

RI - DNMS Licensee Event Report Disposition

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|--------------------|-------------------------------|--------------|----------|-----------------|----------|
| Licensee: | Geoconcepts Engineering, Inc. | | | | |
| Event Description: | Lost/Stolen LNM>1000X | | | | |
| License No: | 45-25467-01 | Docket No: | 03035703 | MLER-RI: | 2011-001 |
| Event Date: | 12/02/10 | Report Date: | 12/02/10 | HQ Ops Event #: | |

1. REPORTING REQUIREMENT

| | |
|---|---|
| <input type="checkbox"/> 10 CFR 20.1906 Package Contamination <input checked="" type="checkbox"/> 10 CFR 20.2201 Theft or Loss <input checked="" type="checkbox"/> 10 CFR 20.2203 30 Day Report <input type="checkbox"/> Other | <input type="checkbox"/> 10 CFR 30.50 Report <input type="checkbox"/> 10 CFR 35.3045 Medical Event <input type="checkbox"/> License Condition |
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2. REGION I RESPONSE

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|---|--|----------------|--|----------------|--|----------------|--------------------------|--|--------------|-------------------------------------|---------------------------|
| <input type="checkbox"/> Immediate Site Inspection <input type="checkbox"/> Special Inspection <input checked="" type="checkbox"/> Telephone Inquiry <input type="checkbox"/> Preliminary Notification/Report <input checked="" type="checkbox"/> Information Entered in RI Log <input type="checkbox"/> Report Referred To: | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Inspector/Date</td> <td></td> </tr> <tr> <td>Inspector/Date</td> <td></td> </tr> <tr> <td>Inspector/Date</td> <td>Marie Miller / 12-2-2010</td> </tr> <tr> <td></td> <td>Daily Report</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Review at Next Inspection</td> </tr> </table> | Inspector/Date | | Inspector/Date | | Inspector/Date | Marie Miller / 12-2-2010 | | Daily Report | <input checked="" type="checkbox"/> | Review at Next Inspection |
| Inspector/Date | | | | | | | | | | | |
| Inspector/Date | | | | | | | | | | | |
| Inspector/Date | Marie Miller / 12-2-2010 | | | | | | | | | | |
| | Daily Report | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Review at Next Inspection | | | | | | | | | | |

3. REPORT EVALUATION

| | |
|--|---|
| <input checked="" type="checkbox"/> Description of Event <input checked="" type="checkbox"/> Levels of RAM Involved <input checked="" type="checkbox"/> Cause of Event | <div style="margin-left: 20px;"><i>in the notification</i></div> <input type="checkbox"/> Corrective Actions <input type="checkbox"/> Calculations Adequate <input type="checkbox"/> Additional Information Requested from Licensee |
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4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

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| <input type="checkbox"/> Release w/Exposure > Limits <input type="checkbox"/> Repeated Inadequate Control <input type="checkbox"/> Exposure 5x Limits <input type="checkbox"/> Potential Fatality If any of the above are involved: <input type="checkbox"/> Considered Need for IIT | <input type="checkbox"/> Deliberate Misuse w/Exposure > Limits <input type="checkbox"/> Pkging Failure>10 rads/hr or Contamination>1000x Limits <input type="checkbox"/> Large# Indivs w/Exp>Limits or Medical Deterministic Effects <input type="checkbox"/> Unique Circumstances or Safeguards Concerns <input type="checkbox"/> Considered Need for AIT |
|---|--|

Decision/Made By/Date: _____

5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

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| <input type="checkbox"/> Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose) <input type="checkbox"/> Medical Consultant Used-Name of Consultant/Date of Report: _____ <input type="checkbox"/> Medical Consultant Determined Event Directly Contributed to Fatality <input type="checkbox"/> Device Failure with Possible Adverse Generic Implications <input type="checkbox"/> HQ or Contractor Support Required to Evaluate Consequences |
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6. SPECIAL INSTRUCTIONS OR COMMENTS

Review the licensee's corrective actions (if any) during next inspection to be completed by June 2011.

