

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

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.

DUPLICATED
FOR DIV. OF INSP.

Licensee		
1. Name	Union Carbide Corporation	3. License number 47-260-6
2. Address	Union Carbide Chemicals Company Union Carbide Olefins Company 437 MacCorkle Avenue South Charleston 3 West Virginia	4. Expiration date March 31, 1961
		5. Reference No.
6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensee may possess at any one time
A. Hydrogen 3 B. Carbon 14 (See Page 2)	A. Any B. Any	A. 25 curies B. 250 millicuries

9. Authorized use

A. thru F.: **Research and development as defined in Section 30.4(k), Title 10, Code of Federal Regulations, Part 30.**

CONDITIONS

10. Unless otherwise specified, the authorized place of use is the licensee's address stated in Item 2 above.
11. **Byproduct material may also be used at other laboratories of the Union Carbide Corporation within the State of West Virginia as designated by the Radioactive Materials Committee. Byproduct material may also be used in other states at laboratories of the Union Carbide Corporation designated by the Radioactive Materials Committee providing the Atomic Energy Commission is notified of the location(s) of such use not later than four (4) days after the first day of such use.**
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, individuals approved by the local isotope committee, L. J. Rogers, Chairman.**
14. **Total amount of Hydrogen 3 (tritium) acquired under this license shall not exceed 50 curies.**

(See Page 2)

Date March 11, 1959

For the U. S. Atomic Energy Commission
Original Signed By
JRM
James R. Mason
by _____ **Chief, Isotopes Branch**
Division of Licensing and Regulation
Washington 25, D. C.

msg (D) *REB* **A-162**

U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

Supplementary Sheet

License Number 47-260-6
(C61)

CONTINUED:

6. Byproduct material (element and mass number)	7. Chemical and/or physical form	8. Maximum amount of radioactivity which licensees may possess at any one time
C. Phosphorus 32	C. Any	C. 100 millicuries
D. Sulfur 35	D. Any	D. 150 millicuries
E. Chlorine 36	E. Any	E. 100 millicuries
F. Calcium 45	F. Any	F. 100 millicuries

CONDITIONS

- 15. Byproduct material shall not be used in or on human beings.
- 16. Byproduct material shall not be used in products distributed to the public.
- 17. Byproduct material shall not be used in field applications where such activity is released.
- 18. The licensees 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 January 29, 1959, and in related documents and amendments as follows:
 - A. Administrative instructions entitled "Governing the Control and Use of Radioactive Materials" and dated January 21, 1957.
 - B. Letter dated January 27, 1959, from L. J. Rogers.
- 19. Written administrative instructions referenced in Condition 18.A. covering radiological protection, control, and security of byproduct material shall be followed and a copy of these instructions shall be supplied to each individual using or having responsibility for use of such material. Any changes in these administrative instructions shall have the prior approval of the Isotopes Branch, Division of Licensing and Regulation.

(See Page 3)

Date March 11, 1959

For the U. S. Atomic Energy Commission
 Original Signed By
 James R. Mason
 by Chief, Isotopes Branch
 Division of Licensing and Regulation
 Washington 25, D. C.

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U. S. ATOMIC ENERGY COMMISSION
BYPRODUCT MATERIAL LICENSE

Supplementary Sheet

License Number 47-260-6
(C61)

CONTINUED:

CONDITIONS

- 20. Pursuant to Section 20.302 of Title 10, Code of Federal Regulations, Part 20, disposal of waste materials containing Carbon 14 by incineration, as described in letter dated November 10, 1958, from F. G. Young, is hereby authorized.

Am #4 3-8-60 JMB

For the U. S. Atomic Energy Commission

Original Signed By
James R. Mason

by Chief, Isotopes Branch
Division of Licensing and Regulation
Washington 25, D. C.

Date March 11, 1959

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