



## CONVERSATION RECORD

06/01/2015

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

Daniel H. Blossfeld, M.S., proposed Radiation Safety Officer (RSO)

DATE OF CONTACT

05/22/2015

TYPE OF CONVERSATION

☐ E-MAIL☒ TELEPHONE☐ INCOMING☒ OUTGOING

E-MAIL ADDRESS

daniel.h.blossfeld@gm.com

TELEPHONE NUMBER

(586) 651-2001

ORGANIZATION

General Motors LLC - Research and Development Center

DOCKET NUMBER(S)

030-04779

LICENSE NUMBER(S)

21-00016-04

CONTROL NUMBER(S)

586309

SUBJECT

Our review of your March 18, 2015, license amendment request. Additional information is requested by June 5, 2015. Please email your response as pdf attachment to sara.forster@nrc.gov, or send via FAX to (630) 515-1078.

## SUMMARY AND ACTION REQUIRED:

Please provide information noted below. Respond via a signed & dated cover letter, using typed 8.5" x 11" sheets. Refer to NUREG 1556, Vol. 11, "Program-Specific Guidance About Licenses of Broad Scope," at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v11/>, when responding. Please call or email me with any questions.

## ADDITIONAL INFORMATION NEEDED:

1. RADIATION SAFETY OFFICER (RSO) - To list you as the RSO on above-referenced license, please provide additional information as outlined below:

(1.1) Attach a current written memorandum of understanding/delegation of authority (MOU/DOA), including RSO time commitments and signed by both you and a management representative, including specific duties, as included in the model MOU/DOA, taken from the draft NUREG 1556, Vol.11, rev.1, Appendix E, attached.

(1.2) Concerning the training course completed per the training certificate completed September, 27, 2013, please (i) confirm that the course was a 40-hour RSO course, (ii) attach a copy of the agenda for the course, and (iii) provide the name and qualifications of the instructor providing the training.

(1.3) Please provide hands-on applicable training and experience for the proposed RSO including (i) dates of experience, (ii) radionuclides handled, (iii) institution where completed, (iv) typical & maximum quantities of radionuclides handled, and (v) a description of radioactive materials use.

(1.4) Provide your experience performing duties outlined on pp. 26-27 of March 17, 2005, application. Copy attached for reference.

NAME OF PERSON DOCUMENTING CONVERSATION

Sara A. Forster, Materials Licensing Branch, Region III Office, 2443 Warrenville Road, Suite 210, Lisle, IL 60532; (630) 829-9892

SIGNATURE

6/1/2015

CONVERSATION RECORD (continued)

D. Blossfeld

C/N 586309

SUMMARY AND ACTION REQUIRED - ADDITIONAL INFORMATION NEEDED (Continued from page 1):

2. Based on the above referenced application and phone conversation, it is our understanding that the currently listed Radiation Safety Committee (RSC) chairperson will be retiring on or before December 31, 2015. Accordingly, please provide the (i) Name of a new RSC chair; (ii) letter appointing new RSC chair; and (iii) training & experience for new RSC chair.

3. FACILITIES: Your application included a list of primary facilities to be authorized for radioactive materials use at the 777 Joslyn Avenue, Pontiac, Michigan location of use (lou) described in the application. Based on our May 22, 2015, conversation, we understand that the described lou is currently under construction and not expected to be completed prior to November 30, 2015.

Accordingly, please confirm that you will withdraw your immediate request to add this lou, noting your plans to provide additional information noted below at least 3 full months prior to when you will need an authorization to use radioactive materials at the new facility. In the alternative, you may provide all requested information noted below on or before this Friday, June 5, 2015:

(3.1) Please submit facility diagrams for each of the primary facilities outlined in the bulleted list found on pp. 3-4 of the March 18, 2015, application; for any instrument calibration facility; for any radioactive material shipping & receiving area; and for any radioactive waste storage area(s), if applicable. Each diagram should show dimensions or be drawn to scale, and include key elements such as secure access doors, sinks, fume hoods, refrigerators, freezers, other radioactive materials storage, work areas, or waste holding areas.