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|--|--|---------------------|
| <input type="checkbox"/> Non-Public | Inspector Signature: <u>Saltan</u> | Date: <u>1/5/11</u> |
| <input checked="" type="checkbox"/> Public-SUNSI REVIEW COMPLETE | Branch Chief Initials: <u>Marie Miller</u> | Date: <u>1/5/11</u> |

| Unit | SCRAM Code | RX CRIT | Initial PWR | Initial RX Mode | Current PWR | Current RX Mode |
|------|------------|---------|-------------|-----------------|-------------|-----------------|
| 2 | N | Y | 100 | Power Operation | 100 | Power Operation |
| 3 | N | Y | 100 | Power Operation | 100 | Power Operation |

Event Text

OFFSITE NOTIFICATION OF PETROLEUM SPILL INTO THE SUSQUEHANA RIVER

"On 12/01/10, at 1359 EST, Peach Bottom Atomic Power Station reported a petroleum product spill in the discharge canal. Total quantity of substance is less than 1 quart. Lewis Environmental agency has been contacted to aid in containment and cleanup of the spill.

"This report is being submitted pursuant to 10 CFR 50.72(b)(2)(xi) and 10 CFR 72.75(b)(2)."

The spill did not reach Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reportable quantities. The licensee notified the Pennsylvania Department of Environmental Protection, United States Coast Guard, and EPA Region 3.

The NRC Resident Inspector has been notified.

* * * RETRACTION FROM E. WRIGHT TO V. KLCO ON 12/2/10 AT 1354 EST * * *

The licensee is retracting the event due to the quantity of substance released to the environment is less than the reportable quantity.

The licensee will notify the NRC Resident Inspector.

Notified R1DO (Schmidt).

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| Other Nuclear Material | Event Number: 46446 |
| Rep Org: GEOCONCEPTS ENGINEERING, INC Licensee: GEOCONCEPTS ENGINEERING, INC Region: 1 City: ASHBURN State: VA County: License #: 45-25467-01 Agreement: Y Docket: NRC Notified By: DREW THOMAS HQ OPS Officer: ERIC SIMPSON | Notification Date: 12/02/2010 Notification Time: 16:25 [ET] Event Date: 12/02/2010 Event Time: 14:00 [EST] Last Update Date: 12/02/2010 |
| Emergency Class: NON EMERGENCY 10 CFR Section: 20.2201(a)(1)(i) - LOST/STOLEN LNM>1000X | Person (Organization): WAYNE SCHMIDT (R1DO) JAMES DANNA (FSME) ILTAB VIA EMAIL () |

This material event contains a "Less than Cat 3" level of radioactive material.

Event Text

THEFT OF TROXLER MOISTURE DENSITY GAUGE

A Troxler moisture density gauge being used at Fort Meade (Maryland) was found to be stolen along with other

industrial equipment at 1400 on 12/2/10. The Troxler gauge was last seen on Monday afternoon, 11/29/10, when it was secured in a temporary storage location inside a lock-box and chained to a sea container. Other items stolen included crane mats, a generator and miscellaneous tools.

The nuclear gauge is a Troxler Model 3430, S/N 37672, which contains two radioactive sources. One source is 44 mCi of Am-241/Be (S/N 78-2430). The other source is 9 mCi of Cs-137 (S/N 77-4907).

The licensee will notify base police to begin an investigation into the theft.

The licensee has notified the State of Maryland of the theft.

THIS MATERIAL EVENT CONTAINS A "LESS THAN CAT 3" LEVEL OF RADIOACTIVE MATERIAL

Sources that are "Less than IAEA Category 3 sources," are either sources that are very unlikely to cause permanent injury to individuals or contain a very small amount of radioactive material that would not cause any permanent injury. Some of these sources, such as moisture density gauges or thickness gauges that are Category 4, the amount of unshielded radioactive material, if not safely managed or securely protected, could possibly - although it is unlikely - temporarily injure someone who handled it or were otherwise in contact with it, or who were close to it for a period of many weeks. For additional information go to http://www-pub.iaea.org/MTCD/publications/PDF/Pub1227_web.pdf

