



CONVERSATION RECORD

10/09/2018

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

DATE OF CONTACT

TYPE OF CONVERSATION

Craig Metzger

10/09/2018

☐ E-MAIL☒ TELEPHONE

E-MAIL ADDRESS

TELEPHONE NUMBER

craig.metzger@gerdau.com

(734) 384-6544

☐ INCOMING☒ OUTGOING

ORGANIZATION

DOCKET NUMBER(S)

Gerdau - Monroe Mill

030-14021

LICENSE NUMBER(S)

CONTROL NUMBER(S)

21-18673-01

610227

SUBJECT

License Amendment Request - Additional Information Required

SUMMARY

This is a summary of the conversation that occurred between Laura Cender and Craig Metzger on October 9, 2018 regarding the license amendment requests received on September 26, 2018 and September 27, 2018.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

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ACTION REQUIRED (IF ANY)

See Page 2 for requested information.

Submit your response to the NRC by no later than Nov. 2, 2018. Please submit your response via fax to 630-515-1078 as security related information may be included with your response.

Please ensure any documentation submitted to the NRC is both signed and dated.

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NAME OF PERSON DOCUMENTING CONVERSATION

Laura B. Cender

SIGNATURE

Laura B. Cender 10/9/2018

CONVERSATION RECORD (continued)

SUMMARY: (Continued from page 1)

1. Please resubmit your letter dated Sept. 29, 2018 and any additional supporting documents as the emails used to submit these documents describe the files as drafts. Please ensure your response includes the relevant information requested below.
2. You have indicated that you are requesting to remove the devices currently authorized in License Items 6.A. - 9.A from your license. In order to remove these devices, please provide the following records for each source:
 - a.) Disposal records for each device.
 - b.) The most recent leak test for each device.
 - c.) If you did not originally possess the full number of devices allowed on the license, please provide a statement confirming this. For example, if you were authorized for up to six gauges, but only ever possessed five please clarify this in your response.
3. You have requested to authorize additional sources to be permitted to be stored on site for source change out purposes. Please clarify the following:
 - a.) Confirm that a vendor will be performing the actual source change.
 - b.) Describe how the material will be secured while in storage, include a description of the area where material will be stored. Provide a facility diagram and describe who will have access to keys to the room or other access to the area.
4. Please refer to the attached NUREG 1556 Vol. 4 Appendix J - Information Needed to Support Applicant's Request to Perform Non-Routine Operations. In addition to the general descriptions in the guidance document, please provide the following information for each item required.
 - a.) Description of Work: Your letter dated Sept. 29, 2018 did not explicitly clarify the non-routine activities that you are requesting to perform. Please include this description with your final submission. Additionally, please briefly describe the gauge configuration to explain why gauge alignment is not required.
 - b.) Training:
 - Provide a comprehensive description of the training that will be performed.
 - Clarify who will receive the training, and if different levels of training will be provided to different workers. Note that the manufacturer document that you submitted on Sept. 26, 2018 is very explicit in the level of supervision required for workers who have only received general training.
 - Provide verification that workers have been trained - this can be provided separately after the initial response depending on the timing of the planned training.
 - c.) Procedures:
 - The current procedure received on October 5, 2018 only shows steps for removal from service, but does not describe the process for device installation or radiological surveys.
 - Additional steps should be included in the procedure regarding surveys - workers should be performing surveys prior to removing the device from service and before returning the gauge to service.
 - Please provide a procedure for workers to follow when performing surveys.
 - Note that you may need to include additional information in the procedure depending on your response to additional information requested. Ex. requiring dosimetry as PPE depending on the evaluation outcome.
 - d.) 10 CFR 20.1502 requires that workers be monitored via dosimetry if they are expected to exceed 10% of the annual dose limits listed in 10 CFR 20.1201. If you do not wish to commit to providing dosimetry to workers you must provide a copy of an evaluation to show that workers are unlikely to exceed this limit. Please include a description of all assumptions made when completing your evaluation.
 - e.) Please confirm that you possess at least one survey meter that is appropriate for your intended use. In addition to this confirmation statement, please also provide the following standard commitment language: "We will use instruments that meet the criteria in Section 8.10.2, "Radiation Monitoring Instruments," in NUREG-1556, Volume 4, Revision 1, "Consolidated Guidance About Materials Licenses: Program-Specific Guidance About Fixed Gauge Licenses" and each radiation survey meter will be calibrated by the manufacturer or other person authorized by the NRC or an Agreement State to perform radiation survey meter calibrations."

Additional information regarding this standard commitment can be found in the NRC guidance document NUREG 1556 Vol. 4

CONVERSATION RECORD (continued)

ACTION REQUIRED (Continued from page 1)

f.) 10 CFR 20.1301 describes radiation limits to non-radiation workers. Describe the steps taken to ensure non-radiation workers are not exposed to radiation levels exceeding these limits. Surveys or evaluation results are acceptable.

Other Items:

- Please provide a general description of the location of the locked cabinet described in the procedure where material is stored temporarily in relationship to the molds where the gauges are normally installed.
- Provide a statement confirming that the locking mechanism on this temporary storage cabinet has been repaired.
- If the storage area for the two gauges that are currently not in use different from where the new sources will temporarily stored please provide a facility diagram indicating their location. If both sources will be located in the same area please provide this information either on the facility diagram itself or in the description of the area.

