ADAMS Accession # ML24110A008

From: Janine Katanic
To: Pete.Hernandez@corelab.com
Cc: Earlon Shirley; Lizette Roldan-Otero
Subject: CONFIRMATORY ORDER MODIFYING LICENSE - NRC INSPECTION REPORT 030-30429/2022-002, PROTECHNICS DIVISION OF CORE LABORATORIES LP
Date: Tuesday, April 9, 2024 12:53:25 PM

Pete,

This email is to follow up on the conversation with Earlon Shirley of my staff on February 27, 2024, and your submittals in partial fulfillment of the Confirmatory Order (Order). It is acceptable for you to submit the responsive documents to us via email. However, your email attachments providing the responsive documents must be provided via a letter signed by licensee management or a representative of licensee management. I noticed from your signature line that you are the Radiation Safety Manager and therefore a representative of licensee management. To clarify the manner in which these documents are to be provided to NRC, please include a cover letter, on letterhead, with a management representative signature, along with the documents that are responsive to the Order so that we can properly docket these submittals. Please do this going forward for submittals of documents that are responsive to the Order.

We have reviewed your January 25, 2024, submittal regarding your causal analysis. You provided the analysis regarding the reason for the apparent violation, the corrective steps taken and results achieved, and the corrective actions that will be taken, with a time frame for their completion. In order for us to more thoroughly review your submittal to address questions we have, please provide a copy of the causal analysis.

Regards,
Janine

Janine F. Katanic, PhD, CHP
Acting Branch Chief
Materials Inspection Branch
Division of Radiological Safety and Security
US Nuclear Regulatory Commission
Region IV
office: 817-200-1151
email: Janine.Katanic@nrc.gov

ProTechnics
A Division of Core Laboratories LP
6150 W Sam Houston Parkway North
Houston, TX 77041 USA
Tel: 713-328-2321
www.corelab.com

January 25, 2024

Response to Order Condition III.C

A confirmatory order related to EA-23-039 and NRC inspection report 030-30429/2022-02 was issued to ProTechnics Division of Core Laboratories LP (ProTechnics) on November 28, 2023. This response is being submitted in partial fulfillment of the commitments made in the associated settlement agreement. Specifically, condition III.C states:

> Within 2 months of the issuance date of the Confirmatory Order, ProTechnics will complete a causal evaluation for each apparent violation documented in NRC Inspection Report 030-30429/2022-002. The causal evaluation will include: the reason for the apparent violation, the corrective steps that have been taken and the results achieved, and the corrective actions that will be taken, with a time frame for their completion.

Each apparent violation was investigated using the TapRoot methodology for root cause analysis. The corrective actions detailed below are only those directly related to the apparent violations, additional corrective actions that have been taken are not included here.

Apparent Violation I: The licensee's failure to notify and seek NRC approval for a well logging source that was abandoned within a well was identified as an apparent violation of 10 CFR 39.77(c)(1).

1. Reason: Training for sealed source abandonment needs improvement.
2. Completed Corrective Actions and Results
    a. A letter notifying the NRC of the current abandoned status of the sealed source and well was submitted as part of the investigation. This corrective action results in closing the loop for notification and completion of abandonment procedures related to 10 CFR Part 39.
    b. The knowledge gap related to sealed source abandonment was closed by providing refresher training to managers and supervisors at the annual Operations Meeting on December 11, 2023. This resulted in an understanding by managers and supervisors that ProTechnics is able to abandon a sealed source even if the well is still producing.
    c. The sealed source abandonment agreement was updated to more clearly reflect the regulations resulting in a better understanding of responsibilities at the well site if a source gets stuck.
    d. Performed an extent of condition to see if any sealed sources listed on the license can be transitioned from temporary storage status to abandonment. The result was a license amendment to remove license condition 10.F being submitted.
3. Planned Corrective Actions and Due Date
    a. Annual training will be provided to include manager and supervisory actions required upon discovery of a well logging source that is lodged in a well or irretrievable. This is a requirement stated in the confirmatory order to provide this training at least once every calendar year until December 31, 2026.
    b. The operating and emergency procedures manual will be updated to reflect the actions and responsibilities communicated in the training. The O&E manual will be updated by June 30, 2024.