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| TOP | |
| Fuel Cycle Facility | Event Number: 46447 |
| Facility: AREVA NP INC RICHLAND RX Type: URANIUM FUEL FABRICATION Comments: LEU CONVERSION FABRICATION & SCRAP COMMERCIAL LWR FUEL Region: 2 City: RICHLAND State: WA County: PENTON License #: SNM-1227 Agreement: Y Docket: 07001257 NRC Notified By: ROBERT LINK HQ OPS Officer: JOE O'HARA | Notification Date: 12/02/2010 Notification Time: 17:39 [ET] Event Date: 12/02/2010 Event Time: 07:15 [PST] Last Update Date: 12/02/2010 |
| Emergency Class: NON EMERGENCY 10 CFR Section: PART 70 APP A (b)(2) - LOSS OR DEGRADED SAFETY ITEMS | Person (Organization): SCOTT SHAEFFER (R2DO) KING STABLEIN (NMSS) |

Event Text

URANIUM CONCENTRATION GREATER THAN EXPECTED IN GAS STRIPPER SYSTEM FOLLOWING AN ACID WASH

"Background:
 The purpose of the Ammonia Recovery Facility (ARF) facility is to recover ammonia from the ammonium diuranate (ADU) process effluent by use of a stripper column. The feed of effluent to ARF has a uranium concentration is typically less than 1 ppm. Two uranium analyzers provide assurance that the effluent uranium concentration is less than 100 ppm prior to discharge to the Ammonia Recovery process feed tank V-621.

"The ISA Summary for this process states that only minute quantities of radioactive material are present in the feed to the ARF and that there are no credible accident sequences that result in intermediate or high consequences.

"Event Description:
 On 12/02/2010 at 0715, a Process Engineer informed Nuclear Criticality Safety (NCS) that he had confirmed that an acid wash of ARF stripper column had recovered 8 kg of Uranium (U). The acid wash is expected to have removed all significant amounts of Uranium from the system. This resulted in a review of the adequacy of the ISA treatment for the ARF stripper column.



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Home > Electronic Reading Room > Document Collections > Reports Associated with Events > Event Notification Reports > 2010 > December 15

Event Notification Report for December 15, 2010

U.S. Nuclear Regulatory Commission
Operations Center

Event Reports For
12/14/2010 - 12/15/2010

**** EVENT NUMBERS ****

46446 46468 46470 46477 46480 46481

[TOP](#)

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|---|---|
| Other Nuclear Material | Event Number: 46446 |
| Rep Org: GEOCONCEPTS ENGINEERING, INC Licensee: GEOCONCEPTS ENGINEERING, INC Region: 1 City: ASHBURN State: VA County: License #: 45-25467-01 Agreement: Y Docket: NRC Notified By: DREW THOMAS HQ OPS Officer: ERIC SIMPSON | Notification Date: 12/02/2010 Notification Time: 16:25 [ET] Event Date: 12/02/2010 Event Time: 14:00 [EST] Last Update Date: 12/14/2010 |
| Emergency Class: NON EMERGENCY 10 CFR Section: 20.2201(a)(1)(i) - LOST/STOLEN LNM>1000X | Person (Organization): WAYNE SCHMIDT (R1DO) JAMES DANNA (FSME) ILTAB VIA EMAIL () |

This material event contains a "Less than Cat 3" level of radioactive material.

Event Text

THEFT OF TROXLER MOISTURE DENSITY GAUGE

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The nuclear gauge is a Troxler Model 3430, S/N 37672, which contains two radioactive sources. One source is 44 mCi of Am-241/Be (S/N 78-2430). The other source is 9 mCi of Cs-137 (S/N 77-4907).

The licensee will notify base police to begin an investigation into the theft.

The licensee has notified the State of Maryland of the theft.

* * * UPDATE FROM DREW THOMAS TO JOE O'HARA AT 0948 ON 12/14/10 * * *

On 12/10/10, FT. Meade U.S. Army base police officers informed the licensee that the stolen container had been "dumped" back onto the jobsite. The licensee responded to the site and discovered the missing gauge inside the container. The source was in the locked and shielded position inside the gauge and the gauge doesn't appear to have been damaged. The gauge has been recovered and is now in the custody of the licensee. A leak test of the gauge is scheduled to be performed.

