

From: [Deon Lerew](#)
To: [Alldredge, Casey](#)
Subject: [External_Sender] RE: Rev Energy Services; NRC License Amendment; Request for Info
Date: Friday, February 18, 2022 9:13:53 AM
Attachments: [Model Delegation of Authority to Radiation Safety Officer.pdf](#)
[Deon Lerew RSO Certificate.pdf](#)
[Deon Lerew SGDO Cert.pdf](#)

Please let me know if you require any additional information.

Thank You

From: Alldredge, Casey <Casey.Alldredge@nrc.gov>
Sent: Monday, February 14, 2022 2:22 PM
To: Deon Lerew <deon.lerew@revfrac.com>
Subject: Rev Energy Services; NRC License Amendment; Request for Info

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Good afternoon Mr. Lerew,
I am reviewing your amendment request dated October 20, 2021, and have the following requests.

Can you please provide me:

1. Your training certificate for the portable gauge manufacturer's course for users and RSOs, with hands-on experience with portable gauges or your certificate for an equivalent course?
2. A signed delegation of authority memo? (I have attached a sample memo)

If you have any questions, please let me know.


Thanks,

Casey Alldredge
Health Physicist
Materials Licensing and Decommissioning Branch
Region IV, USNRC

Model Delegation of Authority to Radiation Safety Officer

Memo To: Radiation Safety Officer
From: Chief Executive Officer
Subject: Delegation of Authority

You, Deon Lerew, have been appointed radiation safety officer and are responsible for ensuring the safe use of radiation. You are responsible for managing the Radiation Protection Program; identifying radiation protection problems; initiating, recommending, or providing corrective actions; verifying implementation of corrective actions; stopping unsafe activities; and ensuring compliance with regulations. You are hereby delegated the authority necessary to meet those responsibilities, including prohibiting the use of byproduct material by employees who do not meet the necessary requirements and shutting down operations, when justified, to maintain radiation safety. You are required to notify management if staff does not cooperate and does not address radiation safety issues. In addition, you are free to raise issues with the U.S. Nuclear Regulatory Commission at any time. It is estimated that you will spend 2 hours per week conducting radiation protection activities.



Signature of Management Representative

2/16/22

Date

I accept the above responsibilities,



Signature of Radiation Safety Officer

2/16/22

Date

cc: Affected department heads

Certificate of Completion

ThermoFisher
SCIENTIFIC



This certificate is awarded to

Deon Lerew

For the successful completion of



**40 Hour Radiation Safety Officer Course for Fixed
Gauge Users**

Granted: 11 June 2021

A handwritten signature in black ink, appearing to read "T. Rogers", written over a horizontal line.

Titus T. Rogers, Radiation Safety Trainer
1-800-437-7979 www.Thermoscientific.com

*Thermo Fisher Scientific
Radiation Safety Officer Outline*

Monday

08:00 - 09:00	Welcome and Introductions
09:00 - 09:40	Radiation, Physics and Video
09:40 - 10:50	Radiation, Physics and Math
10:50 - 11:00	Break
11:00 - 12:00	Radiation, Physics and Math
12:00 - 1:00	Lunch
1:00 - 2:00	Radiological Effects of Time and Distance
2:00 - 2:10	Break
2:10 - 3:20	Radiological Effects of Time and Distance
3:20 - 5:00	Home Work #1

Tuesday

08:30 - 09:00	Home Work #1 Review
09:00 - 09:10	Break
09:10 - 10:10	Exposure, Time and Distance, Inverse Square Law
10:10 - 11:00	Inverse Square Law/Shielding (Half-value-layers)
11:00 - 11:10	Break
11:10 - 12:00	Shielding (Dose calculations)
12:00 - 1:00	Lunch
1:00 - 1:50	Biological (Contamination, Internal Exposure, radiation injury)
1:50 - 2:00	Break
2:00 - 3:00	Biological (Long Term Effects, Background Radiation, Risk Estimates)
3:00 - 5:00	Homework #2

Wednesday

08:30 - 09:00	Homework #2 Review
09:00 - 10:00	Licensing and Regulations
10:00 - 10:15	Break
10:15 - 12:00	Licensing and Regulation
12:00 - 1:00	Lunch
1:00 - 2:40	Radiation Protection Program, ALARA, and Emergency Procedures
2:40 - 3:50	Transportation and Shipping
3:50 - 4:00	Break
4:00 - 5:00	Homework #3

Thursday

08:30 - 09:00	Homework #3 Review
09:00 - 10:00	Instrumentation (Radiation Detection, Types of Detectors)
10:00 - 10:10	Break
10:10 - 11:10	Detectors (continued)/ Personnel Monitoring
11:10 - 12:00	Industrial Applications
12:00 - 1:00	Lunch
1:00 - 1:50	Survey meter, techniques and Leak Testing
1:50 - 2:00	Break
2:00 - 3:00	Plant Tour, Hands-on, Source Load and Leak Test Lab
3:00 - 5:00	Industrial Gauge Installation, Relocation, and Removal
5:00 - 6:00	Homework and Review of Homework #4

Friday

08:30 - 11:30	Final Exam (Closed Book)
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Certificate of Training

This is to certify that

Deon Lerew


Has successfully completed general awareness, function-specific,
and safety training applicable to the transport of nuclear
gauging devices, and has been tested on these subjects
as required by 49CFR172 Subpart H.

