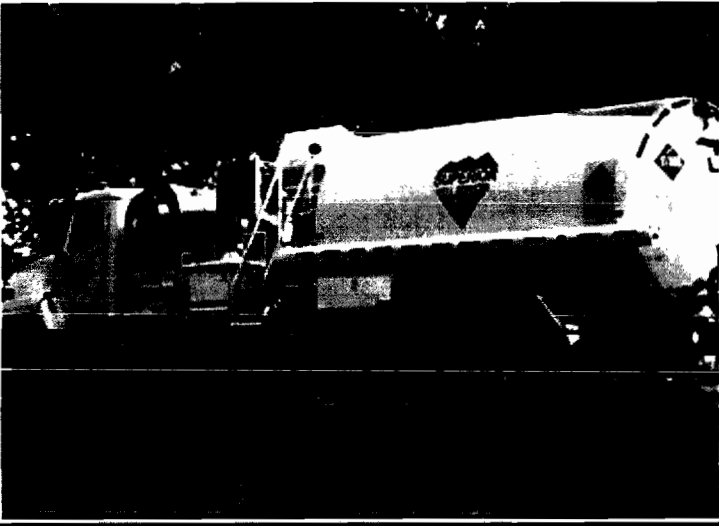
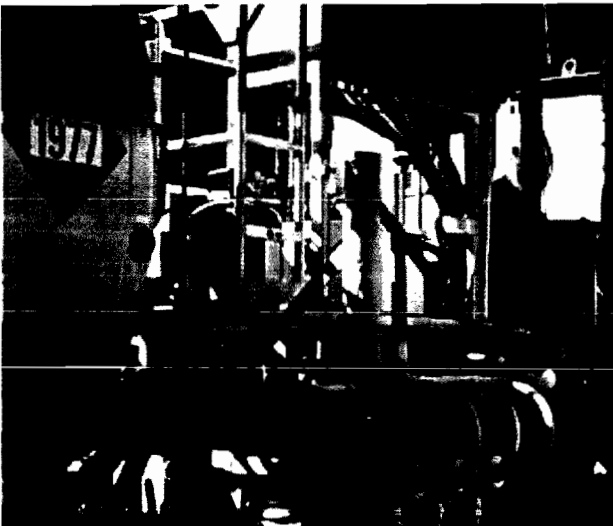


10-211402-1
97-30412-1
2009/002



Superior Well Services Predecisional Enforcement Conference

September 2, 2010

Apparent Violations of NRC Requirements



- 1. Failure to perform radiological surveys of the vehicle before transporting licensed material required by 10 CFR 39.67;**
- 2. Deliberate failure to maintain a complete and accurate record of the radiation surveys required by 10 CFR 39.67, in accordance with 10 CFR 30.9;**
- 3. Failure to control and maintain constant surveillance of licensed material that was in an unrestricted area as required by 10 CFR 20.1802;**
- 4. Failure to make an immediate report to NRC of missing licensed material that was greater than 1000 times the quantity of Appendix C, when it became known to SWS, as required by 10 CFR 20.2201;**
- 5. Failure to provide complete information in statements to the NRC inspector, regarding the circumstances of the September 20, 2008 event, as required by 10 CFR 30.9. The information provided in these statements was considered material to the NRC;**
- 6. Failure to block and brace packages containing licensed radioactive material from shifting during transport, as required by 10 CFR 71.5 and 49 CFR 173.448; and**
- 7. Failure to maintain records of annual audit of its radiation safety program, as required by 10 CFR 20.2202 (20.1101c)**

Apparent Violations of NRC Requirements



In accordance with NRC Information Notice 96-28, Superior Well Services has conducted a complete and thorough review of the circumstances that lead to each of the potential violations, identified the root cause of each of the potential violations and have taken prompt and comprehensive corrective action that address the immediate concerns associated with the potential violations and will prevent recurrence of the potential violations.

The following is a slide by slide account of the potential violations with each of their respective corrective actions.

Apparent Violation # 1



Superior Well Services contests that there was a failure to perform radiological surveys of the vehicle before transporting licensed material.

10 CFR 39.67 states:

(b) Before transporting licensed materials, the licensee shall make a radiation survey of the position occupied by each individual in the vehicle and of the exterior of each vehicle used to transport the licensed materials.

VEHICLE SURVEY

BEFORE LEAVING		
STATION	JOB SITE	MPH
1	1.5	MPH
2	1.5	MPH
3	1.4	MPH
4	1.3	MPH
5	1.2	MPH
6	1.1	MPH

Vehicle ID: #0230

The diagram shows a side view of a vehicle with a rounded roof. Six numbered points are marked: 1 is at the top center of the roof; 2 is at the bottom center of the body; 3 is on the right side of the body; 4 is on the left side of the body; 5 is on the left side of the roof; and 6 is on the right side of the roof.

Apparent Violation # 1



10 CFR 39.67 states:

(c) If the sealed source assembly is removed from the logging tool before departure from the temporary jobsite, the licensee shall confirm that the logging tool is free of contamination by energizing the logging tool detector or by using a survey meter.

SURVEY OF LOGGING TOOL SOURCE IMMEDIATELY FOLLOWING OPERATIONS: 101 MPMPL © Surface of tool

Apparent Violation # 1



10 CFR 39.67 states:

(f) The results of surveys required under paragraphs (a) through (e) of this section must be recorded and must include the date of the survey, the name of the individual making the survey, the identification of the survey, instrument used, and the location of the survey. The licensee shall retain records of surveys for inspection by the Commission for 3 years after they are made.

Date of the Survey



JOB SITE AND VEHICLE SURVEY

WELL NAME W-1577

COUNTY: Ritchie

DATE 7-20-08

The Name of the Individual Making the Survey



Person on Job: <i>Ken Howell</i>	Supervisor: <i>Mark Lewis</i>
Signature of Person on Job: <i>Ken Howell</i>	Supervisor Signature: <i>Mark Lewis</i>

The Identification of the Survey



JOB SITE AND VEHICLE SURVEY

WELL NAME: W-1577 COUNTY: Ritchie DATE: 7-20-08

Instrument Used



SURVEY METER INFORMATION			
Manufacturer:	Ludlum	Model Number:	3
		Serial No:	158930
Calibration Date:	5-26-08	Calibration Due Date:	11-26-08
RADIOACTIVE SOURCES			

Location of the Survey



VEHICLE SURVEY

A simple line drawing of a vehicle's front view. Point 1 is at the top left corner of the windshield. Point 2 is at the bottom center of the front bumper. Point 3 is at the bottom right corner of the front bumper. Point 4 is at the top center of the roof.

BEFORE LEAVING		
STATION	JOB SITE	
1	1.3	MPRHR
2	.03	MPRHR
3	1.04	MPRHR
4	.03	MPRHR
5	1.02	MPRHR
6	1.02	MPRHR

Vehicle ID: #0230

JOB SITE AND VEHICLE SURVEY

WELL NAME: W-1577 COUNTY: Ritchie DATE: 7-20-08

SURVEY METER INFORMATION

Manufacturer: Ludlum Model Number: 3 Serial No: 158930
 Calibration Date: 5-20-08 Calibration Due Date: 11-20-08

RADIOACTIVE SOURCES

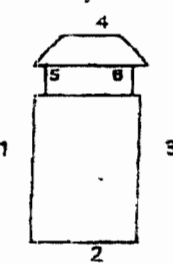
Isotope: Am. Be. 241 Activity: 111 GBq Serial #: 71-1-367B
 Isotope: Cs. 137 Activity: 74 GBq Serial #: CSV-J11

VISUAL INSPECTION MADE

✓ Indicates no defects found.

