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August 6, 2015

Attn: Materials Inspection Branch
United States Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532-4352

RE: Incident Involving a Troxler Model 3440 (Serial# 26515) Portable Nuclear Gauge

To Whom It May Concern:

The letter is being submitted in accordance with 10 CFR Part 30.50(c)(2). TTL Associates, Inc. (TTL) while working on a project site in St. Clair County, Michigan had a portable nuclear gauge, Troxler Model 3440 (Serial# 26515), run over by an excavator. This portable nuclear gauge contains Cs-137 (8 mCi) and Am-241:Be (40 mCi).

The details of the incident are as follows. On July 9, 2015 a TTL technician, Mr. Ron Olenick, was performing field density testing in conjunction with a watermain installation project. The project site extends along Fisher Road in Kenockee Township, St. Clair County, Michigan. While performing density testing Mr. Olenick was transporting his nuclear gauge back to his vehicle when he dropped the drive pin used to make the pilot holes for testing. When the drive pin was dropped it fell behind an excavator that had been parked. Mr. Olenick stopped and reached down to pick up the drive pin at the same time as the excavator began to back up. Unfortunately, the excavator operator did not know anyone was behind him and before he stopped the excavator had run over Mr. Olenick's leg, as well as the nuclear gauge. The area was immediately barricaded off and the fire department was called. Mr. Olenick was transported to a local medical facility to be evaluated. Mr. Greg Bushey (TTL Field Supervisor) and I were both notified and we both traveled to the project site. The NRC Operations Center was notified of the incident. Once on site, the local fire department and the St. Clair County Hazardous Operations Team were in control of the scene. It was discussed that the nuclear gauge was badly damaged, but the sources appeared to still be in their safe positions. Because of this as well as guidance from the NRC Operations Center, it was decided to get the gauge back into its shipping container, move it away from the location of the incident and then scan the area for residual contamination. This procedure was carried out and it was determined that there was no residual radioactive material detected. The exposure from the gauge was kept to minimum by engineering controls and maintaining the incident scene. The St. Clair County Hazardous Operations Team also completed a report and it is attached to this letter.

Once the gauge had been brought back to the TTL office, it was placed in our nuclear gauge storage room. The gauge has been leak tested and it has been determined the sources are intact and have not leaked. We are currently working with Troxler Electronics to get the gauge returned for repurposing or disposal.

If you have any question or require further information, please feel free to contact me at (734) 582-4900.

Respectfully submitted,

TTL Associates, Inc.

Jeffrey S. Elliott, P.E.
Vice President/TTL Radiation Safety Officer

Attachments

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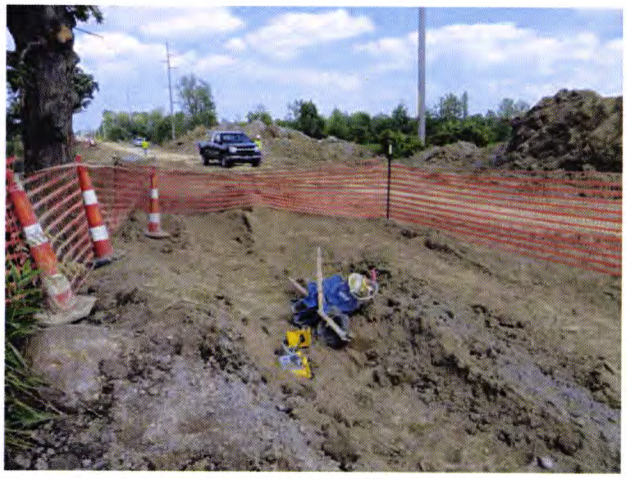
St. Clair County
Hazardous Operations Team
Duty Officer Incident Report

7-11-15
10398 Fisher Road, Kenockee Township
Pipeline Construction Site
Troxler 3400-B Density Meter, #26515

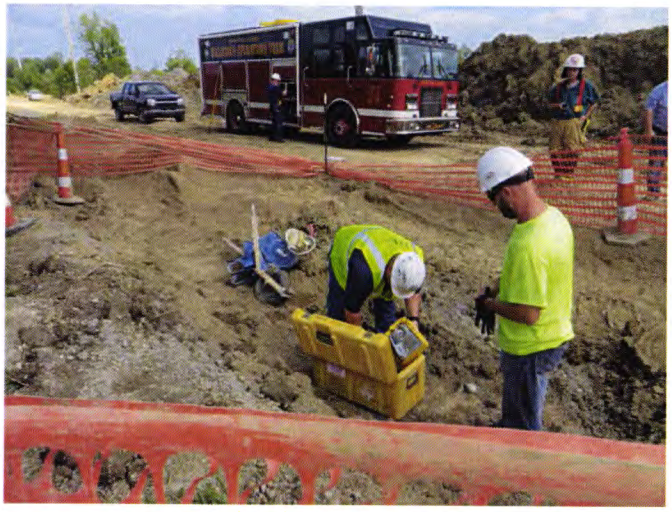


On July 11, 2015 at 1446 hours Hazmat Chiefs received an alert for an incident involving a density meter with possible radiation leak. I contacted Incident Command (Morden) on OPS2A and was briefed. An excavator had run over a density meter and crushed it, possibly exposing the radioactive source. Command was requesting assistance from Hazmat to respond to the scene at Fisher and Bricker road.

