

MATERIALS LICENSE

Amendment No. 07

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.

397769

Licensee		In accordance with letter dated October 26, 1994	
1. General Motors Corporation		3. License Number 21-20057-01 is renewed in its entirety to read as follows:	
2. GM Building, Room 9-204 3044 W. Grand Blvd. Detroit, MI 48202		4. Expiration Date January 31, 2002	
		5. Docket or Reference No. 030-17694	
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. Americium-241	A. Sealed sources (Amersham Corp. Model AMCL)	A. No single source to exceed 100 millicuries	
B. Americium-241	B. Sealed sources (Amersham Corp. Capsule No. X.131/4)	B. No single source to exceed 100 millicuries	
C. Americium-241	C. Sealed sources (Amersham Corp. Model No. AMC-13146)	C. No single source to exceed 100 millicuries	
D. Americium-241	D. Sealed sources (Isotope Products Model M Gamma Source)	D. No single source to exceed 1.1 microcuries	
9. Authorized Use:			
A., B., and C. To be used in custom made devices (NRC Custom Review No. 80-63 dated October 10, 1980) as part of an on-line system to inspect automobile assemblies for presence of welded parts.			
D. For use in a Harshaw/Filtrol Count Rate Analyzer to test the operation of scintillation detectors prior to installation on the Gamma Ray Part Detection Systems.			

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050034

9702050325 970113
PDR ADDCK 03017694
C PDR

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number

21-20057-01

Docket or Reference Number

030-17694

Amendment No. 07

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at:

- | | |
|--|---|
| A. GM Grand Rapids
Metal Fabricating Division
300 36th Street-Southwest
Wyoming, MI 49548 | B. GM Lordstown
Lansing Automotive Division
Metal Fabricating Plant
2369 Ellsworth Bailey Road
Warren, OH 44482 |
|--|---|

11. A. Licensed material shall be used by, or under the supervision of, individuals who have completed the licensee's training program described in letter dated April 10, 1984, application dated October 4, 1995 and letters dated September 10, 1996 and December 13, 1996, and who have been designated by the licensee's Radiation Safety Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.

B. The Radiation Safety Officer for this license is William Kilgore.

12. A. (1) The source(s) specified in Items(s) 7.A. through 7.D. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contain 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

C. 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, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 801 Warrenville Road, Lisle, Illinois 60532-4351, ATTN: Chief, Nuclear Materials Safety Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.

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D. Tests for leakage and/or contamination shall be performed by person specifically licensed by the Commission or an Agreement State to perform such services.

13. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
14. Installation, initial radiation survey and relocation of devices containing licensed material shall be performed only by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services. Services performed by the licensee shall be performed under the supervision of and in the presence of the plant Radiation Protection Officer. Maintenance and repair of devices containing licensed material and replacement and disposal of sealed sources containing licensed material used in devices shall be performed only by the device manufacture or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
15. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
16. In addition to the possession limits in Condition 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
17. 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 U.S. 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. Applications dated April 11, 1989, October 4, 1995 and September 10, 1996; and
- B. Letters dated February 17, 1984 (with attachments), April 10, 1984, August 1, 1984, December 11, 1984, April 25, 1989, February 11, 1991, October 22, 1992, October 26, 1994, October 4, 1995 (facsimile transmitting letter dated September 29, 1995), October 4, 1995 (designating William Kilgore as signatory), September 10, 1996 and December 13, 1996 (with attachments).

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date

January 13, 1997

By

Colleen C. Casey
Nuclear Materials Licensing Branch, Region III

COPY

RECEIVED

DEC 09 1994

REGION III

(FOR LFMS USE)
INFORMATION FROM LTS

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 03120
STATUS CODE: 2
FEE CATEGORY: 3P
EXP. DATE: 19941031
FEE COMMENTS:
DECOM FIN ASSUR-RECDT N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: GENERAL MOTORS CORPORATION
RECEIVED DATE: 941031
DOCKET NO: 3017694
CONTROL NO.: 397769
LICENSE NO.: 21-20057-01
ACTION TYPE: RENEWAL

2. FEE ATTACHED
AMOUNT: 0
CHECK NO.: 0

3. COMMENTS

SIGNED
DATE

Deborah Hersey
11-4-94

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

1. FEE CATEGORY AND AMOUNT: 3P \$680.00

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT
RENEWAL
LICENSE

3. OTHER

SIGNED
DATE

SC
11/30/94

1994 NOV -7 PM 3:30



General Motors Corporation

October 26, 1994

Patricia M. Vacherlon
Materials Licensing Section
Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

RE: Renewal of NRC License No. 21-20057-01

Dear Ms. Vacherlon:

This is a request for renewal of NRC license number 21-20057-01. No significant changes to the license conditions are requested. However, we are requesting minor changes regarding names and/or addresses of contact persons (item 2) and the corresponding references letters as listed in item of the 19 (B) of the license. I have included a marked copy the latest version of the license and copies of the more recent correspondence related to these changes. Please be advised that a check for \$680 will be sent within 30 days to the NRC to meet the renewal fee requirement. Please let me know if you have any questions about this request or need additional information.

P.R. Frazee

P.R. Frazee, CH, CSP
Senior Advisor
NAO Health & Safety

Log	<i>Nov 4 III</i>
Remitter	
Check No.	<i>1124682</i>
Amount	<i>\$680.00</i>
Fee Category	<i>3P</i>
Type of Fee	<i>Renewal</i>
Date Check Rec'd	<i>11/30/94</i>
Date Completed	<i>11/30/94</i>
By:	<i>SC</i>

RECEIVED

OCT 31 1994

REGION III

397769



General Motors Corporation

October 22, 1992

Ms. Patricia M. Vacherlon
Materials Licensing Section
United States Nuclear Regulatory Agency
Region III
799 Roosevelt road
Glen Ellyn, IL 60137

Re: Amendment to NRC License #21-20057-01

Dear Ms. Vacherlon,

General Motors (GM) requests an amendment to its NRC license #21-20057-01 regarding the use of Americium-241 as part of an on-line system to inspect automobile assemblies for the presence of welded parts.

Since the last amendment request dated February 11, 1991, none of the operating parameters or operating instructions have changed. However, GM has reorganized the two major car groups referred to in amendment #4. Chevrolet-Pontiac-Canada (CPC) and Buick-Oldsmobile-Cadillac (BOC) - are now part of a larger organization known as GM's North American Operations (NAO).

Also, as part of the reorganization, the NAO unit that will be responsible for technical oversight of the radiation program has changed to:

North American Operations
Industrial Hygiene Activity

Located at:

GM Building, Room 9-213
3044 W. Grand Blvd.
Detroit, Michigan 48202

and the contact person is:

Patrick R. Frazee
Senior Advisor

~~Industrial Hygiene Activity~~
North American Operations

(313) 556-7843

810-340-7990

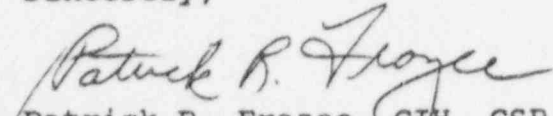
*Occupational Safety
and Health*

Ms. Patricia M. Vacherlon
October 22, 1992
Page 2

On two previous occasions I have acted as the contact person for the subject license and am intimately familiar with all aspects of the radiation program.

The amendment fee of \$410.00 is enclosed to cover this amendment request. If you have any questions regarding this request, please call me at (313) 556-7843.

Sincerely,


Patrick R. Frazee, CIH, CSP
NAO Industrial Hygiene

PRF/md

Enclosure

cc: D. B. Van Brocklin, M.D., MPH
W. H. Krebs, Ph.D.

397769



General Motors Corporation

March 15, 1993

Ms. Gidget M. Smith
Materials Licensing Section
United States Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

RE: License No. 21-20057-01

Dear Ms. Smith:

Attached for your information are copies of letters from two facilities covered by this license which have recently transferred the listed sources to another licensee. Thus, neither of these facilities currently has radioactive materials in their possession.

Please contact me if you have need for any additional information.

Sincerely yours,

P. R. Frazee
P. R. Frazee, CIH, CSP
NAO Industrial Hygiene

PRF:mah

Attachment

**BOC LANSING
AUTOMOTIVE**

Division of
Buick-Oldsmobile-Cadillac Group
General Motors Corporation
Pittsburgh Plant
P.O. Box 158
McKeesport, PA 15134

November 19, 1992

Patrick Frazee
UAW-GM Center for Health & Safety
1030 Doris Road
Auburn Hills, MI 48320

Dear Mr. Frazee:

Recently, our plant ceased production on our floor pan assembly process. This assembly line utilized Americium 241 radiation sources for parts presence detection. No other assembly processes at our location utilize gamma radiation for this purpose. After removing the source boxes from the assembly line, we contracted Applied Health Physics to take our source boxes. Applied Health Physics removed the sources from our plant and transferred them to their license on November 12, 1992. A listing of the sources transferred and the activity level of each source follows:

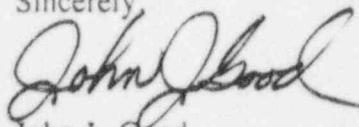
<u>Source Serial #</u>	<u>Activity</u>
7827LA	100 mCi
7830LA	100 mCi
7446LA	100 mCi
2454LV	100 mCi
2455LV	100 mCi
2456LV	100 mCi
2457LV	100 mCi
2458LV	100 mCi
2459LV	100 mCi
2460LV	100 mCi
2461LV	100 mCi
2462LV	100 mCi
2463LV	100 mCi
HF-790	1.045 μ Ci

The first thirteen sources are the Amersham parts presence detectors themselves. The fourteenth and final source is the Harshaw Filtrol Count Rate Analyzer.

With the transfer of these fourteen sources to Applied Health Physics, we no longer have any Americium sources on site. Please notify the Nuclear Regulatory Commission that we no longer have these sources and remove our plant location from the corporate radiation license.

If you need any additional information or clarification, please call me at 8-381-6575. Thank you for your assistance.

Sincerely,



John J. Good
Radiation Safety Officer

397769

SAVE

02/08/93

02/09/93

Post-It™ brand fax transmittal memo 7671 # of pages = 2.

To	BILL KILGORE	From	BARRY BOAZ
Co.		Co.	BCC KAZCO
Dept.		Phone	8-245-1219
Fax	8-237-0596	Fax	8-245-1677

February 5, 1993

Mr. Barry Boaz
General Motors Corp.
Buick-Olds-Cadillac Group
Kalamazoo Manufacturing
5200 East Cork Street
Kalamazoo, MI 49002

Dear Mr. Boaz:

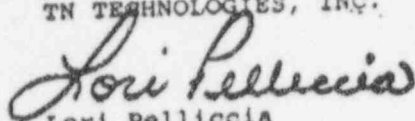
This is to certify that TN Technologies, Inc. has received and accepted ownership of the radioactive material described on the attached page(s) pursuant to applicable regulations and as authorized by our Texas License Number LO-3524.

This receipt should be retained in your file as a permanent record showing the disposition of this radioactive material.

If you have any questions or if we may be of further assistance, please contact us.

Sincerely,

TN TECHNOLOGIES, INC.



Lori Pelliccia
Technical Services Coordinator

/llp
Attachments

TN Technologies, Inc.

A Bunker Hughes company

P.O. Box 800 Round Rock Texas 78680-0800
(512) 388-9100. Fax (512) 388-9200 Telex 77-6413

397769

<u>ISOTOPE</u>	<u>ACTIVITY</u>	<u>SOURCE SERIAL NO.</u>	<u>MODEL NUMBER</u>	<u>MANUFACTURER</u>	<u>SOURCE HEAD SERIAL NO.</u>
Am-241	100 mCi	LA-7808	AMC17	Amersham	7808LA
Am-241	100 mCi	LA-7809	AMC17	Amersham	7809LA
Am-241	100 mCi	LA-8459	AMC17	Amersham	8459LA
Am-241	100 mCi	LA-8460	AMC17	Amersham	8460LA
Am-241	100 mCi	LA-8461	AMC17	Amersham	8461LA
Am-241	100 mCi	LA-8462	AMC17	Amersham	8462LA
Am-241	100 mCi	LA-8463	AMC17	Amersham	8463LA
Am-241	100 mCi	LA-6818	AMC13146	Amersham	6818LA
Am-241	100 mCi	LA-6815	AMC13146	Amersham	6815LA
Am-241	100 mCi	LA-7461	AMC13146	Amersham	7461LA
Am-241	100 mCi	LA-7643	AMC13146	Amersham	7643LA
Am-241	100 mCi	LA-7645	AMC13146	Amersham	7645LA
Am-241	100 mCi	LA-7799	AMC13146	Amersham	7799LA
Am-241	100 mCi	LA-7842	AMC13146	Amersham	7842LA
Am-241	100 mCi	LA-7843	AMC13146	Amersham	7843LA
Am-241	100 mCi	LA-7844	AMC13146	Amersham	7844LA
Am-241	100 mCi	LA-7853	AMC13146	Amersham	7853LA
Am-241	100 mCi	LA-7854	AMC13146	Amersham	7854LA
Am-241	100 mCi	LA-7855	AMC13146	Amersham	7855LA
Am-241	100 mCi	LA-7856	AMC13146	Amersham	7856LA
Am-241	100 mCi	LA-7857	AMC13146	Amersham	7857LA
Am-241	100 mCi	LA-7858	AMC13146	Amersham	7858LA
Am-241	100 mCi	LA-7859	AMC13146	Amersham	7859LA
Am-241	100 mCi	LA-7860	AMC13146	Amersham	7860LA
Am-241	100 mCi	LA-7861	AMC13146	Amersham	7861LA
Am-241	100 mCi	LA-7862	AMC13146	Amersham	7862LA
Am-241	100 mCi	LA-7863	AMC13146	Amersham	7863LA
Am-241	100 mCi	LA-7864	AMC13146	Amersham	7864LA
Am-241	100 mCi	LA-7865	AMC13146	Amersham	7865LA
Am-241	100 mCi	LA-7866	AMC13146	Amersham	7866LA
Am-241	100 mCi	LA-7867	AMC13146	Amersham	7867LA

Amendment No. 06
CORRECTED COPY

MATERIALS LICENSE

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, 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.