(3.2) Please submit decommissioning financial assurance (DFA) documentation, as discussed with my colleague, Jennifer Bishop, sufficient to cover the decommissioning costs associated with the Joslyn Avenue proposed lou. Please note that the level of DFA required by the NRC is based primarily on the authorizations to possess and use radionuclides in any, or unsealed, form, with a half-life of greater than 120 days. As we discussed in our May 22, 2015, phone conversation, you may be able to reduce the amount of DFA needed, or even the overall need to have DFA on file with the NRC, by: (i) reducing the tritium and strontium-90 possession limits listed in Item No. 8.A. to the license, (ii) confirming that, in addition to restricting possession of licensed materials to quantities below the limits listed in Item 8, that the licensee listed above shall further restrict the possession of licensed material to quantities below the limits specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance, and (iii) final disposition and transfer information associated with radionuclides removed; associated with decreased possession limit requests. Reduced possession limits are not required at this time; however, they may be submitted in lieu of submitting a revised DFA document.

(3.3) Please describe your estimated annual sewer releases and air releases at the proposed lou. Describe any air and/or sewerage monitoring and sampling that will be conducted to confirm that all radioactive materials releases are below limits specified in EPA and NRC regulations.

(3.4) Please describe the types of research currently being done under the above-referenced license, including but not limited to the items below:

(i) What types of high-level work may be conducted in the high-level test cell?

(ii) What types of contaminated equipment, currently stored at the licensee's facilities located at existing Warren, MI lou, will be transferred to the new Joslyn Avenue lou?

(iii) For the high rad storage area described in the final bullet on page 4 of the March 31, 2015, application, please provide a shielding evaluation, demonstrating that dose rates associated with the high rad storage area do not exceed limits listed in 10 CFR Part 20. The description should include a detailed shielding diagram, any special handling equipment, a diagram of the area showing the type & thickness of shielding, and a calculation or actual measured radiation level demonstrating that shielding is adequate for that area.

4. RENEWAL APPLICATION: Please note that the above referenced license expires on June 30, 2015. Please provide a status on the submission of the renewal application, including the date on which you expect to submit it to the NRC.

Please provide a signed copy of a model MOU/DOA document. You may use the sample, below, taken from the draft NUREG 1556, Vol. 11, rev. 1, volume (available at the NRC website), or create a custom document specific to your organization.

**MODEL DELEGATION OF AUTHORITY  
RADIATION SAFETY OFFICER**

**Model Delegation of Authority**

Memo To: Radiation Safety Officer  
From: Chief Executive Officer  
Subject: Delegation of Authority

You, \_\_\_\_\_, have been appointed radiation safety officer and are responsible for ensuring the safe use of radiation. You are responsible for managing the Radiation Protection Program, identifying radiation protection problems, initiating, recommending, or providing corrective actions, verifying implementation of corrective actions, stopping unsafe activities, and ensuring compliance with regulations. You are hereby delegated the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations, when justified, to maintain radiation safety. You are required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, you are free to raise issues with the U.S. Nuclear Regulatory Commission at any time. It is estimated that you will spend \_\_\_\_\_ hours per week conducting radiation protection activities.

\_\_\_\_\_  
Signature of Management Representative  
I accept the above responsibilities,

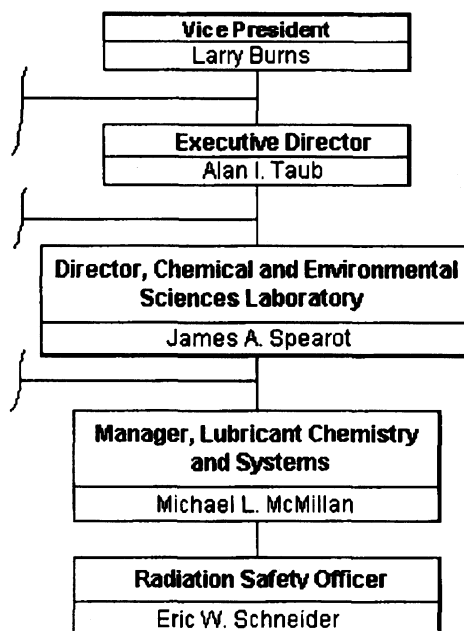
\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Radiation Safety Officer