Apparent Violation 2: The licensee's failure to request an extension for a well logging source authorized for temporary storage within a well was identified as an apparent violation of License Condition 10.D (10.H).

1. Reason: The procedure related to using a sealed source in a well needs improvement to include the regulatory requirement to get the well site agreement signed before putting the sealed source downhole.
2. Completed Corrective Actions and Results

    a. Trained the account managers to get the sealed source abandonment agreements signed by the client before logging a well with a sealed source. As a result we have walked away from 2 jobs to date because the client did not want to sign the agreement.
    b. The sealed source abandonment agreement was updated to specify that "ProTechnics may not perform well logging with radioactive sealed sources until this written agreement has been signed by the well owner or operating company." The result being more clarity in the requirements for doing business with ProTechnics.
3. Planned Corrective Actions and Due Date
    a. No further corrective actions for AV2 are planned since it is the same sealed source associated with AV3 which has planned corrective actions.

Apparent Violation 3: The licensee's failure to perform a timely abandonment for a well logging source authorized for temporary storage within a well was identified as an apparent violation of License Condition 10.H.

1. Reason:
    a. The procedure related to using a sealed source in a well needs improvement to include the regulatory requirement to get the well site agreement signed before putting the sealed source downhole.
    b. ProTechnics did not have a procedure for tracking or turnover for sealed sources listed on the license.
2. Completed Corrective Actions and Results
    a. Trained the account managers to get the sealed source abandonment agreements signed by the client before logging a well with a sealed source. As a result, we have walked away from 2 jobs to date because the client did not want to sign the agreement.
    b. The sealed source abandonment agreement was updated to specify that "ProTechnics may not perform well logging with radioactive sealed sources until this written agreement has been signed by the well owner or operating company." The result being more clarity in the requirements for doing business with ProTechnics.
    c. Compiled the details and commitments for each sealed source currently listed on our NRC license to identify status and due dates.
3. Planned Corrective Actions and Due Date
    a. Include sealed source abandonment agreements in master service agreement (MSA) for clients with multiple wells if possible. The expected due date for this is variable based on the client and when the current MSA expires and/or if they are willing to include an addendum to the current MSA.
    b. ProTechnics will attempt to get this sealed source removed from our license by submitting a license amendment request before March 31, 2024.

Apparent Violation 4: The licensee's failure to demonstrate compliance with 10 CFR Part 20 limits on the disposal of effluents within the Gulf of Mexico was identified as an apparent violation of 10 CFR 20.1302.

1. Reason: There was no job specific training for understanding the regulatory jurisdictions that coincide in the Gulf of Mexico (GOM) in 2003 when ProTechnics first made its case that we were below regulatory limits to the EPA.
2. Completed Corrective Actions and Results
    a. The knowledge gap related to regulatory authority in GOM was closed by providing refresher training to managers and supervisors at the annual Operations Meeting on December 11, 2023. This resulted in an understanding by managers and supervisors that ProTechnics works in GOM under NRC regulations as far as disposal of our licensed material in effluent.
    b. ProTechnics submitted a letter and license amendment request to the NRC demonstrating compliance with 10 CFR 20.1302 and requesting direct approval of discharge into GOM. This resulted in NRC amending our license to discharge in to GOM in effluent below specified concentrations.
    c. ProTechnics also hosted meetings with our clients in GOM. This resulted in their understanding of our compliance, providing an open forum for questions and education, and raised awareness of NRC regulations and jurisdiction.
3. Planned Corrective Actions and Due Date

a. ProTechnics will include the regulatory requirements in GOM during annual refresher training. This training will be offered along with the other training required by the confirmatory order to be provided at least once every calendar year until December 31, 2026.