Licensee

1. General Motors Corporation

2. North American Operations
~~Industrial Hygiene Activity~~
GM Building, Room 9-2132
3044 W. Grand Blvd.
Detroit, MI 48202*Occupational
Health and
Safety*In accordance with letter dated
October 22, 19923. License number 21-20057-01 is amended
in its entirety to read as follows:

4. Expiration date October 31, 1994

5. Docket or
Reference No 030-176946. Byproduct, source, and/or
special nuclear material7. Chemical and/or physical
form8. Maximum amount that licensee
may possess at any one time
under this license

A. Americium-241

A. Sealed sources
(Amersham Corp.
Model AMC-17)A. No single source
to exceed 300
millicuries

B. Americium-241

B. Sealed sources
(Amersham Corp.
Model AMCL)B. No single source
to exceed 100
millicuries

C. Americium-241

C. Sealed sources
(Amersham Corp.
Capsule No. X.131/4)C. No single source
to exceed 100
millicuries

D. Americium-241

D. Sealed sources
(Amersham Corp.
Model No. AMC-13146)D. No single source
to exceed 100
millicuries

E. Americium-241

E. Sealed sources
(Isotope Products
Model M Gamma Source)E. No single source
to exceed 1.1
microcuries

9. Authorized Use

A., B., C., and D. To be used in custom made devices (NRC Custom Review No. 80-63 dated October 10, 1980) as part of an on-line system to inspect automobile assemblies for presence of welded parts.

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SUPPLEMENTARY SHEET

License number

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030-17694

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CORRECTED COPY

- A. May also be used in custom made devices Model No. FSD-39381 (NRC Certificate of Registration No. NR-292-D-101-S) as part of an on-line system to inspect automobile assemblies for presence of welded parts.
- E. For use in a Harshaw/Filtrol Count Rate Analyzer to test the operation of scintillation detectors prior to installation on the Gamma Ray Part Detection Systems.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities listed in application dated April 11, 1989.
11. Licensed material shall be used by, or under the supervision of, individuals who have completed the licensee's training program described in letter dated April 10, 1984, and who have been designated by the licensee's Radiation Protection Officer. The licensee shall maintain records of the individuals who have been designated as authorized users.
12. A. (1) The source(s) specified in Items(s) 7.A. through 7.E. shall be tested for leakage and/or contamination at intervals not to exceed 6 months. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.
- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- B. Any source in storage and not being used need not be tested. When the source is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

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- C. 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, the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, ATTN: Chief, Nuclear Materials Safety Branch. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.
13. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
14. Installation, initial radiation survey and relocation of devices containing licensed material shall be performed only by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services. Services performed by the licensee shall be performed under the supervision of and in the presence of the plant Radiation Protection Officer. Maintenance and repair of devices containing licensed material and replacement and disposal of sealed sources containing licensed material used in devices shall be performed only by the device manufacture or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
15. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 2 years from the date of each inventory.
16. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
17. In addition to the possession limits in Condition 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
18. The licensee shall maintain records of information related to decommissioning at the locations specified in Condition 10 as specified in 10 CFR 30.35(g) until this license is terminated by the Commission.

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MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

21-20057-01

Docket or Reference number

030-17694

Amendment No. 06

CORRECTED COPY

19. 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 April 11, 1989.
- B. Letters dated February 17, 1984 with attachments, letters dated April 10, 1984, August 1, 1984, December 11, 1984, April 25, 1989, February 11, 1991, and October 22, 1992, *March 15, 1993,*

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date *December 16, 1992*

By

Michael M. Smith

Materials Licensing Section, Region III

COPY

397769

JAN 16 1997

William Kilgore
Radiation Safety Officer
General Motors Corporation
GM Building, Room 9-204
3044 W. Grand Blvd.
Detroit, MI 48202

Dear Mr. Kilgore:

Enclosed is Amendment No. 07 renewing your NRC Material License No. 21-20057-01 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or
 - b. When the licensee's mailing address changes (no fee is required if the location of byproduct material remains the same).
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when you decide to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers;

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- b. Order byproduct material in excess of the amount, or radionuclide, or form different than authorized on the license;
 - c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
 - d. Change ownership of your organization.
5. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations. A license will not normally be renewed, except on a case-by-case basis, in instances where licensed material has never been possessed or used.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,

Original Signed By
Colleen C. Casey
Nuclear Materials Licensing Branch

License No.: 21-20057-01
Docket No.: 030-17694

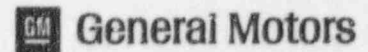
Enclosure: Amendment No. 07

DOCUMENT NAME: M:\03017694.CL7

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	DNMS/RIII <i>cdcc</i>							
NAME	CCASEY:jaw							
DATE	01/13/97							

OFFICIAL RECORD COPY



December 13, 1996

Colleen Casey,
NMLB Reviewer
Nuclear Regulatory Commission
Region III

{Concerning Renewal of License 21-20057-01}

Dear Colleen:

Please find attached a two page letter {with attachments} that I trust will provide the information you requested in your fax detailing our November 8, 1996 telephone conversation. Should you have any questions, please contact me at (313) 556-3135.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bill Kilgus", followed by a horizontal line.

RECEIVED
DEC 23 1996
REGION III

PM: 12-18-96

As requested in your fax { transmitted November 13, 1996 }, please find below the responses to the issues that needed to be addressed to complete the renewal of License #21-20057-01. The responses have been keyed to the telecom record, per your request.

1. An organization chart showing the chain of command is attached {see Attachment #1}.
2. Individuals designated as site RSO's in the organization chart have attended or will attend within six months of license renewal a 40-hour training course covering the topics listed in your letter { Items (2) (a-e) }. Both Site RSO's and individuals designated as authorized users had completed in-house training {manufacturer's based training} this past June. The site RSO's will provide further training for their authorized users based on pertinent knowledge and experience gained at the 40-hour training course.
3. Program agendas for a typical 40-hour radiation safety course and for the manufacturer's based training course are attached {see Attachment #2}. Both courses are designed to address the topics listed in your letter { Items (2) (a-e) }, however, the manufacturer's based training focuses on the specific use of the licensed material as part of the gamma ray parts detection system.

To ensure safe use, a manual was developed at the onset of this program to detail the safe practices and procedures to be followed when performing services such as replacement of shutter housing; device relocation, removal, and shipping; emergency procedures; and associated use of the radiation meter and wipe testing. Review of these detailed procedures is part of the manufacturer's based training.

In addition to formal classroom training, a shutter housing assembly¹ will be located in a nearby crib area to facilitate hands-on practice of these services. These procedures will be reviewed and practiced {as a minimum} every six months in coordination with the six-month inventory and wipe testing requirements of the license. An 'inventory' will be developed and kept on file to document practice of service operations.

Mr. John Bozymowski is a retired GM employee who was intimately involved in the design, development and implementation of the inspection systems. Although retired, he has agreed to continue providing consultation and training for our workers on an as needed basis. For example, Mr. Bozymowski assisted in the development of this response.

4. Attached is a statement wherein Mr. John Bozymowski attests to the results of {badge testing} conducted in the area and on personnel during prototype development and initial installation at the Grand Rapids facility in 1984. I am hereby requesting that any further personnel monitoring requirements be remitted in light of this account {see Attachment #3}.
5. A series of pictures are attached to serve as a description of where the gauges are mounted {see attachment # 4}.
6. Although the position {and thereby the operation} of the gauges' shutter mechanism is continuously monitored by proximity switches, a separate check of shutter mechanism operation will be made as part of the six month inventory process. Legibility and visibility of labels will be evaluated as well. There are no foreseeable circumstances by which the gauges would be exposed to corrosive materials or high temperatures.

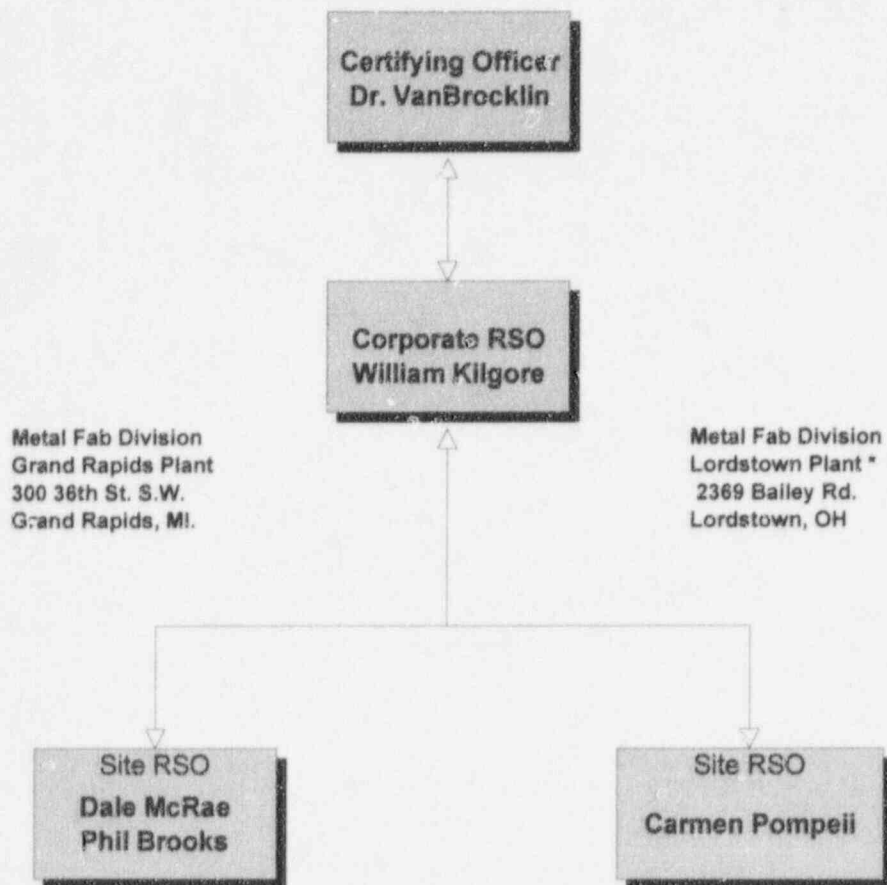
¹ Note: The shutter housing assembly {by itself} does not contain the sealed source.
Yet it can serve as an realistic prop for service practice.

7. A calibrated radiation survey meter is available. The meter is capable of detecting from 0.1 to 200 milliroentgens per hour and it will be calibrated at intervals not to exceed 12 months. The calibration service will be provided by Medical Physics Consultants, Inc which is licensed with the NRC to calibrate survey instruments as a service to other licensees.
8. Written procedures governing service operations will continue to be used by authorized users.
9. Lock out procedures are a part of the service operations manual which are available to affected personnel. They will also be posted so that personnel can see them. Attached is the source box lockout procedure section from the service operations manual. The site RSO's will ensure that the lockout procedures are followed.
10. The Corporate RSO will periodically audit licensed activities at least once a year by using the attached table as an auditing tool during interviews and recordkeeping reviews with the site RSO {see Attachment # 5}. The table provides a concise but thorough summary of licensing activities; records to update, file or post; and other pertinent comments concerning compliance with the regulations and the license. Furthermore, the audit will involve a physical inspection of the automated quality control stations where the gamma ray parts sensing systems are employed as well as the storage locations where devices not in productive use are secured. Interviews with other affected employees may take place as part of the inspection. Demonstration of service activities such as wipe testing and survey meter use will also be requested.

ATTACHMENT #1

ORGANIZATION CHART

(NRC License # 21-20057-01)



Authorized Users

Craig Coulson
Ron Goos
Dave Block
Doug DeVries
Garry Felty
Rich Moore

Ambrose Bracey
Ken Emerick
Bob Kopanic
Ken Sakoman
Walt Steffey

* Lordstown Plant: All source devices in storage awaiting proper disposal

Program Agenda

Monday

AM Welcome & Introduction

Atomic Structure & Radioactive Materials
External Radiation Protection

PM Natural Background Radiation

Laboratory Demonstration: Gamma Spectroscopy
in Occupational & Environmental Protection

Tuesday

AM Units of Radiation Dose

Physics of Radiation Detectors
Radiation Protection Standards for Workers and the
General Public

PM Film: The Roentgen (Optional)

Internal Dosimetry
Calibration and Use of Portable Radiation Monitoring
Instruments

Wednesday

AM Laboratory and Field Instrumentation

Systems and Applications
Personal Dosimetry
Biological Effects of Ionizing Radiation

PM Statistics in Radiation Protection

University & Medical Radiation Protection

Thursday

AM Control of Airborne Radon Decay Products

Lecture Demonstration:
Respirator Fitting and Use
Protective Clothing
Radiation Exposures from Consumer Products
Nuclear Power Plants and Nuclear Safety

PM Internal Exposures: Uranium, Radon, Plutonium

Internal Dosimetry and Problems in the Use of Radio-
nuclides in Research & Medicine
Management & Disposal of Low Level Radioactive
Wastes

Friday

AM Transportation of Radioactive Materials

Federal Inspection and Regulation of Radionuclide
Users—Technical and Legal Aspects
Course Closing

PM Optional

Shielding and Dosimetry
Current Issues in Radiation Protection
Nuclear Weapons and Nuclear War

The course will run from 8:30 a.m. to 4:30 p.m., with morning and after-
noon refreshment breaks and a one-hour lunch. The course will officially
close at 12:15 on Friday. Participants may elect to remain for the optional

Gamma Ray Training Program Manual**Table of Contents**

<u>Chapter 1</u>	<u>Page</u>
Introduction to Radiation	1
X and Gamma Radiation	2
Measuring Radioactivity	3
Source Capsule Information	4 – 5
Radiation Survey Information	6 – 8
 <u>Chapter 2</u>	
General Description of the Gamma Ray Part Presence Detection System II	9 – 16
Gamma Ray Alignment Procedure	17 – 20
Radiation Source Box Asm.	21 – 26
NRC Material License	27
State Registration	28
Radiation Safety Officer	29 – 30
Radiation Source Storage Area	31
Emergency Procedure Information	32 – 34

Date: November 27, 1996

Subject: Radiation Protection Procedure - Gamma Ray Parts Presence Detection System

To: Bill Kilgore

During the installation of the prototype gamma ray parts presence detection system { inspection system} at Grand Rapids, to the best of my knowledge, several radiation safety procedures were implemented to verify the safety features designed into this system.

