

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION III 2443 WARRENVILLE ROAD, SUITE 210 LISLE, IL 60532-4352

December 1, 2011

Mr. John A. Newland Chief Executive Officer JANX Integrity Group P.O. Box 190 8550 E. Michigan Parma, MI 49269

# SUBJECT: NRC INSPECTION REPORT NOS. 030-11772/11-005(DNMS) AND 030-11772/11-006(DNMS) – JANX INTEGRITY GROUP

Dear Mr. Newland:

On July 27, 2011, with continued in-office review through November 3, 2011, a U.S. Nuclear Regulatory Commission (NRC) inspector conducted an inspection at your temporary jobsite on Spy Island, Alaska. The inspection examined activities conducted under your NRC license as they relate to radiation safety, security, and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities in progress, independent measurements, and interviews with personnel. The preliminary inspection findings were discussed with Will Janin, JANX Site Supervisor, OCC Construction, at the conclusion of the onsite inspection. On November 3, 2011, an NRC inspector held a final telephonic exit meeting with you and members of your staff. The enclosed report presents the results of the inspection.

Several unresolved items were identified during this inspection regarding your radiation safety program. The unresolved issues involve: (1) affording the Commission at all reasonable times, the opportunity to perform an inspection as required by Title 10 of the Code of Federal Regulations (CFR) 30.52; (2) conducting radiography at a temporary jobsite by at least two qualified individuals as required by 10 CFR 34.41(a); (3) posting a high radiation area as required by 10 CFR 34.53 and 20.1902(a) and (b); (4) providing each individual conducting industrial radiographic operations an operating alarming rate meter as required by 10 CFR 34.47(a); (5) meeting all NRC security requirements as required by License Condition 19.A.; and (6) maintaining copies of records as required by 10 CFR 34.89(b).

Enclosure 2 contains Sensitive Unclassified Non-Safeguards Information. When separated from enclosure 2, this transmittal letter and enclosure 1 are decontrolled.

#### J. Newland

#### -2-

The NRC has not yet completed its review of the circumstances surrounding these unresolved items. Because these issues remain under NRC review, no response to this letter is required at this time. Please be advised that the number and characterization of the unresolved issues may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and enclosures 1 and 2 will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC website at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a>. However, because of the security-related information contained in enclosure 2, and in accordance with 10 CFR 2.390, a copy of enclosure 2 will not be available for public inspection. Enclosure 2 must be protected from unauthorized disclosure. Handling of Security Related Information is discussed in regulatory Information Summary RIS-2005-031, "Control of Security-Related Sensitive Unclassified Non-Safeguards Information" (ML053480073), which is available on the NRC Web site at <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a>.

If you have any questions concerning this matter, please contact Tamara E. Bloomer, of my staff at (630)-829-9627.

Sincerely,

/RA/ By Patrick L. Louden Acting For/

Anne T. Boland, Director Division of Nuclear Materials Safety

License No. 21-16560-01 Docket No. 030-11772

Enclosures:

- 1. Inspection Report 030-11772/11-005(DNMS)
- 2. Inspection Report 030-11772/11-006(DNMS) (Security-Related Information) (Non-Public)
- cc w/encls: State of Michigan, Director, Radiation Control Program State of Alaska, Director, Radiation Control Program

# Official Use Only Security-Related Information -2-

J. Newland

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cc w/encls: State of Michigan, Director, Radiation Control Program State of Alaska, Director, Radiation Control Program

DISTRIBUTION w/ encls: See attached page

\*See previous concurrence

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Letter to John A. Newland.from Anne T. Boland, dated December 1, 2011.

SUBJECT: NRC INSPECTION REPORT NOS. 030-11772/11-005(DNMS) AND 030-11772/11-006(DNMS) – JANX INTEGRITY GROUP

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# U.S. Nuclear Regulatory Commission

# Region III

Docket No.:	030-11772			
License No.:	21-16560-01			
Report No.:	030-11772/11-005(DNMS)			
Licensee:	JANX Integrity Group			
Address:	P.O. Box 190 8550 E. Michigan Parma, Michigan 49269			
Location Inspected:	ENI Oil and Gas Company Oliktok Construction Camp Spy Island, Alaska (Temporary Job Site)			
Dates:	July 27, 2011, with continued in-office review through November 3, 2011			
Inspector:	Rick R. Muñoz, Health Physicist Nuclear Materials Safety Branch A Division of Nuclear Materials Safety, Region IV			
Approved By:	Tamara E. Bloomer, Chief Materials Inspection Branch Division of Nuclear Materials Safety, Region III			

# EXECUTIVE SUMMARY

#### JANX Integrity Group NRC Inspection Report No. 030-11772/11-005(DNMS)

This was an unannounced inspection of licensed activities involving the use and storage of byproduct material at a temporary job site on the North Slope, Spy Island, Alaska. The inspection was an examination of activities conducted under U.S. Nuclear Regulatory Commission (NRC) Materials License 21-16560-01. The inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the following unresolved items were identified involving the licensee's actions regarding:

- 1. Affording the Commission at all reasonable times, the opportunity to perform an inspection as required by Title 10 of the Code of Federal Regulations (CFR) 30.52;
- 2. Conducting radiography at a temporary jobsite by at least two qualified individuals as required by 10 CFR 34.41(a);
- 3. Posting high radiation area signs as required by 10 CFR 34.53 and 20.1902(a) and (b);
- 4. Providing each individual, conducting industrial radiographic operations, an operating alarming rate meter as required by 10 CFR 34.47(a);
- 5. Maintaining copies of records required by 10 CFR 34.89(b); and
- 6. Security issues.

The NRC will continue its review of these unresolved items.

Based on letters dated July 29, and August 1, 2011, the licensee described the following actions:

- During the period of July 29 August 1, 2011, the Prudhoe Bay, Alaska, job site supervisor committed to provide additional supervision of the crew;
- On August 1, 2011, the radiography crew had been replaced;
- The RSO initiated an investigation in Alaska on August 3, 2011;
- The radiography crew returned to the Parma, Michigan office for interviews on August 4, 2011;
- On August 2, 2011, the licensee sent a notice to its auditors, managers, and supervisors, on the importance of safety and security compliance with NRC/State regulations, JANX procedures, and complete cooperation with NRC/State Inspectors, and provided a copy of this notice to the NRC; and

• At the conclusion of its investigation, a safety bulletin/lessons learned communication was shared with all radiographic personnel. The licensee provided a copy of this communication to the NRC.

The licensee participated in teleconferences with the NRC Region III staff to provide updates on its investigation and submitted a written report of its investigation and its findings to the NRC in a letter dated August 17, 2011 (ML112310830).

# **Report Details**

#### 1. Organization and Scope of the Program

JANX Integrity Group (licensee) is authorized under License No. 21-16560-01 to possess and use byproduct material for use in industrial radiography and replacement of sources and storage at 18 field stations located in Michigan, Indiana, Missouri, and West Virginia. The licensee performed industrial radiography daily at temporary job sites in NRC jurisdiction. The licensee's Radiation Safety Officer (RSO) is based at the JANX corporate office located in Parma, Michigan. The licensee employed approximately 175 radiographers and 175 radiographer assistants. The staff at each field station reported to the corporate office. The RSO reported to the Safety Director who reported to the Chief Executive Officer. Radiographic exposure devices containing radioactive material quantities of concern were stored in radiography trucks during the temporary job site operations.

#### 2. Conduct of Radiographic Operations at the Spy Island, Alaska Job Site

#### 2.1 Inspection Scope

The inspection consisted of direct observations of the licensee's activities, material security, and brief interviews with the radiography personnel at the temporary job site. Through interviews and observations, the inspector attempted to review the licensee's materials program, security, and safety equipment. The inspector reviewed daily utilization log sheets and conducted independent radiological surveys.

#### 2.2 Observations and Findings

At approximately 12:20 pm, on July 27, 2011, the inspector traveled by ferry boat to Spy Island to conduct an unannounced field inspection. The inspector reserved a return trip on the 3:30 pm ferry. Upon arriving on the island, the inspector met with site safety personnel for a briefing on the intended inspection. The inspector observed two individuals (both later determined to be certified radiographers with one serving as an assistant) loading film cassettes and a radiography exposure device onto the back of an all-terrain vehicle. The radiographer's assistant drove out-of-site to the exposure set up, while the radiographer remained behind at the licensee vehicle. The inspector followed the assistant to the exposure set up, which was approximately 200 yards from the truck to observe the activities. The exposure set up consisted of several shots of piping welds within a building, and the inspector's view was partially obscured by mobile buildings, grating, and scaffolding.

The inspector observed the radiographer's assistant set up and take his first radiographic exposure. Four to five individuals stood in proximity of the restricted area and the inspector was unaware if any of these individuals was a radiographer; these individuals were later determined to be electricians waiting to resume their work. The inspector observed the assistant near the restricted area at the time of the first exposure. Over the course of about six, additional 40-second radiographic exposures, the assistant exchanged exposed film cassettes and re-loaded/unexposed film cassettes with another individual. As the radiographer's assistant proceeded to make additional exposures, the electricians gradually exited the area. The inspector approached the radiographer's assistant, identified himself, and asked the whereabouts of the second qualified

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individual. The assistant informed him that the individual acting as the radiographer had left the restricted area to process the film. During the inspector's observations of the activities, the assistant was the only qualified individual on the crew. The inspector later determined, while the radiographer's assistant made additional exposures, that the other radiographer was located at the parked vehicle approximately 200 yards away from the exposure set up and unable to observe the operations. Based on this arrangement, the activities did not appear to be consistent with the requirements of 10 CFR 34.41(a). The licensee's performance of radiographic operations at a temporary job site located at Spy Island, Alaska with only one qualified radiographer is an unresolved issue pending further NRC review.