Notified R1DO(Holody), FSME(Reis) and ILTAB.

THIS MATERIAL EVENT CONTAINS A "LESS THAN CAT 3" LEVEL OF RADIOACTIVE MATERIAL

Sources that are "Less than IAEA Category 3 sources," are either sources that are very unlikely to cause permanent injury to individuals or contain a very small amount of radioactive material that would not cause any permanent injury. Some of these sources, such as moisture density gauges or thickness gauges that are Category 4, the amount of unshielded radioactive material, if not safely managed or securely protected, could possibly - although it is unlikely - temporarily injure someone who handled it or were otherwise in contact with it, or who were close to it for a period of many weeks. For additional information go to http://www-pub.iaea.org/MTCD/publications/PDF/Pub1227_web.pdf

TOP

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| General Information or Other | Event Number: 46468 |
| Rep Org: NE DIV OF RADIOACTIVE MATERIALS Licensee: THE SCHEMMER ASSOCIATES INC Region: 4 City: LINCOLN State: NE County: License #: 01-124-01 Agreement: Y Docket: NRC Notified By: JIM DEFRAIN HQ OPS Officer: DONG HWA PARK | Notification Date: 12/09/2010 Notification Time: 09:33 [ET] Event Date: 12/08/2010 Event Time: 10:45 [CST] Last Update Date: 12/09/2010 |
| Emergency Class: NON EMERGENCY 10 CFR Section: AGREEMENT STATE | Person (Organization): MICHAEL HAY (R4DO) ANGELA MCINTOSH (FSME) |

Event Text

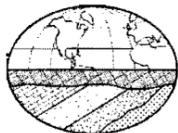
AGREEMENT STATE REPORT - DAMAGED NUCLEAR MOISTURE/DENSITY GAUGE

The following report was received via facsimile:

"Event date and time: December 8, 2010 - Time: 10:45 am

"Event location: 91st & Heritage Lake Drive, Lincoln, Nebraska, 685

"Event description: The licensee possesses a Humboldt Scientific, Inc. Model 5001-EZ 122 Nuclear Moisture/Density Gauge Serial Number 2027. On December 8, 2010, the gauge was being used at a construction site just east of Lincoln, NE. The operator of the gauge had started a test when he was distracted by another worker asking questions. During that time a front end loader backed into the gauge and broke the stationary guide rod. No other damage was observed to the gauge. The area was secured and radiation surveys as well as a leak test were performed. No unusual readings were observed. The source rod was secured in to safe position in the gauge housing and the gauge was place in the transport case for return to the licensee's office. No personnel were exposed to radiation during this event."



December 29, 2010

RECEIVED
REGION 1
JAN - 3 PM 12: 46

Ms. Marie Miller
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

**Subject: Incident Report, Theft of Portable Gauge, DISA Project,
Fort Meade, Fort Meade, Maryland**

Dear Ms. Miller:

GeoConcepts Engineering, Inc. (GeoConcepts) currently holds a materials license (No. 45-25467-01) to possess and store nuclear field moisture/density gauges that was granted by your office. During licensed activities at the above referenced project, one of our gauges was removed from the site without our knowledge during a theft of construction equipment. The following is a chronological account of the incident and our response.

December 2, 2010 at about 13:00 – GeoConcepts field representative, Mr. Terrance Whalen, visited the above site after a two day weather related shut-down to perform an inventory of the gauge and its contents. The gauge was being stored locked in its transport container, the transport container was in a locked job box that was chained and locked to a large steel "sea container". Upon his arrival, Mr. Whalen noticed that the job box was missing. Mr. Whalen immediately spoke with the job site superintendent to see if the box had been moved since the project was winding down. When Mr. Whalen was told that the box was not moved, Mr. Whalen telephoned Mr. Eaton King (his immediate supervisor) to notify Mr. King that the gauge may have been taken.

December 2, 2010 at about 14:20 – Mr. King notified me (RSO) of the potential incident and at my request left our office to visit the Fort Meade site to investigate the situation. While on the road, Mr. King telephoned Mr. Whalen and asked that he and the general contractor's staff search the entire job site for the missing gauge.

