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the source or detector cell shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
 - D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Installation, initial radiation survey, relocation, or removal from service of devices containing sealed sources shall be performed by D. Ray Scott or Haig G. Sakoian or by persons specifically licensed by the Commission or an Agreement State to perform such services. Maintenance and repair of devices and installation, replacement, and disposal of sealed sources shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services.
 15. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
 16. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.

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CONDITIONS

17. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
18. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), of 10 CFR Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
19. 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 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. Letter dated September 12, 1983
 - B. Letter dated September 23, 1983
 - C. Letter dated November 11, 1983
 - D. Letter dated January 17, 1984
 - E. Letter dated April 25, 1986
 - F. Letter dated January 22, 1988
 - G. Letter dated March 7, 1988

Date

04 MAY 1988

For the U.S. Nuclear Regulatory Commission

Original Signed By:

Jack Davis

By

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