

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, 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>Licensee</p> <p>1. Tennessee Valley Authority Division of Energy Demonstrations and Technology</p> <p>2. 1040 Chestnut Street Tower II Chattanooga, Tennessee 37401</p>	<p>In accordance with letter dated December 31, 1984</p> <p>3. License number 41-08165-12 is amended in its entirety to read as follows:</p> <p>4. Expiration date December 31, 1986</p> <p>5. Docket or Reference No. 030-19063</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Californium 252</p> <p>B. Californium 252</p> <p>C. Cesium 137</p> <p>D. Cesium 137</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed sources (Monsanto Research Model 2765; Amersham Custom Source Dwg. No. 3A 11154/S; DOE-SR-CF-100 Series)</p> <p>B. Sealed neutron sources (Savannah River (DOE) Model SR-CF-100 Series)</p> <p>C. Sealed source (Texas Nuclear Dwg. 570-57157C)</p> <p>D. Sealed source (Texas Nuclear Dwg. 570-57157C)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not to exceed 30 millicuries per source</p> <p>B. 2 sources of 217 millicuries (400 micrograms) each</p> <p>C. 1 source of 100 millicuries</p> <p>D. 1 source of 200 millicuries</p>

9. Authorized use

- A. For use in Science Applications, Inc. Model RSM (SM-1002) custom designed rapid sulfur meter to monitor and control sulfur content of coal.
- B. For use in a Science Application Model CONAC Custom Made Nuclear Analyzer for analysis of coal.
- C. For use in a Texas Nuclear Model 5196 source holder to control levels of coal in a hopper.
- D. For use in a Texas Nuclear Model 5034 belt scale device to control flow rates.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

41-08165-12

Docket or Reference number

030-19063

Amendment No. 07

CONDITIONS

10. Licensed material shall be used only at Paradise Steam Plant, Coal Washing Facility, Drakesboro, Kentucky.
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, Dennis A. Humphris, Richard W. Lynch, Mike Boyles, Michael W. DeLawson, or S. J. Stamey.
13. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
14. A. (1) Each sealed source containing licensed material, other than hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
(2) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.
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 five (5) days of the test with the U. S. Nuclear Regulatory Commission, Region II, 101 Marietta Street, Suite 2900, Atlanta, Georgia 33032, describing the equipment involved, the test results, and the corrective action taken.
D. Tests for leakage and/or contamination shall be performed by licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

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15. Installation, relocation, removal from service, maintenance, repair, and initial radiation survey of devices containing licensed material and installation, replacement, and disposal of sealed sources containing licensed material used in devices shall be performed only by device manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
16. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of sealed sources and the date of the inventory.
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 received February 12, 1981; letters dated September 8, 1981, October 14, 1981 and February 17, 1982; application received November 19, 1981; letters dated March 9, 1982, April 29, 1982, December 7, 1982, March 9, 1983, January 3, 1984, February 8, 1984 and April 17, 1984; and letter received December 31, 1984. 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

MAY 15 1985

DATE

Original Signed By

John W. N. Hickey

BY

MATERIAL LICENSING BRANCH
DIVISION OF FUEL CYCLE AND
MATERIAL SAFETY
WASHINGTON, D.C. 20555

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