I had radio contact with Wagner who was directed to respond to the scene and with Chief Herpel who I requested to respond to the scene with Hazmat Truck 2 and a radiation meter. I prepared Hazmat Truck 24 and waited for the arrival of Hettinger before departing for the scene. While enroute to the scene, I suggested that Command notify Sanilac County Emergency Management as the incident was at a construction site on the border of Fisher Roads.

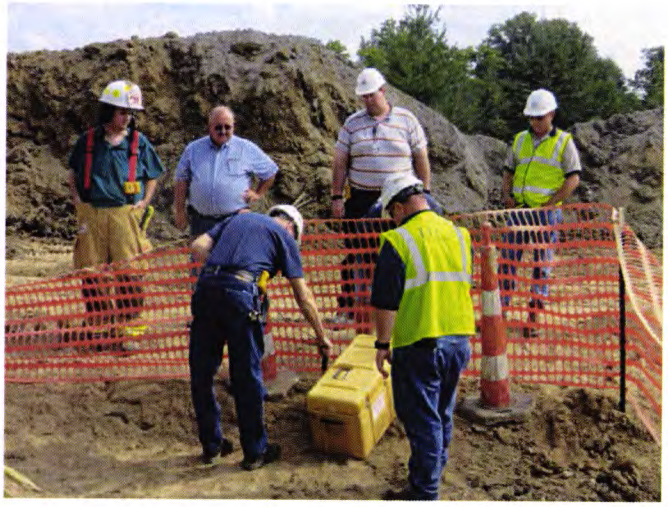
Upon arrival at the scene, I was informed that the readings were 40 uR approximately 10' from the crushed device. Information provided by TTL Associates, operators of the density meter, showed that the radiation source was Cs-137 and Am-241.

Consulting with Command, Sanilac County Emergency Manager Todd Hillman and the representative from TTL it was decided that the crushed device would be placed into its carrying case.



TTL Supervisor Jeffry Elliott requested that he be allowed to place the damaged device into the carrying case. He completed the operation in less than a minute and moved the case to edge of the fence barrier.

Hazmat Team members surveyed the carrying case for radiation levels which were found to be a little above 8mR. The location where the device was crushed was surveyed and found to be within background levels of 20uR or less.



Command and EM Hillman were informed and agreed that the scene was safe and normal construction activities could resume. The damaged density meter was placed in the back of a TTL pickup truck under their control.

The Hazmat Team was released and returned to quarters at 1745 hours where equipment was cleaned and resupplied.

Wayne Brusate
Hazmat Chief 1

RAM Incident on Fisher Road ½ Mile West of Bricker Road

Equipment Used by SCCHOT (St Clair County Hazardous Operations Team)

Two Ludlum Model 2241-3 RAM Survey Meters - Serial # 220134/HOT 032 (calibrated 17 Mar 15) and Serial # 225775/HOT 045 (Calibrated 2 January 15)

Two MRAD 113 Dosimeters serial # 8406/HOT 039 and serial # 03069637/HOT 047 (both calibrated 9 Jul 15)

One MRAD 213 Dosimeter serial # 02070511/HOT 067 (calibrated 19 Feb 15)

One Isotope Identifier Model 940-2-GN Serial # 40113/HOT 063

Troxler Crush Site

On SCCHOT arrival, the crushed Troxler was laying on the ground next to a crushed wheel barrow, within a snow fence barricade surrounding both, that had been run over by excavator working on the installation of the new Lake Huron to Flint water main. The Troxler (model 3440, serial # 26515, calibrated 14 Dec 14) was probably a total loss. The Troxler operator was already removed from the scene, to a medical facility, due to a leg injury as part of this incident.

SCCHOT conducted these after action radiation surveys related to the crushing of a Troxler Density Testing Device:

Determined background radiation levels with both Ludlum meters well away from the crush site. Readings on both meters ranged from 9 - 20 uR. There was a slight deviation noted between the Ludlums' readings on collection of background of +/- 3 uR.

Determined where the 2X background radiation level was (approximately 35 - 40 uR) found approximately 10 feet from the Troxler where it rested and determined the Troxler probably was the source. This was later confirmed after the Troxler was placed within it's carrying case.

Using the procedure spelled out by the Troxler owner/permittee (TTL Associates Inc) in accordance with their license, with guidance by the NRC, secured the Troxler in it's carrying case.

Surveyed the carrying case, with the Troxler secured within, radiation levels were found to be above 8.00 mR and climbing. We did not stay to determine a maximum emission level.

Surveyed both former resting places, of the Troxler, on the ground and where it was within the wheel barrow when it was crushed. Found radiation levels (uR or CPM) to be similar to background levels baselined before (9 - 20 uR).

Surveyed the location of the carrying case, where the smashed Troxler was placed within, and found readings at baseline levels (9 - 20 uR).

A dosimeter located on one of the SCCHOT responders conducting the survey of the Troxler within its carrying case, utilizing both a Ludlum and Isotope Identifier, his accumulated dose was 59 uR over a period of approximately 30 minutes. All other dosimeters levels were considerably less. This was the first time an opportunity, has been presented since purchase, to use the Isotope Identifier in a activity other than training. It did confirm the sources that were known to be present.

Based on SCCHOT surveys, of the smashed Troxler with the Ludlum meters, RAM was probably not released.

Eric Reeve

SCCHOT Responder

Retired IH & RSO