Radiation survey meter readings were obtained around the perimeter {outside the safety screen enclosures} of the inspection system. With the device shutter open, no radiation was detected beyond the safety screens.

To further assess the potential for exposure to radiation, personnel film badges {badges} were placed at several locations directly on the safety screen enclosures. These badges functioned to detect any radiation that might be radiating beyond the safety screen enclosures. We wanted to determine whether there was any potential for radiation exposure to employees who walked by {outside of} the safety screen enclosures. These badges remained in place at several locations for a period of 30 days before being turned in for processing.

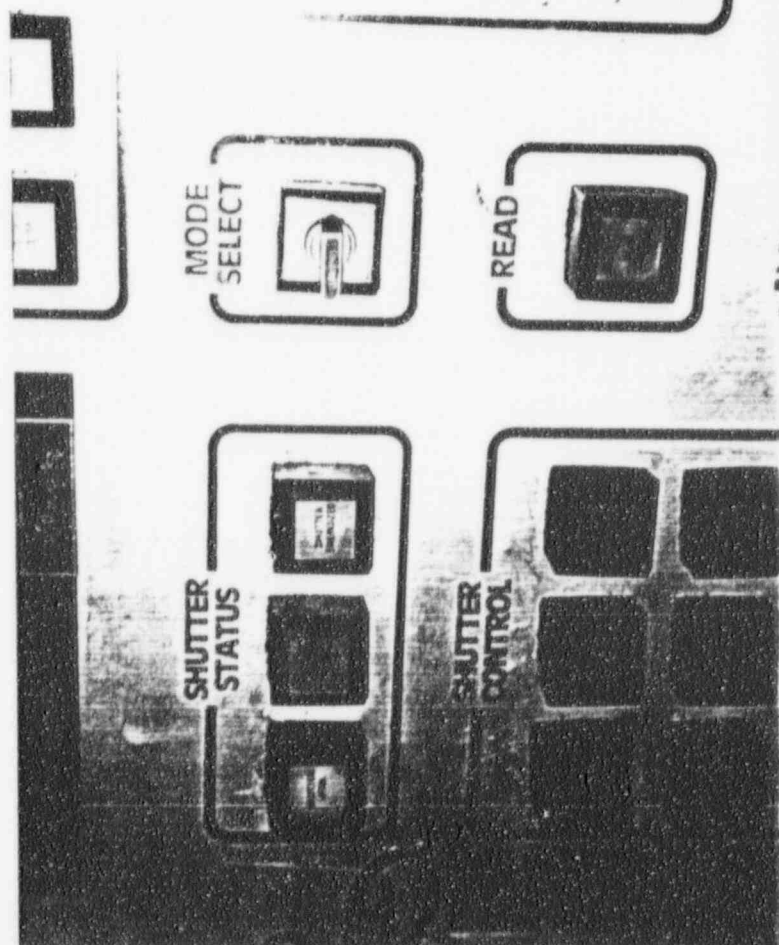
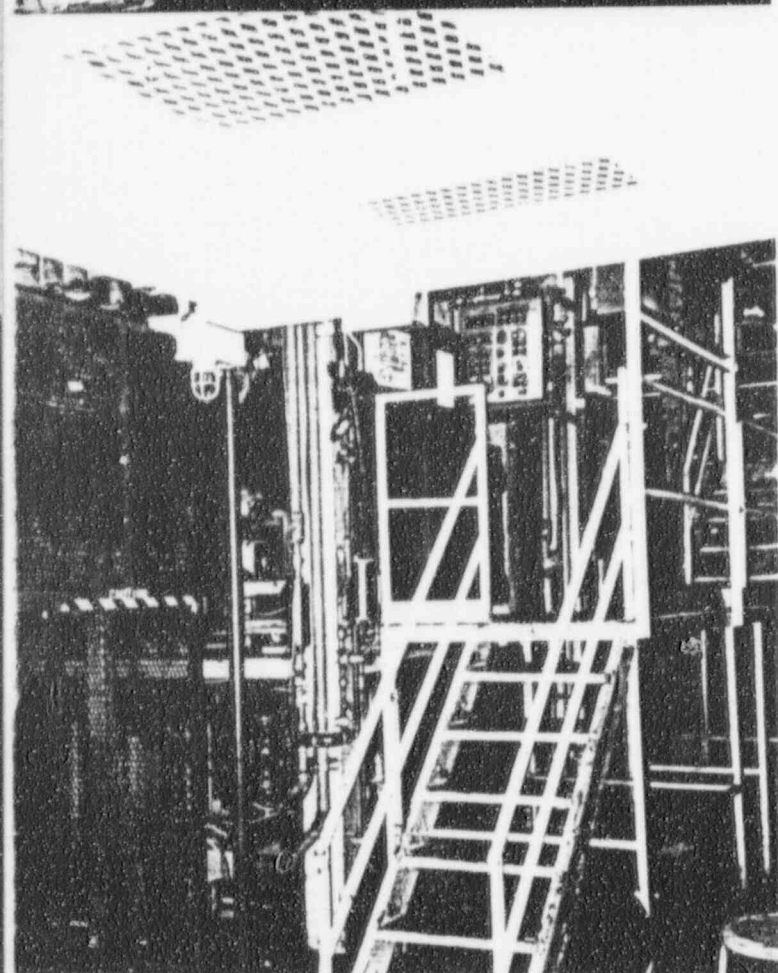
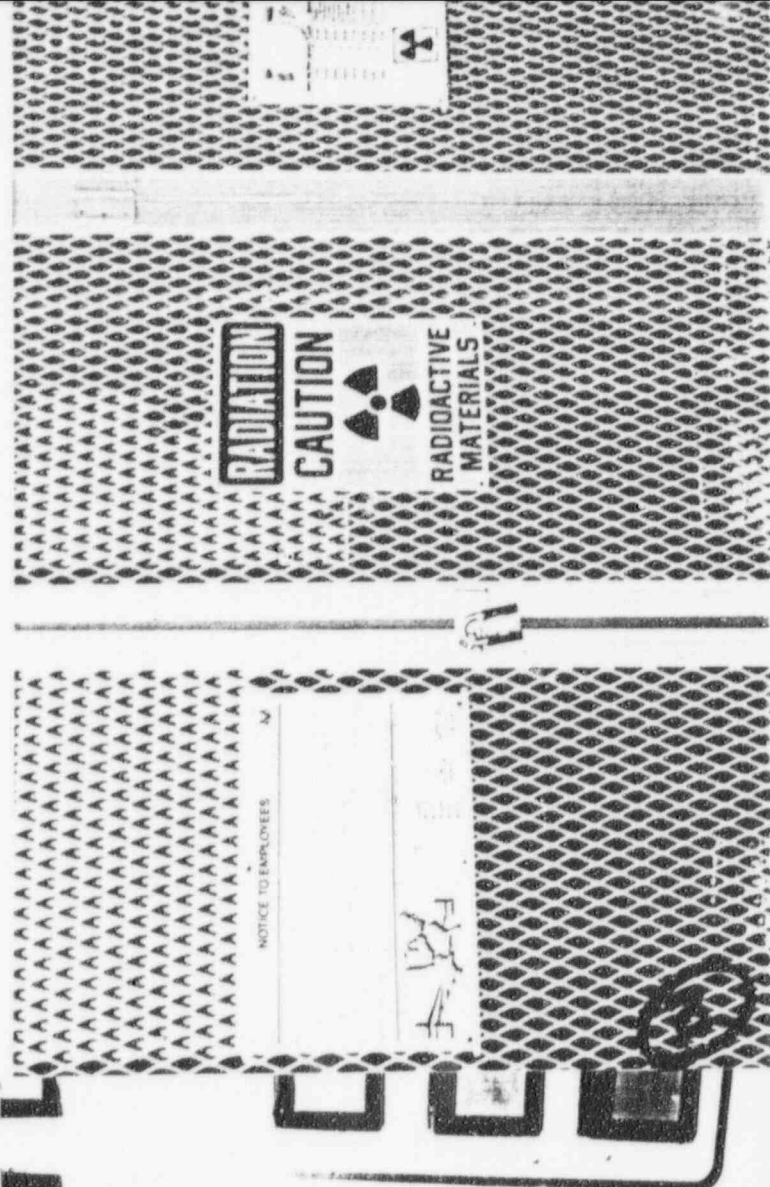
In addition, badges were worn by employees {myself included} installing the prototype floor pan inspection system at Grand Rapids. In the process of installing the prototype we performed all of the service operations referenced in the license, and at a much greater frequency initially than required toward the end of the test run.

