

MATERIALS LICENSE

Amendment No. 29

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, 36, 39, 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.

OFFICIAL RECORD COPY

Licensee		In accordance with the letter dated January 24, 1997, 3. License Number 29-08354-02 is amended in its entirety to read as follows:	
1. Mobil Chemical Company Edison Research Laboratory			
2. P.O. Box 3029 Edison, New Jersey 08818-3029		4. Expiration Date April 30, 2001	
		5. Docket or Reference No. 030-05344	
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. Cesium 137	A. Sealed Source (Amersham Model CDC.700/.711M)	A. Not to exceed 100 millicuries per source and 100 millicuries total	
B. Cesium 137	B. Sealed Source (Isotope Products Laboratories Model 225)	B. Not to exceed 100 millicuries per source and 500 millicuries total	
C. Americium 241	C. Sealed Sources (Amersham/Searle Model AMC 36 or AMCP1)	C. Not to exceed 100 millicuries per source and 100 millicuries total	
D. Americium 241	D. Sealed Sources (Amersham/Searle Model AMC 36 or AMCP1)	D. Not to exceed 150 millicuries per source and 1500 millicuries total	
9. Authorized use			
A. through D. For possession and use in Kay Ray, Accuray, Ohmart, LFE, Berthold System, Inc., NDC, Data Measurement Corp., Flow Measurement Systems, Ronan Engineering or Texas Nuclear devices which have been evaluated and approved for licensing purposes and authorized for distribution under a license issued by the U.S. Nuclear Regulatory Commission or an Agreement State.			

CONDITIONS



10. Licensed material may be used only at the licensee's facilities located at Route 27 and Vineyard Road, Edison, New Jersey.
11. A. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described in application dated November 7, 1986 and have been designated in writing by the Radiation Safety Officer.

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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number

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(Condition 11. continued)

B. The Radiation Safety Officer for this license is J. Thomas Budde.

12. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.

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- G. The licensee is authorized to collect leak test samples for analysis by Ohmart Corporation and TN Technologies, Inc. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
13. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
 14. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
 15. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
 16. Each gauge shall be tested for the proper operation of the on-off mechanism and indicator, if any, at no longer than six-month intervals or at such longer intervals as specified by the manufacturer and approved by the Commission or an Agreement State in a registration certificate referred to in 10 CFR 32.210.
 17. Installation, initial radiation surveys, relocation, removal from service, or any similar activity with devices containing licensed material shall be performed only by persons specifically licensed by the Commission or an Agreement State to perform such services. The licensee may initially mount the device only in accordance with written instructions provided by the manufacturer; however, the device may not be used until surveyed by a person specifically licensed by the Commission or an Agreement State to install the device. The licensee may maintain, repair, or replace device components not directly associated with the sealed source, its related shielding, or the on-off mechanism, and that will not result in increased radiation levels in accessible areas.
 18. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the device with the shutter open. This survey shall be performed only by persons authorized to perform such services by the Commission or an Agreement State.
 19. The licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
 20. The licensee shall assure that the shutter mechanism of each device is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify as appropriate its "lock-out" procedures whenever a new device is obtained to incorporate the device manufacturer's recommendations.
 21. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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22. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Application dated November 7, 1986
- B. Letter dated January 22, 1987
- C. Letter dated February 6, 1989
- D. Letter dated March 1, 1991
- E. Letter dated January 28, 1992
- F. Letter dated August 3, 1992
- G. Letter dated March 27, 1995
- H. Letter dated January 24, 1997

For the U.S. Nuclear Regulatory Commission

ORIGINAL SIGNED BY:

JUDITH A. JOUSTRA

By

Nuclear Materials Safety Branch
Region I

King of Prussia, Pennsylvania 19406

MAR 19 1997

Date _____

MAR 19 1997

T. F. Davis
Safety & Environmental Supervisor
Mobil Chemical Company
Edison Research Laboratory
P.O. Box 3029
Edison, New Jersey 08818-3029

Dear Mr. Davis:

This refers to your license amendment request. Enclosed with this letter is the amended license. Please note that as part of this amendment, in accordance with 10 CFR 30.36, effective February 15, 1996, the expiration date of your license has been extended by a period of five years. Your new expiration date is stated in Item 4 of the license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

