



# United States Department of the Interior

GEOLOGICAL SURVEY  
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DENVER, COLORADO 80225-0046

IN REPLY REFER TO:

November 21, 2001

Document Control Desk  
US Nuclear Regulatory Commission  
Washington DC 20555

Sirs:

This report is being sent in compliance with 10CFR21.21, "Notification of failure to comply or existence of defect and its evaluation".

1. Individual informing the Commission: Tim DeBey, U.S. Geological Survey, PO Box 25046 MS 974, Denver Federal Center, Denver, CO 80225-0046
2. Identification of the facility and activity that fails to comply or has a defect: U.S. Geological Survey TRIGA research reactor facility, license R-113, docket 50-274. The defect was identified in personnel dosimetry used for radiation exposure monitoring.
3. Landauer, Inc, 2 Science Road, Glenwood, IL 20435, supplied the dosimetry. This dosimetry has been NVLAP certified.
4. The defect was created when Landauer, Inc. bought Eberline Dosimetry and began supplying Landauer dosimetry to the Eberline Dosimetry customers. In the conversion of Eberline dosimeters to Landauer dosimeters, Landauer began sending neutron sensitive (only) badges (Neutrak ER) as functionally-identical replacements for the Eberline beta/gamma/neutron albedo badges. The result was that the affected personnel were no longer being monitored for beta and gamma radiation exposures. This also resulted in Landauer, Inc. being out of compliance with the technical requirements of the USGS contract for radiation dosimetry.
5. This potential generic defect was initially identified on October 12, 2001, and subsequently verified with Landauer, Inc. on October 23, 2001. This subject was initially reported as a self-identified violation to the Non-Power Reactors Branch and followed up with a detailed discussion at a routine compliance inspection during the week of October 22-25, 2001.
6. An unknown number of Landauer, Inc. customers may be affected by this defect. The USGS does not have access to the information required to make this assessment.
7. The USGS unilaterally cancelled its contract with Landauer, Inc. in June 2001 due to multiple service problems with the contractor. Effective July 1, 2001, the USGS has been using a different dosimetry contractor. It is not known whether Landauer, Inc. has taken any action to address this problem with its remaining customers.

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8. It would be appropriate for Landauer, Inc. to examine its customer information to determine if this same error was made on other accounts and to issue a memorandum to its customers alerting them to the possible error.

Any questions concerning this report should be directed to the undersigned at (303) 236-4726 or [tdebey@usgs.gov](mailto:tdebey@usgs.gov). The attached file is a copy of the self-reported violation of October 19, 2001 that concerns this same subject matter.

Sincerely,



Tim DeBey  
USGS Reactor Supervisor

Enclosure:

October 19 Violation Report