Apparent Violation 5: The licensee's failure to develop, document, and implement a radiation protection program sufficient to ensure compliance with 10 CFR Part 20, specifically with regards to a significant exposure recorded on two dosimeters, was identified as an apparent violation of 10 CFR 20.1101(a).

1. Reason: The procedure to reconstruct dose was not used because it had not been communicated that it existed by including it in the O&E manual.
2. Completed Corrective Actions and Results
    a. The ALARA policy was updated to include the dose reconstruction process and implement additional dose control and investigation measures. This resulted in all the exposure and dose actions to be located in one location for reference.
    b. The ALARA policy was introduced at the December 11, 2023, operations meeting to refresh managers and supervisors on exposure limits and new monthly administrative limits. The result of this is more awareness of the ALARA policy and understanding of the investigation process for administrative thresholds being exceeded.
3. Planned Corrective Actions and Due Date
    a. The ALARA policy will be incorporated into the O&E manual during its revision. This will be completed by June 30, 2024.

Apparent Violation 6: The licensee's failure to monitor a group of occupationally exposed workers as a result of the loss of their dosimeters was identified as an apparent violation of 10 CFR 20.1502(a).

1. Reason: ProTechnics O&E procedure needed improvement to include steps to check that doses for each district for each month were reported.
2. Completed Corrective Actions and Results
    a. The dose records for individuals in the district were calculated and added to their dose records. This was the immediate corrective action that resulted in closing the dose gaps for the district.
    b. Each shipment of dosimeters to Landauer through FedEx is photographed and sent to the Corporate RSO for tracking. This was also an immediate corrective action put in place to better pinpoint at what step dosimeters may have been lost.
    c. The Radiation Safety Manager is reviewing each monthly dose report to identify any missing doses to initiate an investigation in a timely manner. This results in better awareness of dose trends and when administrative limits may be exceeded.
3. Planned Corrective Actions and Due Date
    a. No further corrective actions related to this apparent violation are expected.

ProTechnics
A Division of Core Laboratories LP
6150 W Sam Houston Parkway North
Houston, TX 77041 USA
Tel: 713-328-2321
www.corelab.com

January 28, 2024

Response to Order Condition III.H

A confirmatory order related to EA-23-039 and NRC inspection report 030-30429/2022-02 was issued to ProTechnics Division of Core Laboratories LP (ProTechnics) on November 28, 2023. This response is being submitted in partial fulfillment of the commitments made in the associated settlement agreement. Specifically, condition III.H states:

> By January 31 of each calendar year 2024 through 2027, ProTechnics will send the NRC a summary of the actions implemented the previous year due to the Confirmatory Order.

Corrective actions implemented from November 28, 2023 to January 31, 2024 are summarized below.

- ProTechnics submitted its Audit plan to the NRC for approval, responded to comments, and is awaiting NRC response.
- ProTechnics developed its training program to address knowledge deficiencies that contributed to the apparent violations, specifically:
  - The proper use of dosimetry to comply with the NRC's requirements in 10 CFR Part 20 to include individual staff and supervisory actions required upon discovery of lost or missing dosimetry.
  - Occupational exposure limits under 10 CFR Part 20 and any additional limits imposed by the licensee.
  - Sealed source management and NRC abandonment process/requirements to include manager and supervisory actions required upon discovery of a well logging source that is lodged in a well or irretrievable.
- ProTechnics provided the training to address the knowledge deficiencies to employee supervisors and managers involved in NRC licensed activities at the annual Managers Meeting.
- ProTechnics completed and submitted a causal evaluation for each apparent violation and submitted it to the NRC on January 28, 2024.

This is being submitted in partial fulfilment of the Confirmatory Order related to NRC Inspection Report 030-30429/2022-002.