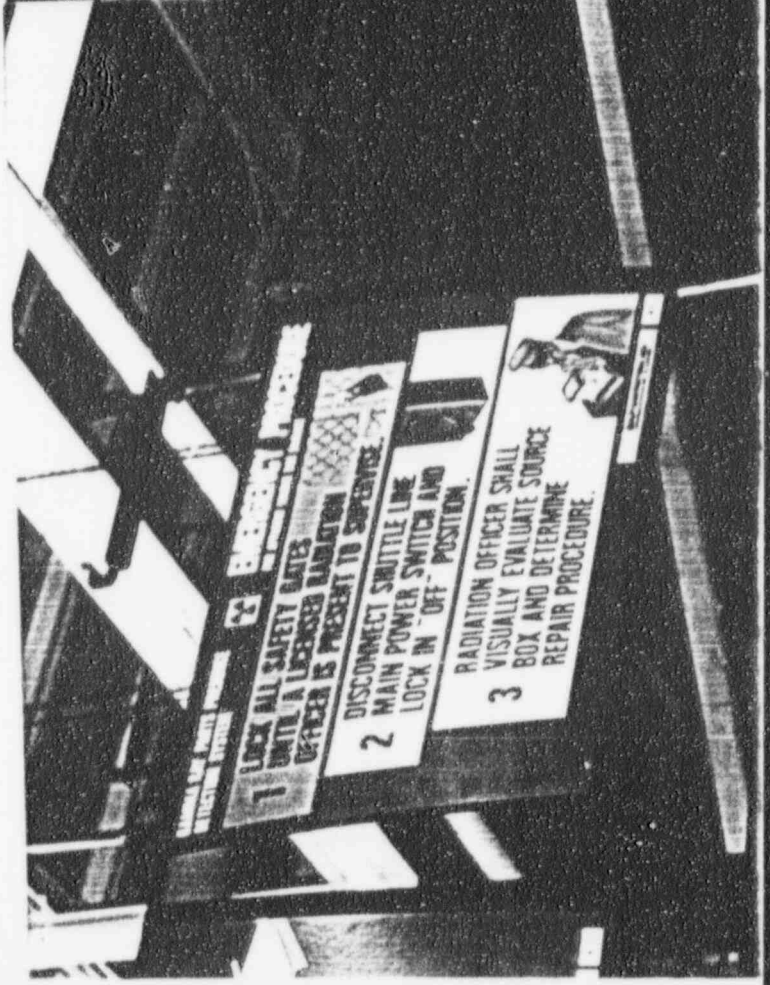
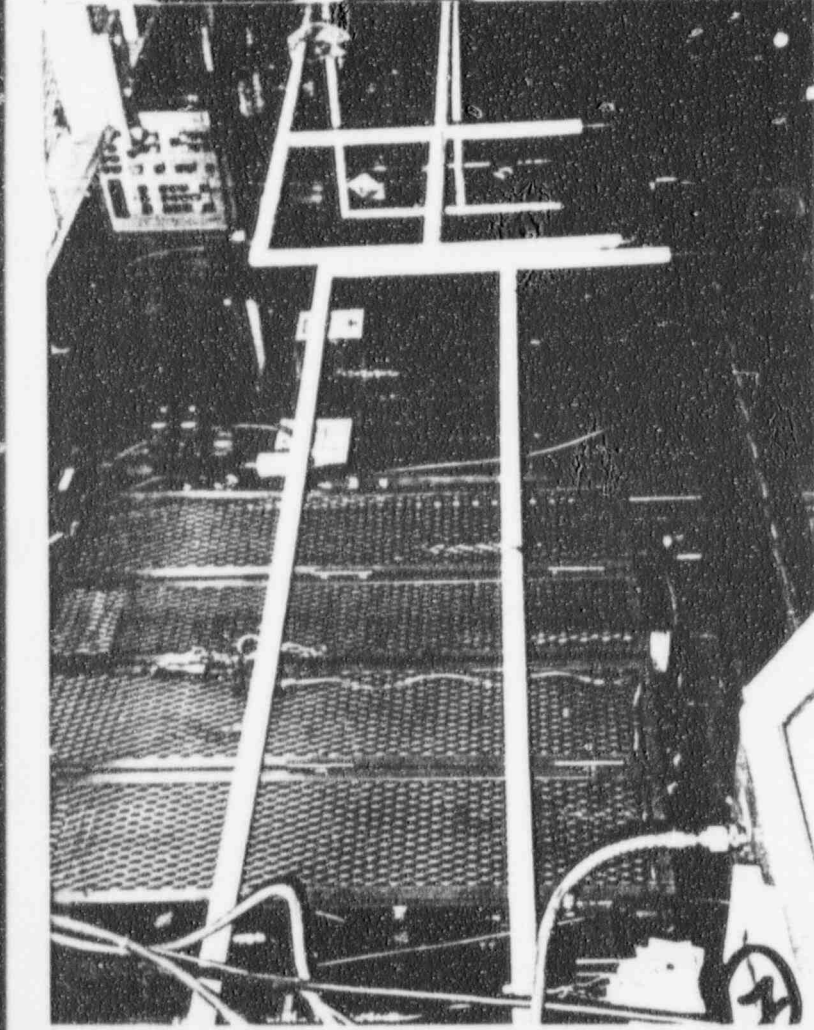
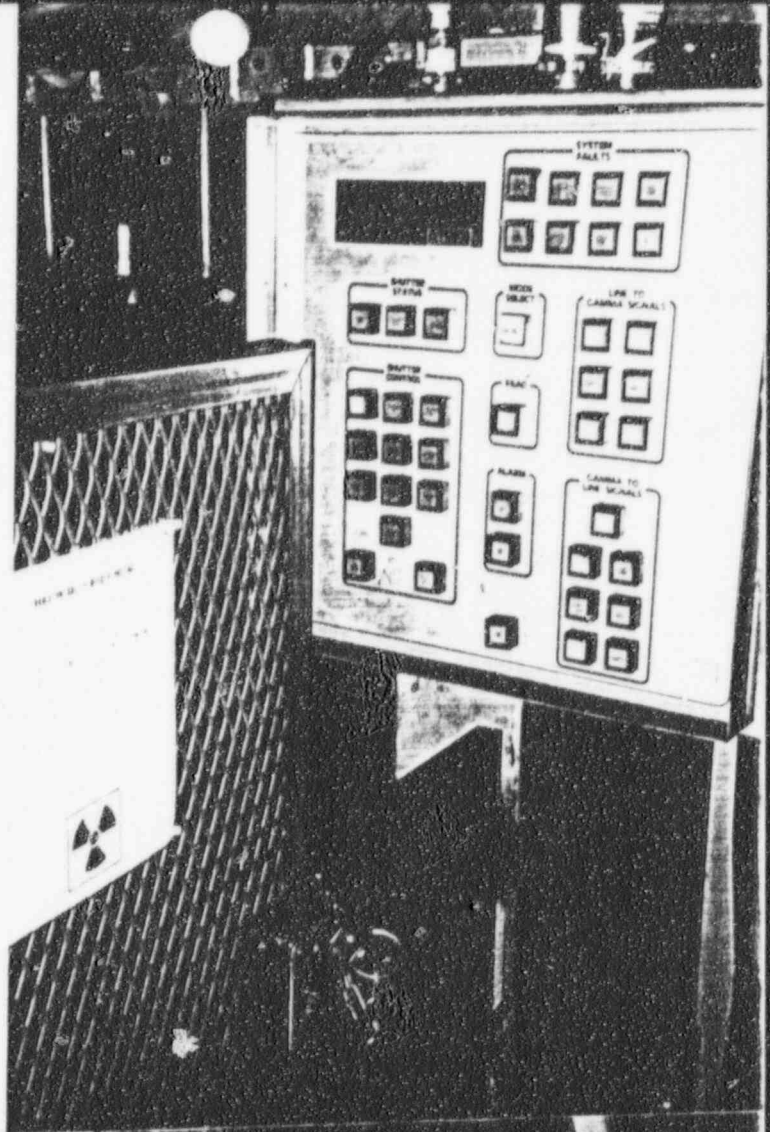
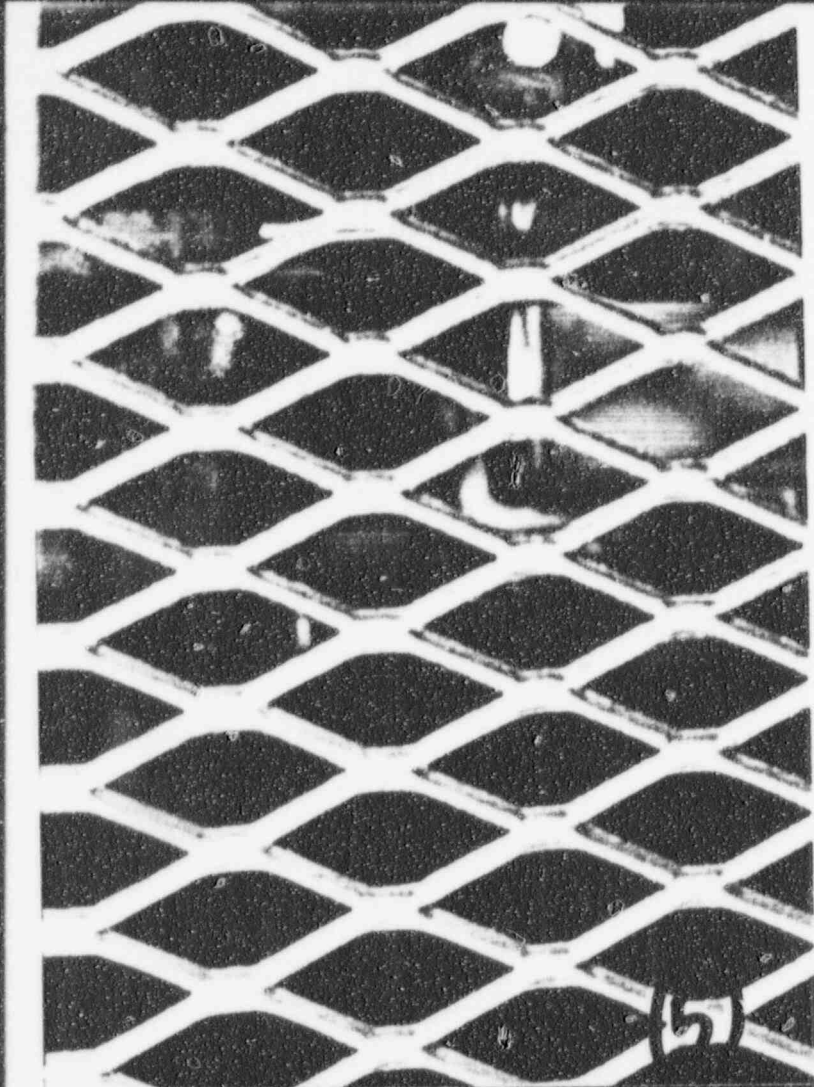
Processing of the badges was performed by Landaur. All badges {those placed on the safety screens and those worn by the employees} were processed and the results were reported as ND {not detectable}. The personnel monitoring tests were made throughout the six month period during which prototype installation and the subsequent test run was accomplished.

The following eight pictures were taken in an effort to describe the location(s) of the source box devices as part of the gamma ray parts detection systems at the Grand Rapids Plant. Basically, the source box devices are located at an automatic inspection station at the end of the W-Pan and C-Pan lines. Should you have need of any further explanation, please call me and reference the picture number in the lower right hand corner.

Picture	Orientation	Description	Note
1	Portrait (vertical)	Storage location for source box devices not in production use	
2	Landscape (horizontal)	Storage Area	Note locked and secure.
3	Portrait	North side of W-Pan, about 15 feet from the inspection station	Note safety screens along the line preclude employees from approaching the source device boxes {positioned inside the safety screen}.
4	Landscape	Close up picture of control panel showing the shutter status lights 'on' {indicating that the source box device shutters are open}	Can see the control panel in the background, up the steps, in the previous picture #3.
5	Landscape	Source box devices are painted yellow. This picture was taken very close to a safety screen on the W-Pan line to reveal the position of a source box device inside the screen.	The source box device is on the baseline of the photo just left of center.
6	Portrait	Control panel on the C-Pan line. Note the shutter 'on' indicator lights were off at the time of this photo.	Also note the safety plug in the safety screen {near baseline, center of picture}. This plug must be pulled to open the gate and gain entry into the area where the source box devices are located. When the plug is pulled, it cuts electrical power to the shutters which then remain closed {since they are spring loaded in off position and require electrical power to be opened}.
7	Landscape	South side of C-Pan line, about 15 feet from the automatic inspection station.	
8	Landscape	Placard giving summary of emergency response procedures. This placard is directly above the inspection station, C-Pan line.	Note: this is a summary and does not include all of the steps outlined in the emergency procedure in Volume 1 of the service operations manual. However, it does serve as an effective reminder that if an emergency is suspected, contact the radiation safety officer.

Again, if you have any questions regarding these pictures, please don't hesitate to call me at (313)556-3135 for further explanation.



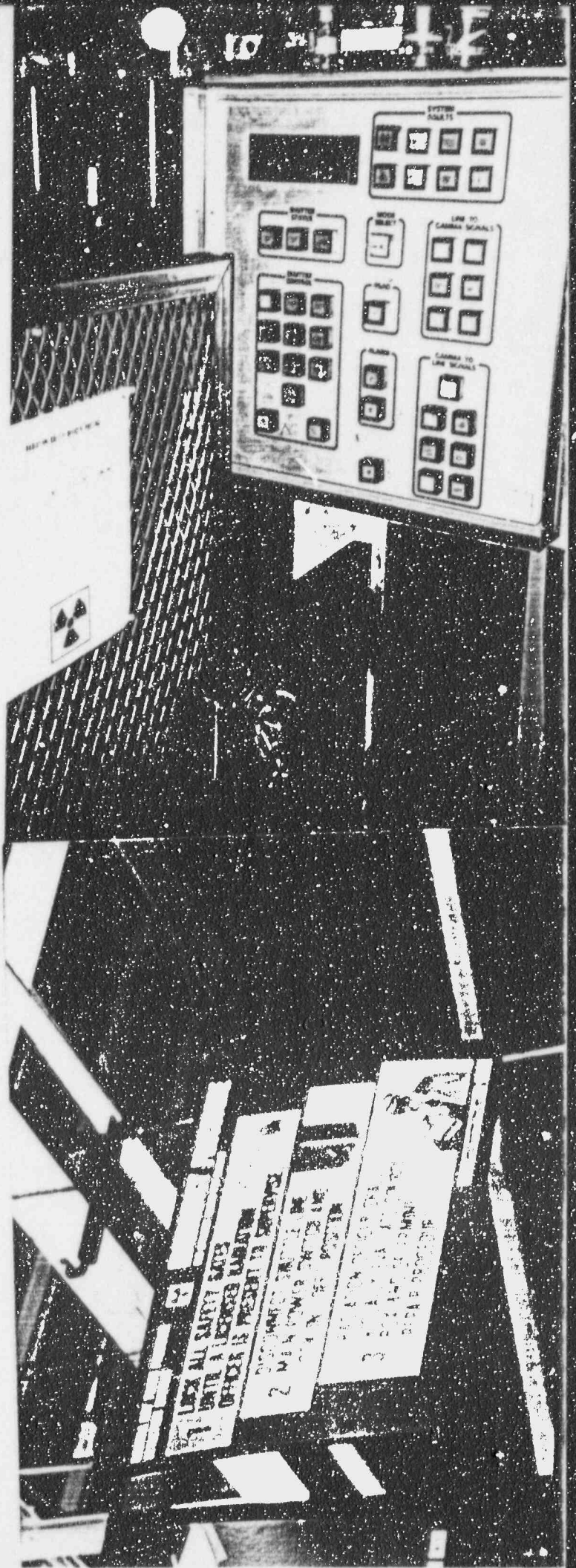
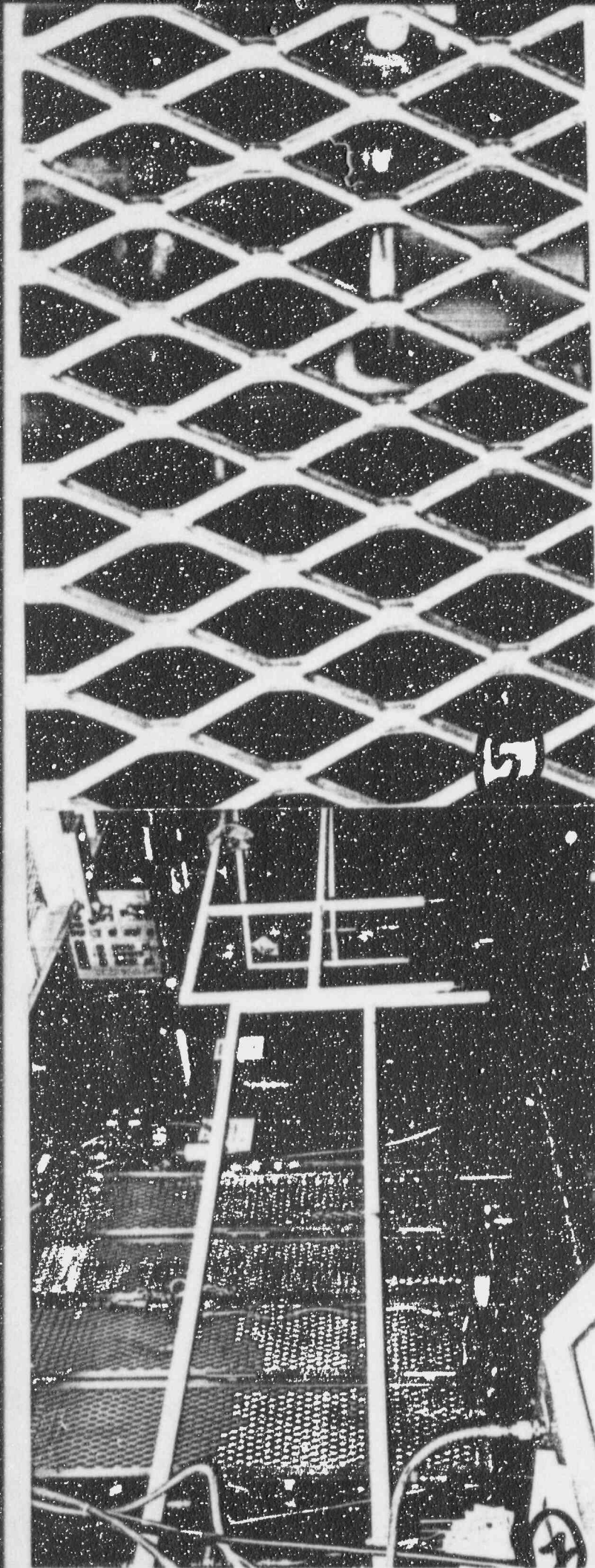