Source Holder Source Handling Tool Logging Tool

VEHICLE SURVEY

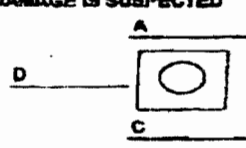


BEFORE LEAVING		
STATION	JOB SITE	MR/HR
1	1.5	1.3
2	.05	.04
3	1.04	1.03
4	.03	1.02
5	1.02	1.01
6	1.02	1.01

Vehicle ID: #0230

WELL HEAD SURVEY

AFTER: IF DAMAGE IS SUSPECTED



SURVEY OF LOGGING TOOL/SOURCE (IMMEDIATELY FOLLOWING OPERATIONS): .01 MR/HR @ Surface of tool

Riggers on Job: Ken Howell Supervisor: Mark Lewis

Signature of Rigger on Job: Ken Howell Supervisor Signature: Mark Lewis

Apparent Violation # 1 - Corrective Action



In order to prevent any future issues related to the performance of radiological surveys of the vehicles before transporting licensed material, Superior Well Services has increased the focus on vehicle surveys during New-Hire and Annual Radiation Training.

Superior Well Services' management personnel are also pulling random shipping paper and survey report inspections to ensure that surveys are being completed and documented before transporting licensed material.

Apparent Violation # 2



Superior Well Services contests that there was a deliberate failure to maintain a complete and accurate record of radiation surveys.

Surveys dated 9/15/08, 9/19/08 and 9/20/08, which were reviewed during the inspection, and two additional surveys dated 9/16/08 and 9/21/08 were pulled and the data was compared in an attempt to determine if the surveys appeared to be completed and documented without actually performing the surveys. The results of the data comparison are as follows:

Shipping Paper Survey Readings				
Unit	Date	Station	Jobsite	Location
670	9/15/2008	1.5	1.3	Driver's Side of Box
670	9/16/2008	1.5	1.3	Driver's Side of Box
670	9/19/2008	1.5	1.3	Driver's Side of Box
670	9/20/2008	1.5	1.3	Driver's Side of Box
670	9/21/2008	0.04	0.03	Driver's Side of Box
670	9/15/2008	0.03	0.04	Rear of Box
670	9/16/2008	0.03	0.04	Rear of Box
670	9/19/2008	0.05	0.04	Rear of Box
670	9/20/2008	0.05	0.04	Rear of Box
670	9/21/2008	0.05	0.04	Rear of Box
670	9/15/2008	0.04	0.03	Passenger's Side of Box
670	9/16/2008	0.04	0.03	Passenger's Side of Box
670	9/19/2008	0.04	0.03	Passenger's Side of Box
670	9/20/2008	0.04	0.03	Passenger's Side of Box
670	9/21/2008	1	1.3	Passenger's Side of Box
670	9/15/2008	0.03	0.02	Front of Truck
670	9/16/2008	0.03	0.02	Front of Truck
670	9/19/2008	0.03	0.02	Front of Truck
670	9/20/2008	0.03	0.02	Front of Truck
670	9/21/2008	0.03	0.02	Front of Truck
670	9/15/2008	0.02	0.02	Driver's Seat
670	9/16/2008	0.02	0.02	Driver's Seat
670	9/19/2008	0.02	0.01	Driver's Seat
670	9/20/2008	0.02	0.01	Driver's Seat
670	9/21/2008	0.02	0.01	Driver's Seat
670	9/15/2008	0.02	0.01	Passenger's Seat
670	9/16/2008	0.02	0.01	Passenger's Seat
670	9/19/2008	0.02	0.01	Passenger's Seat
670	9/20/2008	0.02	0.01	Passenger's Seat
670	9/21/2008	0.02	0.01	Passenger's Seat

JOB SITE AND VEHICLE SURVEY

WELL NAME: Collins #1 COUNTY: Calhoun, WV DATE: 9-15-2008

SURVEY METER INFORMATION

Manufacturer: Lydium Model Number: 3 Serial No: 158930

Calibration Date: 5-20-08 Calibration Due Date: 11-20-08

RADIOACTIVE SOURCES

Isotope: Am. Ba, 241 Activity: 111 GBq Serial #: 71-1-387B

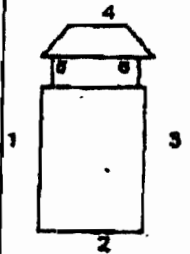
Isotope: Ca. 137 Activity: 74 GBq Serial #: GSV-111

VISUAL INSPECTION MADE

✓ indicates no defects found.

Source Holder Source Handling Tool Logging Tool

VEHICLE SURVEY

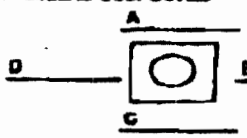


BEFORE LEAVING		
STATION	JOB SITE	
1	1.5	MPMR
2	.03	MPMR
3	.04	MPMR
4	.03	MPMR
5	.02	MPMR
6	.02	MPMR

Vehicle ID: 60230

WELL HEAD SURVEY

AFTER: IF DAMAGE IS SUSPECTED



SURVEY OF LOGGING TOOL/SOURCE IMMEDIATELY FOLLOWING OPERATIONS: 01 MPMR. @ Surface of tool

Flags on Job: Bill Wolfe, Ken Howell Supervisor: Mark Lewis

Signature of Flagger on Job: Kenneth Howell Supervisor Signature: [Signature]

JOB SITE AND VEHICLE SURVEY

WELL NAME: Howell #3 COUNTY: WESTMORELAND DATE: 9-16-2008
SURVEY METER INFORMATION

Manufacturer: Ludlum Model Number: 3 Serial No: 158930
Calibration Date: 5-20-08 Calibration Due Date: 11-20-08

RADIOACTIVE SOURCES

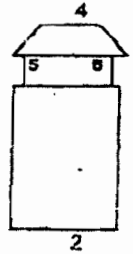
Isotope: Am. Be. 241 Activity: 111 GBq Serial #: 71-1-367B
Isotope: Cs. 137 Activity: 74 GBq Serial #: CSV-111

VISUAL INSPECTION MADE

√ Indicates no defects found.

Source Holder Source Handling Tool Logging Tool

VEHICLE SURVEY

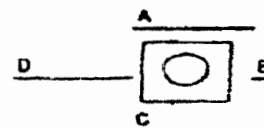


BEFORE LEAVING		
STATION	JOB SITE	MR/HR
1	1.5	1.3
2	1.05	1.07
3	0.4	0.3
4	1.03	1.02
5	0.02	0.02
6	0.02	0.01

Vehicle ID: #0230

WELL HEAD SURVEY

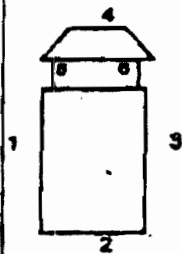
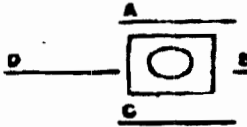
AFTER: IF DAMAGE IS SUSPECTED

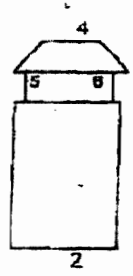
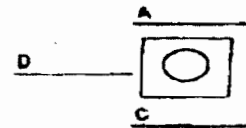


SURVEY OF LOGGING TOOL/SOURCE IMMEDIATELY FOLLOWING OPERATIONS: 01 MR/HR. @ Surface of tool

Riggers on Job: Bill Wolfe, Ken Howell Supervisor: Mark Lewis

Signature of Rigger on Job: Kenneth Howell Supervisor Signature: [Signature]

