



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

February 28, 2011

William M. Dean
Regional Administrator
U.S. NRC Region I
475 Allendale Road
King of Prussia, PA 19406

2011 MAR -2 AM 10:13
RECEIVED
REGION 1

Mr. Dean,

This letter has been composed to serve as Superior Well Services' confirmation that all but one of the actions described in the Confirmatory Order issued on February 8, 2011 have been completed. Details describing each action's completion are listed below.

Requirement A:

Within 30 days of the date of this order, pay a civil penalty of \$17,000, utilizing one of the payment methods described in NUREG/BR-0254, "Payment Methods."

SWS Completion Details:

Superior Well Services submitted check number 214088, in the amount of \$17,000, on February 25, 2011 to U.S. Nuclear Regulatory Commission, U.S. Bank, P.O. Box 979051 in St. Louis, MO. A copy of this check is included as an attachment to this letter.

Requirement B:

Within 90 days of the date of this order, complete the following actions:

1. For the SL III Problem involving violations associated with the loss of RAM, SWS will:
 - a. Provide presentations that discuss this event and SWS' lessons learned and corrective actions at the following forums:
 - i. Pennsylvania Independent Oil and Gas Association;
 - ii. Oilfield Safety Alliance;
 - iii. Society of Petroleum Engineers;
 - b. Submit an article discussing this event and SWS' lessons learned and corrective actions for consideration for publication in an Association of Energy Service Companies publication, a North American Transportation Management Institute publication and the Applied Health Physics newsletter; and
 - c. Provide the details of this event to AHP for inclusion as an example in its training program, which is provided to AHP's other related clients.
2. For the SL III Problem involving two violations associated with the failure to perform surveys and creation of inaccurate survey records, SWS will:
 - a. Modify its annual radiation training to emphasize that regulations and license conditions must be properly followed, including the requirements of providing complete and accurate information to the NRC and maintaining records that are complete and accurate in all material respects (10 CFR 30.9) and the potential consequences that can occur to the company and to individuals who fail to comply; and
 - b. Enhance the practice of the LRSOs conducting random audits of completed surveys to verify the recorded values are reasonable (as described in Item III.4.b.i) by also periodically reviewing video footage of surveys being conducted.



SWS Completion Details:

1.a. Superior Well Services provided a presentation that discussed the loss of RAM, their lessons learned and their associated corrective actions at the Pennsylvania Independent Oil and Gas Association meeting on January 12, 2011. The information was presented on behalf of SWS by Mr. Sam Hockenberry, Senior HSE Manager, of SWS.

SWS provided a second presentation at the Western Pennsylvania Oilfield Safety Alliance (OSA) meeting on January 20, 2011. The information was presented on behalf of SWS by Mr. Lew Cessna, HSE Compliance Manager, of SWS.

SWS is currently waiting to provide a third presentation at the Society of Petroleum Engineers meeting. Due to scheduling conflicts, the presentation has not yet been completed. SWS anticipates that this action will be completed by April 30, 2011. The information will be presented on behalf of SWS by Mr. Marty Comini, Wireline General Manager, of SWS.

Meeting minutes from the PIOGA meeting and a Thank You letter from the president of the OSA are attached to this letter to serve as documented proof of SWS providing the presentations.

1.b. Superior Well Services submitted an article discussing the event, lessons learned and corrective actions for consideration for publication to the Association of Energy Service Companies on February 25, 2011.

SWS provided a second submission of the article for consideration for publication to the North American Transportation Management Institute on February 25, 2011.

SWS provided a third submission of the article for consideration for publication to Applied Health Physics on February 25, 2011.

A copy of the submitted article and documentation associated with the submissions are attached to this letter to serve as documented proof of SWS' submission for consideration for publication.

1.c. Superior Well Services provided the details of this event to Applied Health Physics for inclusion as an example in its training program. The details of the event were discussed with AHP during the incident investigation process, through the Pre-Decisional Enforcement Conference and through the Alternative Dispute Resolution Process as AHP is SWS' Radiological Consultant. A summary of the event, a copy of the NOV and a copy of the Confirmatory Order were provided to AHP on February 25, 2011 to assist with the inclusion of the incident as an example.

A copy of the submission to AHP is included as an attachment to this letter.

2.a. Superior Well Services modified its annual radiation training to reflect the requirements of 10 CFR 30.9 to emphasize that records must be complete and accurate in all material respects. SWS also modified the training to include an emphasis on properly following license conditions, properly following regulations and the potential consequences that can occur if these are not followed.

These modifications to the training were completed on February 8, 2011. A copy of the modified sections of the training presentation is attached to this letter.

2.b. Superior Well Services has enhanced random radiation survey audits by installing computer software that enables the HSE Compliance Manager to remotely view video surveillance footage of employees conducting radiation surveys. The software, known as EyeMax DVR Client, was installed on February 16, 2011.



Requirement C:

Within 30 days of completion of all of the actions described in Section V.B. of this Order, send the Regional Administrator, NRC Region I, a letter confirming that all actions are completed and describe details of their completion.

SWS Completion Details:

Superior Well Services is submitting this letter to the Regional Administrator, NRC Region I, to confirm that the actions are complete. A second letter will be submitted upon completion of the SPE presentation.

Thank you for your assistance in this matter. Please feel free to contact me with any comments or questions regarding this letter.

Respectfully,

A handwritten signature in black ink that reads 'Lew Cessna'.