APPENDIX J

**INFORMATION NEEDED TO SUPPORT APPLICANT'S REQUEST TO
PERFORM NONROUTINE OPERATIONS**

INFORMATION NEEDED TO SUPPORT APPLICANT'S REQUEST TO PERFORM NONROUTINE OPERATIONS

Applicants should review Section 8.10.8, "Maintenance," which discusses, in general, licensee responsibilities before any maintenance or repair is performed.

Nonroutine operations, which require specific authorization by the U.S. Nuclear Regulatory Commission (NRC) or an Agreement State, include gauge installation; initial radiation survey; repair and maintenance of radiological safety components; gauge relocation; replacement and disposal of sealed sources; gauge alignment; or removal of a gauge from service. See Figure 8-7 in Section 8.10.8.

Any replacement components, parts, or other materials (e.g., lubricants) other than those supplied, specified, or recommended by the manufacturer or distributor need to be evaluated to ensure that they do not degrade the engineering safety analysis performed and accepted as part of the device's Sealed Source and Device (SSD) registration certificate. Licensees also need to ensure that, after maintenance or repair is completed, the gauge is tested and functions as designed before the unit is returned to routine use.

If nonroutine operations are not performed properly with attention to good radiation safety principles, the gauge may not operate as designed, and personnel performing these tasks could receive radiation doses that exceed the NRC's regulatory limits. Radionuclides and activities in fixed gauges vary widely. For illustrative purposes, in less than 1 minute, an unshielded cesium-137 source with an activity of 3.7 gigabecquerels [100 millicuries] can deliver 0.05 Sv [5 rem] to a worker's hands or fingers (i.e., extremities), assuming the extremities are 1 centimeter from the source. This dose corresponds to the threshold for extremity monitoring. Some gauges may contain sources of even higher activities with correspondingly higher dose rates.

Thus, applicants wishing to perform nonroutine operations must use personnel with specialized training for the activities intended to be performed and follow appropriate procedures consistent with the manufacturer's or distributor's instructions and recommendations that address radiation safety concerns [e.g., use of radiation survey meter, shielded container for the source, and personnel dosimetry (if required)].

Accordingly, applicants wishing to perform nonroutine operations must provide the following information with their license application:

- Describe the types of work, maintenance, cleaning, and/or repair that involve any of the following:
 - installation, relocation, or alignment of the gauge
 - components, including electronics, related to the radiological safety of the gauge (e.g., the source, source holder, source drive mechanism, shutter, shutter control, or shielding)
 - replacement and disposal of sealed sources
 - removal of a gauge from service

- a potential for any portion of the body to come into contact with the primary radiation beam
 - any other activity during which personnel could receive radiation doses exceeding NRC limits
- Identify who will perform nonroutine operations, and describe their training and experience. Acceptable training includes manufacturers' or distributors' courses for nonroutine operations or an equivalent.
- Submit procedures for nonroutine operations. These procedures should ensure the following:
 - doses to personnel and members of the public are within regulatory limits and are kept as low as is reasonably achievable (ALARA) (e.g., use of shielded containers or shielding)
 - the source is secured against unauthorized removal or access or is under constant surveillance
 - appropriate labels and signs are used (Lock-out procedures are adequate to ensure that no individual or portion of an individual's body can enter the radiation beam.)
 - manufacturer's or distributor's instructions and recommendations are followed
 - replacement components, parts, or other materials (e.g., lubricants) other than those supplied, specified, or recommended by the manufacturer or distributor are evaluated to ensure that they do not degrade the engineering safety analysis performed and accepted as part of the SSD registration certificate
 - the gauge, before being returned to routine use, is tested to verify that it functions as designed and source integrity is not compromised
- Confirm that individuals performing nonroutine operations on gauges will wear both whole body and extremity monitoring devices or perform a prospective evaluation demonstrating that unmonitored individuals performing nonroutine operations are not likely to receive a radiation dose in excess of the limits in 10 CFR 20.1502(a).
- Confirm possession of at least one survey instrument that is appropriate for measuring the types of radiation and expected dose rates from the fixed gauge(s).
- Describe steps to be taken to ensure that radiation levels in areas where nonroutine operations will take place do not exceed limits set in 10 CFR 20.1301(e.g., surveys, calculations).

Cender, Laura

From: Cender, Laura
Sent: Tuesday, October 09, 2018 11:01 AM
To: 'craig.metzger@gerdau.com'
Subject: NRC License 21-18673-01 - Additional Information Required
Attachments: 10.09.2018 Record of Conversation To Gerdau - Monroe Mill.pdf; 1556 Vol. 4, Rev. 1 Appendix J - Requirements for Non-routine Maintenance Operations.pdf

Hello Craig,

Thank you for taking time out of your day to discuss your pending NRC license amendment request. I have attached a copy of our conversation record that describes the additional information that will be required to complete the requested actions.

Please ensure that any documentation submitted to the NRC is both signed and dated. I request that you submit your response via fax to 630-515-1078 if possible, as some of the information that will be included in your response may be security related. We can work out an alternative if you do not have access to a fax machine. Please submit your response by Nov. 2, 2018.

I can be reached at 630-829-9712 or via email if you have any questions.

Thank you,
Laura

Laura Cender
U.S. Nuclear Regulatory Commission
Materials Licensing Branch
E-mail: Laura.Cender@nrc.gov
Phone: (630) 829-9712