

U. S. ATOMIC ENERGY COMMISSION  
BYPRODUCT MATERIAL LICENSE

Page 1 of 2 Pages

Supplementary Sheet

License Number 12-140-4  
(661)

Amendment No. 4

Sinclair Research Laboratories, Inc.  
400 East Sibley Boulevard  
Harvey, Illinois

Attention: Dr. Adolph I. Snow

In accordance with letter from Dr. A. I. Snow dated July 5, 1960, License No. 12-140-4 is amended to add Condition 21:

21. Notwithstanding Condition 19, the licensee may inject Hydrogen 3 labelled compounds into the feed of catalytic reforming or desulfurization units in accordance with Dr. A. I. Snow's letter dated July 5, 1960, for the purpose of detecting leaks in heat exchangers. The Hydrogen 3 shall be blended with the product gasoline in such a manner that the concentration of Hydrogen 3 in the product will not exceed  $8 \times 10^{-5}$  microcurie per milliliter.

License No. 12-140-4 is further amended to revise Condition 14 to read:

- 14.A. Each sealed source, acquired from another person, containing byproduct material with a half-life greater than thirty (30) days and in any form other than gas, shall be tested for leakage and/or contamination. The test shall be performed on the sealed source surface, or on the accessible surfaces of the device in which such a source is permanently or semipermanently mounted. The test shall be performed upon receipt 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. Each sealed source containing byproduct material which is fabricated by the licensee shall be tested for leakage and/or contamination immediately after fabrication. If the test reveals any removable radioactive material, the licensee shall repair and/or decontaminate and retest the source prior to placing it in use.
- C. Following completion of the test prescribed in A or B, each sealed source containing byproduct material with a half-life greater than thirty (30) days and in any form other than gas, shall be tested for leakage and/or contamination at intervals not to exceed six (6) months.

(See page 2) *gm:lb*

**DUPLICATED**  
FOR DIV. OF INSP

*A/19*

U. S. ATOMIC ENERGY COMMISSION  
PRODUCT MATERIAL LICENSE

Page 4 of 4 Pages

Continued from page 1

Supplementary Sheet

License Number 12-140-4  
(G61)

Amendment No. 4

14. (continued)

- D. The test performed pursuant to A, B or C 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.
- E. If the test performed pursuant to A or C 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.

For the U. S. Atomic Energy Commission

Original Signed By

James R. Mason

Chief, Isotopes Branch

Division of Licensing and Regulation  
Washington 25, D. C.

Date July 22, 1960

by chb

REG 7/22/60

JRB/Cooper