The inspector observed the perimeter of the restricted area posted with "CAUTION RADIATION AREA" signs. The inspector noted that the perimeter of the high radiation area did not appear to be posted consistent with the requirements of 10 CFR 20.1902(b). The licensee's performance regarding posting of a high radiation area is an unresolved issue pending further NRC review.

As the inspector discussed his initial inspection findings with the radiographer's assistant, the assistant approached the set up, disconnected the guide tube and the control-drive cable from the exposure device, loaded the camera on the back of the all-terrain vehicle, and proceeded to drive off. The inspector noticed that the film remained strapped onto the pipe with a bungee cord and that the guide tube and control-drive cable remained on the ground. The inspector attempted to ask the assistant additional questions concerning the activities he had observed. However, the assistant stated that he had to return the camera to the licensee's vehicle immediately and would return within five minutes.

Within minutes after the assistant's departure, the quality control (QC) inspector approached the NRC inspector. The inspector informed him of the observations. The QC inspector inquired when the radiography crew was going to finish because the electricians were waiting to complete their work. After about fifteen minutes, the inspector walked back to the licensee's vehicle. Inside the dark room camper, the inspector overheard a loud conversation between the radiographer and the assistant. After a few minutes, the electrician's supervisor knocked on the door asking when his electricians could enter the tank area to complete their electrical work.

The radiographer exited the darkroom camper, while the radiographer's assistant remained inside. The radiographer stated that he needed to deliver equipment and asked if the inspector could accompany him. While recognizing that the radiographer wore a self-reading pocket ionization chamber and whole body dosimeter, the inspector observed that the individual was not wearing an alarming rate meter. The radiographer stated that he had removed it and left it in the dark room camper. As the inspector and the radiographer walked, the inspector heard the all-terrain vehicle engine start and saw the radiographer's assistant drive away. The inspector called out to the assistant. The radiographer stated that he just needed to "take the UT (ultrasound) stuff nearby" and assured the inspector he would return "right away." The QC inspector accompanied the NRC inspector and observed his inspection efforts. Meanwhile, the inspector overheard the island's two-way radio communication between individuals, including the contract electricians, questioning the whereabouts of the radiography crew. While waiting for the radiographers to return, the inspector attempted to continue his inspection by reviewing records immediately available within the licensee's vehicle, verifying the security of the

Enclosure 1

licensed material, locating the assistant radiographer's alarming rate meter, and performing independent surveys. However, the inspector could not locate the radiographer's alarming rate meter in either the vehicle cab or the darkroom camper. The wearing of an operating alarm rate meter by the radiographer (as required by 10 CFR 34.47(a)), at all times during radiographic operations is an unresolved issue pending further NRC review.

Through independent radiological surveys, the inspector verified the presence of radioactive material inside the darkroom camper, indicating that most likely the radiographic exposure device was stored within a lockbox bolted to the camper floor. The inspector also identified security findings, discussed in Inspection Report 030-11772/11-06 (non-public). The inspector and the QC inspector waited at the licensee's vehicle for approximately two hours and neither radiographer returned.

Title 10 CFR 30.52 requires the licensee to afford the Commission at all reasonable time's opportunity to inspect materials, activities, facilities, premises and records. Once the NRC inspector identified himself and discussed his initial inspection findings, both radiographers left the scene and were unavailable for interview, demonstrations of security measures, radiographic operations, and presentation of records. Although the inspector waited for approximately two hours, neither radiographer returned until the inspector boarded the passenger ferry to return to the mainland. The individuals' unavailability prevented the inspector from verifying the licensee's implementation of NRC requirements associated with the radiographic exposure device, records, radiological survey instrumentation, and personnel monitoring equipment at the temporary job site. The licensee's actions affording the Commission at all reasonable times the opportunity to inspect the premises wherein byproduct material is used is an unresolved issue pending further NRC review.

After boarding and waiting for the ferry to depart, the inspector noticed the radiographer walking towards the licensee's vehicle. The inspector observed the radiographer talking to the electricians and saw them pointing at the ferry. The radiographer approached the ferry to meet inspector. The inspector discussed his preliminary inspection findings with the individual. Once onshore, the inspector located the radiography crew's supervisor and summarized the inspection findings.