JOB SITE AND VEHICLE SURVEY																									
WELL NAME: <u>W-1577</u>	COUNTY: <u>Ritchie</u>	DATE: <u>9-19-2008</u>																							
SURVEY METER INFORMATION																									
Manufacturer: <u>Lydium</u>	Model Number: <u>3</u>	Serial No: <u>158930</u>																							
Calibration Date: <u>5-20-08</u>	Calibration Due Date: <u>11-20-08</u>																								
RADIOACTIVE SOURCES																									
Isotope: <u>Am. Be. 241</u>	Activity: <u>111 GBq</u>	Serial #: <u>71-1-387B</u>																							
Isotope: <u>Ca. 137</u>	Activity: <u>74 GBq</u>	Serial #: <u>GRV-111</u>																							
VISUAL INSPECTION MADE																									
√ Indicates no defects found.																									
Source Holder <input checked="" type="checkbox"/>	Source Handling Tool <input checked="" type="checkbox"/>	Logging Tool <input checked="" type="checkbox"/>																							
<p style="text-align: center;">VEHICLE SURVEY</p> <div style="display: flex; align-items: center;">  <table border="1" style="border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="3">BEFORE LEAVING</th> </tr> <tr> <th>STATION</th> <th>JOB SITE</th> <th>MPHR</th> </tr> </thead> <tbody> <tr><td>1</td><td>1.5</td><td>1.3</td></tr> <tr><td>2</td><td>.05</td><td>.04</td></tr> <tr><td>3</td><td>.04</td><td>.03</td></tr> <tr><td>4</td><td>.03</td><td>.02</td></tr> <tr><td>5</td><td>.02</td><td>.01</td></tr> <tr><td>6</td><td>.02</td><td>.01</td></tr> </tbody> </table> </div> <p style="margin-top: 20px;">Vehicle ID: <u>00230</u></p>	BEFORE LEAVING			STATION	JOB SITE	MPHR	1	1.5	1.3	2	.05	.04	3	.04	.03	4	.03	.02	5	.02	.01	6	.02	.01	<p style="text-align: center;">WELL HEAD SURVEY</p> <p style="text-align: center;">AFTER: IF DAMAGE IS SUSPECTED</p> <div style="text-align: center;">  </div>
BEFORE LEAVING																									
STATION	JOB SITE	MPHR																							
1	1.5	1.3																							
2	.05	.04																							
3	.04	.03																							
4	.03	.02																							
5	.02	.01																							
6	.02	.01																							
SURVEY OF LOGGING TOOL/SOURCE IMMEDIATELY FOLLOWING OPERATIONS: <u>01</u> MPHR @ Surface of tool																									
Rigger on Job: <u>Bill Wolfe, Ken Howell</u> Supervisor: <u>Mark Lewis</u>																									
Signature of Rigger on Job: <u>Ken Howell</u> Supervisor Signature: <u>[Signature]</u>																									

JOB SITE AND VEHICLE SURVEY																											
WELL NAME: <u>W-1577</u>	COUNTY: <u>Ritchie</u>	DATE: <u>7-20-08</u>																									
SURVEY METER INFORMATION																											
Manufacturer: <u>Ludlum</u>	Model Number: <u>3</u>	Serial No: <u>158930</u>																									
Calibration Date: <u>5-20-08</u>	Calibration Due Date: <u>11-20-08</u>																										
RADIOACTIVE SOURCES																											
Isotope: <u>Am. Be. 241</u>	Activity: <u>111 GBq</u>	Serial #: <u>71-1-367B</u>																									
Isotope: <u>Cs. 137</u>	Activity: <u>74 GBq</u>	Serial #: <u>CSV-J11</u>																									
VISUAL INSPECTION MADE																											
√ Indicates no defects found.																											
Source Holder <input checked="" type="checkbox"/>	Source Handling Tool <input checked="" type="checkbox"/>	Logging Tool <input checked="" type="checkbox"/>																									
VEHICLE SURVEY	WELL HEAD SURVEY																										
 <p style="text-align: center;">Vehicle ID: #0230</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="text-align: center;">BEFORE LEAVING</th> </tr> <tr> <th style="width: 20%;">STATION</th> <th style="width: 40%;">JOB SITE</th> <th style="width: 40%;">MR/HR</th> </tr> </thead> <tbody> <tr><td>1</td><td>1.5</td><td>1.3</td></tr> <tr><td>2</td><td>1.5</td><td>.04</td></tr> <tr><td>3</td><td>1.4</td><td>.03</td></tr> <tr><td>4</td><td>.03</td><td>1.02</td></tr> <tr><td>5</td><td>1.02</td><td>1.01</td></tr> <tr><td>6</td><td>1.02</td><td>1.01</td></tr> </tbody> </table>	BEFORE LEAVING			STATION	JOB SITE	MR/HR	1	1.5	1.3	2	1.5	.04	3	1.4	.03	4	.03	1.02	5	1.02	1.01	6	1.02	1.01	<p style="text-align: center;">AFTER: IF DAMAGE IS SUSPECTED</p> 	
BEFORE LEAVING																											
STATION	JOB SITE	MR/HR																									
1	1.5	1.3																									
2	1.5	.04																									
3	1.4	.03																									
4	.03	1.02																									
5	1.02	1.01																									
6	1.02	1.01																									
SURVEY OF LOGGING TOOL/SOURCE IMMEDIATELY FOLLOWING OPERATIONS: <u>.01</u> MR/HR @ Surface of tool																											
Riggers on Job: <u>Ken Howell</u>		Supervisor: <u>Mark Lewis</u>																									
Signature of Rigger on Job: <u>Ken Howell</u>		Supervisor Signature: <u>Mark Lewis</u>																									

JOB SITE AND VEHICLE SURVEY

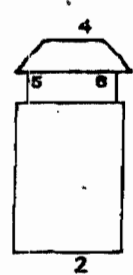
WELL NAME: Bennett #14 COUNTY: Lewis DATE: 9-21-2008

SURVEY METER INFORMATION
Manufacturer: Ludlum Model Number: 3 Serial No: 158930
Calibration Date: 5-20-08 Calibration Due Date: 11-20-08

RADIOACTIVE SOURCES
Isotope: Am. Be. 241 Activity: 111 GBq Serial #: 71-1-387B
Isotope: Cs. 137 Activity: 74 GBq Serial #: CSV-J11

VISUAL INSPECTION MADE
√ Indicates no defects found.
Source Holder Source Handling Tool Logging Tool

VEHICLE SURVEY

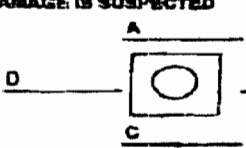


BEFORE LEAVING		
STATION	JOB SITE	MR/HR
1	0.04 .03	MR/HR
2	1.05 .04	MR/HR
3	1.08 .03	MR/HR
4	1.08 .02	MR/HR .02
5	.02	MR/HR
6	.02	MR/HR

Vehicle ID: #0200 #0670

WELL HEAD SURVEY

AFTER: IF DAMAGE IS SUSPECTED



SURVEY OF LOGGING TOOL/SOURCE IMMEDIATELY FOLLOWING OPERATIONS: 1.01 MR/HR @ Surface of tool

Riggers on Job: Ken Howell Supervisor: Mark Lewis

Signature of Rigger on Job: Kenneth W Howell Supervisor Signature: Mark Lewis

Apparent Violation # 2 – Corrective Action



To avoid any future issues associated with maintaining a complete and accurate record of radiation surveys and to verify that each applicable employee possesses the required knowledge to operate a survey meter, Superior Well Services has adjusted the Logging Supervisor and Logging Assistant Training in 2010. The 2010 training exam has a specific “sign-off” receipt acknowledging receipt of training.

2010 RADIATION TRAINING – LOGGING SUPERVISOR

I, _____ have been trained in the operation, use and Maintenance of a Geiger Counter (survey meter). If I have any questions in regards to its operation, use and maintenance I will ask my supervisor.

Printed Name: _____

Signature: _____

Date: _____



2010

ANNUAL RADIATION TRAINING

Print Name: David Lewis	
Signature: David Lewis	
Date: 11-16-2010	SS#: XXXXXXXXXX MM
Location: Truck Harbor	Department: 25-60
Supervisor: David Lewis	

2010 RADIATION TRAINING - LOGGING SUPERVISOR

I, David Lewis have been trained in the operation, use and Maintenance of a Geiger Counter (survey meter). If I have any questions in regards to its operation, use and maintenance I will ask my supervisor.