Lew Cessna
HSE Compliance Manager
Superior Well Services
724-403-9080 Office
866-446-SWSI Fax
Lewis.Cessna@nabors.com

Attachments:

- SWS check in the amount of \$17,000
- PIOGA Meeting Minutes
- OSA Thank You letter
- Copy of professional article
- Documentation associated with the submissions of the article
- Event summary submitted to AHP for training purposes
- Modified radiation training presentation

Copy of Check

Redacted

MT Miller 3/4/2011

PIOGA Health & Safety Committee Meeting Notes

January 12, 2011 – 1 PM

PIOGA Conference Room, Wexford, PA

1. GUEST PRESENTERS

A. Teresa Naim, OSHA Erie Area Director – FR clothing. FR clothing is required, according to the recent OSHA directive, for all drilling, well servicing and production related operations. OSHA heard reports from industry that clothing was not available from suppliers. The agency's nationwide research has shown that FR clothing is available and continues to be required as dictated in the March 19, 2010, guidance memo. Contrary to rumors, a company that has FR clothing backordered *can* be cited.

Members questioned Teresa on whether FR clothing should be required by operators for individuals such as truck drivers and PA DEP inspectors. She did not provide interpretation beyond the directive, but advised erring on the side of caution for anyone onsite, including subcontractors. There was discussion of whether a company is liable if a state employee onsite is injured because of not wearing FR clothing. Teresa will follow up and report back to PIOGA.

OSHA's Erie Area Office is developing a quarterly oil and gas industry newsletter covering current topics, violations, questions/answers, etc. The target launch date is the end of January and the newsletter will be distributed electronically. OSHA will send it to PIOGA and request distribution to members.

B. Dennis Culley, PA Department of Agriculture – restricted pesticides. The department is looking into how the industry is using products that fall under this category. They have been making site visits to determine what materials are being used, whether directions on the label are being followed and if licensing should be required for the oil and gas industry. If a product lists EPA numbers on the label, it is considered a pesticide by the department. There are PPE requirements for people handling and mixing these materials. Participants at the meeting emphasized that the materials are being injected deep underground and never come in contact with water or the surface. He can be contacted at 724-443-1585 ext 234 or dculley@state.pa.us.

C. Sam Hockenberry, Superior Well Services – radiological transportation issues. In September 2008 a well logging crew was transporting radioactive source materials in West Virginia. The holder broke loose and, unknown to the driver, the material fell into a ravine. Company protocol is for a second driver to follow the vehicle carrying source material, but that driver had stopped at a convenience store. The material was quickly recovered after only 15-20 minutes.

There was also a breakdown in corporate communications. As a result, the Nuclear Regulatory Commission never received a report on the incident. However, the NRC learned of it and began an investigation. Lessons learned from the incident: Train, follow through with training and follow company procedures to the letter.

2. NEW BUSINESS

A. Pin failure in Genie Lifts

Information in the meeting packet described failure of a jib boom pin in certain lifts. Equipment should be checked and the part replaced per the safety bulletin.

B. NIOSH Skid Steer Safety

The National Institute for Occupational Safety and Health has issued an alert on preventing injuries and deaths from skid steer loaders (www.cdc.gov/niosh/docs/2011-128/pdfs/2011-128.pdf). This is excellent safety training material.

C. MSC Safety Committee Update

Greg Kelmeckis of Universal Well Services is now co-chairing with Ralph Tijerina. No meeting was held in the past month.

D. Gas Expo Safety Summit

The event occurs in May 2011. The agenda is still being firmed up.

E. Mid-Atlantic Safety Alliance – Natural Gas Extraction Track

This will take place April 28 in Cranberry Township. Doug Mehan is looking for presenters. There will be four one-hour segments on hot work, new worker training, working at height and emergency response. The event is a good opportunity to share oil and gas safety information with other safety professionals.

F. Oil & Gas Hazard Recognition 8-hour Training Steering Committee Meeting

The meeting is scheduled for early February. We will see how this program ultimately fits into the overall training picture.

G. What do Members Want from Committee Meetings?

Following were items of discussion:

- Should we keep the subcommittees? Drilling – yes. Completion/Production – subcommittee members were a little frustrated with the directive they were given when the group was established; the focus should be on incidents and lessons learned. Crisis Management – there are enough issues to work on after the group's current project is complete. Construction – it is getting difficult to come up with new topics; the group will discuss whether it should continue.
- Create an online discussion group or blog to share information more easily.
- Shared compliance programs should be available on the PIOGA website.
- Incident and accident sharing is important. Should we be focusing on reviewing incidents versus developing best practices – which is more effective? A suggestion was made to offer a reward of some sort when companies report an incident or best practice.
- Continue with guest presenters on various safety issues.

- More from OSHA and regulatory agencies on what they are seeing in the field and where they are going with initiatives.

3. SUBCOMMITTEE REPORTS

A. Drilling

Matt Streams: Goals for the next year include working at height, pay-for-performance incentives and supervisor training.

B. Completion/Production

Mike Kloecker: No subcommittee report, but he shared information about incidents that occurred recently. Universal has implemented the red zone / yellow zone (hazard definition) concept, where no one goes into the red zone (high hazard potential) during pressure pumping operations. Mike reported on an incident where a worker was required to enter into a red zone during pumping.

Recommendations: Reevaluate procedures and ensure that they continue to be applicable. Don't take anything for granted. Have check-off sheets. He recommended adopting the red zone/yellow zone and accompanying procedures during pressure operations.

C. Crisis Management

Wayne Vanderhoof: A couple of items were placed on the SharePoint site for comment. Finalized flow charts also will be posted there for the committee's use.

D. Construction

Brian Denny: An emergency response information sheet will be posted on the SharePoint site for everyone's use.

4. DEP UPDATE

No report.

5. REGULATORY UPDATE

Lisa Bruderly: Governor Corbett has named Environmental Hearing Board Judge Michael Krancer as his nominee for DEP Secretary. Additionally, the governor is creating a new position of energy policy advisor, filled by long-time Senate aide Patrick Henderson.

All spills should be considered important. The U.S. EPA has been investigating spills reported months earlier to DEP. Any company that comes under EPA scrutiny can expect a very labor-intensive experience.

6. OSHA UPDATE

Nothing in addition to her presentation.

