



Department of the Interior  
US Geological Survey  
Box 25046 MS-974  
Denver, CO 80225  
December 3, 2014

Re: Docket 50-274  
License R-113

U.S. Nuclear Regulatory Commission  
Document Control Room  
Washington DC 20555

Sirs:

This letter is a follow-up to the November 25, 2014 violation report made to the NRC Operations Center for the US Geological Survey TRIGA (GSTR) reactor facility (license R-113, Docket 50-274).

On Tuesday, November 25, 2014, a violation of Technical Specification A.1 "Shutdown" occurred at the USGS TRIGA research reactor. Contrary to the specification, the key to the console key switch was left in the control console, in the OFF position, while the control room was unoccupied. This condition existed intermittently for approximately 9 minutes during the time period from 1421 to 1436, at which time the Reactor Supervisor entered the control room and discovered the key. The reactor was shut down during this time period and the staff members were performing routine maintenance. Prior to this event, the key had been locked in its lock box and verified by another operator, but the key was subsequently removed from the lock box by a Senior Reactor Operator (SRO) and put in the console switch for maintenance checks. The reactor facility was continuously occupied by reactor staff during this event and there were no non-staff personnel present. All USGS reactor staff are licensed SROs. This event was reported to the NRC's facility inspector, NRC Operations Center, the USGS Reactor Administrator, and the USGS Reactor Operations Committee.

This violation was caused by failure of the senior operator to remove the control console key prior to leaving the control room. The senior operator was aware that the key must be turned off and removed in order for the reactor to meet the Technical Specification for "shutdown", but he was preoccupied with other activities that he had planned for the afternoon.

Two actions were being routinely used at the facility in an effort to prevent operators from leaving the console key in the console without an operator being present. These were (1) a required second check that the key had been locked in the key box after a

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reactor shutdown and (2) the use of an electronic tether by the operator that would beep if he approached the exit to the control room. These actions were only being taken during reactor operations that involved making log book entries. The violation discussed in this report occurred during monthly maintenance when the reactor was not started up and no log book entries were made. As a result, neither the second check of the lock box or the electronic tether were in use.

As a result of this event, the following actions have been taken:

A meeting of facility operators was held on Monday, Dec 1, after the full staff was back from the Thanksgiving holiday. The discussion covered the importance of properly controlling the console key and the need to be vigilant about that control. Possible corrective actions for the event, in order to prevent recurrence, were also discussed. Since this event was not a part of normal, routine reactor operations, the corrective action must apply to all activities that could require use of the reactor key.

Use of the electronic tether will now apply to any activity that requires removal of the console key from the key lock box. A small basket has been positioned over the face of the lock box, with the electronic tether located inside the basket. It is impossible for an operator to open the lock box without moving the basket, and at that time the operator will attach the electronic tether to himself. When the key is put into the lock box, the basket again must be moved out of the way and the operator will put the electronic tether back into the basket for future use.

The GSTR Reactor Operations Committee approved the above actions and they, along with GSTR management, believe these steps will be effective in preventing any future console key control problems at the facility.

Please contact me if you have any further questions regarding this issue.

Sincerely,



Tim DeBey  
USGS Reactor Supervisor

Cc: Vito Nuccio, Reactor Administrator  
USGS Reactor Operations Committee  
Mike Morlang, USNRC