Printed Name: David Lewis

Signature: [Handwritten Signature]

Date: 3-16-2010



2010

ANNUAL RADIATION TRAINING

Print Name: Exam Key <i>MARIS LEWIS</i>	
Signature: <i>Maris Lewis</i>	
Date: 2008 <i>3/16/2010</i>	SS#: XXXXXXXXXX
Location: <i>3FG BUCKHAMPTON WELLS</i>	Department: HSE <i>Don Miles</i>
Supervisor: <i>Don Miles</i>	

MTM

2010 RADIATION TRAINING – LOGGING SUPERVISOR

I, MARK LEWIS have been trained in the operation, use and Maintenance of a Geiger Counter (survey meter). If I have any questions in regards to its operation, use and maintenance I will ask my supervisor.

Printed Name: MARK LEWIS

Signature: Mark Lewis

Date: 3/16/2010



2010

ANNUAL RADIATION TRAINING

Print Name: <i>Alan Hill</i>	
Signature: <i>[Signature]</i>	
Date: <i>3/16/10</i>	SS#: XXXXXXXXXX <i>MDM</i>
Location: <i>Buckhorn</i>	Department: <i>35-60</i>
Supervisor: <i>Buckhorn</i>	

2010 RADIATION TRAINING – LOGGING ASSISTANT

21. Explain the term reciprocity and identify when it is necessary.
Notify authorities of sources in their ground
22. How can I establish a safe boundary surrounding my radioactive material following an accident?
200 yd boundary
23. What is an Agreement State?
State with agreement
24. When are documented radiation surveys required? *every 7 days*
25. Federal and state regulators have imposed increased sanctions on controlling radioactive materials. Give two examples.

locks
locks

I, John Doe, have been trained in the operation, use and Maintenance of a Geiger Counter (survey meter). If I have any questions in regards to its operation, use and maintenance I will ask my supervisor.

Printed Name: John Doe

Signature: John Doe

Date: 3/1/10



2010

ANNUAL RADIATION TRAINING

Print Name: L. Hymen Wink	
Signature: L. Hymen Wink	
Date: 3-16-2010	SS#: XXXXXXXXXX 7MAM
Location: Buckhanna	Department: 35-75
Supervisor: Mark Lewis	

2010 RADIATION TRAINING - LOGGING ASSISTANT

21. Explain the term reciprocity and identify when it is necessary.
OUTSIDE FI OUT OF STATE
22. How can I establish a safe boundary surrounding my radioactive material following an accident?
NOTIFIED STATE MINIMUM NOTIFICATION
23. What is an Agreement State?
2M or Beyond and STATE REG
24. When are documented radiation surveys required?
SHIP AND JOB
25. Federal and state regulators have imposed increased sanctions on controlling radioactive materials. Give two examples.

2 Lock
CAMERA

I, LAYMAN WIAW have been trained in the operation, use and Maintenance of a Geiger Counter (survey meter). If I have any questions in regards to its operation, use and maintenance I will ask my supervisor.

Printed Name: LAYMAN WIAW

Signature: Layman Wiauw

Date: 3-16-2010

Apparent Violation # 3 – Corrective Action



Load securement and radioactive material security, as it relates to control and constant surveillance, was addressed company wide by Marty Comini, Wireline General Manager, on 7/22/09 in an email to the wireline managers titled “Source Securement 7-22-09”. This email was followed by a second email, sharing the same title, on 11/9/09 requesting that each location submit a picture of their wireline unit with the corrective action in place. The pictures were reviewed by Marty Comini and Lew Cessna to ensure that the intent of the request had been met. By ensuring that proper load securement is in place, Superior Well Services can eliminate the possibility of sources of radioactive material becoming separated from the wireline truck which, in turn, eliminates the possibility of failure to control and maintain constant surveillance of licensed material in an unrestricted area.

On an annual basis, Superior Well Services conducts Field Audits to inspect the field based performance of its logging supervisors and logging assistants. Control and constant surveillance of the source from the transport shield to the wireline tool on the rig floor is reviewed during this audit.

In addition, Superior Well Services has been discussing and will continue to discuss load securement and radioactive material security with Logging Supervisors and Logging Assistants during training.

Lewis Cessna

From: Marty Comini
Sent: Monday, November 09, 2009 9:01 AM
To: Shane Russell; Josh Atkins; Brad Posner; Donald Miles; Joe Wohlscheid; Richard Carpenter; Randall Caudill; Jerry Allen; Roger Taylor; Dan Gottschalk; Kent Hensley; Gabriel Villanueva; Michael Helfrey; tedwards; Travis Fry
Cc: Samuel Hockenberry; Lewis Cessna
Subject: FW: Source Securement 7-22-09

Gentlemen,

Late July I had sent out an email in regards to a near miss that had happened with sources attached to logging trucks. I have a schedule NRC meeting setup for Dec. 1st in regards to this issue. I need to confirm that his has been addressed company-wide and this problem should not resurface.

Please respond with a report (pictures are always well received by the NRC) that all logging units (carrying sources) have been inspected and corrected with the spot welding -to- full welding. Also, all of our units are properly setup with 2 locking mechanisms for carrying sources.

Let me know if you have any questions.

I would like to have these report by the end of this week.

Thank you,



Marty Comini - G.M. Wireline
 Superior Well Services
 1380 Rt. 286 East, Suite # 121
 Indiana, PA 15701
 Office 724-465-8904
 Home Office: 724-942-4526
 Fax# 1-724-942-4716
 Cell # [REDACTED]
mcomini@swsi.com

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From: Marty Comini
Sent: Wednesday, July 22, 2009 12:16 PM
To: Shane Russell; Donald Miles; Richard Carpenter; Randall Caudill; Jerry Allen; Josh Atkins; Dan Gottschalk; Roger Taylor; tedwards; Brad Posner; Michael Helfrey; Steve Wigley
Cc: Lewis Cessna; John Srock
Subject: FW: Source Securement 7-22-09

Gentlemen,

Please review Lew's email below.

8/30/2010

We recently had a near miss with a source plate parting from its tack weld spots (all 4 corners). Since then , the location had the source plates completely welded all around the plate. Also the sources are chained and locked to a structure member of the logging box.

Please review your trucks for this situation. If they need to be welded, please address this need through maintenance.

Thanks,



Marty Comini - G.M. Wireline
 Superior Well Services
 1380 Rt. 286 East, Suite # 121
 Indiana, PA 15701
 Office 724-465-8904
 Home Office: 724-942-4526
 Fax# 1-724-942-4716
 Cell # [REDACTED]
mcomini@swsi.com

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From: Lew Cessna [<mailto:lcessna@swsi.com>]
Sent: Wednesday, July 22, 2009 11:34 AM
To: mcomini@swsi.com
Subject: Source Securement 7-22-09

Marty,

Just a reminder that we are required to follow load securement procedures with all of our sources of radiation. All sources must be secured by two independent forms of tangible barrier security. What we've seen so far that has worked is as follows...

- Welding the transport shield brackets to the radiation compartment floor (completely welded because tack welds can break)
- Chaining the transport shields to a structural member of the wireline unit (not just chaining the transport shields together)
- Padlocking the door to the transport shields
- Locking the T-handle on the radiation compartment door
- Padlocking a hasp lock as a secondary form of security/securement on the exterior of the radiation compartment door

Variations are acceptable, but we need to ensure that we meet the security requirements for all of our sources during transport and storage along with load securment requirements during transport.

Please let me know if you have any questions in regards to this issue.