7. SAFETY ARTICLE IN PIOGA NEWSLETTER

Matt Benson: January's issue contains an article by Dave Marki on hose safety, and February's article will be written by Lisa Bruderly on SARA reporting. Contact Matt with suggestions for articles in March and beyond.

8. SIGNIFICANT INCIDENTS OR INSPECTIONS

Mention was made of slips and falls occurring on slippery secondary containment material that is being used to protect the environment. Suggestions: Cover walking areas with tarpaper or felt to improve footing. There is also a temporary walkway available that can be placed on travel areas.

NEXT MEETING: Wednesday, February 9, at 1 p.m.

WPOSA



Western Pennsylvania Oilfield Safety Alliance

To: Lewis Cessna

Date: 2/18/2011

Lewis,

Thank you for taking the time to discuss the incident concerning the loss of radiation equipment at the Western Pennsylvania Oilfield Safety Alliance meeting on January 20, 2011. It is very unfortunate the incident occurred but shows Superior Well Services professionalism and dedication to preventing a similar occurrence by sharing this information within our industry.

Thanks Again,

A handwritten signature in cursive script, appearing to read "Matt Streams".

Matt Streams

Founder, WPOSA

HEAD: Service Company finds value in culture changes

COPY: An independent oil- and gas-well service company operating in the Continental United States has seen great value in developing a new culture of safety in which every employee plays a part in the company's behavior-based safety (BBS) program. The service company (SC) strives to improve the culture by implementing employee-friendly reporting programs that remove the risk of discipline to the individual reporting (1) safety concerns and (2) real or potential hazards.

SUBHEAD: Elements of New Culture

COPY: The company's RID Program (Risk Identification Documentation) is part of a Behavior-Based Safety (BBS) mindset that encourages employees to report all near misses, and service-quality issues without risk of reprisal. The RID program also requires employee involvement by asking the employee for recommended corrective actions to prevent or correct the potential or real problem.

The StopCard Program put in place by the SC gives any employee the right and confidence to stop, without fear of reprisal, any job or task that they believe is unsafe. The hazards concern are then discussed within a group, which determines whether the hazard can be (1) "engineered" out of the job/task, or (2) risk from the hazard can be reduced to an acceptable level.

The company's BBS program has yielded a measurable increase in reporting and a noticeable increase in employee involvement and morale.

SUBHEAD: Impetus for culture change

COPY: In 2008, a truck owned and operated by the SC hit a pothole in the pavement of a public highway, resulting in the brief loss of a radioactive source in the vegetation along the highway. On arrival at the SC base of field operations, the driver observed that transport housings for the source were missing. The driver phoned his supervisor, who had stopped a short distance behind the truck. Upon being informed by the driver that the truck had hit a pothole just after crossing a certain bridge on the route, the supervisor, with assistance from other SC employees (1) continued to drive (¼ mile) to the site, (2) recovered the source container in undamaged condition (landed in soft soil), (3) secured the source in his pickup truck, and (4) drove to the base of operations.

The engineer in charge (EIC) filled out a near-miss report, but did not notify the corporate radiation safety officer (RSO) or the HSE department of the near miss. Consequently, the USNRC (United States Nuclear Regulatory Commission) was not notified in a timely manner. The corporate RSO notified the USNRC once he was made aware of the event, 10 months after its occurrence. Because (1) the source was recovered immediately in undamaged condition, mid-level management did not consider reporting to the USNRC to be required. Investigation showed that personnel overexposure to radioactive sources in the incident was impossible.

SUBHEAD: Causative factors and investigation

COPY: Radioactive material used to conduct openhole logging became separated from the transport unit after a failure of the material's securement system allowing the source-transport holder to become dislodged from the radiation compartment while the unit was travelling on a public highway.

Department of Transportation (DOT) requires that shipments of radioactive materials must be secured to prevent shifting during normal transportation conditions.

An investigation was prompted by statements gathered during the basic USNRC investigation. Two former, and apparently disgruntled, employees approached USNRC investigators and told them that they had intentionally generated and included inaccurate data on hazardous-materials shipping papers. The former employees informed the USNRC that they had copied survey data from hazmat shipping papers to new hazmat shipping papers because they did not understand how to use a survey meter to properly conduct the required surveys. The former employees had not approached SC supervisory personnel for instruction or assistance.

The SC has (1) developed written survey procedures, (2) adjusted its training's focus to spend additional time on reporting and securement and (3) implemented a "hands on" survey meter usage verification process. Each employee is also required to sign a receipt of training acknowledging the fact that they have been trained on SC policies and procedures regarding survey meters. Employees also complete an exam that includes specific notification-requirement questions.

Superior Well Services Request 2-25-11

Cessna, Lewis

Sent: Friday, February 25, 2011 2:41 PM
To: kjordan@aesc.net
Attachments: USNRC - SWS Professional A~1.pdf (15 KB)

Kenny,

Superior Well Services has been working with the USNRC in regards to "Industry Outreach" stemming from an incident that Superior had in the fall of 2008. The USNRC suggested that Superior draft and submit an article for consideration of publication in an industry related newsletter or publication.

Would the AESC be interested?

I have attached the article.

Thanks,

Lew Cessna
HSE Compliance Manager
Superior Well Services
724-403-9080 Office
724-840-8541 Mobile
866-446-SWSI

FW: Motor Fleet Monthly January 2011

Cessna, Lewis

Sent: Friday, February 25, 2011 2:44 PM
To: jeff@natmi.org
Attachments: USNRC - SWS Professional A~1.pdf (15 KB)

Jeff,

Superior Well Services has been working with the USNRC regarding "Industry Outreach" stemming from an incident that occurred in the fall of 2008. The USNRC has suggested that Superior draft an article and submit it for consideration for publication in an industry related newsletter or publication.

Would NATMI be interested?

I have attached the article.