December 2, 2010 at about 16:00 – Mr. King telephoned me to indicate that the gauge was not on-site and that it appeared that the job box that contained the gauge was taken sometime between the time it was stored in the job box on November 29, 2010 and Mr. Whalen's arrival on December 2, 2010.

December 2, 2010 at 16:25 – Mr. Thomas called the U.S. Nuclear Regulatory Commission to report the incident (Notification No. 46446). After notifying the NRC, Mr. Thomas notified Fort Meade Base Police of the theft and Mr. King met with Sgt. Mullen of the Fort Meade Base Police.

December 2, 2010 at 16:45 – Mr. Thomas telephoned the Maryland Department of the Environment as a courtesy to inform them of the theft of a gauge that may have been taken into the State of Maryland.

December 3, 2010 at about 9:00 – Mr. Thomas telephoned the Commonwealth of Virginia to advise them of the theft of a gauge. This was also done as a courtesy since we hold a Virginia License to store and use gauges in Virginia and that our home office is in Virginia.

December 10, 2010 at about 11:00 – Mr. King was notified by Base Police at Fort Meade that they had recovered the locked transport case for a nuclear density gauge with GeoConcepts' name on it. Mr. King asked that they cut the lock and verify that the gauge was in the case. Fort Meade police indicated the gauge was in the box. Mr. King notified me that the gauge had been recovered and I dispatched Mr. King to the Fort Meade site to retrieve the gauge.

December 10, 2010 at about 12:10 – Mr. King retrieved the gauge. He noted that the trigger lock was still in place. He inspected the gauge for any signs that the gauge had been tampered with by observing the gauge housing and the condition of the end of the source rod. When Mr. King determined that there were no outward signs of tampering, he locked the gauge properly into the back of his company pick-up truck and returned to our office with the gauge.

December 10, 2010 at 12:40 – Mr. Thomas notified the NRC, State of Maryland, and the Commonwealth of Virginia via e-mail that our gauge had been recovered.

December 14, 2010 at 09:28 – Mr. Thomas telephoned the NRC call-in center to notify them that our gauge was recovered. Also on this day, a portable radiation detector was used to scan the gauge to confirm the presence of radioactive material in the gauge. Radiation testing confirmed that radioactive material was in the gauge. As a final step, the gauge was leak tested and the results did not indicate that the gauge was considered to be leaking. Leak test results are attached to this report. This gauge has been placed back in service.

We regret that this incident has occurred. GeoConcepts is committed to operating under our license in a manner that protects the safety of our employees and the general public. Please contact me if there is any other information regarding this incident that your office may need.

Sincerely,

GEOCONCEPTS ENGINEERING, INC.



R. Drew Thomas, CPG
Radiation Safety Officer

Copy: Mr. Mike Welling
Commonwealth of Virginia
Department of Health

Mr. Ray Manley
State of Maryland
Department of the Environment

RDT/dcr
N:\CPS\Radiation-Nuclear Gauge Issues\Incident Report, 12-2-10.doc

NETS

North East Technical Services, Inc.
75 Aileron Ct., Suite 4
Westminster, MD 21157
Ph: 410.751.5090 Fax: 410.751.5091

Geo Concepts Engineering, Inc.
19955 Highland Vista Dr., Ste 170
Ashburn, VA 20147
ATTN: Shawn Harris

*Shipping Address: 19955 Highland Vista Dr., Ste 170
Ashburn, VA 20147*

LEAK TEST CERTIFICATE

MD Materials License # MD-13-020-01

This certifies that leak test analysis was conducted on the sample with the following information. The results shown below accurately represent the level of removable contamination.

| Gauge Model | 3430 | Gauge S/N | 37672 | Leak Test Date | 12/14/2010 |
|--------------------|---------------|------------------|-------------------------------|-----------------------|-------------------|
| | Source | | Reading in microCuries | | |
| | 77-4907 | | 0.00001058 | | |
| | 78-2430 | | 0.00000 | | |

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by: *Douglas Sizemore* **Date:** DEC 18 2010

Tuesday, December 21, 2010