

PART I – LICENSE, INSPECTION, INCIDENT/EVENT AND ENFORCEMENT HISTORY

1. AMENDMENTS AND PROGRAM CHANGES SINCE LAST INSPECTION:

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
1	8/24/11	Added Seaman Nuclear Corporation Model C-300-04 portable gauges and added a new RSO

2. INSPECTION AND ENFORCEMENT HISTORY:

The last inspection of this licensee was on 5/10/10. No violations of NRC requirements were identified.

On 7/22 & 23/15, an NRC inspector started an inspection at the licensee's base facility in Westfield, Indiana. The NRC planned to complete that inspection at another location in 2015; however, due to an oversight in planning, the NRC did not complete that inspection.

3. INCIDENT/EVENT HISTORY:

None.

PART II – INSPECTION DOCUMENTATION

1. ORGANIZATION AND SCOPE OF PROGRAM:

The licensee possessed three Seaman Nuclear Corporation Model C-300-04 gauges and the licensee had not used them yet. In addition, the licensee possessed and used a Troxler Model 3440 portable gauge to measure the moisture and density of soil and asphalt at temporary jobsites. The licensee had two authorized users, including the licensee's radiation safety officer (RSO). No licensed activities were conducted during the onsite inspection. Licensed activities had not been conducted since June 2, 2016.

2. SCOPE OF INSPECTION:

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: 02.01 through 02.07

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

The inspector used a calibrated, NRC owned survey instrument to conduct independent measurements of the licensee's gauges. The inspector measured a maximum of: (1) 59 milliroentgens per hour (mR/hr) at the surface of the Model C-300-04 gauge with Serial No. 21172; (2) 53 mR/hr at the surface of the Model C-300-04 gauge with Serial No. 21114; (3) 59 mR/hr at the surface of the Model C-300-04 gauge with Serial No. 21242; and (4) 11 mR/hr at the surface of the Troxler Model 3440 gauge with Serial No. 62248.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

- A. In June 2011, a new hazmat employee was hired by the licensee and the licensee provided initial hazmat training for that employee on January 12, 2013, a period of more than 90 days after the employee was hired. Title 10 of the Code of Federal Regulations (CFR) 71.5(a) requires that a licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397. The licensee meets the definition of hazmat employer in Title 49 CFR 171.8. Title 49 CFR 172.704(c) requires, in part, that a new hazmat employee receive initial hazmat training within 90 days after employment. The licensee's failure to provide a new hazmat employee initial hazmat training within 90 days after employment is a violation of 10 CFR 71.5 and 49 CFR 172.704(c).

The inspector determined that the cause of the violation was that the licensee was unaware of the requirements. As corrective action to prevent a similar violation, the licensee updated its Corporate Calendar to provide reminders to applicable staff to ensure that the licensee provides timely, initial hazmat training as required.

- B. On January 12, 2013, the licensee provided initial hazmat training for a new hazmat employee and did not create a record of that training. Title 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397. The licensee meets the definition of hazmat employer in Title 49 CFR 171.8. Title 49 CFR 172.704(d) requires, in part, that a record of current hazmat training, inclusive of the preceding three years, shall be created and retained by each hazmat employer for as long as the employee is a hazmat employee and 90 days thereafter. The licensee's failure to create a record of initial hazmat training for a new hazmat employee is a violation of 10 CFR 71.5 and 49 CFR 172.704(d).

The inspector determined that the cause of the violation was that the licensee was unaware of the requirement. As corrective action to prevent a similar violation, the licensee updated its Corporate Calendar to provide reminders to applicable staff, and committed to use an online hazmat training/certification site to ensure that the licensee records hazmat training as required.

- C. On January 12, 2013, the licensee provided initial hazmat training for a new hazmat employee and did not test the employee on the hazmat employee training subjects covered in 10 CFR 172.704. Title 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397. The licensee meets the definition of hazmat employer in Title 49 CFR 171.8. Title 49 CFR 172.702(d) requires, in part, that a

hazmat employer shall ensure that each of its hazmat employees is tested by appropriate means on the hazmat employee training subjects covered in 10 CFR 172.704. The licensee's failure to not test the employee on the hazmat employee training subjects covered in 10 CFR 172.704 is a violation of 49 CFR 172.702(d).

The inspector determined that the cause of the violation was that the licensee was unaware of the requirement. As corrective action to prevent a similar violation, the licensee updated its Corporate Calendar to provide reminders to applicable staff, and committed to use an online hazmat training/certification site to ensure that each hazmat employee is tested on hazmat training subjects as required.

These three violations were cited together as a Severity Level IV problem, because of the shared root cause among the violations.

- D. The licensee did not complete the leak test on its Troxler Model 3440 gauge in 2014 and subsequently conducted a leak test on April 8, 2015, a period of more than 12 months. In addition, after the leak test was done on April 8, 2015, the licensee subsequently conducted a leak test on August 8, 2016, a period of more than 12 months. Condition 14.A. of Amendment No. 1 of NRC License No. 13-32741-01 requires that sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by the NRC under 10 CFR 32.210 or by an Agreement State. The certificate of registration issued by an Agreement State for the Troxler Model 3440 gauge states that the leak test frequency is 12 months. The licensee's failure to complete leak tests of its Troxler Model 3440 gauge at a frequency of 12 months is a violation of Condition 14.A. of Amendment No. 1 of NRC License No. 13-32741-01.

The inspector determined that the cause of the violation pertinent to the 2014 leak test example was that the licensee collected the leak test sample and forgot to send the sample for analysis. The inspector determined that the cause of the violation pertinent to the August 8, 2016, leak test example was that the licensee conducted annual leak tests because it was unaware that the Troxler Model 3440 gauge leak test frequency was 12 months. As corrective action to prevent a similar violation, the licensee updated its Corporate Calendar to provide reminders to applicable staff to ensure that the licensee provides timely leak tests of the gauges.

5. PERSONNEL CONTACTED:

- + Mark Behrens, Principal/Owner
- #+ Michael Byrnes, RSO

- # Participated in preliminary exit meeting on July 14, 2016
- + Participated in final exit meeting on September 2, 2016