Thanks,

Lew Cessna
HSE Compliance Manager
Superior Well Services
724-403-9080 Office
724-840-8541 Mobile
866-446-SWSI

From: Srock, John
Sent: Tuesday, February 01, 2011 11:18 AM
To: Cessna, Lewis
Subject: FW: Motor Fleet Monthly January 2011

John Srock | HSE Director | Superior Well Services, Inc. | W: 724.403.9066 | C: 724.541.7822 | F: 866.691.8298
| John.Srock@Nabors.com | www.nabors.com **Please Note Email Change to: John.Srock@nabors.com

From: Jeff Arnold - NATMI [joel@natmi.ccsend.com] On Behalf Of Jeff Arnold - NATMI [jeff@natmi.org]
Sent: Tuesday, February 01, 2011 10:47 AM
To: Srock, John
Subject: Motor Fleet Monthly January 2011

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January 2011

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PSP - No Longer Just a Portable Video Game

That's right. I seem to have heard that acronym tossed around many times in the past when my son could not find his *PSP game!* Now, as most of you know, the DOT delivered to us this past year a new PSP meaning, Pre-Employment Screening Program. I'm sure some of you may be asking: "What in the world are we going to do with this thing? Do I really need it? How are we going to use it?" Although some carriers jumped right into the due diligence arena, others have yet to commit to the new program.

Of course, for those who may not have seen one, the DOT's PSP is a report that provides the motor carrier with a look into the prospective driver's past record of roadside inspections and DOT reportable crashes. This would include only those inspections and DOT crashes that made it from the state level to the DOT's database. The DOT crash information on the report is the same standard information that you are required to report to carriers inquiring about past drivers, which includes the carrier name and DOT number. The inspection information will give you the carrier information, driver information, plus whether it was a vehicle, hazmat or driver violation, to include the FMCSR section, short description, OOS, date, report state, report number, hazmat, level, number of violations, and a summary of all violations. The report requires a release from the driver and will most likely cost you a signup fee and then a per report charge, according to

Rollover: The Preventable Crash

There are few more damaging and deadly crashes than a vehicle running off the road and overturning. The costs are high and the consequences often severe.

There are literally thousands of these types of truck crashes every year, and one in every ten is fatal to the truck driver. This year, there will be between 600 and 800 truck drivers killed as they do their jobs. In 2006, of those drivers killed in rollovers, 188 were ejected from their truck, meaning in nearly every case they were simply not wearing their seat belts.

The causes of these crashes are numerous and the solutions are few, but at an National Tank Truck Carriers seminar on tank truck rollovers, it was apparent that many of today's modern approaches to safety offer hope for improved safety for every trucking operation, for every truck driver and for every configuration of truck.

Understanding the nature of the rollover loss is first and the statistics that have been gathered offer some unique insights on how we might proceed. What do we know? Here are some key elements derived from FMCSA data:

- The vast majority of rollovers have as a primary cause driver error. Studies show driver error as the principle problem in about 75% of rollovers.

Ultimate Distinction - Who is Worthy of it?

No company ever attains very eminent success by simply doing what is required of the organization; it is the level of excellence over and above what is required that determines the greatness of ultimate distinction. As trucking companies strive for the ultimate distinction, sometimes we forget that distinction comes with a price, the price of more than hard work – the price of going beyond the expectations of others.

We do not have to search far to find business taglines proclaiming a particular organization's greatness or superiority to another; they are everywhere. If you are anything like this safety person, perhaps you read those taglines on the back of some company's truck and then wonder; is that really true?

I know as I travel within our region of operations those little slogans and catch phrases catch me eye at seemingly every other mile marker. Many times, I gauge what I read by whom I know within the company. In trucking, particularly with the large carriers, it really becomes a small industry in terms of professional relationships with our colleagues. If the people I know do not match the slogan, the company's claims of greatness will not register. As we begin a new year, the cliché of "starting over" holds more validity than ever before with CSA. Whether it is with a weight-loss goal, searching for a new job, or making a decision to change something in your life, there's nothing quite like the start of a new year to serve as our catalyst.

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NATMI | 2460 West 26th Avenue | Suite 245-C | Denver | CO | 80211

Superior Well Services Request 2-25-11

Cessna, Lewis

Sent: Friday, February 25, 2011 2:56 PM
To: Todd Mobley [toddmobley@hotmail.com]
Attachments: USNRC - SWS Professional ~1.docx (14 KB)

Todd,

Superior Well Services has been working with the USNRC in regards to "Industry Outreach" stemming from an incident that Superior had in the fall of 2008. The USNRC suggested that Superior draft and submit an article for consideration for publication in an industry related newsletter or publication.

Would AHP be interested?

I've attached the article.

Thanks,

Lew Cessna
HSE Compliance Manager
Superior Well Services
724-403-9080 Office
724-840-8541 Mobile
866-446-SWSI

Incident Example Inclusion 2-25-11

Cessna, Lewis

Sent: Friday, February 25, 2011 3:50 PM

To: Ellen Teprag [eteprag.ahp@comcast.net]

Cc: Todd Mobley [toddmobley@hotmail.com]

Attachments: USNRC NOV 10-21-10.pdf (529 KB) ; Mechanical Failure Summary~1.pdf (770 KB) ; Confirmatory Order 2-8-11.pdf (799 KB)

Ellen,

As part of Superior Well Services responsibilities in the recently issued Confirmatory Order, we are submitting information pertaining to the incident that occurred in the fall of 2008 at SWS' facility in Buckhannon, WV. SWS is hoping that the information provided in this email and AHP's involvement with the situation will be adequate to produce an inclusion of an example into AHP's training program.

Superior Well Services believes that the inclusion of this example into AHP's training program will allow other companies within the openhole wireline well servicing industry to benefit from past errors in judgment and failures of equipment that occurred at SWS.

