

MATERIALS LICENSE

Amendment No. 15

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.

Licensee

1. Tennessee Valley Authority
Manager, Office of Nuclear Power
2. 6N 38A Lookout Place
Chattanooga, Tennessee 37402-2801

In accordance with application dated
February 25, 1988,

3. License number 01-06113-05 is amended
in entirety to read as follows:

4. Expiration date June 30, 1990

5. Docket or
Reference No. 030-03573

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. Any byproduct or source
material with atomic numbers
3 through 96, except as
specified below:

- A. Sealed or plated
sources

- A. Alpha sources not
to exceed 10
microcuries each
and beta/gamma
sources not to
exceed 100
microcuries each,
with a total
possession limit
of 2 millicuries,
except as specified
below:

- (1) Natural or depleted
uranium

- (1) Any

- (1) Not to exceed
10 kilograms

- (2) Any byproduct material
with atomic numbers 3
through 83, plus
Americium 241, except
as specified below:

- (2) Sealed or plated
source

- (2) 1 curie of each
radionuclide
with a total
possession limit
of 6 curies,
except as
specified
below:

8803300206 880310
REG2 LIC30
01-06113-05 PDR

- (3) Cesium 137

- (3) Sealed sources
(Gamma Industries
Model VD-HP)

- (3) Not to exceed
50 curies per
source

- (4) Cesium 137

- (4) Sealed source
(ORNL Dwg. No.
DSK-2345)

- (4) 1500 curies

MLL 011

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

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- | | | |
|---|----------------------------------|--|
| 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. (cont'd)

- | | | |
|-------------------|---|---|
| (5) Cesium 137 | (5) Sealed sources
(J. L. Shepherd and Assoc.) | (5) Two sources, not to exceed 440 curies |
| (6) Americium 241 | (6) Sealed sources
(Monsanto Research Corp. Model 2725-BT) | (6) Not to exceed 10 curies per source |

9. Authorized use

- A. Calibration and testing of radiation detection equipment. Neutron-emitting sources may also be used in neutron activation studies.

CONDITIONS

10. Licensed material shall be used only at the Western Area Radiological Laboratory in Muscle Shoals, Alabama.
11. A. Licensed material shall be used by, or under the supervision of, Billy B. Hobbs, John L. Lobdell, William L. Raines, Ralph G. Wallace, R. Michael Canning, R. Dee Colvert, William J. Rogers, Rex A. Phillips, W. David Phillips, or C. Henry Copeland.
- B. (1) The Radiation Protection Officer as described in application dated February 25, 1988 is Ralph G. Wallace.
- (2) The Radiation Control Supervisor as described in application dated February 25, 1988 is John L. Lobdell.
12. Sealed sources containing licensed material shall not be opened.
13. A. (1) Each source acquired from another person and containing licensed material, other than hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for contamination and/or leakage before use. In the absence of a certificate from a transferor indicating that a test has been made within 6 months before the transfer, a source received from another person shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting materials or 10 microcuries or less of alpha emitting material.

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CONDITIONS

(cont'd)

- (3) Except for alpha sources, the periodic leak test required by this condition does not apply to sources that are stored and not being used. The sources excepted from this test shall be tested for leakage before any use or transfer to another person unless they have been leak tested within 6 months before the date of use or transfer.
- B. Each source containing licensed material, other than hydrogen 3, with a half-life greater than 30 days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed 6 months except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed 3 months.
- C. 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 source or from the surfaces of the device in which the source is permanently or semipermanently 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. Records may be disposed of following Commission inspection.
- D. If the test required by Subsection A. or C. of this condition 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 date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region II, Division of Radiation Safety and Safeguards, Nuclear Material Safety Section, 101 Marietta Street, Suite 2900, Atlanta, Georgia 30323, describing the equipment involved, the test results, and the corrective action taken.
14. 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.
15. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
16. 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.

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CONDITIONS

(cont'd)

A. Applications (cover letter with application) dated

- (1) July 19, 1979
- (2) February 25, 1988

B. Letters with attachments dated

- (1) July 9, 1985
- (2) February 6, 1985
- (3) August 23, 1984
- (4) July 11, 1984
- (5) October 11, 1983
- (6) September 7, 1983
- (7) April 30, 1982
- (8) March 30, 1982
- (9) February 26, 1982
- (10) May 13, 1981
- (11) November 30, 1979
- (12) July 27, 1979

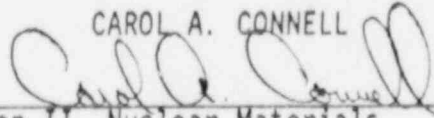


FOR THE U.S. NUCLEAR REGULATORY COMMISSION

CAROL A. CONNELL

Date MAR 10 1988

By


Region II, Nuclear Materials
Safety Section
101 Marietta Street, Suite 2900
Atlanta, GA 30323

CONVERSATION RECORD

2:10PM

3/4/88

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

Location of Visit/Conference

☒ INCOMING

☐ OUTGOING

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

ORGANIZATION (OFFICE, DEPT, BUREAU, ETC.)

TELEPHONE NO.

SUBJECT

SUMMARY

Application dated 2/25/88, item 5:
(2) Cs-137 - 100 mCi per source - they only have 2 of each model for a max. of 400 mCi total (< 10 , so don't list separate)
(6) Co60 - 50 mCi per source - don't list separate (under 1 Ci Co60)
(7) Sr90 - 0.2 mCi per source - " " " " " "
(9) Thallium 204 - 0.8 mCi per source - " " " " " "

ACTION REQUIRED

Proceed w/ license amendment

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

ACTION TAKEN

SIGNATURE

TITLE

DATE