

MATERIALS LICENSE

Amendment No. 12

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		In accordance with application dated April 17, 1985	
1. Koppers Company, Inc. 3900 S. Laramie Avenue		3. License number 12-13655-01 is amended in its entirety to read as follows:	
2. Cicero Station Chicago, IL 60650		4. Expiration date	June 30, 1990
		5. Docket or Reference No.	030-04295
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. Cesium-137	A. Sealed sources (General Nuclear Model No. GNI-VD (HP))	A. No single source to exceed 15 millicuries	
B. Cesium-137	B. Sealed sources (Industrial Nucleonics Model No. S-6)	B. No single source to exceed 50 millicuries	
C. Cesium-137	C. Sealed sources (Ohmart Corporation Model No. A-2102)	C. No single source to exceed 50 millicuries	
D. Cesium-137	D. Sealed sources (Ohmart Corporation Model No. A-2102)	D. No single source to exceed 100 millicuries	
E. Cesium-137	E. Sealed sources (Ohmart Corporation Model No. A-2102)	E. No single source to exceed 500 millicuries	
F. Cesium-137	F. Sealed sources (IN-VAL-CO Model No. A-00-237 or 3M Company Model No. 4F6S)	F. No single source to exceed 35 millicuries	
G. Cesium-137	G. Sealed sources (Amersham Model No. CDC.809)	G. No single source to exceed 100 millicuries	
H. Cesium-137	H. Sealed sources (Kay-Ray Model No. 7700B)	H. No single source to exceed 25 millicuries	

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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

I. Cesium-137

I. Sealed sources
(New England Nuclear
Model No. NER 570)

I. No single source
to exceed 50
millicuries

J. Cesium-137

J. Sealed sources
(Amersham/Searle Model
No. 850283 or No. 850263;
or 3M Company Model No.
4PGM)

J. No single source
to exceed 200
millicuries

K. Cesium-137

K. Sealed sources
(Texas Nuclear Model
No. 696894)

K. No single source
to exceed 200
millicuries

9. Authorized Use

- A. To be used in General Nuclear Type CS-20 and CS-30 gauge for level measurement.
- B. To be used in Industrial Nucleonics LS-101 gauge for level measurement.
- C. To be used in Ohmart Corporation Model SHRH-A source holder for level measurement.
- D. To be used in Ohmart Corporation Model SHLG-1 source holder for level measurement.
- E. To be used in Ohmart Corporation Model SHD source holder for level measurement.
- F. To be used in IN-VAL-CO Model B-20-06 source holder for level measurement.
- G. To be used in Kay-Ray, Incorporated Model 7062P source holder for density measurement.
- H. To be used in Kay-Ray, Incorporated Model 7062P source holder for level measurement.
- I. To be used in Kay-Ray, Incorporated Model 7062 source holder for level measurement.
- J. To be used in Texas Nuclear Model 5179 source holder for level measurement.
- K. To be used in Texas Nuclear Model Nos. 5201 or 5205 source holder for level measurement.

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CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 3900 S. Laramie Avenue, Cicero Station, Chicago, Illinois.
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, Charles W. Flickinger, Michael H. Juba, John M. Nash, Florentino Olvena, Jr., Mark Gotich, Ron Jablonski, Abe Green, Bill Campbell, Ray Yurkewycz, or James Lamb.
13. 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; except those sealed sources as specified by the manufacturer and specifically authorized by the Commission or an Agreement State may be leak tested at intervals not to exceed three years. 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) 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 of less alpha emitting material.
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 Region III, U. S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Illinois, 60137, 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.

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14. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
15. A. Maintenance and repair of devices containing licensed material and the installation and disposal of sealed sources containing licensed material used in devices shall be performed only by the device manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
- B. Installation, relocation and the initial radiation survey of devices containing licensed material shall be performed by the licensee, the device manufacturer or by other persons specifically authorized by the Commission or an Agreement State to perform such services. The licensee in performing these services shall:
1. Receive detailed safety instructions from the device manufacturer's representative authorized to conduct training and shall have available for reference a copy of the device manufacturer's service and maintenance instructions.
 2. Verify by visual inspection and radiation survey that the device is fully secured in the shielded position (for example: locked).
 3. Perform a radiation survey before, during and after each operation authorized by this Condition for the purpose of verifying that the source is properly shielded and/or installed for operational use.
 4. Verify that the survey meter used is operable, capable of detecting radiation levels generated by the unshielded sources and calibrated in accordance with specified Conditions of this license.
16. Radiation survey meters required by this license shall be calibrated to meet the following requirements.
- A. Minimum frequency of calibration: every six months and following each repair.
 - B. Calibrated at least two points in each scale with the two points separated by at least 50% of the scale
 - C. Instrument readings should be within $\pm 10\%$ of the calculated value of the calibration source. (Readings within $\pm 20\%$ are acceptable if a calibration chart or graph is prepared and included with the instrument.)
 - D. The standard source used for calibration shall be traceable to a primary standard.

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17. The licensee shall conduct a physical inventory every six (6) months to account for all licensed material 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.
18. 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 April 17, 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

Date May 17, 1985

Original Signed
By George M. McCann
Materials Licensing Section, Region III

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