Thank you,

Lew Cessna
HSE Compliance Manager
Superior Well Services
724-403-9080 Office
724-840-8541 Mobile
866-446-SWSI



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Indiana, PA 15701
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Buckhannon's Pig Holder Mechanical Failure

July 22, 2009

- WHO:** Kenneth Howell – Driver
Mark Lewis – Supervisor
Rob Kauffindafer - Mechanic
Don Miles – Camp Engineer In Charge (EIC)
- WHAT:** The density (CSV-J11) and neutron (71-1-367B) transport containers became separated from the wireline unit
- WHEN:** September 20, 2008 approximately 2:30pm
- WHERE:** Interstate 79 South Exit 110 Lost Creek, WV
- WHY:** Tack welds failed on the pig holder
- HOW:** The weight (150+ lbs) of the transport pigs and the pig holder overcame the integrity of the T-handle and the hasp lock causing the door to open and allowed the pigs to become separated from the unit after hitting a pothole on the interstate.

SOURCES:

	Density	Neutron
Serial Number	CSV-J11	71-1-367B
Isotope	Cs-137	Am-241Be
Activity	██████	██████
Manufacturer	Gulf Nuclear	Gulf Nuclear
Model Number	CSV	71-1

On September 20, 2008 at approximately 2:30pm, while returning from an openhole job north of Buckhannon, the neutron shield and the density shield separated from the radiation compartment of an openhole logging truck near Lost Creek on Interstate 79 southbound. The driver continued driving to the shop. Upon return, he noticed a chain hanging freely from the radiation compartment of his truck. He looked in the compartment and noticed that both transport shields and the pig holder had been separated from the unit. He immediately called his supervisor at approximately 3:00pm, who had stopped at the BP in Lost Creek for a drink on the way to the shop, and told him that the transport shield had been separated from the wireline unit. The driver mentioned hearing something after crossing the bridge on interstate 79 south at Lost Creek. The supervisor, who was ¼ of a mile away from the bridge, proceeded to the spot and immediately picked up the transport shields and pig holder. The supervisor loaded the transport shields and pig holder into the box of his pick-up truck and secured them with separate chains and padlocks and returned to the facility. Upon return to the facility with the sources, the supervisor contacted his mechanic to reweld the pig holder to the floor of the openhole wireline unit. The supervisor also contacted the camp EIC to report the



incident and notify him that all equipment was resecured. The supervisor then placed both sources into the downhole storage pig until the welding was completed.

According to witness statements both sources were secured with a padlock in their respective transport shields. The shields were mounted on a pig holder that was tack welded to the floor of the radiation compartment on the right rear of the truck. The radiation compartment door was secured with the T-handle closed and locked and a hasp lock on the rear of the compartment. The transport shields were chained together.

Root Cause: Failure of the tack welds on the pig holder

The failure of the tack welds that held the pig holder to the truck caused the transport shields and the pig holder to be "free" in the radiation compartment.

Secondary Cause # 1: Failure of the T-handle and the hasp lock on the compartment door

The failure of the T-handle and the hasp lock on the radiation compartment door allowed the compartment door to open freely and failed to contain the 150+ lbs of material that was inside of the compartment.

Secondary Cause # 2: Hitting a pothole on interstate 79 south

When the driver of the openhole wireline unit struck the pothole on interstate 79 south it caused the transport shields and the pig holder to move inside of the radiation compartment. The movement of the equipment and the failure of the door mechanisms allowed the equipment to separate from the openhole wireline unit.

Driver Statement:

Finished the job north of Buckhannon on 9/20/08. Checked to ensure that the radiation compartment door was secured. Proceeded to the shop. First noticed the sources separated from the truck during my post-trip inspection. Called Mark to report the issue. Mark told me to retrace my route. Drove back to location. I asked the rig crew to see if they had it. I drove back to the shop checking along the road and especially on all right-hand turns. Got back to the shop and called Mark to tell him that I couldn't find anything. Mark said that they had already found it just after I called. I parked the truck and went home.

Engineer Statement:

On the way back from the job on 9/20/08. I followed the truck to Lost Creek and decided to get a drink at the store. I stopped at the store and ran into someone that I knew and was talking to them when I got a call from the driver notifying me that the shields had become separated from the truck. The driver mentioned a pothole on the bridge on 79 south and said that he had heard something after hitting it. I went directly to the bridge and picked



up the equipment. I secured the equipment in my pickup and returned to the shop. Called the mechanic to reweld the plate in the truck and called the EIC to report the issue. I placed both sources downhole until the welding was complete.

EIC Statement:

I received a call from the engineer on 9/20/08 saying that he had the Worst and Best day of his life all at once. He said that the sources had separated from the truck and were recovered and resecured.

