

WFE Ellis
J. P. P.

20545

LR:WFH
47-260-6

SEP 25 1963

Union Carbide Corporation
Union Carbide Chemicals Company
Research and Development Department
P. O. Box 8361
South Charleston 3, West Virginia

Attention: Mr. F. Johnston, Director
Special Projects Division

Gentlemen:

Thank you for your letter of September 6, 1963, informing us that you have corrected those deficiencies in your AEC licensed program which we brought to your attention in our notice dated August 16, 1963. These matters will be reviewed during the next inspection of your facilities.

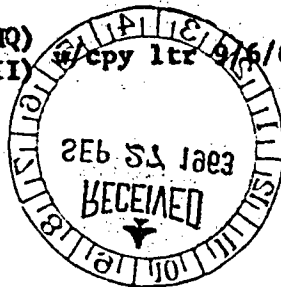
Your cooperation with us is appreciated.

Very truly yours,

Eber E. Price
Assistant Director
Division of Licensing
and Regulation

cc: Plant Manager

bcc: Compliance Div., HQ)
Compliance Div., II) *copy ltr 9/6/63*



LR:EB LR

WFN:bjy:RBP ERPrice
9/23/63

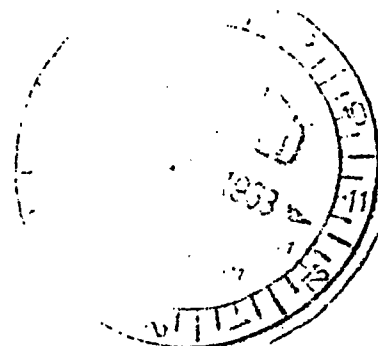
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A-180

UNION CARBIDE CHEMICALS COMPANY
DIVISION OF UNION CARBIDE CORPORATION
RESEARCH AND DEVELOPMENT DEPARTMENT
P. O. BOX 8361
SOUTH CHARLESTON 3, WEST VIRGINIA

September 6, 1963

Mr. Eber R. Price
Assistant Director
Division of Licensing
and Regulation
U. S. Atomic Energy Commission
Washington 25, D. C.



Dear Mr. Price:

The following information is supplied in response to your letter of August 16, 1963, notifying us of an apparent failure to comply fully with portions of the Atomic Energy Commission's "Standards for Protection Against Radiation", Part 20, Title 10, Code of Federal Regulations. The radioisotopes in question were procured under AEC Byproduct Material License No. 47-260-6.

Item (1) in your letter refers to the disposal by incineration of waste material containing hydrogen 3 without specific approval of the AEC. During the period December 24, 1959 to February 18, 1963, a total of 1000 millicuries of material containing hydrogen 3 was burned in small amounts, not exceeding 360 millicuries at a time, at a remote area on a hill top. The active material was burned with a large excess of combustible materials to yield a gaseous mixture with a hydrogen 3 concentration well below the permissible level. No further disposal in this manner has occurred since February 18, 1963 or will occur in the future without specific approval as required by 10 CFR 20.305. Oral instructions to this effect have been given the personnel working with hydrogen 3. Written instructions and Company procedures covering the disposal and other aspects of handling unencapsulated radioisotopes are now being revised to assure complete understanding of the AEC and Company requirements. This information will be issued within 30 days from the date of this letter.

Approximately 5000 millicuries of gaseous hydrogen 3 were inadvertently vented into the atmosphere through the exhaust stack of a hood at unknown times between January 25 and February 21, 1961. This event occurred as a result of unknown manipulatory errors of a technician or by slow loss through a stopcock. As the equipment was enclosed in a hood and all manipulations were carried out in the hood, no inhalation of hydrogen 3 by the personnel occurred. Periodic analyses of air samples in the laboratory area and in the hood

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September 6, 1963

never showed the presence of hydrogen 3 in an amount detectable with a Cary Vibrating Reed Electrometer. To the best of our knowledge this loss occurred slowly over a period of 28 days, thus the concentration of hydrogen 3 in the effluent from the exhaust stack (1100 cu.ft. per minute) would not have exceeded the maximum permissible limit. The apparatus containing hydrogen 3 will continue to be kept in a hood at all times, and every effort will be made to avoid either a human error or failure of the equipment which would result in leakage of the radioisotope to the hood exhaust.