\_\_\_\_\_  
Date

**cc: Affected department heads**

## GENERAL MOTORS RESEARCH AND DEVELOPMENT CENTER



From the licensee's March 17, 2015, application - RSO duties and responsibilities; new proposed

Radiation Safety Officer RSO should have training & experience sufficient to meet requirements

The Radiation Safety Officer (RSO) is responsible for the day-to-day operation of the radiation safety program for radioactive materials used under NRC license 21-00016-04. The RSO is the Chairman of the Radiation Safety Committee and is a member of the professional staff at the General Motors Research and Development Center. The RSO also has the authority to terminate immediately any project that is considered to be a threat to health or safety.

Responsibilities include:

- General surveillance over all activities involving radioactive material, including routine monitoring and special surveys of all areas in which radioactive material is used.
- Determining compliance with rules and regulations, license conditions, and the conditions of project approval specified by the Radiation Safety Committee.
- Furnishing consulting services on all aspects of radiation protection to personnel at all levels of responsibility.
- Supervising and coordinating the:
  - monitoring and maintenance of absolute and other special filter systems associated with the use, storage, or disposal of radioactive material.
  - receiving, delivering, and opening of all shipments of radioactive material arriving at the institution, as well as receiving, packaging, and shipping all radioactive material leaving the institution.

- distributing and processing of personnel monitoring equipment, determining the need for and evaluation of bioassays, keeping personnel exposure and bioassay records, and notifying individuals and their supervisors of exposures approaching maximum permissible amounts and recommending appropriate remedial action.
- conducting of training programs and otherwise instructing personnel in the proper procedures for the use of radioactive material prior to use, at periodic intervals (refresher training), and as required by changes in procedures, equipment, regulations, etc.
- disposing of radioactive waste, including keeping waste storage and disposal records and monitoring effluents.
- storing of radioactive materials not in current use, including wastes.
- performing of required leak tests on sealed sources.
- maintenance of an inventory of all radioisotopes at the institution and limiting the quantity of radionuclides at the institution to the amounts authorized by the license. The inventory shall include the name of the person responsible for each quantity of radioisotope, where it will be used or stored, and the date the quantity was delivered to that person.
- maintenance of other records not specifically designated above, e.g., receipt, transfer, and survey records as required by Section 30.51, "Records," of 10 CFR Part 30.

The Radiation Safety Officer will supervise or coordinate a quarterly audit of the radiation safety program. The audit will include a review of pertinent records (i.e., film badge, calibration, waste disposal, radiation surveys, retention tanks, etc.), and a physical review of the various experiments to see if they are in compliance with the radiation safety program. The audit will be conducted unannounced and will evaluate user and technician training through discussions and the observation of work practices. The audit will also include independent surveys of user work areas. Wipe-test spot checks will be performed in laboratories that have been used during the prior quarter for handling unsealed radioactive materials. Audits will also evaluate the specific usage of radioactive materials to ensure compliance with stipulations specified in the corresponding Isotope Protocol.

### **ALARA Program, Goals, and Program Reviews**

#### **ALARA Program**

~~It is the intent of the Radiation Safety Committee that a sustained effort be made to ensure that collective doses, as well as annual, committed, and cumulative lifetime individual doses, are maintained as low as reasonably achievable (ALARA), economic and social factors being taken into account. As described in detail in Regulatory Guide 8.10, two basic conditions are necessary for achieving ALARA:~~

- ~~1. The management of the facility should be committed to maintaining exposures as low as reasonably achievable.~~
- ~~2. The personnel responsible for radiation protection should be constantly vigilant for means to reduce radiation exposures.~~

