

MATERIALS LICENSE

Amendment No. 04

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. Hershey Foods Corporation
Technical Center
2. 1025 Reese Avenue
Hershey, Pennsylvania 17033

In accordance with application dated
January 8, 1985,
3. License number 37-10259-02 is amended in its
entirety to read as follows:

4. Expiration date May 31, 1990

5. Docket or
Reference No. 030-16090

- | 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. Hydrogen 3 | A. Any | A. 50 millicuries |
| B. Carbon 14 | B. Any | B. 50 millicuries |
| C. Phosphorus 32 | C. Any | C. 50 millicuries |
| D. Sulfur 35 | D. Any | D. 50 millicuries |
| E. Calcium 45 | E. Any | E. 50 millicuries |
| F. Chromium 51 | F. Any | F. 50 millicuries |
| G. Iodine 125 | G. Any | G. 50 millicuries |
| H. Iodine 131 | H. Any | H. 50 millicuries |
| I. Nickel 63 | I. Foils Contained in
Shimadzu detector cell
Model EDC-8 | I. No foil to exceed
10 millicuries |
| J. Cesium 137 | J. Sealed sources | J. See Subitem 9.J. |

9. Authorized use

- A. through H. For use in research and development as defined in Section 30.4(q) 10 CFR Part 30, including studies in lower animals, metabolism studies, and analysis of materials.
- I. For use in Shimadzu Model GC-8A1E gas chromatographs.
- J. For possession and use in Kay-Ray, Accu Ray, LFE and Ohmart 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.

CONDITIONS

10. Licensed material shall be used only at Hershey Foods Corporation Corporate Technical Center, 1025 Reese Avenue, Hershey, Pennsylvania. Cesium 137 may also be used at 19 East Chocolate Avenue, Hershey, Pennsylvania.
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."

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CONDITIONS

12. Licensed material shall be used by, or under the supervision of, Stanley M. Tarka.
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) 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 5 days of the test with the U. S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by Kay-Ray, Incorporated or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. 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.
15. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.

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CONDITIONS

16. Installation, relocation, removal from service, maintenance, repair, and initial radiation survey of the gauges containing licensed material shall be performed only by individuals who have successfully completed the manufacturers training program in accordance with application dated January 8, 1985, by the device manufacturer, or by other persons specifically authorized by the Commission or an Agreement State to perform such services. Installation, replacement, 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.
17. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, 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.
18.
 - A. Each chromatograph detector containing Nickel 63 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 detector received from another person shall not be put into use until tested.
 - 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 surfaces of the device in which the foil is 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 foil 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 the U.S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406, 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.
19. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.
20. Experimental animals administered licensed materials or their products shall not be used for human consumption.

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CONDITIONS

21. 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 January 8, 1985 and letter dated April 29, 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

Original Signed By

Laurence W. Friedman, Ph.D.

By

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

Date MAY 15 1985

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