Date Issued: June 11, 2021

Expires: June 11, 2024



12320 Cardinal Meadow, Sugar Land, Texas 77478



Titus Y. Rogers, Radiation Safety Trainer
1-800-437-7979 www.Thermoscientific.com



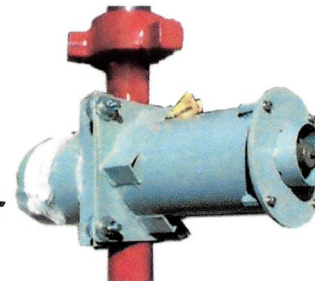
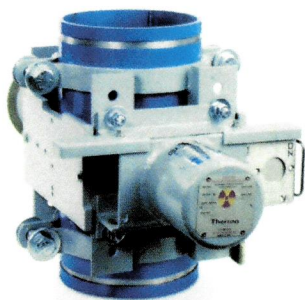
Certificate of Completion

ThermoFisher
SCIENTIFIC

This certificate is awarded to

Deon Lerew

For the successful completion of



**Factory Authorized Custom SGDO Density
Gauge Pipe Change Training Course**

Granted: 15 June 2021



Titus T. Rogers, Radiation Safety Trainer
1-800-437-7979 www.Thermoscientific.com

**Thermo Fisher Scientific
Specific Gravity Density – Oilfield (SGD-O) Non-Contacting Density Gauge
Course Outline**

- I. **Course Basics (0.5 hr)**
 - a. Welcome
 - b. Introductions
 - c. Get Acquainted
 - d. Course Objectives
 - e. Detailed Course Agenda
- II. **Product Information (1 hr)**
 - a. Definitions
 - i. Application
 - ii. Gauge History
 - iii. Theory of Operation
 - iv. Types of Ionizing Radiation
 - b. Gauge Hardware
 - i. Source info (Cs-137)
 - ii. Radioactive Decay and Half-Life
 - c. Detector info
 - i. Ion Chamber
 - ii. Operating Temperature
 - d. Transmitter info (TFS Model 1400)
 - i. Operating Temperature
 - ii. DC input power vs AC input Power
 - iii. Display
 - iv. Alarms
 - e. Communication Devices
 - f. Basic Radiation Safety
 - g. Test your Knowledge
- III. **Hardware (2 hr)**
 - a. Source
 - i. Shutter vs No Shutter
 - b. Ion Detector
 - i. External Hardware
 - ii. Detector Cable
 - iii. Pre-Amp Board:
 1. Pre-Amp Board Gain Settings
 - iv. Power Supply Board
 - v. Detector Check-Out Procedures
 - vi. Detector Hardware Review
 - c. Thermo Scientific Model 1400 Transmitter:
 - i. Keypad/Display/Connections
 - ii. Internal Hardware
 - iii. Board Placement
 - iv. Display Board
 - v. Optional AC Power Supply
 - vi. CPU Board
 - vii. Detector Interface Board
 - viii. I/O Relay Boards:
 1. 24V DC w/0 Relays
 2. 24V DC w/2 Relays
 3. 12V DC w/0 Relays
 4. No VDC w/0 Relays
- IV. **Software/Programing (1.5 hr)**
 - a. Configuring/Calibrating:
 - i. with Thermo Scientific Model 1400 Transmitt
- V. **Hardware Installation (2 hr)**
 - a. Installation/Commissioning
 - b. Shutter/Lock/Tag Requirements
 - c. Detector:
 - i. Board Replacement Guidelines
 - ii. AC Power Supply
 - iii. CPU and Other Boards
 - iv. Board Installation Exercise
 - v. Connecting Detector Cable/Applying
 - vi. Power Exercise
 - vii. Wiring Diagrams
- VI. **Maintenance (2 hr)**
 - a. Maintenance Schedule
 - b. Shutter Check
 - c. Tag and Label Check
 - d. Source Check
 - e. Leak Testing:
 - i. Leak Testing Regulatory Timeframe
 - ii. Leak Test Service
 - iii. Using the Leak Test Kit
 - iv. Leak Test Results
 - v. Hands-On Leak Test Activity
 - f. Pipe and Spool change
 - i. Source alignment
 - ii. Radiation Surveys
 - iii. Hands-on Spool change
- VII. **Troubleshooting (1 hr)**
 - a. Display
 - b. Detector
 - c. Detector interface board
 - d. AC power supply
 - e. CPU board
 - f. I/O relay board
- VIII. **Exam (1 hr approximate for group of 6ea)
(Hands-on evaluation of competence)**