**ORIGINAL SIGNED BY:
JUDITH A. JOUSTRA**

Judith A. Joustra
Division of Nuclear Materials Safety

License No. 29-08354-02
Docket No. 030-05344
Control No. 124181

Enclosure:
Amendment No. 29

OFFICIAL RECORD COPY

ML 10

T. F. Davis
Mobil Chemical Company

-2-

DOCUMENT NAME: R:\WPS\MLTR\L2908354.01

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	<input checked="" type="checkbox"/> N	DNMS/RI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAME	JJoustra	<i>SAS</i>					
DATE	03/13/97		03/ /97		03/ /97		03/ /97

OFFICIAL RECORD COPY

Mobil Chemical Company

EDISON RESEARCH LABORATORY

P.O. BOX 3029

EDISON, NEW JERSEY 08818-3029

January 24, 1997

U.S. Nuclear Regulatory Commission
Region I
Licensing Assistance Team
475 Allendale Rd.
King of Prussia, PA 19406

030-05344

Dear Sir or Madam.

I wish to request that an amendment be made to the Mobil Chemical Company, Edison Research Laboratory License No. 29-08354-02.

Please Add:

The Radiation Safety Officer is J. Thomas Budde.

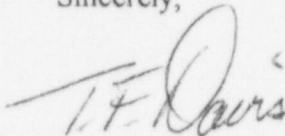
J. Thomas Budde was trained by the Ohmar Corporation in Cincinnati, Ohio on December 8th through December 11th, 1992. Attached is his certificate of completion listing the topics covered during the training.

Please Delete:

All references made to the name of David Renz under section 11A and 11B. Mr. Renz is no longer Radiation Safety Officer for this licensee.

Enclosed please find a check of the amendment fee of \$610.00.

Sincerely,



T. F. Davis
Safety & Environmental Supervisor

TFD/css
Attachment
543

cc: Charles Amato
USNRC - Region I
475 Allendale Rd.
King of Prussia, PA 19406

124181

JAN 31 1997

Certificate of Attendance

Duplicate

Awarded to

Tom Budde

Mobil Chemical, Films Division Macedon, New York

For the successful completion of the

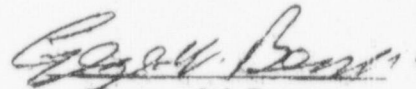
Ohmart Radiation Safety Course

December 8 - December 11, 1992

Presented at The Ohmart Corporation

Subject matter covered:

Basic atomic theory
Measurement and monitoring techniques
Exposure calculations
Biological effects of radiation
NRC regulations
Leak test, shutter check
Installation, relocation, and removal procedures
Hands on lab work
Proper disposal practices
Emergency procedures

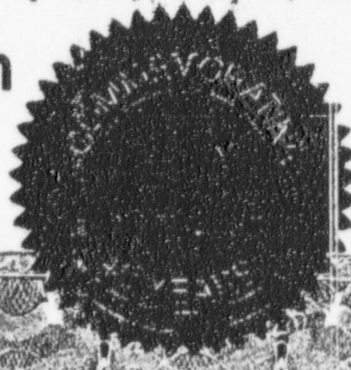


George W. Brown
Training Manager

Duplicate January 15, 1997

OHMART Corporation

Technical Training Schools
Cincinnati, Ohio 45209



BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 03120
STATUS CODE: 0
FEE CATEGORY: 3M
EXP. DATE: 20010430
FEE COMMENTS: _____
DECOM FIN ASSUR REQD: N
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LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: MOBIL CHEMICAL COMPANY
RECEIVED DATE: 970131
DOCKET NO: 3005344
CONTROL NO.: 124181
LICENSE NO.: 29-08354-02
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: \$610.00
CHECK NO.: C046-612004

3. COMMENTS

SIGNED
DATE

M. A. Perkins
1/31/97

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1 ✓)

1. FEE CATEGORY AND AMOUNT: 3M \$610

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT _____
RENEWAL _____
LICENSE _____

3. OTHER _____

SIGNED
DATE

Log	<u>9710</u>
Remitter	
Check No.	<u>C046-612004</u>
Amount	<u>\$610</u>
Fee Category	<u>3M</u>
Type of Fee	<u>Amnd</u>
Date Check Rec'd	<u>2/2/97</u>
Date Completed	<u>2/2/97</u>
By	<u>BR</u>