NRC FORM 591M PART 1
(10-2003)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

# SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

| 1. LICENSEE/LOCATION INSPECTED: | 2. NRC/REGIONAL OFFICE |
|---|---|
| General Motors Corporation<br>Analytical Chemistry Department<br>Warren, MI<br>REPORT 2007-001 | **U.S. Nuclear Regulatory Commission**<br>**Region III**<br>**2443 Warrenville Road**<br>**Suite 210**<br>**Lisle, Illinois 60532-4351** |

| 3. DOCKET NUMBER(S) | 4. LICENSEE NUMBER(S) | 5. DATE(S) OF INSPECTION |
|---|---|---|
| 030-04779 | 21-00016-04 | March 1, 2007 |

**LICENSEE:**

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

☒ 1. Based on the inspection findings, no violations were identified.

☐ 2. Previous violation(s) closed.

☐ 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied.

_____ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

☐ 4. During this inspection certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

(Violations and Corrective Actions)

Licensee's Statement of Corrective Actions for Item 4, above.

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

| Title | Printed Name | Signature | Date |
|---|---|---|---|
| LICENSEE'S REPRESENTATIVE | | | |
| NRC INSPECTOR | **Deborah A. Piskura** | D A Piskura | 3/1/07 |

B9.

NRC FORM 591M PART 3 (10-2003)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

***Docket File Information***

# SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

| 1. LICENSEE | 2. NRC/REGIONAL OFFICE |
|---|---|
| **General Motors Corporation**<br>REPORT NUMBER(S) **2007-001** | **Region III**<br>**2443 Warrenville Road**<br>**Lisle, IL 60532** |

| 3. DOCKET NUMBER(S) | 4. LICENSE NUMBER(S) | 5. DATE(S) OF INSPECTION |
|---|---|---|
| 030-04779 | 21-00016-04 | Mar. 1, 2007 |

| 6. INSPECTION PROCEDURES | 7. INSPECTION FOCUS AREAS |
|---|---|
| 87126 | 03.01, 03.02, 03.03, 03.04, 03.05, 03.06, and 03.07 |

**SUPPLEMENTAL INSPECTION INFORMATION**

| 1. PROGRAM | 2. PRIORITY | 3. LICENSEE CONTACT | 4. TELEPHONE NUMBER |
|---|---|---|---|
| 03610 | E1A 3 | Eric Schneider, Ph.D., RSO | 586.986.0842 |

[X] Main Office Inspection — Next Inspection Date: March 2010

[ ] Field Office _____

[ ] Temporary Job Site _____

**PROGRAM SCOPE**

The General Motors Corporation (GMC) Research and Development (R&D) Center employed 600 individuals at its Warren, Michigan Technical Center. The company operated a small, non-medical broad scope program with three individuals acting as "authorized users." The licensee established an RSC to review and approve users, uses and facilities as required for a broad scope licensee. Licensed material was used for in-vitro research and development in 5 labs. The licensee used labeled engine oil and activated piston rings at least weekly in experiments related to automotive engine performance. The company possessed numerous sealed sources including a Cs-137 calibrator unit, however the majority of the sources had not been used for several years and were maintained in secured storage.

This inspection consisted of a tour of select research labs, the radioactive waste storage areas and the source storage rooms; review of select records; interviews with licensee staff; observations of an experiment set-up. The inspection included observations of security of byproduct material, use of personnel monitoring, and material receipt. Direct radiation surveys were performed around the waste storage areas, source and material storage areas, and on the bench surfaces in select research labs. These measurements were in agreement with the licensee's survey records. The inspector performed independent radiation surveys at select source storage locations. The highest reading was measured directly on the surface of the "source coffin," 70 mR/hr and 2.5 mR/hr at 1 meter. Radiation levels in the laboratory areas were no greater than 0.7 mR/hr. All radiation levels in unrestricted areas were indistinguishable from background (0.02 mR/hr).