EMERGENCY PROCEDURE

1. LOCK ALL SAFETY GATES
UNTIL A LICENSED RADIATION
OFFICER IS PRESENT TO SUPERVISE

2. DISCONNECT SHUTTLE LINE
MAIN POWER SWITCH AND
LOCK IN "OFF" POSITION.

3. RADIATION OFFICER SHALL
VISUALLY EVALUATE SOURCE
BOX AND DETERMINE
REPAIR PROCEDURE.



GAMMA RAY PARTS DETECTION SYSTEM

{ Procedure & Recordkeeping Guideline }

Section	Procedure	Record to Update	Document to File	Post or Label Req.	Comments
3	RSO DUTIES & RESPONSIBILITY		PEA-0372 RSO's License Rec.		
4	STORAGE AREA			NRC Posting Requirements: 1. NRC-3 2. PEA-03739 (RSO List) 3. Notice of Violations (NRC-591, Sec.19, p. 5) 4. Response to Violations	Documents Must Appear in a Sufficient Number of Places (see Sec. 19, p. 2)
5	SHIPPING CONTAINERS			Labeling Requirements: 1. PEA-03746 (Rad Contents) 2. PEA-03747 (DOT Class) 3. PEA-03748 (Empty) 4. PEA-03749 (Do Not Use)	
6	EMERGENCY (Accident, Theft, Loss)	PEA-03732A Rad Source Rec.	PEA-03738 Req. Wipe Test Rpt. Laboratory Wipe Test Rpt. PEA-93752 Rad Survey Rpt.		Sec: 11, 15, and 18 Req. Review 'Notification' Req. (NRC, Division, NAO-IH)
7	RECEIPT	PEA-03732A Rad Source Rec. PEA-03735 Contact Log	State Rad source Reg. Form Source Wipe Test Rpt. Haz. Mat. Shipper (Appendix E, p.15)		Verify State Registration.
8	SOURCE BOX LOCKOUT PROCEDURE				Plant lock out procedures apply for any entry requiring access to the radiation tooling area.
9	SOURCE BOX INSTALLATION PROCEDURE	PEA-03732A Rad Source Rec.			Source Box 'Lock Out' Proc. (Sec. 9)
10	SOURCE BOX REMOVAL PROCEDURE	PEA-03732A Rad Source Rec.			Source Box 'Lock Out' Proc. (Sec. 9)
11	REPAIR AND SHIPPING	PEA-03732A Rad Source Rec.	PEA-08745 Repair Auth. Form Haz. Mat. Shipper (Appendix E, p. 15)		Laboratory Wipe Test Rpt. (inside shipping container)
12	DISPOSAL	PEA-03731 Rad Source Disp. Rec. (update) PEA-03732A Rad Source Rec. (Close-out)	State Rad Source Reg. Form PEA-03737 Notice Rad Source Disp. Rad Source Disp. Rpt.		Sec. 12 Requirements Review 'Notification' Req. (NRC, Division, NAO-IH)

GAMMA RAY PARTS DETECTION SYSTEM

{ Procedure & Recordkeeping Guideline }

Section	Procedure	Record to Update	Document to File	Post or Label Req.	Comments
13	WIPE TEST Receipt of Source Shipping Emergency	PEA-03732A Rad Source Rec.	PEA-03738 Req. Wipe Test Rpt. Laboratory Wipe Test Rpt.		If Meter Reads > 2 mR/ Hr. Do Not Mail the Samples (see Section 7) Wipe tests done every 6 months on sources in production.
14	INVENTORY CONTROL	PEA-03730 Rad Source Inv. Rec.			Must be done every 6 months
15	START-UP & INSPECTION Source Box Addition Source box Relocation Control Plate change		Rad. Survey Report (for each production set-up)		Safety Gate Inspection Safety Gate Interlock (Sec. 13) Safety Lid & Shutter 'Open'
16	NRC/STATE INSPECTION	PEA-03734 NRC Contact Log PEA-03735 State Contact Log	NRC Inspection Finding Record (NRC-591, Sec. 19, p. 5) GM-1395: Rpt. OSH Inspection		Review 'Notification' Req. (NRC, Division, NAO-IH)
17	SURVEY METER		PEA-03733 Rad Survey Meter Calibration Record Calib. Service Supplier Report		Range specified at 0.1 - 200 mR / Hr.
18	POSTING NOTICE TO EMPLOYEES			1. NRC-3 2. PEA-03739 (RSO List) 3. Notice of Violations (NRC-591, Sec. 19, p. 5) 4. Response to Violations	Documents Must Appear in a Sufficient Number of Places. (See Sec. 19, p. 2)
19	EMPLOYEE CONTACT		PEA-03736 Employee contact log		

To: BILL KILGORE	From: COLLEEN CASEY
Dept./Agency: GMC	Phone #: 630-829-9841
Fax #: 313-974-9546	Fax #: 630-575-1078/1259

TELEPHONE CONVERSATION RECORD

BETWEEN

Colleen C. Casey, NMLB Reviewer and Bill Kilgore of General Motors Corp. on November 8, 1996 at 3:00- 5:00 p.m., CST. Ms. Casey represents the United States Nuclear Regulatory Commission, Region III, Nuclear Materials Licensing Branch, 801 Warrenville Road, Lisle, Illinois 60532-4351.

Control No.: 397769

License No.: 21-20057-01

Reviewer Colleen Casey and licensee representative RSO Bill Kilgore discussed the remaining information needed to resolve and issue this renewed license. Bill explained the "defense in depth" design and construction of the sourceboxes and how they are not the usual fixed gauges we normally see people requesting service authorization for. It would be very difficult for an individual to expose/overexpose himself to the radiation sources (100 mCi of americium-241). Therefore, certain of the originally requested information is being modified/scaled down to reflect the lower safety hazard potential posed by these gauging devices.

In the interests of expediency, Casey agreed to issue the renewed license upon receipt of the information below, in addition to tying down once more the documents upon which the license is currently based (although most are older than we normally would continue with). Only 2 of the licensee's original 8 facilities still possess licensed material and one of these, the Lordstown plant (near Warren, OH), has all sources in secure storage while plant management actively arranges to dispose of the sources to an authorized recipient as soon as possible. That will leave only the Grand Rapids, MI plant (aka "Wyoming, MI," a suburb of Grand Rapids) actively using the sourceboxes. (Eventually, it is possible that alternative technology will render the sourceboxes obsolete at this plant too.)

Casey still needs the following information addressed, concisely and completely. She encourages the licensee to simply respond with positive commitments, mirroring the requested wording, and to format the response keyed to this telecon record. Much of the information requested is repeated from the original deficiency letter dated June 6, 1995.

1. Please include an organization chart showing the chain of command and match the locations where each site-specific RSO will be named. Note that only one site-RSO per shift is recommended. Other trained, responsible individuals may be designated as authorized users.
- 2.* For programs such as yours, in which you wish to perform such operations as installation, initial radiation surveys, gauge relocation and removal from service, the "responsible individuals," or "authorized users," who perform the operations should have completed a training course of approximately 40 hours in the following topics:

1 OF 4

- a. The principles and fundamentals of radiation protection and good safety practices related to the use of radioactive materials.
- b. Radioactivity measurements, use of radiation detection instruments, and monitoring techniques.
- c. Biological effects of radiation.
- d. Procedures for performing services.
- e. Actual practice in performing the services.

Please provide this information for the individuals whom you wish to have authorized to perform service operations.

- 3.* Please also specify the services these individuals will perform and provide the following information on their training:
- a. An outline of the training program, including the topics covered and the amount of time spent on each topic.
 - b. The scope and extent of actual performance of service operations.
 - c. The name of the firm or person who conducted the course.
 - d. The qualifications of each instructor in the course.
 - e. How the person or firm giving the training course determined the competency of individuals to perform the services.

* Before responding to items 2 and 3 above, see the following also:

Your response letter dated September 29, 1995, appeared to provide for an eight hour training course, which may not be acceptable even for the limited services that your authorized users perform.

As Ms. Casey discussed with Mr. Kilgore, our concern with the adequacy of your in-house training program stems from the amount of time each worker/student spends practicing service work, items 2.d. and 2.e., above. Please describe how much time each worker/student spends practicing (under supervision) the actual service work that he will be expected to perform on his own after completing the course. We recommend that this course be expanded to at least a 16-24 hour length and include an improved balance between its theoretical and practical components. Further, the course should include an overview of pertinent NRC regulations, license conditions and commitments to effect a working knowledge and understanding of not only what each authorized user is doing but why he is doing it and how each task can be safely performed.

Please also clarify the arrangement you currently have with Mr. John Bozymowski, who retired a few years ago. It is our understanding that Mr. Bozymowski, although retired, still consults for you as needed and is willing to continue to provide training for your workers.

4. Individuals servicing gauges must wear both whole body and extremity personal monitoring devices, such as film badges and thermoluminescent dosimeters (TLD's). Please state the name of the supplier of your personal monitoring equipment and the frequency at which you will exchange the dosimeters. Please note that the maximum exchange frequency is monthly for film badges and quarterly for TLD's. Please also confirm that each individual will wear only his assigned dosimeters, i.e., no "sharing" of badges will be allowed.

Ms. Casey and Mr. Kilgore have agreed to the following accommodation: as no badges have ever been procured for the workers servicing the sourceboxes, as the threshold for personnel monitoring has dropped to 10% of the maximum permissible dose in new Part 20.1502, and as the regulatory guide recommends monitoring for all workers who service gauges, GMC will obtain whole body and extremity badges for all workers who service the sourceboxes. The badges will be worn and then processed on a trial basis for no less than 3 months. During the trial period, normal work, including servicing the sourceboxes, will take place. If the workers' exposures at the end of the trial period do not exceed the threshold in 10 CFR 20.1502, GMC may discontinue the personnel monitoring program.

However: Ms. Casey stressed that this provision will not relieve the licensee from complying with 10 CFR 20.1502 or any other regulatory requirement should an exposure problem present itself. Mr. Kilgore stated that he understood this.

Please confirm your agreement with the above provisions and commit to implementing the personnel monitoring program trial program as described.

5. Please describe the areas where the gauges are mounted- a picture or series of photographs may suffice.
6. Please submit specific commitments regarding the maintenance of your gauges, including, but not limited to, the frequency and scope of such maintenance, as in checks for proper shutter operation, checks that labels are legible and visible, and checks that gauges are protected against corrosive materials or materials at high temperatures.
7. As you are requesting to continue servicing your gauges, it is necessary that you have available for use a calibrated, operable survey meter that can measure at least 1 through 200 milliroentgens per hour (Mr/hr). Please confirm that each site will have in its possession at least one calibrated, operable survey instrument that can measure at least 1 through 200 milliroentgens per hour (Mr/hr).

- Coke* ^① Confirm that survey instruments will be calibrated at intervals not to exceed twelve months and after repair. *will be calibrated only by persons specifically licensed by the NRC or an Agreement State to perform this service.*
8. Please confirm that you will follow the written procedures provided by the gauging device manufacturers for each service operation requested. It is our understanding that these procedures are maintained in special "Gamma Ray Manuals" - please confirm that the authorized users will

follow these procedures.

9. Regarding lock-out procedures- you should state that you will prepare such procedures, that you will provide them to your personnel and that the procedures will be posted so that personnel can see them. You should specify that the individuals who will be responsible for ensuring that the lock-out procedures are followed will be one of the "responsible individuals" or "site-RSO's."
10. Please specify the scope and depth of the audits that will be performed by your Corporate RSO. Please explain the significance of the chart that was submitted as Attachment #2 to your 9/29/95 response letter, as it pertains to your auditing program.

15 DAYS RESPONSE- SEND TO MS. CASEY'S ATTENTION AT THE NRC OFFICE ADDRESS GIVEN ABOVE AND REFERENCE CONTROL NO. 397769.

If you have any questions or require clarification on any of the information stated above, you may contact Colleen C. Casey at (630) 829-9841.