Lew Cessna
HSE Coordinator
Superior Well Services
724-465-8904 ext.138 Office
724-840-8541 Mobile

8/30/2010



Annual Radiation Audit and Review

Well Logging Location: _____ Date: _____
 Logging Supervisor: _____ Time: _____
 Logging Assistants: _____
 Inspector: _____
 Job Site Location: _____

Yes	No	Questions
		Film, TLD or OSL badge available and properly worn?
		Individuals working within the restricted area wearing TLD, OSL or film badges or dosimeters?
		Restricted areas properly controlled to prevent unauthorized entry?
		Calibrated and properly operating survey meter and evidence of its latest calibration available?
		Latest survey records as required by paragraphs 10 CFR 39.67(b), (c) and (e) available? <ul style="list-style-type: none"> • Measurements of positions occupied in transport vehicle • Measurement of vehicle exterior • Contamination check of well logging tool prior to transport • Measurements before and after subsurface tracer use
		Shipping papers for transportation of radioactive material available and properly completed?
		Utilization log properly completed?
		Defective well logging equipment being used?
		Copy of the SWS Radiation Safety Manual available at the site?
		Radioactive isotopes stored and properly secured to prevent unauthorized removal?
		Storage area properly posted with "Caution or Danger Radioactive Material" Signs?
		Additional items of noncompliance noted during this audit? (Explain in remarks)

Remarks: _____

Apparent Violation # 4 – Corrective Action



A section specifically focused on notification has been added to both the logging assistant's and logging supervisor's exams for the 2010 training year. The intent of the specific training is to ensure that each openhole employee is aware of the notification requirements for lost or stolen sources.

- 3. If a neutron source and a density source fall off of a truck while headed back to the shop along an interstate highway, it is the responsibility of the driver, the supervisor, the LRSO or the Corporate RSO to contact the USNRC or Agreement State immediately.**

True / False



2010

ANNUAL RADIATION TRAINING

Print Name: Exam Key <i>MARIS LEWIS</i>	
Signature: <i>Maris Lewis</i>	
Date: 2008 <i>1/16/2010</i>	SS#: XXXXXXXXXX <i>MTM</i>
Location: <i>356 BUCKHAMMILL WELLS</i>	Department: HSE <i>DOY MILES</i>
Supervisor: <i>DOY MILES</i>	

2010 RADIATION TRAINING – LOGGING SUPERVISOR

1. The fundamental particles that make up an atom are:
a. alpha, beta, gamma b. alpha, neutron, positron
c. proton, meson, electron d. proton, neutron, electron

2. The following are examples of industrial applications of ionizing radiation except for:
a. thickness gauges b. static eliminators
c. contact lenses d. well logging devices

3. Dose rate is the rate at which radiation is measured, usually noted in uRem/hr, mrem/hr or rem/hr.
True / False

4. An area where the whole body could receive in excess of 100 mrem in one hour from a distance of 30 cm from the source must be posted as:
a. airborne b. contaminated
c. radiation d. high radiation

5. Match the following:

<u>B</u> gamma	a. neutral charge
<u>C</u> alpha	b. electromagnetic wave
<u>A</u> neutron	c. internal hazard only
<u>D</u> beta	d. negatively charged particle

6. Placarding of vehicles is required when transporting any radioactive materials.
True / False

7. Prior notification to the regulatory agency is required before vacating a field office.
True / False

8. If a neutron source and a density source fall off of a truck while headed back to the shop along an interstate highway, it is the responsibility of the driver, the supervisor, the LRSO or the Corporate RSO to contact the USNRC or Agreement State immediately.
True / False



2010

ANNUAL RADIATION TRAINING

Print Name: David Lewis	
Signature: <i>David Lewis</i>	
Date: 11-16-2010	SS#: XXXXXXXXXX 7177
Location: Buckhorn	Department: 35-60
Supervisor: David Lewis	

2010 RADIATION TRAINING – LOGGING SUPERVISOR

1. The fundamental particles that make up an atom are:
 - a. alpha, beta, gamma
 - b. alpha, neutron, positron
 - c. proton, meson, electron
 - d. proton, neutron, electron

2. The following are examples of industrial applications of ionizing radiation except for:
 - a. thickness gauges
 - b. static eliminators
 - c. contact lenses
 - d. well logging devices

3. Dose rate is the rate at which radiation is measured, usually noted in uRem/hr, mrem/hr or rem/hr.
 True / False

4. An area where the whole body could receive in excess of 100 mrem in one hour from a distance of 30 cm from the source must be posted as:
 - a. airborne
 - b. contaminated
 - c. radiation
 - d. high radiation

5. Match the following:

<input checked="" type="radio"/> gamma	a. neutral charge
<input checked="" type="radio"/> alpha	b. electromagnetic wave
<input checked="" type="radio"/> neutron	c. internal hazard only
<input checked="" type="radio"/> beta	d. negatively charged particle

6. Placarding of vehicles is required when transporting any radioactive materials.
 True / False

7. Prior notification to the regulatory agency is required before vacating a field office.
 True / False

8. If a neutron source and a density source fall off of a truck while headed back to the shop along an interstate highway, it is the responsibility of the driver, the supervisor, the LRSO or the Corporate RSO to contact the USNRC or Agreement State immediately.
 True / False



2010

ANNUAL RADIATION TRAINING

Print Name: <i>L. Hymna Wilton</i>	
Signature: <i>Fayna Wilton</i>	
Date: <i>3-16-2010</i>	SS#: XXXXXXXXXX <i>7000</i>
Location: <i>Buckhanna</i>	Department: <i>35-75</i>
Supervisor: <i>Mark Lewis</i>	

2010 RADIATION TRAINING – LOGGING ASSISTANT

- 1. Placarding of vehicles is required when transporting any radioactive materials.

True / False

- 2. Prior notification to the regulatory agency is required before vacating a field office as identified in the specific license?

True / False

- 3. If a neutron source and a density source fall off of a truck while headed back to the shop along an interstate highway, it is the responsibility of the driver, the supervisor, the LRSO or the Corporate RSO to contact the USNRC or Agreement State immediately.

True / False

- 4. What steps must be taken in the event of a source being irretrievably stuck in a well?

- a. CONCRETE
- b. PIACK
- c. WHIP STICK

- 5. Identify the record-keeping requirements for the following:

Leak Testing 3 Sealed Source Inventories 3
Calibration Records 3 Training 3 MONTH
Exposure Records FOREVER Shipping Papers 2 YEAR

- 6. Radiation survey instruments used for well logging must be calibrated at what frequency? EVERY 6 MONTH

- 7. Positive control must be maintained of licensed material at all times. YES

- 8. What is meant by the term Transport Index? READING AT 1 METER

- 9. Re-training of authorized users of well logging licenses is required at what frequency by the NRC and agreement states? EVERY YEAR

- 10. In the event that a sealed source leak test analysis indicates contamination in excess of 0.005 microcuries, the licensee is responsible to do what?

SECURE CONTROL IN 5 DAYS

- 11. Sealed sources containing licensed material can only be opened by the RSO or designee?

True / False



2010

ANNUAL RADIATION TRAINING

Print Name: Alex Hill	
Signature: <i>[Handwritten Signature]</i>	
Date: 3/16/10	SS#: XXXXXXXXXX <i>[Handwritten]</i>
Location: Buckhorn	Department: 35-60
Supervisor: Mark Hill	

2010 RADIATION TRAINING – LOGGING ASSISTANT

1. Placarding of vehicles is required when transporting any radioactive materials.

True / False

2. Prior notification to the regulatory agency is required before vacating a field office as identified in the specific license?

True / False

3. If a neutron source and a density source fall off of a truck while headed back to the shop along an interstate highway, it is the responsibility of the driver, the supervisor, the LRSO or the Corporate RSO to contact the USNRC or Agreement State immediately.