Item (2) in your letter states that contrary to 10 CFR 20.401(b), "Records of Surveys, Radiation Monitoring, and Disposal" records were not kept of the results of surveys conducted pursuant to 10 CFR 20.201(b). Our Company instructions which are now being revised will include emphasis on the need for formal recording of the results of surveys, radiation monitoring, and disposal procedure for all unencapsulated isotopes, including carbon 14 and hydrogen 3.

A copy of the Company instructions and procedures referred to above will be sent to your attention within 30 days.

Very truly yours,



F. Johnston, Director
Special Projects Division

FJ/dww

cc: Mr. N. H. Ketcham
Mr. W. J. Skraba

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Ellis W.K.
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LE:WTH

AUG 16 1963

Union Carbide Corporation
Union Carbide Chemicals Company
Union Carbide Olefins Company
437 MacCorkle Avenue
South Charleston 3, West Virginia

Attention: Plant Manager

Gentlemen:

This refers to the inspection conducted on April 23, 24, and 25, 1963, of your activities authorized under AEC Byproduct Material License No. 47-260-6.

It appears that certain of your activities were not conducted in full compliance with the requirements of the AEC's "Standards for Protection Against Radiation," Part 20, Title 10, Code of Federal Regulations, in that:

1. Waste material containing hydrogen 3 was disposed of by incineration without specific approval of the AEC contrary to 10 CFR 20.305, "Treatment or disposal by incineration."
2. Contrary to 10 CFR 20.401(b), "Records of surveys, radiation monitoring, and disposal," records were not kept of the results of surveys conducted pursuant to 10 CFR 20.201(b).

This notice is sent to you pursuant to the provisions of Section 2.201 of the AEC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of which is enclosed. Section 2.201 requires you to submit to this office, within twenty (20) days of

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Union Carbide Corporation

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AUG 16 1963

your receipt of this notice, a written statement or explanation in reply including (1) corrective steps which have been taken by you, and the results achieved; (2) corrective steps which will be taken; and (3) the date when full compliance will be achieved.

Very truly yours,

Eber R. Price
Assistant Director
Division of Licensing
and Regulation

Enclosures:
10 CFR 20
10 CFR 2

cc: Mr. W. J. Skraba
Mr. H. H. Ketchum

bcc: Compliance Div., HQ
Compliance Div., II

LR:EB

LR

WFH:bjy:RGP

ERPrice

8/12/63

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L. Dubinski, Asst. Dir. for Materials
Division of Compliance

AUG 13 1963

R. G. Page, Chief, Enforcement Branch
Division of Licensing and Regulation

COMPLIANCE INSPECTION REPORT FOR
UNION CARBIDE CHEMICALS
SOUTH CHARLESTON, WEST VIRGINIA
INSPECTION CONDUCTED ON APRIL 23 - 25, 1963

LICENSE NO. 47-260-6

LR:RGP

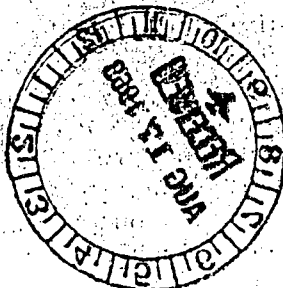
8/16/63

Attached for your concurrence is a notice of violation to the subject licensee.

We have not included in our notice a citation of noncompliance with 10 CFR 20.201(b) as recommended by Region II with respect to the licensee's failure to evaluate the concentrations of hydrogen 3 released to unrestricted areas while incinerating waste materials. Since the licensee has been cited for non-compliance with 10 CFR 20.305 for incinerating without specific authorization, the recommended citation of noncompliance with 10 CFR 20.201(b), appears inappropriate.

Attachment:

Letter to licensee *8/16/63*



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