Image # 1 (below): Exterior of compartment with T-handle and hasp lock

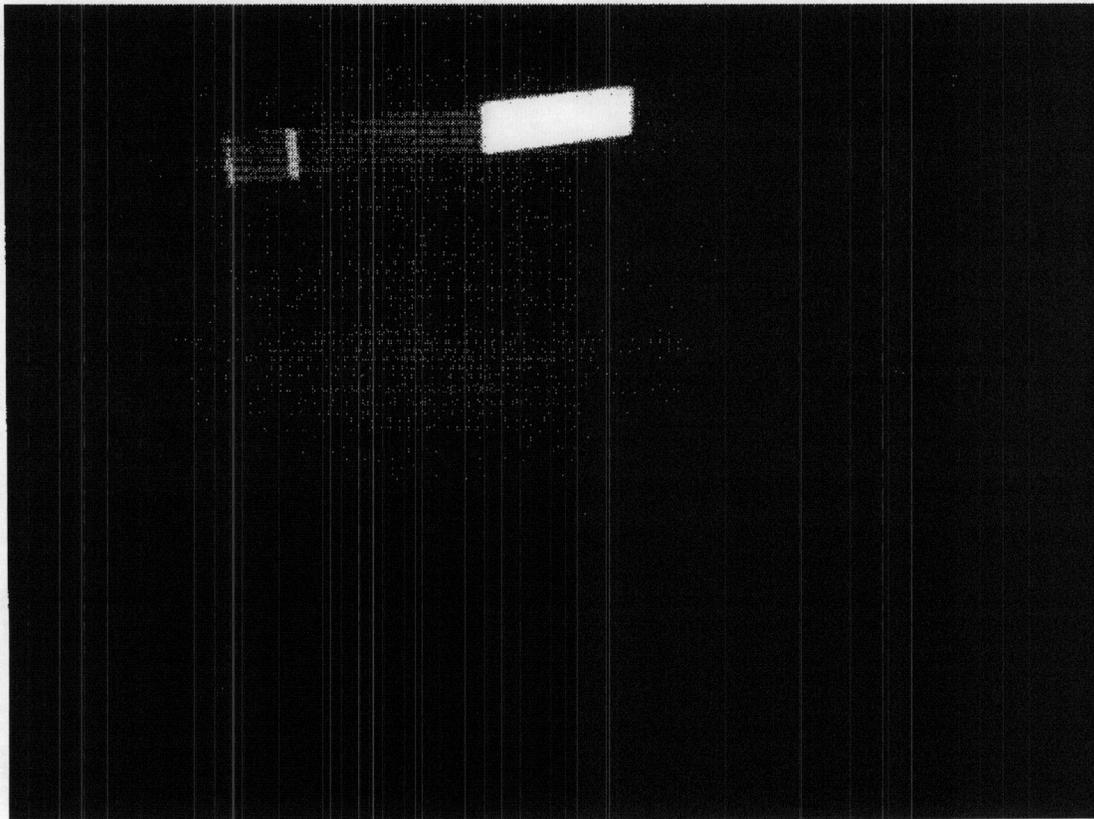




Image # 2 (below): Transport shields with pig holder

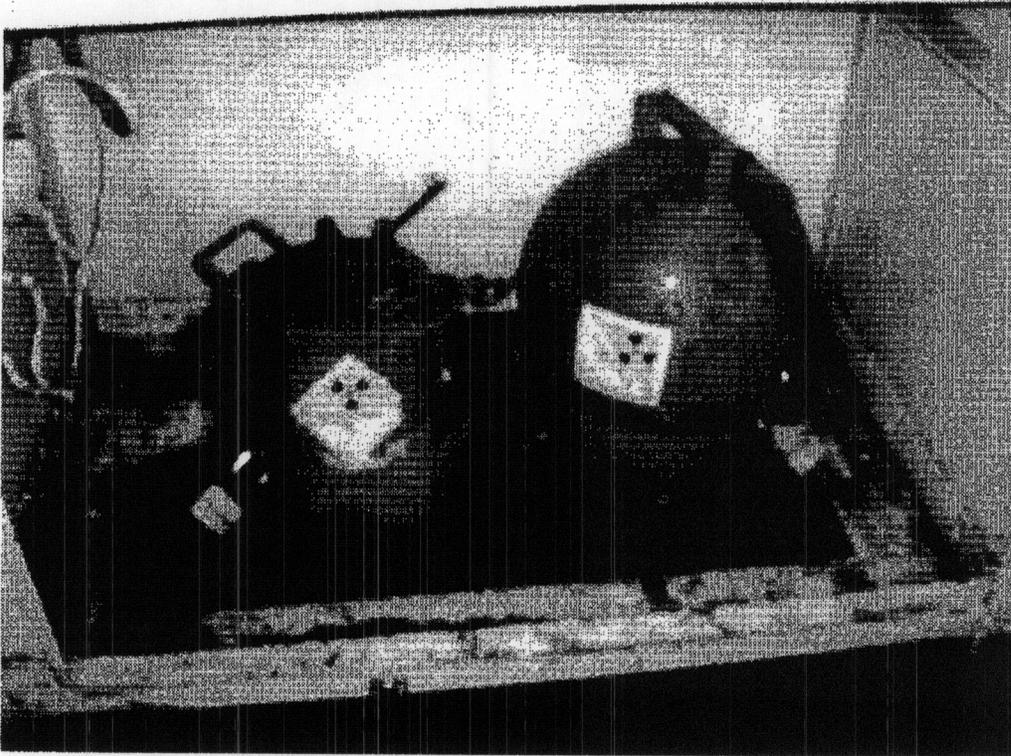


Image # 3 (below): T-handle mechanism

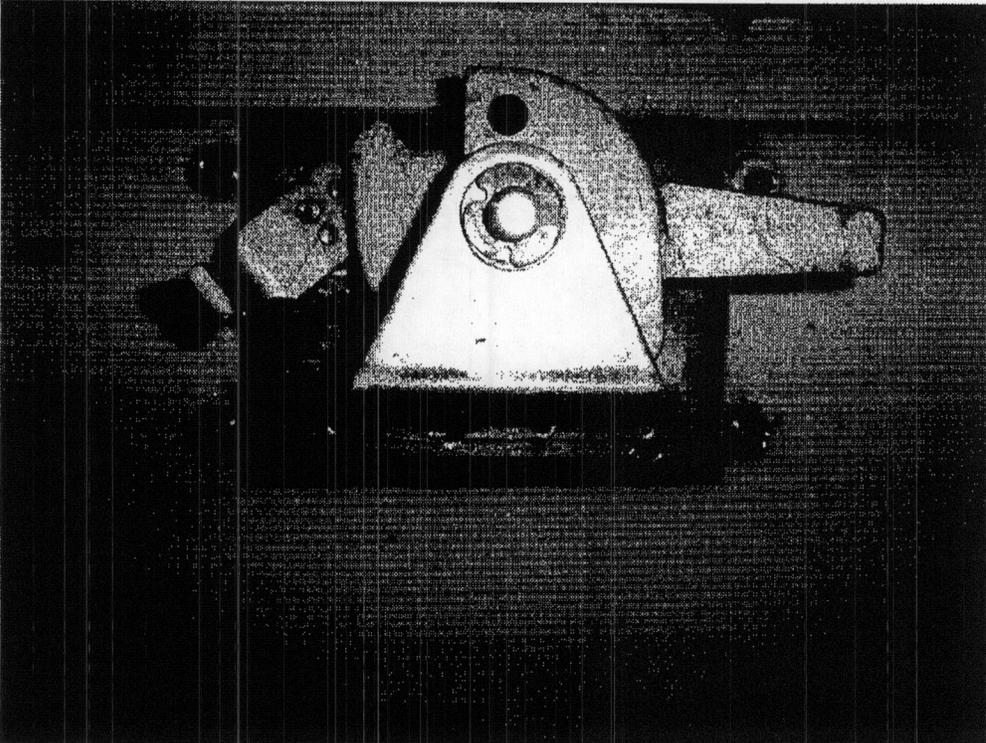




