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IDAHO TRANSPORTATION DEPARTMENT

P.O. Box 7129 • Boise, ID 83707-1129

(208) 334-8000 • itd.idaho.gov

December 7, 2017

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

RE: Reply to a Notice of Violation
NRC Inspection Report 030-32230/2017-001 and Notice of Violation

Mr. Hay,

This is the Idaho Transportation Department's (ITD) response to NRC's letter of November 3, 2017 regarding the recent audit of ITD's portable nuclear gauge program. This audit included the following locations: District 1 in Coeur d'Alene, District 3 in Boise, District 5 in Pocatello, District 9 in Boise, and a temporary job site near Idaho Falls.

ITD conducted a complete and thorough review of the circumstances that led to each violation including interviews with the individuals and their managers. The department identified the root cause of each violation. The department has taken prompt and comprehensive corrective action to address the immediate concerns and prevent recurrences of the violations. To increase awareness of these violations and to strengthen the department's overall portable gauge program, ITD held statewide meetings November 14-16, 2017. These meetings were attended by all District Materials Engineers, Design/Construction Engineers and Radiation Safety Officers (RSO's) to discuss the violations, resolutions, and discuss further actions and training needed to make our program more unified statewide.

Your audit identified three Severity Level IV violations requiring resolution. Our evaluations of the root cause of each violation, a plan to remediate and program improvements to prevent reoccurrence and dates of compliance are provided below for your review and acceptance.

Violation 1

District 9; Limit the possession of portable nuclear gauges to the maximum amount authorized by the NRC license, for a specific manufacturer and model of portable nuclear gauge.

License conditions 6, 7, 8 and 9, Items F & G, of NRC License 11-27076-01, Amendment No. 11, dated November 16, 2016, specify the type of byproduct material, chemical and/or physical form, maximum amount that the licensee may possess at any one time under the license, and authorized use of the byproduct material.

Contrary to the above, on August 29, 2017, the licensee possessed byproduct material in excess of the maximum amount authorized in License Conditions 6, 7, 8 and 9, Items F and G, of NRC License 11-27076-01, Amendment No. 11 dated November 16, 2016. Specifically, on August 29, 2017, the licensee possessed 14 Humboldt Scientific Model 5001 nuclear density gauges, in excess of the 10 authorized by License Condition 8, Items F and G.

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Reason for Violation 1

The incident resulted from the purchase of new gauges. Prior to receiving the new gauges the RSO failed to successfully make application for a change in the license to reflect the new quantity, type, and model of gauges. The new gauges were received by the RSO upon delivery without a current license that would accommodate the quantity of new gauges.

Corrective Action Taken to Violation 1

An amendment to reflect the current quantity of these types and models of gauges plus four additional gauges of this same type and model was requested on September 20, 2017. The department received an official notification of receipt of the request on September 27, 2017. While the request has been recognized by the NRC and is in processing, no amended license has been received at this time.

In the future, the RSO, Assistant RSO, and Laboratory Manager shall verify that the license will properly cover the amount of gauges ordered *prior* to allowing any gauges to be shipped. The purchasing department has been instructed that all future contracts containing deliveries of nuclear gauges will only be coordinated through the RSO. Any gauge delivery that is not approved by the RSO and covered by the license will be rejected and sent back to the vendor.

Plan to Correct Future Recurrences

The RSO will maintain the department's inventory list for tracking the exact quantities, types, and models of gauges in compliance to the license. The status of the license will be reviewed prior to any future portable gauges purchases to make sure the license is in compliance. Any and all amendments identified as needed based on planned purchases shall be requested and approved, through the RSO, and a new license will be in possession prior to receiving additional gauges that would not be covered by the current license.

Date for Compliance

License compliance to this violation will be achieved when the new amended license is received by the Department.

Violation 2

District 9; Periodically (at least annually) review the ITD radiation protection program content and implementation.

10 CFR 20.11401(c) requires the licensee shall periodically (at least annually) review the radiation protection program content and implementation.

Contrary to the above, from January 1, 2014 to August 29, 2017, the licensee failed to periodically (at least annually) review the radiation protection program content and implementation.



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Reasons for Violation 2

Annual audits were being performed by the RSO in all districts and headquarters, utilizing ITD Form 817. This form does contain relevant content but is more reflective of a form that should be used on a field audit of a project. The reviews showed no remarks on any problems, violations, or corrective actions found during the audit. The audit forms did not contain dates of the inspections nor were they signed by the RSO. The form did

not provide complete documentation of the annual audit including the review of the radiation protection program content and corrections of any findings.

