

BYPRODUCT MATERIAL LICENSE NO. 5-682-2 Amendment No. 3
(K63)

Pursuant to the Atomic Energy Act of 1954 and Title 10, Code of Federal Regulations, Chapter 1, Part 30, Licensing of Byproduct Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer and import byproduct material listed below; and to use such byproduct material for the purpose(s) and at the place(s) designated below. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, and is subject to all applicable rules, regulations, and orders of the Atomic Energy Commission now or hereafter in effect and to any conditions specified below.

<p style="text-align: center;">Licensee</p> <p>1. Name Ideal Cement Company 821 17th Street</p> <p>2. Address Denver, Colorado</p>	<p>In accordance with application dated July 6, 1960</p> <p>3. License number 5-682-2 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date November 30, 1963</p> <hr/> <p>5. Reference No.</p>
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<p>6. Byproduct material (element and mass number)</p> <p>A. Cesium-137</p> <p>B. Cesium-137</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed sources (U. S. Radium Corp. Model LAB-236C1-4)</p> <p>B. Sealed source (U. S. Radium Corp. Model LAB-236A)</p>	<p>8. Maximum amount of radioactivity which licensee may possess at any one time</p> <p>A. 300 millicuries (3 sources of 100 millicuries each)</p> <p>B. 30 millicuries</p>
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9. Authorized use
- A. Each source to be used in an Ohmart Corp. Model SHRM source holder for measurement of the specific gravity of a slurry mixture in a pipeline.
 - B. To be used in an Ohmart Corp. Model SHRM-P source holder to measure density of cement raw mix slurry in a pipeline.

CONDITIONS

- 10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
- 11. Byproduct material may only be used at Ideal Cement Company, Airline Highway, Baton Rouge, Louisiana.
- 12. The licensee shall comply with the provisions of Title 10, Part 20, Code of Federal Regulations, Chapter 1, "Standards For Protection Against Radiation".
- 13. Byproduct material shall be used by, or under the direct supervision of, W. S. Fogelberg or K. L. Earhart.
- 14. Byproduct material as sealed sources shall not be opened or removed from the Model SHRM or SHRM-P source holders by the licensee.
- 15. The licensee shall possess and use byproduct material described in Items 6, 7 and 8 of this license in accordance with statements, representations, and procedures contained in his application dated November 14, 1958 and in his letters dated July 6, 1960 and August 15, 1960 from S. A. Gretencort and J. L. Gilliland, respectively.

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CONDITIONS

16. Each sealed source containing Cesium 137 shall be tested for leakage and/or contamination in accordance with the following:
- A. An appropriate test for leakage and/or contamination shall be performed on the sealed source surface, or on the accessible surfaces of the device in which such a sealed source is permanently or semipermanently mounted. The test shall be performed upon receipt of a source from another person, unless the licensee receives certification from the person making the transfer that the sealed source had been tested within thirty (30) days prior to transfer and found free of any removable radioactive material.
 - B. Following completion of the test prescribed in A, each sealed source shall be tested for leakage and/or contamination at intervals not to exceed three (3) years.
 - C. The test performed pursuant to A or B shall be sufficiently sensitive to detect 0.05 microcurie of removable beta and/or gamma emitting radioactive material. Records of leak test results shall be maintained by the licensee.
 - D. If the test performed pursuant to A or B reveals removable radioactive material, the licensee shall take immediate action to prevent spread of contamination and shall notify the Isotopes Branch, Division of Licensing and Regulation, U. S. Atomic Energy Commission, Washington 25, D. C., within thirty (30) days after completion of the test.
 - E. Repair of sources shall be performed by the manufacturers of the sources or by persons specifically licensed by the Commission to perform such repairs.
 - F. Tests for leakage and/or contamination shall be performed by W. S. Fogelberg or K. L. Earhart, in accordance with section "Sealed Sources in Ohmart Source Holders" of "Leak Test Procedure for Sealed Sources - (6-58)" submitted by H. L. Cook, Jr. with letter dated August 29, 1958, or by other persons specifically licensed by the Commission to perform such services.

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Maintenance and repair of the Model SHRM and SHRM-P source holders and installation, replacement and disposal of the sealed sources containing byproduct material and used in the Model SHRM and SHRM-P source holders shall be performed only by Ohmart Corporation, or by other persons specifically licensed by the Commission to perform such services.

Installation, relocation and initial radiation survey of the Model SHRM and SHRM-P source holders containing byproduct material shall be performed only by J. L. Gilliland, or by other persons specifically licensed by the Commission to perform such services.

AUG 23 1960

For the U. S. Atomic Energy Commission

Original Signed By

James R. Mason

by Chief, Isotopes BranchDivision of Licensing and Regulation
Washington 25, D. C.✓ / *Anderson**hca 4/2/60*