#### 2.3 <u>Conclusions</u>

The inspector identified the following unresolved issues regarding the licensee's actions: (1) affording the Commission at all reasonable times, the opportunity to perform an inspection (10 CFR 30.52); (2) permitting the performance of radiographic operations at a temporary job site with only one qualified radiographer (10 CFR 34.41(a); (3) posting a high radiation area (10 CFR 1902(b)); and (4) ensuring that an individual acting as a radiographer was wearing an operating alarm rate meter, at all times during radiographic operations (10 CFR 34.47(a)). The NRC continues to review these unresolved issues.

#### 3 Review of Records at the Spy Island Temporary Job Site

#### 3.1 Inspection Scope

The inspector reviewed documents located in plain view within the licensee's vehicle. The QC inspector accompanied the NRC inspector while he reviewed these records.

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The inspector did not have the opportunity to discuss these records with radiography personnel at the job site.

#### 3.2 Observations and Findings

The inspector reviewed the utilization log for the day's work activities, dosimeter readings, surveys, transportation/shipping paper, source information, radiography device information, and source decay tables. The inspector could not locate a copy of NRC License No. 21-16560-01 authorizing the use of licensed material; a copy of 10 CFR Parts, 19, 20, and 34 of the NRC regulations; or a copy of the licensee's operating and emergency procedures, which were required to be maintained at the job site in accordance with 10 CFR 34.89. The licensee's actions regarding maintaining copies of the license authorizing the use of licensed material; a copy of 10 CFR Parts, 19, 20, and 34 of the NRC regulations; and a copy of the licensee's operating and emergency procedures at its temporary job site located in Spy Island, Alaska is an unresolved issue pending further NRC review.

#### 3.3 <u>Conclusions</u>

The inspector identified an unresolved issue regarding the licensee's action to maintain copies of documents and records at the Spy Island job temporary job site as required by 10 CFR 34.89. This unresolved issue will continue to be reviewed by the NRC.

#### 4 Licensee's Corrective Actions

#### 4.1 Inspection Scope

The inspector reviewed the licensee's proposed corrective actions to prevent similar events. The inspector also interviewed selected licensee personnel.

#### 4.2 Observations and Findings

On July 29, 2011, NRC senior management contacted the licensee to discuss the inspector's observations and to understand the licensee's immediate actions in response to the initial inspection findings. Based on that teleconference and subsequent discussions, the NRC understood that the licensee had taken the following actions:

- During the period of July 29 August 1, 2011, the Prudhoe Bay, Alaska jobsite supervisor provided additional supervision of the crew;
- On August 1, 2011, the radiography crew had been replaced;
- The RSO initiated an investigation in Alaska on August 3, 2011;
- The radiography crew returned to the Parma, Michigan office for interviews on August 4, 2011;
- On August 2, 2011, the licensee sent a notice to its auditors, managers, and supervisors, on the importance of safety, security compliance with NRC/State regulations, JANX procedures, and complete cooperation with NRC/State Inspectors, and provided a copy of this notice to the NRC; and

• At the conclusion of its investigation, a safety bulletin/lessons learned communication was shared with all radiographic personnel. The licensee provided a copy of this communication to the NRC.

The licensee participated in teleconferences with the NRC Region III staff to provide updates on its investigation and submitted a written report of its investigation and its findings to the NRC in letter dated August 17, 2011 (ML112310830).

#### 4.3 <u>Conclusions</u>

The licensee implemented immediate corrective actions to address the inspection findings.

# 5 Exit Meeting Summary

The inspector discussed the preliminary conclusions described in this report with the supervisor for the temporary job site and the safety officer for project on July 27, 2011. The NRC management discussed the preliminary inspection findings with the licensee management during teleconferences on July 29, and August 1, 2011. The final exit meeting was conducted by telephone on November 3, 2011. The licensee acknowledged the inspection findings. The licensee did not identify any information reviewed during this inspection and selected for inclusion in this inspection report as proprietary in nature.

Attachment: Supplemental Information

# SUPPLEMENTAL INFORMATION

# PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

Individual A, Radiographer (functioning as a Radiographer's Assistant) Individual B, Radiographer \*Will Janin, Site Supervisor, Radiographer

#Steven Flickinger, Safety Director#John A. Newland, Chief Executive Officer#William Reeves, Radiation Safety Officer#Mike Porter, Operations Manager

#### Spy Island Job Site Personnel

Chad Marks, Quality Control Inspector, CH2MHILL Shay Underwood, ENI Oil & Gas Company, Construction Supervisor, Health, Safety & Environmental Tom Liverance, ENI Oil & Gas Company, Corporate Radiation Safety Officer Peter Adams, ENI Oil & Gas Company, Site Radiation Safety Officer Ron "Slim" Hablutzel, Electrician Bill Tandeski, Security Captain/Bear Watch, Oliktok Construction Camp Charles Greene, Security, NMS Purcell Security

- \* Individuals who participated in the onsite preliminary exit meeting on July 27, 2011.
- # Denotes individuals who participated in the final exit meeting conducted via telephone on November 3, 2011