Corrective Action Taken to Violation 2

The department will utilize the Portable Gauge Audit Checklist found in Appendix E of NUREG 1556 Vol. 1, Ver. 2 to develop a new checklist and audit form. The content will have a "Remarks" section added for documentation purposes. The content of this audit check list was discussed in the November meetings with the RSO's, Design/Construction Engineers, and Materials Engineers to initiate the review of the content of the annual audit process and their responsibilities for compliance. The new audit form will require the District RSO, District Materials Engineer, RSO, and Central Laboratory Manager to approve all annual audits and confirm that any noncompliant issues found during the audit were successfully resolved prior to the final approval signatures of the RSO and Central Laboratory Manager.

Plan to Correct Future Recurrences

This form will be reviewed annually for compliance, content and response by the RSO, the Central Laboratory Manager, District RSO's, and District Material Engineers, to confirm accountability of the radiation protection program content and implementation audit for the portable nuclear gauge program statewide. This review shall become part of the annual RSO audit.

Date for Compliance

Compliance and full implementation of this Document will be completed by December 15, 2017. The document will be used in the annual audits conducted between February and April of 2018.

Violation 3

District 1; Maintain a utilization log documenting the use of potable nuclear gauges at temporary job sites.

License Condition 21.B of NRC License 11-27076-11, Amendment No. 11 dated November 16, 2016, requires, in part, that except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the facsimile dated August 9, 2011.

In the facsimile dated August 9, 2011, the licensee committed to implementing and maintaining the operating, emergency, and security procedures described in the errata sheet to Appendix H of NUREG-1556, Volume 1, Revision 1, dated July 2005.



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The errata sheet to Appendix H of NUREG-1556, Volume 1, Revision 1, dated July 2005, requires the licensee to sign out portable gauges in a log book (that remains at the storage location) including the date(s) of use, names(s) of the authorized users who will be responsible for the portable gauge, and the temporary job site(s) where the portable gauge will be used.

Contrary to the above, from at least January 1, 2016, through September 19, 2017, the licensee failed to sign out portable gauges in a log book (that remains at the storage location) including the date(s) of use, name(s) of the authorized users who will be responsible for the portable gauge, and the temporary job site(s) where the portable gauge will be used. Specifically, from at least January 1, 2016, through September 19, 2017, at the District 1 office in Coeur D'Alene, Idaho, the licensee failed to maintain a log book with the above listed information for gauges assigned to the District.

Reason for Violation 3

District 1 did not maintain a utilization log which documented the use of portable nuclear gauges at temporary job sites. The District RSO had a process in place to check out gauges from the main storage area to a temporary storage location where authorized staff could access the gauges for use on temporary job sites. There was no record kept of the individual use of gauges by person or location. As the gauges were checked out of the main storage location, to the temporary site, this was thought to be adequate to meet the requirements for tracking of gauges.

The District RSO failed to comply with NUREG-1556 Volume 1, Revision 1, Appendix H "Signing in and out of gauges in a log book (that remains at the storage location) including the date(s) of use, name(s) of the authorized users who will be responsible for the gauge, and the temporary job site(s) where the gauge will be used".

Resolution to Violation 3

The District 1 RSO constructed the required log book tracking information for the temporary job site and placed it into the storage area immediately after the audit on September 19, 2017. The RSO was given a current copy of the NUREG-1556 Volume 1, Revision 2 and was instructed to review the content and ensure compliance with the temporary job site requirements.

Future Action

This will become a check point for the annual audit. The requirements regarding the signing gauges in and out were covered during the November 14-16, 2017 meetings. The sign out requirement will be communicated to all TLD holders by January 1, 2018 with a requirement that they acknowledge the instructions on the proper sign in and out procedures.



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Date for Compliance

The documentation required for signing in and out gauges to a temporary job site was installed and implemented on September 19, 2017. The acknowledgement of all TLD holders will be completed by January 1, 2018.

Please advise if the above outlined mitigation measures adequately address the violations as noted. If any additional information is required please contact me and we will address as soon as possible.

Sincerely,

Kimbol Allen, P.E.
Chief Engineer/Division Administrator
Idaho Transportation Department

CC:
U.S. Nuclear Regulatory Commission
Regional Administrator, Region IV
1600 E. Lamar Blvd.
Arlington, Texas 76011