Image # 4 (below): Location of equipment beside Interstate 79 South



Image #5 (below): Bridge on Interstate 79 South

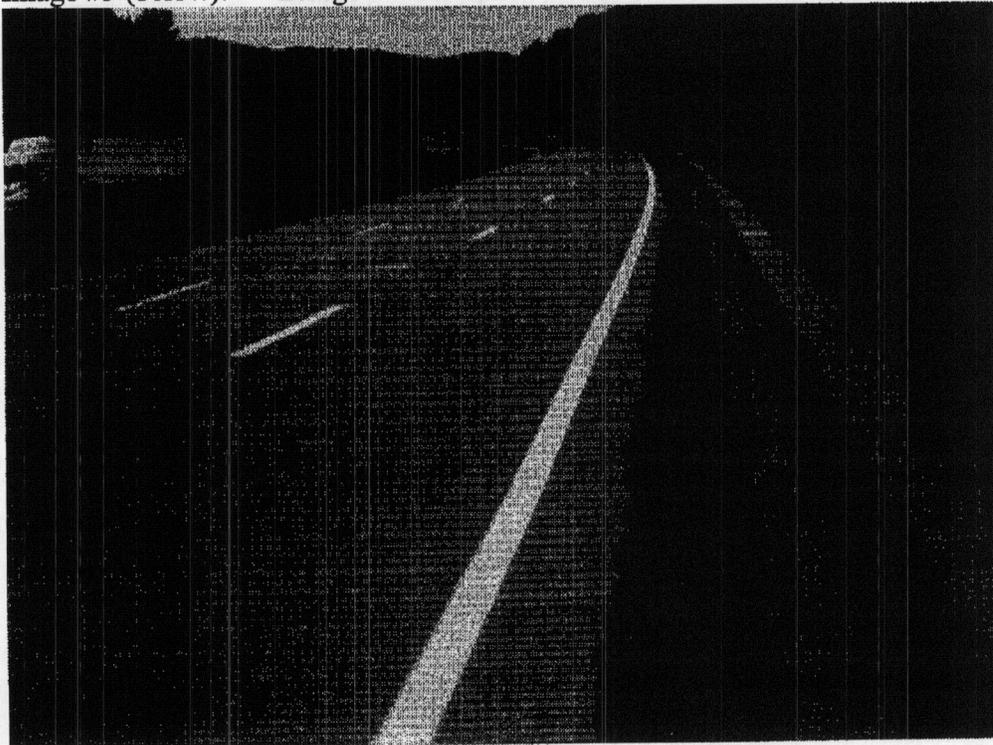




Image # 6 (below): Road Damage on Bridge

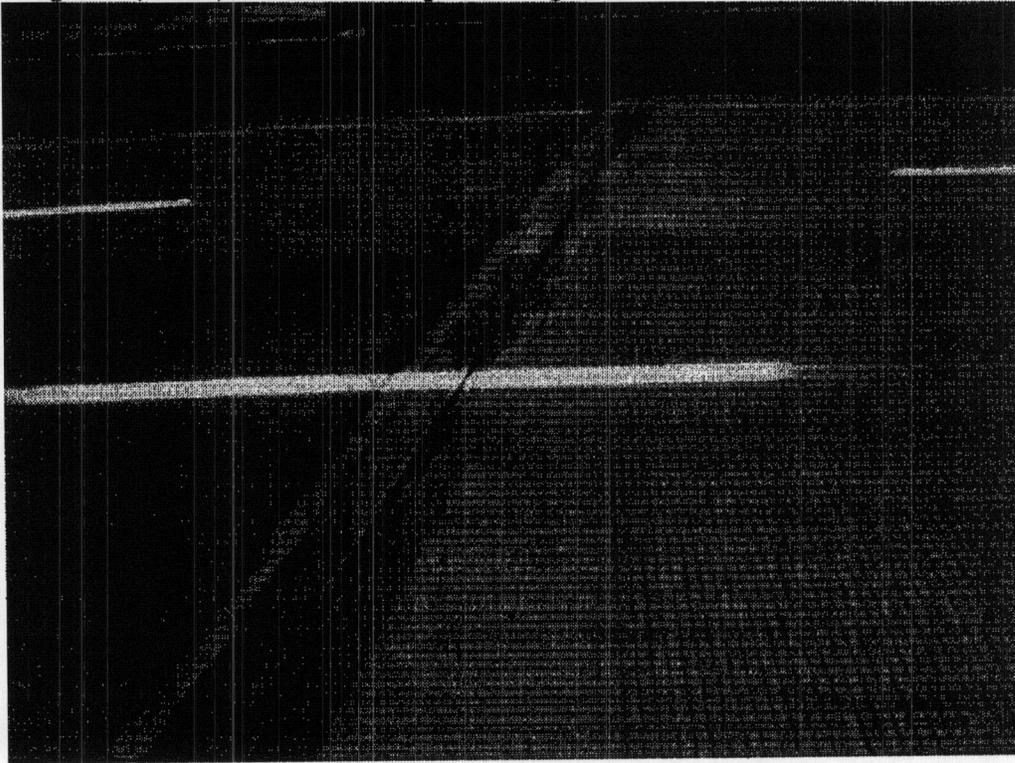


Image # 7 (below): 1st Pothole on Bridge (repaired)