~~This document, approved by GM R&D management, is the policy statement that demonstrates the commitment of management to keep occupational exposures as low as reasonably achievable. Along with that general commitment is the responsibility to ensure that periodic performance audits be performed to determine whether exposures might be lowered, to~~

## Forster, Sara

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**From:** Forster, Sara  
**Sent:** Monday, June 01, 2015 11:35 AM  
**To:** 'daniel.h.blossfeld@gm.com'  
**Subject:** Additional Information request re General Motors Lic. 21-00016-04 License amendment request, CN586309  
**Attachments:** 03610.586309.21-00016-04 telecon signed.pdf

Dear Mr. Blossfeld,

See the attached file for additional information needed to complete the review of the amendment request for NRC Lic. No. 21-00016-04. Note that the attached conversation record requests additional information on or before close of business on June 5, 2015. Additional guidance may be found in NUREG 1556, Vol. 11, "Program Program-Specific Guidance About Licenses of Broad Scope," which may be found at:

<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v11/>

Submission of your response as a pdf file attached to an email or via facsimile will allow for the quickest processing. Do not hesitate to call me with any questions you may have, or if you will need additional time to complete your response.

Sincerely,

**Sara A. Forster, Health Physicist Licensing Reviewer**  
U.S. Nuclear Regulatory Commission - Region III  
Division of Nuclear Materials Safety  
2443 Warrenville Rd. - Ste. 210  
Lisle, IL 60532-4352  
[sara.forster@nrc.gov](mailto:sara.forster@nrc.gov)  
Direct: (630) 829-9892



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**From:** Forster, Sara  
**Sent:** Thursday, May 21, 2015 3:18 PM  
**To:** 'daniel.h.blossfeld@gm.com'  
**Subject:** FW: General Motors Lic. 21-00016-04 License amendment request review follow-up

Dear Mr. Blossfeld: Are you available for a call next Wednesday, May 27<sup>th</sup>. Please see below. Additional information is needed to respond to the above referenced amendment request letter dated March 18, 2015, including to add you as Radiation Safety Officer (RSO). We have been unable to reach the current RSO, Eric Schneider, to date.

Thank you for your prompt attention to this matter.

Sincerely,  
Sara Forster  
U.S. NRC  
(630) 829-9892

**From:** Forster, Sara  
**Sent:** Tuesday, May 12, 2015 4:01 PM  
**To:** 'eric.w.schneider@gm.com'  
**Subject:** RE: General Motors Lic. 21-00016-04 License amendment request review follow-up

Dear Mr. Schneider: Are you available for a call this Friday, May 15<sup>th</sup>? We plan to call you at 9:00 am central time (10 am eastern). Please confirm your availability.

Sincerely,  
Sara Forster  
U.S. NRC  
(630) 829-9892

**From:** Forster, Sara  
**Sent:** Thursday, May 07, 2015 12:10 PM  
**To:** 'eric.w.schneider@gm.com'  
**Subject:** General Motors Lic. 21-00016-04 License amendment request review follow-up

Hi Mr. Schneider:

I have reviewed your letter requesting the addition of a new research facility, and have some questions for follow-up. Are you available for a call next week, between Tuesday, May 12, 2015 and Friday, May 15, 2015? The call is not expected to last more than 30 minutes. Following our call, we will follow our call with a written conversation record and request for additional information.

Please let me know your availability on May 12<sup>th</sup> through the 15<sup>th</sup>. I also left a voicemail for you at the phone number listed in the request. We will let you know by the 12<sup>th</sup> when we plan to call. Thank you!

Sincerely,  
Sara A. Forster, M.S.  
Health Physicist Licensing Reviewer  
U.S. Nuclear Regulatory Commission - Region III  
Division of Nuclear Materials Safety  
2443 Warrenville Rd. - Ste. 210  
Lisle, IL 60532-4352  
[sara.forster@nrc.gov](mailto:sara.forster@nrc.gov)  
Direct: (630) 829-9892