True / False

4. What steps must be taken in the event of a source being irretrievably stuck in a well?

- a. 3 feet
- b. Why? Time
- c. Block

5. Identify the record-keeping requirements for the following:

Leak Testing	<u>3 years</u>	Sealed Source Inventories	<u>3 years</u>
Calibration Records	<u>3 years</u>	Training	<u>3 years</u>
Exposure Records	<u>Forever</u>	Shipping Papers	<u>3 years</u>

6. Radiation survey instruments used for well logging must be calibrated at what frequency? 6 months

7. Positive control must be maintained of licensed material at all times.

8. What is meant by the term Transport Index?

9. Re-training of authorized users of well logging licenses is required at what frequency by the NRC and agreement states? 1 Year

10. In the event that a sealed source leak test analysis indicates contamination in excess of 0.005 microcuries, the licensee is responsible to do what?

Source Control Area

11. Sealed sources containing licensed material can only be opened by the RSO or designee?

True / False

Apparent Violation # 5 – Corrective Action



Monthly conference calls have been scheduled to improve communications between the Local Radiation Safety Officers, the Openhole Wireline Regional Managers, the Corporate Radiation Safety Officer and the Wireline General Manager. The conference call's objective is to bring to light any situations or potential issues that may have arisen in the month prior and to ensure that all involved parties have an open line of communication amongst all levels of management.

Mandatory attendees during the monthly conference calls include the CRSO, the Wireline General Manager and the Regional Wireline Managers or their designees.

Superior Well Services' HSE Compliance Manager has received instruction from Superior Well Services' HSE Director on proper investigation procedures and has been able to further develop his investigation skills by reviewing his peer's investigations of vehicle accidents, work related injuries and near misses through the Risk Management Department. The HSE Compliance Manager plans to attend an Incident Investigation course to further develop his investigation skills scheduled for December 8th, 9th and 10th of this year.

Apparent Violation # 6 – Corrective Action



Once again, load securement and radioactive material security was addressed company wide by Marty Comini, Wireline General Manager, on 7/22/09 in an email to the wireline managers titled "Source Securement 7-22-09". This email was followed by a second email, sharing the same title, on 11/9/09 requesting that each location submit a picture of their wireline unit with the corrective action in place. The pictures were reviewed by Marty Comini and Lew Cessna to ensure that the intent of the request had been met. Each transport shield is required to be chained to a structural member of the truck and each transport shield holder is required to be fully welded to the box of the steel body trucks or securely bolted to the box of the fiberglass body trucks.

Superior Well Services is requiring that all drivers of wireline trucks transporting wireline sources complete a Daily Vehicle Inspection Report prior to leaving the base facility. A portion of the DVIR focuses on the securement of the driver's load.

Superior Well Services has instructed both Logging Supervisors and Logging Assistants to routinely inspect, outside of the DVIR, the transport shields for potential securement issues. Any issues must be reported to the employee's supervisor and actions must be taken to ensure proper load securement as soon as possible.

Operator & Vehicle Daily Inspection Report (Complete & Turn into Shop) 2234-F

POWER UNIT #	TRAILER #	HUB/ODOMETER	DATE OUT	DATE IN	DRIVER'S NAME (PRINT)
DRIVER'S SIGNATURE				REVIEWING DRIVER'S SIGNATURE	

Pre-Trip	Post-Trip	Pre-Trip	Post-Trip	Pre-Trip	Post-Trip	Pre-Trip	Post-Trip
Engine Compartment (Engine Off) Check		Power Unit Suspensions Check		Rear of Power Unit Check		Trailer Suspensions Check	
<input type="checkbox"/> Oil Level: Amount Added: _____ <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Springs/Air/Torque Bar	<input type="checkbox"/>	<input type="checkbox"/> Splash Guards	<input type="checkbox"/>	<input type="checkbox"/> Springs/Air/Torque Bar	<input type="checkbox"/>
<input type="checkbox"/> Leaks/Hoses	<input type="checkbox"/>	<input type="checkbox"/> Mounts	<input type="checkbox"/>	<input type="checkbox"/> Doors/Tires/Lifts	<input type="checkbox"/>	<input type="checkbox"/> Mounts	<input type="checkbox"/>
<input type="checkbox"/> Coolant Level	<input type="checkbox"/>	<input type="checkbox"/> Shock Absorbers	<input type="checkbox"/>	<input type="checkbox"/> Lights/Reflectors	<input type="checkbox"/>	<input type="checkbox"/> Shock Absorbers	<input type="checkbox"/>
<input type="checkbox"/> Power Steering Fluid: Amount Added: _____ <input type="checkbox"/>	<input type="checkbox"/>	Power Unit Brakes Check		Power Unit/Coupling Check		Trailer Brakes Check	
<input type="checkbox"/> Engine Compartment Belts	<input type="checkbox"/>	<input type="checkbox"/> Slack Adjusters	<input type="checkbox"/>	<input type="checkbox"/> Air/Electric Lines	<input type="checkbox"/>	<input type="checkbox"/> Slack Adjusters	<input type="checkbox"/>
<input type="checkbox"/> Close Air Tank Valves	<input type="checkbox"/>	<input type="checkbox"/> Brake Chambers	<input type="checkbox"/>	<input type="checkbox"/> Mounting Bolts	<input type="checkbox"/>	<input type="checkbox"/> Brake Chambers	<input type="checkbox"/>
<input type="checkbox"/> Steering Box/Hoses/Linkage	<input type="checkbox"/>	<input type="checkbox"/> Brake Hose/Lines	<input type="checkbox"/>	<input type="checkbox"/> Locking Jaws	<input type="checkbox"/>	<input type="checkbox"/> Brake Hose/Linings	<input type="checkbox"/>
Static Check		<input type="checkbox"/> Drum Brake	<input type="checkbox"/>	<input type="checkbox"/> Platform (Fifth Wheel)	<input type="checkbox"/>	<input type="checkbox"/> Drum Brake	<input type="checkbox"/>
<input type="checkbox"/> Gauges/Warning Lights & Indicators	<input type="checkbox"/>	<input type="checkbox"/> Brake Linings	<input type="checkbox"/>	<input type="checkbox"/> Kingpin/Apron/Gap	<input type="checkbox"/>	<input type="checkbox"/> Brake Linings	<input type="checkbox"/>
Cab Check/Engine Start Check		Power Unit Wheels Check		Front & Side of Trailer Check		Trailer Wheels Check	
<input type="checkbox"/> Clutch/Gearshift	<input type="checkbox"/>	<input type="checkbox"/> Rims	<input type="checkbox"/>	<input type="checkbox"/> Air/Electrical Connections	<input type="checkbox"/>	<input type="checkbox"/> Rims	<input type="checkbox"/>
<input type="checkbox"/> Oil Pressure Gauge	<input type="checkbox"/>	<input type="checkbox"/> Tires	<input type="checkbox"/>	<input type="checkbox"/> Header Board (Headache Rack)	<input type="checkbox"/>	<input type="checkbox"/> Tires	<input type="checkbox"/>
<input type="checkbox"/> Temperature Gauge	<input type="checkbox"/>	<input type="checkbox"/> Hub Oil Seals/Axle	<input type="checkbox"/>	<input type="checkbox"/> Landing Gear	<input type="checkbox"/>	<input type="checkbox"/> Hub Oil Seals/Axle	<input type="checkbox"/>
<input type="checkbox"/> Ammeter/Voltmeter	<input type="checkbox"/>	<input type="checkbox"/> Lug Nuts/Spacers	<input type="checkbox"/>	<input type="checkbox"/> Doors/Ties/Lifts	<input type="checkbox"/>	<input type="checkbox"/> Lug Nuts/Spacers	<input type="checkbox"/>
<input type="checkbox"/> Mirrors and Windshield/Cab Glass Window	<input type="checkbox"/>	Side of Power Unit Check		<input type="checkbox"/> Frame	<input type="checkbox"/>	<input type="checkbox"/> Splash Guards	<input type="checkbox"/>
<input type="checkbox"/> Emergency Equipment	<input type="checkbox"/>	<input type="checkbox"/> Door(s) Mirror(s) Fuel Tank/Battery Box	<input type="checkbox"/>	<input type="checkbox"/> Tandem Release Arm/Locking Pins	<input type="checkbox"/>	Brake Systems Check	
<input type="checkbox"/> Steering Play	<input type="checkbox"/>	<input type="checkbox"/> Drive Shaft	<input type="checkbox"/>	<input type="checkbox"/> Lights/Reflectors	<input type="checkbox"/>	<input type="checkbox"/> Air Compressor Governor Cutoff Reading	<input type="checkbox"/>
<input type="checkbox"/> Wiper/Washers/Horn	<input type="checkbox"/>	<input type="checkbox"/> Exhaust System	<input type="checkbox"/>	<input type="checkbox"/> Air Loss (PSI/MIN) With Engine Off & Brakes On			
<input type="checkbox"/> Lighting Indicators	<input type="checkbox"/>	<input type="checkbox"/> Frame	<input type="checkbox"/>	<input type="checkbox"/> Parking Brake Check			
<input type="checkbox"/> Heater Defroster	<input type="checkbox"/>	<input type="checkbox"/> Company Decals on Door	<input type="checkbox"/>				
Eng. Hrs. _____							

