



March 9, 2010

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Materials Licensing Branch  
U.S. Nuclear Regulatory Commission, Region III  
2443 Warrenville Road  
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RE: Request to Perform Non-Routine Operations Response  
License Number 21-32217-01  
Control Number 318572  
4 total sheets including cover

Please reference the following attached non-routine maintenance procedures regarding your February 18<sup>th</sup> request for additional information for our license renewal. I have updated and re-titled the prior "Installation Procedures for Nuclear Level Gauge" section to "Non-Routine Maintenance" section within our Radiation Protection Program. I included a high end general statement as requested from your Appendix N attachments. Also, per our conversation, I eliminated the reference to "or authorized designee" throughout our entire RPP.

If you have any questions or concerns regarding these documents, or require further information, please contact me at 734-654-4261. Thank you.



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## General Statement

In regards to non-routine maintenance that may be required, the RSO will ensure the following:

1. That doses to personnel and members of the public are within regulatory limits and ALARA.
2. That the source will be secured against unauthorized removal or access, or shall be under constant surveillance.
3. That appropriate labels and signs are used.
4. That manufacturer's or distributors instructions and recommendations are followed.
5. That any non-manufacturer/non-distributor supplied replacement components or parts, or the use of materials (e.g., lubricants) other than those 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 device registration.
6. That before being returned to routine use, the gauge is tested to verify that it functions as designed and source integrity is not compromised.

## Introduction

The following steps are performed with the shutter closed and locked: (To unlock and open the shutter, a specific license authorizing this activity is required)

7. The mounting brackets shall be fabricated and field installed as much as practical prior to moving the source to its destination. The source shall remain at its designated storage specified by the RSO and not moved unless the RSO is present and authorizes its removal from storage.
8. The source shall be moved to its destination and installed with the RSO present at all times. The RSO shall be responsible for keeping unnecessary personnel out of the work area and out of the path taken to move the source from its storage area to its final destination. The work area shall be roped off with caution tape and the RSO shall be responsible to keep the number of people in the work area to a minimum necessary to complete the work. The RSO shall also perform radiation checks during the installation to ensure personnel safety.
9. The actual mechanical installation and electrical procedure shall be performed in accordance with the CND Level System Installation and Operation Manual Chapter 5.

## Installation, Relocation and Reinstallation Procedures

Guardian Industries employees shall be informed that only individuals specifically listed on Guardian Industries license can install, remove, relocate, and perform surveys of devices, and that there is generally no access to the beam area as long as the gauges are installed. These sections address installation, relocation and reinstallation of devices containing radioactive material, which have been previously approved by the NRC or an agreement.

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### **Installation and/or Reinstallation of Fixed Gauging Devices**

1. Prior to the installation or relocation of any gauging device, the RSO shall determine if there are any other precautions that need to be taken due to such potential hazards as chemicals or flammable materials.
2. An inspection of the gauging device shall be conducted prior to any work being performed to install and/or reinstall a gauging device.
3. On the date of installation and prior to removing the gauging device from storage, ensure that the shutter mechanism is closed and locked in the "Closed" or "Off" position.
4. Perform a radiation survey of the gauging device, using an appropriate, operable and currently calibrated survey instrument and file the survey for a period of three years.
5. Upon arrival to where the installation will occur, the area shall be restricted with the use of barricade tape (when appropriate) to ensure that only designated workers are present within the restricted work area. A designated worker shall maintain surveillance of the work area to prevent entry by non-essential workers and members of the public.
6. The gauging device shall be positioned in its operating location. Install the device in its specified location with the use of appropriate fastening devices (nuts, bolts, metal straps, etc.) according to manufacturer instructions and engineering drawings.
7. Remove all non-essential workers from the restricted work area following the device mounting process.
8. Remove the locking device from the gauge shutter mechanism and move the shutter mechanism to the "Open" or "On" position.
9. Perform a radiation survey of the gauging device after the shutter mechanism has been opened. This survey shall include each accessible area around the device, at the device surface, and at a distance of one foot from the device. The survey information shall be recorded.

Once the device is properly installed and the radiation levels in the area are determined to be within the regulatory limits, barricade tape and/or rope guarding the area shall be removed and the area shall be returned to normal use. The RSO shall determine the necessity for posting of the area based on the radiation levels that surround the gauging device. If posting or warning signs are required, the RSO shall post the area with the appropriate signs. See the "Posting Requirements" section.

### **Removal, Relocation and Storage of Gauging Devices**

During the removal and relocation process, the following procedures shall be followed:

1. Close the shutter mechanism and secure it with a lock. After locking the shutter in the "Closed" or "Off" position, and prior to the removal of the device from installation, perform a radiation survey with the use of an appropriate, operable and currently calibrated survey instrument and file the survey for a period of three years. This survey shall be performed to ensure that the shutter mechanism is in the "Closed" or "Off" position and that it is safe for work to proceed.

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2. The work area shall be restricted (posted with barricade tape if appropriate) and maintained as a restricted area during the device removal process. Make sure that members of the public do not enter the area during the work period.
3. Perform a radiation survey at the gauge beam port location to ensure that the shutter has been closed properly.
4. Upon arrival at the storage location, remove the device from the vehicle and place device carefully in storage area. The storage area shall be secured with a locking device. The RSO shall maintain the key and control access to the storage area at all times while device(s) are in storage.

A radiation survey shall be performed in the unrestricted areas surrounding the storage location. This survey shall be recorded. The exposure to members of the public shall be determined and recorded. The records of survey and exposure assessment shall be provided to the RSO. These surveys shall be kept for a period of three years.