Reviewer's signature: Colleen C. Casey Date: 11/13/96

10 CFR 30, 32, 33
34, 35, 36, 38 and 40

APPLICATION FOR MATERIAL LICENSE

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 8 HOURS. SUBMITTAL OF THE APPLICATION IS NECESSARY TO DETERMINE THAT THE APPLICANT IS QUALIFIED AND THAT ADEQUATE PROCEDURES EXIST TO PROTECT THE PUBLIC HEALTH AND SAFETY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0120), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- ☐ A. NEW LICENSE
☒ B. AMENDMENT TO LICENSE NUMBER 21-20057-01
☐ C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

WILLIAM B. KILGORE
GENERAL MOTORS CORPORATION
M/C 492-109-204
DETROIT, MI 48202

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

SEE ATTACHMENT #2

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

WILLIAM B. KILGORE

TELEPHONE NUMBER

313-556-3135

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

- a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time

Am-241

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED

SEE COMMENTS ATTACHMENT #1

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

SEE COMMENTS ATTACHMENT #1

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

9. FACILITIES AND EQUIPMENT

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY

3-P

AMOUNT ENCLOSED

\$ 300.00

13. CERTIFICATION (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Douglas Van Brocklin MD

SIGNATURE

Douglas Van Brocklin MD

DATE

9/10/96

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		

APPROVED BY

Pm: 9-30-96

DATE

RECEIVED

OCT 03 1996

REGION III

PRINTED ON RECYCLED PAPER

September 10, 1996

(Attachment # 1)

Materials Licensing Section
U.S. Nuclear Regulatory Commission, Region III
801 Warrenville Rd.
Lisle, IL 60532-4351

Amendment Request for License # 21-20057-01

The following two items are the subject of this amendment request for License 21-20057-01:

1. Several addresses where the licensed material had been used or possessed no longer have sources on site:
 - Metal Fabricating Division (MFD) -Grand Blanc
(formerly BOC Grand Blanc - - Grand Blanc, MI)
 - MFD - Pittsburgh
(formerly BOC Pittsburgh - - McKeesport, Pa)
 - MFD - Kalamazoo
(formerly BOC Kalamazoo - - Kalamazoo, MI)

Pertinent records of proper disposal (e.g., acknowledgment letters from firms authorized by the NRC to receive such sources) were either mailed or faxed to U.S. NRC inspector Mr. Tony Go during the months of June and July, 1996. In several 'follow-up' telephone conversations, Mr. Go had indicated that the support records provided satisfactory documentation that the sources had been properly disposed.

2. The list of trained Radiation Safety Officers (RSO) has been modified.

The names and locations (plant names) of all RSO's are included in Attachment #2 that follows this letter. All of these individuals have received manufacturer's training to ensure the safe use of the Americium-241 sources (as part of the gamma ray parts detection system). The number of RSO's at the Lordstown Plant was recently lowered since all of the sources are now in storage and plans to properly dispose of these sources are underway (see attachment #3 from Mr. Carmen Pompeii, RSO, Lordstown Plant).

Regarding to Questions #5 - #12 of NRC Form 313:

- Questions #5 & #6: As indicated in previous correspondence, Americium-241 sources are designed into two types of custom made devices for which safety evaluation certificates were issued by the NRC. The device boxes, in turn, are incorporated in on-line systems to inspect automobile assemblies for the presence of welded parts.

(continued on Page - 2)

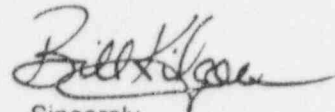
(Amendment Request for License # 21-20057-01, Continued)

Question #7: As indicated above the names of all current RSO's are located in Attachment #2 following this letter.

Questions #8 - #12: Since the initial application, the operating parameters and instructions governing the use of the regulated materials have remained essentially the same. Previous to this amendment request, copies of information pertinent to addressing issues raised by these questions had been provided to the NRC including all operations manuals and other technical data utilized by Plant RSO's in administering and controlling these materials.

Responses to the remaining questions on Form 313 are self-explanatory and no further detail is offered. However, should you have any questions regarding this request or the attached information, please do not hesitate to call me at (313) 556-3135.

Finally, please find attached a check in the amount of \$300.00 to cover the fee for amendment of this 3-P category license.



Sincerely,
Bill Kilgore
Contact Person
License # 21-0057-01

Interoffice Memo

Date: 08/02/88
To: Bill Kilgore
Corporate Manager Industrial Hygiene
CC: File
From: General Motors
Regional Industrial Hygiene
Subject: Gamma Ray Sources at Lordstown Fabrication

This Memo is to inform you that the General Motors, Lordstown Fabrication Facility located in Lordstown, Ohio, is planning to properly dispose of the 54 radioactive sources, as listed in license #21-20057-01. The sources were taken out of production in April 1986 and placed in storage. I have contacted the source manufacturer Amersham to start the necessary paperwork for them to take the sources back and properly document the storage in compliance with NRC regulations. As we move forward with the proper disposal of the sources I will keep you informed.

Sincerely;



Carmen W. Pompelli

Sr. Industrial Hygienist

Radiation Safety Officer

(Attachment # 2) Amendment to License 21-20057-01
Supporting Information
Disposition of Sources and Site Radiation Protection Officers

Plant / Location	Disposition of Sources	NRC Notification / Contact	Site RSO (s)
✓ Marion Plant Marion, Indiana	Disposed of nine sources. <i>OK</i> No longer 'active' under License 21-20057-01	License Renewal Application made in 1989. Copy of Acknowledgment Letter dated July 17, 1986 from authorized recipient was included. This information is on file at NRC- Region III.	None
✓ Mansfield Plant Mansfield, Ohio	Disposed of ten sources. <i>OK</i> No longer 'active' under License 21-20057-01	License Renewal Application made in 1989. Copy of Acknowledgment Letter dated March 21, 1989 from authorized recipient was included. This information is on file at NRC- Region III.	None
✓ Hamilton Plant (Plant Closed) Hamilton, Ohio	Disposed of twelve sources. <i>OK</i> No longer 'active' under License 21-20057-01	License Renewal Application made in 1989. Copy of Acknowledgment Letter dated March 22, 1989 from authorized recipient was included. This information is on file at NRC- Region III.	None
Grand Blanc Plant	Disposed of 35 sources No longer 'active' under License 21-20057-01 <i>only 34 disposed?</i>	Written notification had not been made to NRC and the primary reasons for this amendment is to make this notification official. Site was inspected June 28, 1996 and no violations were cited. All records connected with disposal of sources were judged adequate. NRC has copy of records on file at Region-3 office.	None
✓ Kalamazoo Plant	Disposed of 31 sources No longer 'active' under License 21-20057-01 <i>?</i>	Written notification had not been made to NRC and the primary reason for this amendment is to make this notification official. Documentation of appropriate disposal was sent to Mr. Tony Go, NRC Region-3 as follow-up to his inspection at the Grand Blanc Plant. NRC has copy of records on file at Region-3 office.	None
✓ Pittsburgh Plant	Disposed of 14 sources No longer 'active' under License 21-20057-01 <i>OK</i>	Written notification had not been made to NRC and the primary reason for this amendment is to make this notification official. Documentation of appropriate disposal was sent to Mr. Tony Go, NRC Region-3 as follow-up to his inspection at the Grand Blanc Plant. NRC has copy of records on file at Region-3 office.	None
✓ Metal Fab Division Lordstown Plant 2369 Bailey Rd. Lordstown, Ohio 44482	54 sources in storage <i>OK</i>	See attached letter (Attachment #3) from site RSO Mr. Carmen Pompeii indicating desire to actively pursue disposal of all sources ASAP. Note: Number of active RSO's recently reduced due to fact that source device boxes are now off-line and awaiting proper disposal.	Ambrose Bracey Ken Emerick Ken Sakoman Bob Kopanic Walt Steffey Carmen Pompeii
✓ Metal Fab. Division Grand Rapids Plant 300 36th St. S.W. Grand Rapids, MI	12 sources in use (100 mCi) 13 sources in storage (100 mCi) 2 calibration sources (1 mCi)	June 4, 1996 NRC survey-- no violations cited.	Dale McRae Dave Block Phil Brooks Doug DeVries Craig Coulson Garry Felty Ron Goos Rich Moon

*4/25/97 - Warrar? OK } were listed
Warrar? MI } 4/1/97*

Auburn Hills?

NRC FORM 313
11-84
10 CFR 30, 32, 33, 34,
35 and 40

APPENDIX A
APPLICATION FOR MATERIAL LICENSE

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED BY OMB
3150-0120
Expires 5-31-87

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS
WASHINGTON, DC 20555

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
531 PARK AVENUE
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II
MATERIAL RADIATION PROTECTION SECTION
101 MARIETTA STREET, SUITE 2900
ATLANTA, GA 30323

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III
MATERIALS LICENSING SECTION
799 ROOSEVELT ROAD
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
MATERIAL RADIATION PROTECTION SECTION
811 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V
MATERIAL RADIATION PROTECTION SECTION
1450 MARIA LAKE, SUITE 210
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

- ☐ A. NEW LICENSE
☐ B. AMENDMENT TO LICENSE NUMBER
☒ C. RENEWAL OF LICENSE NUMBER #21-20057-01

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)
Mr. William Kilgore
General Motors Corporation-GM Bldg.
3044 W. Grand Blvd., Room 9-204
Detroit, Michigan 48202

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED:

GM Grand Rapids
Metal Fabricating Division
300 36th St. Southwest
Wyoming, MI 49548

GM Lordstown
Lansing Automotive Division
Metal Fabricating Plant
2369 Ellsworth/Bailey Rd.
Warren, OH 44482

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

William Kilgore

TELEPHONE NUMBER

313/556-3135

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL

a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

9. FACILITIES AND EQUIPMENT

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY **Class 3-P**

AMOUNT ENCLOSED **Previously Paid 9/95**

13. CERTIFICATION (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE—CERTIFYING OFFICER

TYPED/PRINTED NAME

TITLE **Director Occupational Safety and Health**

DATE **10-4-95**

Douglas B. VanBrocklin

A. ANNUAL RECEIPTS

< \$250K	\$1M - 3.5M
\$250K - 500K	\$3.5M - 7M
\$500K - 750K	\$7M - 10M
\$750K - 1M	> \$10M

B. NUMBER OF EMPLOYEES (Total for entire facility excluding a-trade contractors)

C. NUMBER OF BEDS	
-------------------	--

D. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Labor and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)

☐ YES

☐ NO

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
AMOUNT RECEIVED	CHECK NUMBER			DATE

PRIVACY ACT STATEMENT ON THE REVERSE

RECEIVED
OCT 10 1995
REGION III

FAX

Date 10/04/95

Number of pages including cover sheet

TO: Colleen Casey
Nuclear Materials
Licensing Section
U.S. Nuclear Regulatory
Commission

Phone (708) 829-9887

Fax Phone (708) 515-1259

FROM: William B. Kilgore
General Motors
Corporation
GM Bldg.
3044 W. Grand Blvd, Rm.
9-204
Detroit, MI 48202

Phone (313) 346-3135

Fax Phone (313) 974-9546

CC:

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

Colleen,

Please find the following information with this fax:

1. Application for Renewal of License #21-20057-01 (2 pages)
2. Response to your letter dated June 6, 1995 (6 pages)
3. Attachments to Item #2 above (4 pages)

A total of 12 pages plus this cover sheet.

Note: I will also send the originals to you via the mail on Thursday, October 5, 1995. If you have any questions regarding this information please contact me at the number listed above.

RECEIVED

OCT 10 1995

REGION III

The following information is provided in response to Items # 5 - #11 on the Application for Renewal of Material License # 21-20057-01.

Items #5, #6, #9, #10 and #11:

Since the initial application, the operating parameters and operating instructions have remained essentially the same. The Nuclear Regulatory Commission is in possession of a copy of the following documents:

1. Operations Manuals utilized by the site RSO's in administering and controlling the licensed material.
2. Technical Data related to this process
3. Condensed version of the Manufacturer's based training course.

Items # 7 & #8:

These items are addressed in the attached response to Colleen Casey, Nuclear Materials Licensing Section.

As requested in your letter, please find below responses to the questions you posed in order to complete the renewal of License #21-20057-01. You will find the referenced portion of your letter (in parenthesis) followed by the response. Should you have any need for further information please contact Mr. William Kilgore at (313) 556-3135.

- (A)(2) Attachment #1 is a letter from Douglas VanBrocklin M.D., M.P.H., Director of Occupational Health & Safety, General Motors Corporation which provides signatory authority to Mr. William Kilgore, the contact person for this application, to respond to all future correspondence regarding this license.
- (A)(4) Dr. VanBrocklin is the senior management official representing GM regarding this license. However, Mr. Kilgore (the contact person for this application) will act as the Corporate Radiation Safety Officer for this license. He is intimately familiar with the conditions and representations of this license and will also keep Dr. VanBrocklin informed to insure compliance with the license and the Nuclear Regulatory Commission Regulations.¹

Item (J) is addressed at this point because it is related to the chain of command mentioned in (A) (4) above. As part of his duties, Mr. Kilgore will visit the sites at least annually to audit licensed activities (see Attachment #2 to review the document that will govern the scope and depth of the audits).

Site Radiation Safety Officers are listed below:

Paul Bouman	Bob E. panic
Ambrose Bracey	Dale McRae
James Carter	James Norwood
Albert DePriest	Carmen Pompeii
Doug DeVries	Charles Roberson
Ken Emerick	Ken Sakoman
Tim Hamon	Walt Steffey

¹ Mr. Kilgore is a Certified Industrial Hygienist who has had training and experience throughout his career with GM assessing various uses of general and specific licensed materials and plug-in sources of ionizing radiation. He completed a 40-hour course in Basic Radiation Protection in 1978 given by the Harvard School of Public Health. He also took a refresher course regarding the principles of ionizing radiation in 1984 (Professional Development Course at the American Industrial Hygiene Conference). Mr. Kilgore also completed a course in 1991 concerning the sweeping changes made to Part 20, Standards for Protection Against Radiation. Finally, under the direction of Mr. John Bozymowski, he also was involved in teaching a portion of the manufacturer's 8-hour course provided for site Radiation Safety Officers regarding the proper use of ionizing radiation meters.

(B) Maximum numbered of sealed sources and device combinations.

Site	Total Sources	100 millicurie	1.1 millicurie
Lordstown	54	53	1
Grand Rapids	25	23	2

Notes: The 1.1 millicurie sources are calibration sources.

There is no expectation to need any additional sealed sources and device combinations at either site.

(C) It is my understanding that the terms authorized users and responsible individuals are synonymous with Radiation Safety Officer.