DRIVER COMPLETION SECTION	SAFETY-RELATED ITEMS NEEDING REPAIRS:
<input type="checkbox"/> NO REPAIRS NEEDED	

NON SAFETY RELATED ITEMS NEEDING REPAIRS:	
--	--

MAINTENANCE ACTION SECTION	CERTIFIED/REPAIRED BY (ONLY SIGN IF REPAIRS ARE COMPLETED)
	X

MAINTENANCE REPAIR ACKNOWLEDGEMENT (ACKNOWLEDGES NON SAFETY RELATED REPAIRS WHICH CANNOT BE MADE AT THIS TIME)	REASON FOR REPAIR DELAY	DEFECTIVE ITEM WILL BE REPAIRED WITHIN:
SIGNED: X		_____ DAYS

IF VEHICLE REPAIRED BECAUSE OF ACCIDENT OR ROADSIDE INSPECTION, PLEASE CHECK HERE

AUXILIARY SECTION		
ENGINE	TRANSMISSION	PUMP
ELECTRONICS	HYDRAULICS	OTHER (PLEASE SPECIFY):

#	Destination	Route	Start Meter	End Meter	St.
1					
2			X	X	
3			X	X	
4			X	X	

SHOP COPY

Apparent Violation # 7



Superior Well Services contests that there was a failure to maintain records of annual audit of its radiation safety program.

10 CFR 20.1101 (c) states:

The licensee shall periodically (at least annually) review the radiation protection program content and implementation.

On March 23, 2008 Superior Well Services' HSE Coordinator conducted a program audit and inspection of the USNRC Radioactive Materials license number 37-30412-01. The 2008 Annual Program Audit follows.

Apparent Violation # 7



Superior Well Services, Inc.
1380 RT 286 East Suite #121
Indiana, PA 15701
Telephone 724-465-8904

March 24, 2008

To: Dick Carpenter and Marty Comini
From: Lew Cessna
Re: Sophia RA File and Facility Review

Gentlemen,

An NRC compliance review of the radiation files and the facility in Sophia was conducted on March 23, 2008. The files looked good and only had a few minor issues. The facility was in order and clean, but also had a few minor issues.

Files

After a through review of the files it was determined that the information contained in the files at the time of the audit was sufficient to pass the in-house audit. The minor issues associated with the files include:

- Lack of a "Memo To The Radiation File"
 - This file should contain copies of letters and memos to the USNRC that are in regards to management changes, license amendments, personnel changes, etc.
- Lack of a "Shipping Paper File"
 - It was determined during the audit that the shipping papers required by the USDOT were available at the shop in the Job Packet Folders. In order to complete the radiation files in accordance with the Radiation File Setup Form, a "Shipping Paper File" should be placed with the rest of the radiation files and contain a page referencing the Job Packet Folders.
- Lack of a "Governing Radiation Regulation File"
 - This file should include a copy of the applicable USNRC regulations governing well logging operations.
- Lapse in six month inventory from May 2007 to November 2007
 - Physical inventories must be conducted at a minimum frequency of every six months. The inventory records must be maintained on file for a period of not less than five years.



Superior Well Services, Inc.
1380 RT 286 East Suite #121
Indiana, PA 15701
Telephone 724-465-8904

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March 24, 2008

To: Dick Carpenter and Marty Comini
From: Lew Cessna
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 - This file should include a copy of the applicable USNRC regulations governing well logging operations.
- Lapse in six month inventory from May 2007 to November 2007
 - Physical inventories must be conducted at a minimum frequency of every six months. The inventory records must be maintained on file for a period of not less than five years.



Thank you for your prompt attention to these issues.

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Respectfully,

Lew Cessna
HSE Coordinator
724-465-8904 Office
724-465-8907 Fax
724-840-8541 Mobile
lcessna@swwi.com

CC: Memo to RA File

Apparent Violation # 7 – Corrective Actions



Superior Well Services has adjusted the schedule of program auditing to increase the frequency of program audits. Each Local Radiation Safety Officer is required to complete two audits per year and maintain record of the audit on file. The HSE Compliance Manager will, in turn, review each facility's Local Radiation Safety Officer's program on an annual basis. The HSE Compliance Manager will submit his documented audit to the HSE Director and Wireline General Manager for review once completed. This process allows for multiple audits to be conducted throughout a calendar year.



Superior Well Services, Inc.
1380 RT 286 East Suite #121
Indiana, PA 15701
Telephone 724-465-8904

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Quarterly Radiation Audit Program

An audit is conducted, in part, to fulfill the requirements of the regulations for an annual review of the content and implementation of Superior Well Services' radiation protection program. It should also identify program weaknesses and allow Superior Well Services to take early corrective actions (before an inspection). During an audit, the auditor needs to keep in mind not only the requirements of the regulations, but also Superior Well Services' commitments in its applications and other correspondence with the regulatory body. The auditor should also evaluate whether Superior Well Services is maintaining exposures to workers and the general public as low as is reasonably achievable (ALARA) and, if not, make suggestions for improvement.

The form included with this program can be used to document the annual audit of the radiation protection program. Guidance follows on completing each section of the form. Note any deficiencies that were identified and the corrective actions taken (or to be taken) in Section 15.

Section 1 - Audit History: Enter the date of the last audit, whether any deficiencies were identified, and where actions were taken to correct the deficiencies.

Section 2 - Organization and Scope of Program: Describe the scope of licensed activities at the audited location. Check whether the Radiation Safety Officer (RSO) is the person identified in the license and fulfills the duties specified in the license. Evaluate management involvement with the radiation safety program, whether the RSO has sufficient time to perform his/her duties and whether the licensee has sufficient staff to handle the workload and maintain compliance with regulatory requirements. Verify that only persons authorized by the license use/supervise use of devices, or perform servicing operations (if applicable).

Section 3 - Training and Instructions to Workers: Ensure that workers have received the training required by NUREG-1556 and 49 CFR 172. Be sure that, before being permitted to use or supervise the use of a device, the authorized user has received training and has a copy of, and training in, Superior Well Services' operating and emergency (O/E) procedures; records should be maintained. By interview and/or observation of selected workers, ensure that each has a copy of the SWS' O/E procedures and can implement them properly.

Section 4 - Facilities: Verify that Superior Well Services' facilities are as described in the license documents.



Section 5 – Materials: Verify that the license authorizes the radioactive source-device combinations that Superior Well Services possesses. Verify that Superior Well Services uses the source-device combinations in accordance with license provisions. Ensure that devices are maintained in accordance with licensee commitments.

Section 6 - Leak Tests: Verify that all radioactive sources are tested for leakage at the prescribed frequency and in accordance with license commitments. Records of results should be maintained.

Section 7 - Inventories: Verify that inventories are conducted at least once every six (6) months to account for all sealed sources; inventory records should be maintained.

Section 8 - Radiation Surveys: Verify that Superior Well Services has at least one (1) operable, calibrated survey instrument and that the instruments are calibrated in accordance with license commitments. Calibration records must be retained for three (3) years after the record is made. Surveys must be taken and documented in accordance with the license and the regulations.

Section 9 - Receipt and Transfer of Radioactive Material (Includes Disposal): Verify that devices received from other licenses are in accordance with SWS company policy and the regulations. Ensure that device transfers are performed in accordance with company policy and the regulations. Record of receipt, and transfer must be maintained in accordance with company policy and the regulations.

Section 10 – Transportation: Determine compliance with Department of Transportation (DOT) requirements. Verify that radioactive packages are prepared, marked, and labeled in accordance with 49 CFR Parts 172 and 173 requirements. Be sure that the licensee has records of performance testing of its special form sources and DOT-7A packages. Verify that shipping papers are prepared, contain all needed information, and are readily accessible during transport of Type A packages (49 CFR 172.200-204 and 177.718). Check that packages are blocked and braced (49 CFR 177.842).

Section 11 - Personnel Radiation Protection: If required by the license, verify personnel dosimetry complies with the regulations and license commitments. Review personnel monitoring records; compare exposures of individuals doing similar work; determine reasons for significant differences in exposures. If any worker declared her pregnancy in writing, evaluate the licensee's compliance with the applicable regulation.

Section 12 - Notification and Reports: Check on the licensee's compliance with the notification and reporting requirements in the applicable regulations (if needed).



Section 13 - Posting: Check for compliance with the posting requirements of the regulations.

Section 14 - Recordkeeping for Decommissioning: Check to determine compliance with the regulations (if needed).

Section 15 - Problems or Deficiencies Noted; Recommendations: This section is self-explanatory.



QUARTERLY AUDIT FOR SEALED SOURCES AND DEVICES

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Note: All areas indicated in audit notes may not be applicable to every license and may not need to be addressed during each audit.

Audit Report No. _____ License No. _____

Licensee's name and mailing address

Audit of activities at (Address):

Contact at Audit Location: _____

Telephone No.: _____

Date of Last Audit of this Location: _____

Date of This Audit: _____

Summary of Findings and Action:

- () No deficiencies
- () Deficiencies
- () Action on previous deficiencies

Recommendations:

Auditor: _____ Date: _____
(Signature)



1. AUDIT HISTORY

- A. Last audit of this location conducted _____
- B. Problems/deficiencies identified during last two audits or two years, whichever is longer ()Y ()N
- C. Any previous problem/deficiency repeated or not corrected ()Y ()N
Explain: _____

2. ORGANIZATION AND SCOPE OF PROGRAM

- A. Senior licensee management appropriately involved with radiation safety program and/or RSO oversight ()Y ()N
- B. Radiation Safety Officer
(1) Authorized on license ()Y ()N
(2) Fulfills duties as RSO ()Y ()N
- C. Use or supervision of use only by authorized individuals ()Y ()N

3. TRAINING AND INSTRUCTIONS TO WORKERS

- A. Instructions to workers ()Y ()N
- B. Authorized user training program – Before using radioactive source:
(1) User received training ()Y ()N

4. FACILITIES – as described in license application ()Y ()N**5. MATERIALS**

- A. Isotopes, quantities, mfg's name and model no. of sources and devices; use as authorized on license ()Y ()N
- B. Extended maintenance (if applicable) ()Y ()N
(1) Work requiring source in unshielded position by licensee in accordance with licensed procedures ()Y ()N

6. LEAK TESTS

- A. Leak tests performed as authorized by license (consultants, leak test kit, person performing) ()Y ()N
- B. Every 6 months or as authorized by license ()Y ()N
- C. Records with appropriate information maintained ()Y ()N

**7. INVENTORIES**

- A. Conducted at monthly intervals ()Y ()N
- B. Records with appropriate information maintained ()Y ()N

8. RADIATION SURVEYS (if applicable)

- A. Calibrated and operable survey meter available, if required by license ()Y ()N
- B. Surveys conducted during maintenance operations
- I. Logging Operations ()Y ()N
 - II. Storage Surveys ()Y ()N
- C. Records maintained ()Y ()N

9. RECEIPT AND TRANSFER OF RADIOACTIVE MATERIAL

- A. Describe how new devices are received and by whom:
- B. Transfer(s) between licensees (including disposal) ()Y ()N
- C. Records of receipt/transfer maintained ()Y ()N

10. TRANSPORTATION

- A. Licensee shipments are:
- (1) Delivered to common carrier ()Y ()N
 - (2) Transported in licensee's private vehicle ()Y ()N
 - (3) Both ()Y ()N
 - (4) No shipments since last audit ()Y ()N
- B. Packages
- (1) Authorized packages used ()Y ()N
 - (2) Performance test records on file
 - a. Special Form sources ()Y ()N
 - b. DOT-7A packages ()Y ()N
 - (3) Labels and markings as required, maintained in legible condition ()Y ()N
 - (4) Closed and sealed during transport ()Y ()N



- C. Shipping Papers (Type A packages)
 - (1) Prepared and used () Y () N
 - (2) Appropriate information included () Y () N
 - (3) Readily accessible during transport along with emergency procedures () Y () N
 - (4) Are surveys legitimate? () Y () N
- D. Vehicles
 - (1) Is the radioactive material under two independent forms of tangible barrier security and properly secured to the truck? () Y () N

11. PERSONNEL RADIATION PROTECTION (if required)

- A. ALARA incorporated into Radiation Protection Program() Y () N
- B. If required by license, external dosimetry provided and used () Y () N
 - (1) Supplier _____ Frequency _____
 - (2) Supplier NVLAP-approved () Y () N
 - (3) Dosimeters exchanged at required frequency () Y () N
- C. Reports
 - (1) Reviewed by _____ Frequency _____
 - (2) Auditor reviewed records for period _____ to _____
 - (3) Prior dose determined for new employees () Y () N
 - (4) Maximum exposures _____
 - (5) Worker declared her pregnancy in writing () Y () N
during audit period (review records)
If yes, determine compliance with the applicable regulations.
 - (6) All records maintained of exposures, surveys, etc. () Y () N

12. NOTIFICATION AND REPORTS

- A. License in compliance with notification/reports for:
 - (1) Theft or loss () Y () N
 - (2) Incidents () Y () N
 - (3) Overexposures, high radiation levels () Y () N

13. POSTING

- A. Notice to Employees () Y () N
- B. Regulations or appropriate notice () Y () N
- C. License or appropriate notice () Y () N
- D. Operating/emergency procedures () Y () N

14. RECORDKEEPING FOR DECOMMISSIONING () Y () N



15. **PROBLEMS OR DEFICIENCIES NOTED; RECOMMENDATIONS**
Note: Briefly state (1) the requirements and (2) how and when violated.
Provide recommendations for improvement.

Additional Remarks:



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 Indiana, PA 15701
 Telephone 724-465-8904

HSE Compliance Manager's LRSO Review

Item	Present	Complete	Deficiencies Noted
Files			
Memo To The Radiation			
Meter Calibration			
Luxel Badge Report			
Leak Tests			
Transfers			
DOT-7A Packaging			
Special Form Source			
Training			
License			
Radiation Safety Manual			
Inventory			
Utilization Log			
Shipping Paper			
Bill of Lading			
Quarterly Program Audits			
Field Supervisor Audits			
Storage Site Surveys			
Governing Regulations			
Sources			
Security			
Securement			
Labeling			
Housekeeping			
File Organization			
Storage cleanliness			
Postings			
Notice To Employees			
Radioactive Materials License			
Landauer Report			
Employee Interviews			
LRSO Involvement			
Radiological Incidents Since Last Audit			

Please refer to the attached pages for a description of the deficiencies noted above



Deficiency Descriptions

The following potential violations were found on (date) during the review of operations under Radioactive Materials License Number (lic no.) at Superior Well Services' facility in (city).