Historically, this license had allowed us to provide a full day, class room style session with on-the-job follow-up, on-the-job training for site RSO's as referenced in License Condition #11. Mr. John Bozymowski, a GM Staff Development Engineer, was referenced in an April 10, 1984 letter as the course director. This manufacturer's based training course had been designed to include all of the elements listed in (C) (1) (a-e).

Apparently, this approach is no longer considered sufficient, since four individuals at the Lordstown site were required to attend a 40-hour basic radiation course at Harvard University as part of the recommendations stemming from an inspection at that site in 1993.

In order to comply with the more stringent requirements, arrangements are being made to insure that all individuals named on the license will have completed both the 40-hour basic radiation course as well as the manufacturer's based training. This will be done before the end of the fourth quarter of 1995, or as soon as course schedules will allow.

(C) (2) The services provided by site RSO's will insure that all of the license conditions and representations are being met.

For example, they will conduct the 6-month inventory of all sources, the 6-month wipe testing of the sources in active use and update records to document these and other required activities. Furthermore, they will directly supervise any situation involving the handling of the source device boxes.

(C) (2) (con't)

Please find attachment #3 for the course outline of both a typical 40-hour course in basic radiation and the manufacturer's based training course which all persons named on the license will complete.

- (D) (1) Historically, the site RSO's returned to the site to provide manufacturer's based training for the various skilled tradesmen who would be expected to replace source device boxes or housings and repair housings as needed. Any one or a combination of the persons named on the license should be able to provide instruction which will insure safe handling of the source device boxes.

(2) Source device boxes or housings will not be handled unless under the direct supervision of one of the individuals named on the license.

- (E) Neither site anticipates any need for additional installation of source device boxes thus, there should be no future need for initial surveying for newly configured source device box installations. All of the current configurations will remain in tact until such time they are phased out of production, moved into storage and processed for disposal according to our radiation source disposal procedure.

As previously indicated, the skilled tradesmen qualified through manufacturer's based training will only be involved in removing and replacing source device boxes or housings, moving them to storage (or vice-versa) and repairing the housing as needed.

Again, services such as leak testing (i.e., wipe testing) and use of a calibrated survey meter will continue and will be performed by the site Radiation Safety Officer.

- (1) Annual refresher training will be an extract of the manufacturer's based training and will include the items suggested in (E) (1) (a-c) as appropriate.

(2) All of the elements mentioned in (E) (2) (a-h) are adequately addressed in our service manuals. However, the entire manual is not provided to each individual who performs service operations. These manuals are retained by the named individuals and are available for review or inspection by anyone who is qualified to service the source device boxes as described above.

(3) With regards to this requirement, we are hereby requesting consideration to allow us to operate under the license as originally accepted by Nuclear Regulatory Commission. The safety and protection of our employees was first and foremost in the design of the overall system of which the source device boxes are a part. We appeal for recognition of the safety features designed into this system which makes it very unlikely that any employee would receive any significant dose of radiation, let alone the likelihood of receiving greater than 25% of the applicable doses specified in 10 CFR Part 20.

Please consider the following steps that our employees are trained to follow in the event that they must approach a source device box installed on one of our production lines.

Note: All production lines are surrounded by large safety gates which preclude entry and access to the source device boxes unless they are first opened.

Should a problem arise, the responding employee is trained to first pull the main line power "off" and lockout the shuttle disconnect. This also eliminates the power required to energize the source device box shutter mechanism which was designed to be closed when no power is available.

Next the responding employee must pull the plug from the Safety Gate to open the Gate and gain access to the source device (this acts as a fail-safe in the unlikely event that the employee failed to pull and lockout the shuttle disconnect as described above).

The system was designed so that a Programmable Logic Controller (PLC) located adjacent to the line will continuously monitor the position of two proximity switches that indicate the "open/close" status of the shutter mechanism in each source device box. This status is displayed on the PLC panel and the employees are instructed to observe the status of the shutter mechanisms prior to entering the safety gate area.

Note: The PLC Surveillance capability is not interrupted when the main power to the line is interrupted. Thus, in the unlikely event that a shutter somehow remains open, or that one of the two proximity switches is defective, the responding employee has prior knowledge of this condition and can proceed accordingly to eliminate the potential for unknowing exposure to radiation.

In this event, the employee is instructed to approach the source device box and immediately position the safety lid in place. This virtually eliminates the radiation emanating from the top of the source device box.

Note: the source device box is designed so that radiation can only emanate for the top surface of the box and all of the boxes are bolted into position to maintain this orientation.

Furthermore, most of the source device boxes are mounted at a minimum of approximately 4 feet from the floor (many are mounted higher still) thus as the employee approaches a source device box from the side to position the safety lid it is very unlikely that any part of his body would be exposed to the radiation beam.

Once the safety lid is in position, the employee is instructed to lock it in place for type-1 source device box or to rotate the collimator into the total maintenance position and then to lock the collimator into that position for the type-2 source device boxes.

This example was provided in great detail to appeal for full recognition of the safety features designed into this system and therefore allowing us to continue our operations without the use of the personal monitoring devices.

(4)(a) The response to question (E)(3) above should adequately address security issues for source device boxes in active use. Sources in storage are contained in a secured area which is under lock and key; keys are issued only to the site RSO's.

(4)(b) Because of the design features outlined in (E)(3) above the need for special shielding and/or remote handling tools is not necessary to assure safe handling of the source device boxes.

(5) The procedures detailed in the operations manuals are the procedures by which the employees who service the source device boxes are trained and expected to follow. Also, these are the procedures which the site Radiation Safety Officer will enforce, if necessary, when overseeing situations involving the handling of the source device boxes. There is no expectation to develop nor use any alternative procedures.

- (F) (1) The source material (sealed source) is contained in one of two custom made devices (FSD-37014 and FSD-39381). The source device boxes are part of an on-line system to inspect automobile assemblies for the presence of welded parts.
- (2) This question was substantially answered in (E)(3) above (explanation of shutter status/function surveillance).
- (2-5) Under normal operating conditions, there is little of no reason to anticipate exposure of the source device boxes to extremes of temperature or vibration nor to corrosive atmospheres. There is no cooling system used in connection with these source device boxes.
- (G) (1) Both sites have calibrated, operable survey meters.
- (2) Calibration of the meters is done by firms outside of GM and the records are kept a minimum of 2 years.
- (H) This issue was substantially addressed in response to (E)(3) above.
- (I) The procedures manual will be updated to address reporting requirements in 10 CFR 20 and 21



North American Operations

October 4, 1995

Ms. Colleen C. Casey
Nuclear Materials Licensing Section
United States Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Dear Ms. Casey:

By way of this letter, I hereby give Mr. William Kilgore signatory authority to enable him to respond to future correspondence regarding License #21-20057-01.

Thank you for your attention to complete the renewal of this license.

Sincerely,

Douglas E. VanBrocklin, M.D., M.P.H.
Director
Occupational Safety and Health

ATTACHMENT #1

SECT.	PROCEDURE	RECORD TO UPDATE	DOCUMENT TO	POSTING OR LABELING REQUIREMENTS	COMMENTS
4	RSO DUTIES & RESPONSIBILITIES	PEA-0372: RSO's License Rec.			
5	RADIATION SOURCE STORAGE AREA			NRC POSTING REQUIREMENTS:	
				1. NRC-3	
				2. PEA-03739 (RSO LIST)	Documents must appear in a
				3. NOTICE OF VIOLATIONS	sufficient number of places.
				(NRC-591: Sec.19; p. 5)	(See Sec 19; p. 2)
				4. RESPONSE TO VIOLATIONS	
6	RAD SOURCE SHIPPING CONTAINER			LABELING REQUIREMENTS:	
				1. PEA-03746 (Rad Contents)	
				2. PEA-03747 (DOT Class)	
				3. PEA-03748 (Empty)	
				4. PEA-03749 (Do Not Use)	
7	EMERGENCY PROCEDURE (Accident, Theft, or Loss)	PEA-03732A: Rad Source Rec.	PEA-03738: Req. Wipe Test Rpt. GMIH Wipe Test Rpt. PEA-03752: Rad Survey Rpt.		Sec. 11, 15 & 18 Requirements Review "Notification" Requirements (NRC, Division, GMIH)
8	RECEIPT OF RADIATION SOURCE	PEA-03732A: Rad Source Rec. PEA-03751: Contact Log	State Rad Source Reg. Form Source Wipe Test Rpt. Haz Mat Shipper (Append. E, p.15)		
10	EDUL. ASM. INSTALL & REMOVAL	PEA-03732A: Rad Source Rec.			Source Box "Lock Out" Procedure (Sec. 9)
11	SOURCE BOX ASM. INSTALL & REMOVE	PEA-03732A: Rad Source Rec.			Source Box "Lock Out" Procedure (Sec. 9)
12	REPAIR & SHIPPING	PEA-03732A: Rad Source Rec.	PEA-03750: Shipping Auth. Form Haz Mat Shipper (Append. E, p.15)		GMIH Wipe Test Report (inside shipping container)
13	START-UP & INSPECTION Source Box Addition Source Box Relocation Control Plate Change		PEA-03752: Rad Survey Rpt.		Safety Gate Inspection Safety Gate Interlock (Sec. 13) Safety Lid & Shutter "Open"
14	RADIATION SOURCE DISPOSAL	PEA-03731: Rad Source Disp. Rec. PEA-03732A: Rad Source Rec. (Close-out)	State Rad Source Reg. Form PEA-03737: Notice Rad Source Disp. Rad Source Disp. Rpt.		Sec. 12 Requirements Review "Notification" Requirements (NRC, Division, GMIH)
15	WIPE TEST Receipt of Source Shipping Emergency	PEA-03732A: Rad Source Rec.	PEA-03738: Req. Wipe Test Rpt. GMIH Wipe Test Rpt.		If Meter Reads >2mR/hr. Do Not Mail the Samples (See Sec. 7)
16	RAD SOURCE INVENTORY CONTROL	PEA-03730: Rad Source Inv. Rec.			
17	NRC/STATE INSPECTION	PEA-03751: Contact Log	NRC Inspection Doc. (NRC-591: Sec.19,p.5) GM-1395: Rpt. Occ. SMH Inspection		Review "Notification" Requirements (NRC, Division, GMIH)
18	RADIATION SURVEY METER		PEA-03733: Rad Survey Meter Cal. Cal. Service Supplier Rpt. PEA-03752: Rad Survey Rpt.		
19	POSTING OF NOTICE TO EMPLOYEES			1. NRC-3 2. PEA-03739 (RSO LIST) 3. NOTICE OF VIOLATIONS (NRC-591: Sec.19; p. 5) 4. RESPONSE TO VIOLATIONS	Documents must appear in a sufficient number of places. (See Sec 19; p. 2)
20	EMPLOYEE CONTACT		PEA-03751: Contact Log		

* - Variables In An Emergency Situation May
Require More Paperwork or Notification
Than Noted Here.

ATTACHMENT #2

Program Agenda

Monday

AM Welcome & Introduction

- Atomic Structure & Radioactive Materials
- External Radiation Protection

PM Natural Background Radiation

- Laboratory Demonstration: Gamma Spectroscopy
in Occupational & Environmental Protection

Tuesday

AM Units of Radiation Dose

- Physics of Radiation Detectors
- Radiation Protection Standards for Workers and the
General Public

PM Film: The Roentgen (Optional)

- Internal Dosimetry
- Calibration and Use of Portable Radiation Monitoring
Instruments

Wednesday

AM Laboratory and Field Instrumentation

- Systems and Applications
- Personal Dosimetry
- Biological Effects of Ionizing Radiation

PM Statistics in Radiation Protection

- University & Medical Radiation Protection

Thursday

AM Control of Airborne Radon Decay Products

- Lecture Demonstration:
 - Respirator Fitting and Use
 - Protective Clothing
- Radiation Exposures from Consumer Products
- Nuclear Power Plants and Nuclear Safety

PM Internal Exposures: Uranium, Radon, Plutonium

- Internal Dosimetry and Problems in the Use of Radio-
nuclides in Research & Medicine
- Management & Disposal of Low Level Radioactive
Wastes

Friday

AM Transportation of Radioactive Materials

- Federal Inspection and Regulation of Radionuclide
Users—Technical and Legal Aspects
- Course Closing

PM Optional

- Shielding and Dosimetry
- Current Issues in Radiation Protection
- Nuclear Weapons and Nuclear War

The course will run from 8:30 a.m. to 4:30 p.m., with morning and after-
noon refreshment breaks and a one-hour lunch. The course will officially
close at 12:15 on Friday. Participants may elect to remain for the optional
afternoon session which will end at 3:30 p.m.

ATTACHMENT 3

Gamma Ray Training Program Manual

Table of Contents

<u>Chapter 1</u>	<u>Page</u>
Introduction to Radiation	1
X and Gamma Radiation	2
Measuring Radioactivity	3
Source Capsule Information	4 - 5
Radiation Survey Information	6 - 8
<u>Chapter 2</u>	
General Description of the Gamma Ray Part Presence Detection System II	9 - 16
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State Registration	28
Radiation Safety Officer	29 - 30
Radiation Source Storage Area	31
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ATTACHMENT #3

CONVERSATION RECORD

TIME 2:30 PM DATE 8/23/95

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☒ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL	INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

ORGANIZATION (Office, dept., bureau, etc.)

TELEPHONE NO.

Bill Kilgore

General Motors Corp.

313-536-3135

SUBJECT

Update of attached record from 8/17/95

SUMMARY

Bill had more questions about my deficiency letter and the Reg. Guide for fixed gauges, esp. service operations, refresher training, personnel monitoring program, in-house training program, etc. I fielded Bill's questions & advised him best I could. He needs more time to prepare response, til 9/5/95. I told him I'd run that past my mgmt. but if he needs additional time beyond that, he may have to speak with my supervisor, as this response is already 2 weeks late (it was tentatively due 8/31/95). Also - it appears that their in-house training instructor, John Byzowski; (John B.) listed in letter dtd 4/10/84, Lc 11, may or may not still be involved with the program. Bill will research the situation and let me know. John B. may even have left the company. I asked Bill to find out details, including whether anyone has been trained in-house by someone other than John B. Note that this training program included training on servicing the gauges.

ACTION REQUIRED

This info. was discussed with B.J. Holt 8/23/95 ~ 4:00 PM, as Kozak was in a meeting and Holt was one of last 2 inspectors quits with licenses in 1993 (incident.) EC: Kozak + Madera. If Kilgore provides additional info., I will contact Kozak or other manager ASAP.

NAME OF PERSON DOCUMENTING CONVERSATION

SIGNATURE

DATE

Lillian C. Carey

8/23/95

ACTION TAKEN

SIGNATURE

TITLE

DATE

CONVERSATION RECORD

TIME

9:40-10:20am

DATE

8/17/95

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Bill Kilgore

ORGANIZATION (Office, dept., bureau, etc.)

General Motors Corp.

TELEPHONE NO:

313-556-3135

SUBJECT

C/N 97769 No. 21-20057-01 Renewal

SUMMARY

Deficiency letter sent 6/6/95 - no response - follow-up

Bill advised me that the RSO, Patrick Frager, was re-assigned June 1, 1995 and Bill is the new RSO. We were never informed of this change. I told Bill the license had to be amended before changing RSO's + to find out if Frager has been doing the job since 6/1/95 (licensee is authorized to relocate + survey their own fixed gauges at multiple sites - Bill said they now have only 1 site in use). I advised Bill on how to prepare response to my deficiency letter, at his request, and he + I agreed to a tentative due date of 8/31/95 (they are already 6 weeks late but Bill just got this task.) Bill was RSO in 1991 for this license so he should be qualified - he just needs to "get up to speed." Bill will call me, as needed, for help with response if he runs into a snag. He is aware that GMC is apparently in violation now for the unauthorized RSO change.

ACTION REQUIRED

Response due 8/31/95. Notify Madera (done in person 8/17/95) and Kozak (via cc.)

NAME OF PERSON DOCUMENTING CONVERSATION

Colleen C. Casey

SIGNATURE

DATE

8/17/95

ACTION TAKEN

SIGNATURE

TITLE

DATE

JUN 06 1995

General Motors Corporation
ATTN: P.R. Frazee, CIH, CSP
Senior Advisor
NAO Health & Safety
North American Operations
Occupational Health and Safety
GM Building, Room 9-212
3044 W. Grand Blvd.
Detroit, MI 48202

Dear Mr. Frazee:

We have reviewed your letter dated October 26, 1994, signed by P. R. Frazee, requesting renewal of your byproduct materials license 21-20057-01, and find that we will need additional information as follows:

A. General Observations

1. It is necessary for you to resubmit your renewal request in its entirety by responding in detail to each of the items requested below and in the enclosed Regulatory Guide FC 404-4, "Guide For The Preparation of Applications For Licenses For The Use of Sealed Sources in Nonportable Gauging Devices."

This is to avoid basing the license on numerous documents dating as far back as February 17, 1984, which would convolute the license. Simplification of the license will make it easier to understand and updating your license application in accordance with current guidance will enhance your radiation safety program.

2. We noted that your letter dated October 26, 1994 was signed by P. R. Frazee. Please be advised that all correspondence to us must be signed by a senior management official. In the alternative, a senior management official may provide us with a written authorization for a designated signatory, such as the Radiation Safety Officer. Please ensure that a senior management official signs the resubmitted application.
3. Be advised that the aforementioned Regulatory Guide FC 404-4 requests certain detailed information, especially in item 10, that you apparently have not submitted before. We cannot renew your license if this information is not provided.

Also, please note that, where the Regulatory Guide requests diagrams and authorized user qualifications, do not submit copies of blueprints, resumes, or curricula vitae.

4. At this time it will also be necessary to formally name a Radiation Safety Officer (RSO) on your renewed license. Please designate an RSO and describe his/her training, in accordance with Item 7 of the aforementioned Regulatory Guide FC 404-4.

From your inspection history, it appears that it may be more appropriate for you to name a corporate RSO and name site-specific RSO's who report to the corporate RSO. If you do so, please include an organization chart showing the chain of command and locations where site-specific RSO's will be named.

B. Licensed Material

Please indicate the maximum number of sealed sources and device combinations you anticipate needing over the next five years. It is now NRC policy to limit the total number of sealed sources and devices authorized by a license, in order to comply with NRC's decommissioning rules in 10 CFR 30.35, enclosed. It will be to your advantage to allow for several extra sealed sources and devices in order to prevent a future amendment.

In the alternative, you may state that you will limit your possession of licensed material below the thresholds requiring decommissioning and financial assurance, in accordance with 10 CFR 30.35.

C. Authorized Users

1. For programs such as yours, in which you wish to perform such operations as installation, initial radiation surveys, gauge relocation and removal from service, the "responsible individuals," or "authorized users," who perform the operations should have completed a training course of approximately 40 hours in the following topics:
 - a. The principles and fundamentals of radiation protection and good safety practices related to the use of radioactive materials.
 - b. Radioactivity measurements, use of radiation detection instruments, and monitoring techniques.
 - c. Biological effects of radiation.

- d. Procedures for performing services.
- e. Actual practice in performing the services.

Please provide this information for the individuals whom you wish to have authorized to perform service operations.

- 2. Please also specify the services these individuals will perform and provide the following information on their training:
 - a. An outline of the training program, including the topics covered and the amount of time spent on each topic.
 - b. The scope and extent of actual performance of service operations.
 - c. The name of the firm or person who conducted the course.
 - d. The qualifications of each instructor in the course.
 - e. How the person or firm giving the training course determined the competency of individuals to perform the services.

D. Other Users

- 1. If persons other than those named on the license will operate a gauge that will be installed by the supplier or other specifically licensed person, please confirm that any employee who will operate the device will attend the training and instruction given at the time of installation or will receive equivalent training and instruction. If equivalent training is given, please provide an outline of the training and show its equivalency to the training offered by the device manufacturer/installer. You should specify the name of your instructor, who should be one of the authorized users named on the license.
- 2. Please confirm that a trained "responsible individual" will always be physically present at your facility when devices are in use.

E. Service Operations

Please be reminded that item 10.1, "Performance of Service Operations by Others," in the enclosed copy of Regulatory Guide FC 404-4, defines "services," in part, as including installation, initial radiation surveys, leak-testing, device relocation and removal. These are all activities that you are currently authorized for and that you are requesting to continue authorization for.

As your application requests permission to continue to service the gauges, please address the following:

1. Please describe the scope and frequency of the refresher training you will provide to your service representatives (i.e., employees authorized to service the gauging devices). This refresher training should include, but not be limited to, the following:
 - a. Updates and/or revisions to all service manuals to all your service representatives.
 - b. Discussion regarding special characteristics for each of the devices and problems encountered during service operations.
 - c. Review of NRC license conditions and regulatory requirements, Information Notices, Bulletins, etc.
2. Each individual who will perform service operations on licensed devices must be provided with operating and emergency procedures and a copy of a current service and operations manual specific to the device being serviced. You must also ensure that service and operations manuals are updated with the manufacturers' revisions. The following elements must be included in your operating procedures:
 - a. Step-by-step procedures for performing each requested service. These are usually available in service manuals provided by manufacturers of the gauging devices. Please submit copies of the service manuals for each gauge you wish to service.
 - b. Instructions for locking the source housings in the "off" position during mounting, servicing or relocating each device.
 - c. Surveys to be performed to ensure that each device is in the "safe" or "off" position, and surveys to be performed during other specific maintenance and servicing operations, when sources may not be shielded by the source holders.
 - d. Procedures for proper mounting or relocation. Confirm that all service activities will be performed in the direct physical presence and under the supervision of an authorized user.
 - e. Procedures describing when each device can be safely unlocked and checked for proper operation after servicing is completed.

- f. Procedures for final surveys of the source holder during "on" and "off" modes of operation, following installation, servicing, etc., including leak testing.
 - g. Instructions for preparing the final survey and leak test reports for the Radiation Safety Officer (RSO).
 - h. Records maintained for each in-house service performed, including a radiation profile following service to demonstrate that normal exposure levels have not changed.
- 3. Individuals servicing gauges must wear both whole body and extremity personal monitoring devices, such as film badges and thermoluminescent dosimeters (TLD's). Please state the name of the supplier of your personal monitoring equipment and the frequency at which you will exchange the dosimeters. Please note that the maximum exchange frequency is monthly for film badges and quarterly for TLD's. Please also confirm that each individual will wear only his assigned dosimeters, i.e., no "sharing" of badges will be allowed.

Be reminded that new 10 CFR 20 contains radiation exposure limits based on annual exposure and not quarterly exposure.

- 4. Procedures and equipment must be adequate to protect personnel working in the areas of gauges undergoing service. Please describe the following:
 - a. Your means of providing security for each work area to prevent unauthorized use, loss or theft of licensed material. Please commit to instructing your personnel that they must never leave gauges unattended while working on them.
 - b. Storage containers, special shielding, and remote handling tools used during servicing of gauges.
- 5. Please confirm that you will follow the written procedures provided by the gauging device manufacturers for each service operation requested. If you will follow a procedure other than one provided by the device manufacturer please submit the alternative procedure you propose to use for each service operation requested, your justification for using it and an evaluation of the radiation hazards associated with it to demonstrate its safety equivalence to the original procedure.

F. Facilities and Equipment

1. Please describe the areas where the gauges are mounted.
2. Please submit specific commitments regarding the maintenance of your gauges, including, but not limited to, the frequency and scope of such maintenance, as in checks for proper shutter operation, checks that labels are legible and visible, and checks that gauges are protected against corrosive materials or materials at high temperatures.
3. It is unclear whether your gauges are subjected to unusual environmental conditions. Please clarify the types of environmental conditions to which the gauges will be exposed, e.g., elevated temperatures, corrosive atmospheres, vibrations, etc.
4. If the ambient temperature for the gauges will exceed the maximum operating temperature specified by the manufacturer, thus creating a need to maintain a lower temperature by means of cooling jackets or similar measures, a description of the cooling system should be provided. In addition, please provide a brief discussion of how the cooling system will be maintained and the consequences of a failure of the cooling system.
5. If a cooling system is used to maintain the temperature below the maximum operating temperature specified by the manufacturer, please submit a description of the method and procedures for detecting a cooling system failure and your procedures for coping with a cooling system failure.

G. Survey Instruments and Their Calibration

1. As you are requesting to continue servicing your gauges, it is necessary that you have available for use a calibrated, operable survey meter that can measure at least 1 through 200 milliroentgens per hour (mR/hr).
2. Please submit survey instrument calibration procedures for our review. The model procedure contained in Appendix B, Regulatory Guide 10.8, Revision 2, enclosed, is considered acceptable by NRC.
 - a. Confirm that survey instruments will be calibrated at intervals not to exceed twelve months and after repair. Changing batteries in an instrument does not necessarily constitute a repair.

- b. Please confirm that calibration records will be kept for at least 2 years after each calibration.
- 3. Item 10.3 of the enclosed Regulatory Guide FC 404-4 may assist you in preparing your responses for this section.

H. Lock-Out Procedures

It is possible that a major portion of an employee's body could receive exposure from the radiation beam from certain devices.

For example, the radiation beam of a level gauge could traverse the automobile assemblies in such a way that an employee could receive a radiation exposure.

The procedures should specify the means for preventing employees from entering the radiation beam during maintenance, repairs, or other work in, on or around the automobile assemblies on which the device is mounted. You do not need to submit the procedures unless you wish to. You should state that you will prepare such procedures, that you will provide them to your personnel and that the procedures will be posted so that personnel can see them. You should specify that the individual who will be responsible for ensuring that the lock-out procedures are followed is one of the "responsible individuals" specified in response to item 3 of this letter, i.e., the RSO.

I. Reporting of Incidents

Please update your procedure so that the reporting requirements in 10 CFR 21 (enclosed), 10 CFR 20.2201 - 20.2206 and 10 CFR 30.50, enclosed, are followed instead.

J. RSO Audits

If you utilize a Corporate RSO, who oversees individual site RSO's, it is best to have the Corporate RSO exercise oversight of licensed activities by performing on-site audits of the radiation safety program. Please specify the frequency, scope and depth of the audits that will be performed by your Corporate RSO.

Please refer to 10 CFR 20.1101, enclosed, and Item 1.3 of the enclosed Regulatory Guide FC 404-4 for assistance.

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 97769.

General Motors Corporation

-8-

If you have any questions or require clarification on any of the information stated above, you may contact us at (708) 829-9887.

Sincerely,

Original Signed By
Colleen C. Casey
Nuclear Materials Licensing Section

License No.: 21-20057-01
Docket No.: 030-17694

Enclosures: 1. Regulatory Guide FC 404-4
2. Regulatory Guide 10.8,
Rev. 2
3. NUREG BR-0133
4. 10 CFR Part 20
5. 10 CFR 21
6. 10 CFR 30

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NAME	CCCASEY:jaw								
DATE	06/02/95								

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NOV 08 1994

General Motors Corporation
Industrial Hygiene Activity
ATTN: Patrick Frazee
Radiation Safety Officer
GM Bldg., Room 9-213
3044 W. Grand Avenue
Detroit, MI 48202

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Mr. Frazee:

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Original Signed By
Marianne Meenan, Chief
Nuclear Materials Support Section

License No. 21-20057-01
Control No. 397769

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DATE	11/8/94								