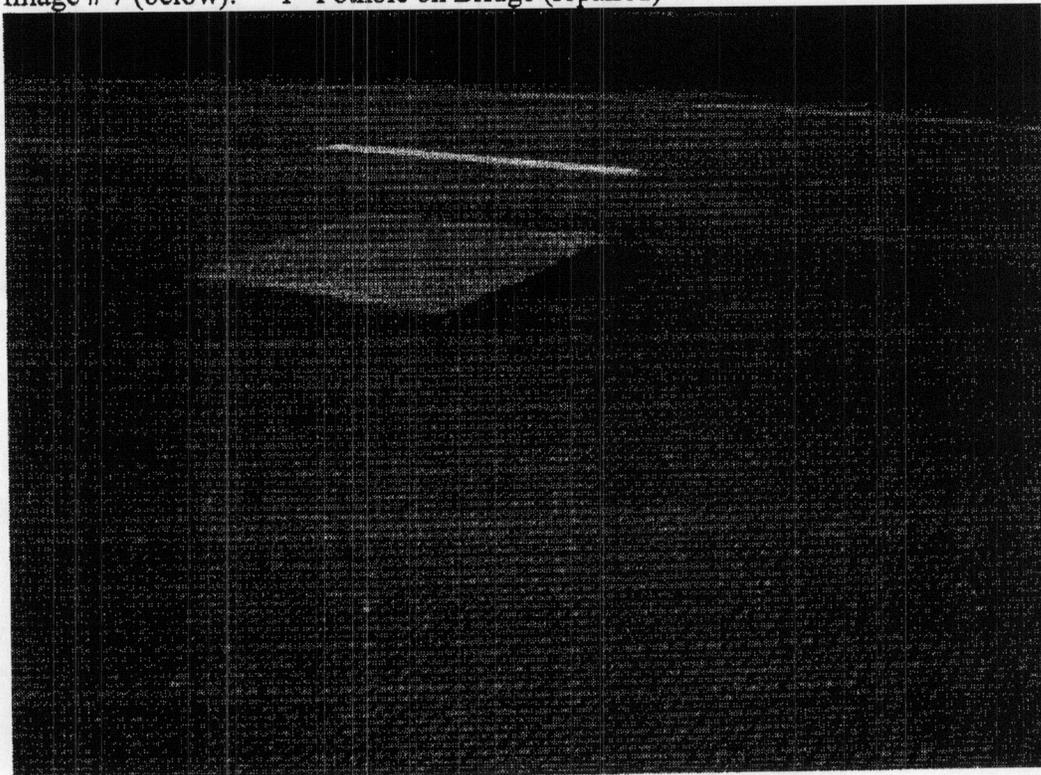




Image # 8 (below): Second Pothole on bridge (repaired)

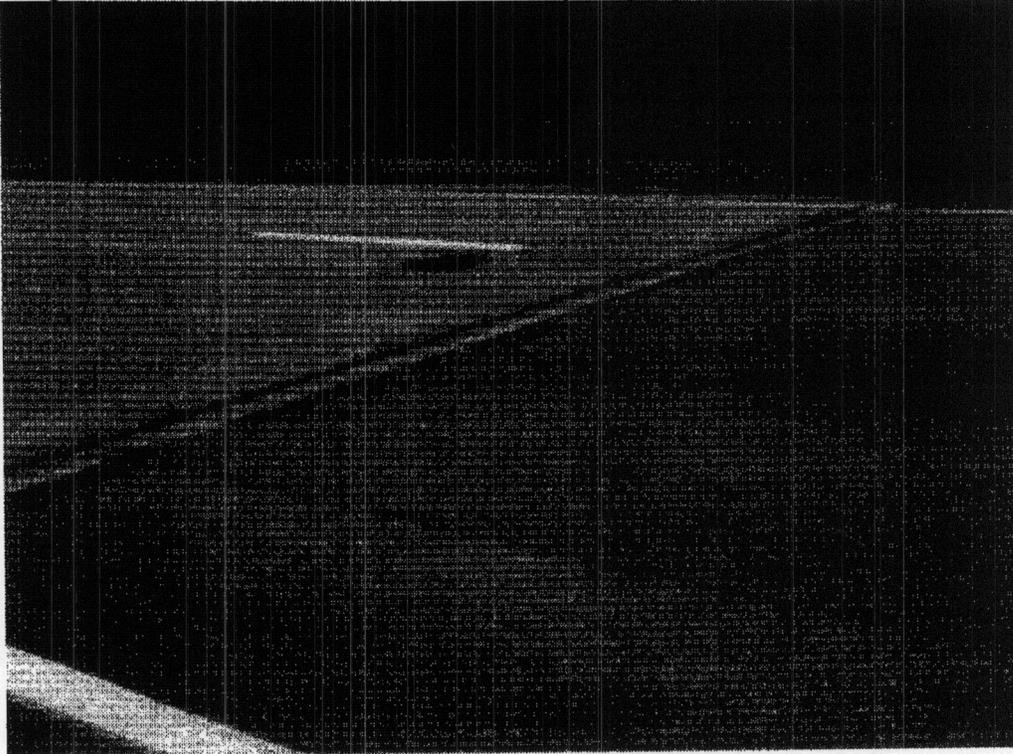


Image # 9 (below): Mile Marker 109.6 on interstate 79 south





Corrective Actions:

Corrective actions were taken immediately to eliminate the possibility of a reoccurrence.

- Complete weld along the base of the pig holder
- Chain through both transport shields that is bolted to a structural member of the truck (floor, frame, etc)
- Heavy hasp lock (bolt style) on the exterior of the radiation compartment door

Discipline:

Progressive discipline has been taken against the EIC. A written warning has been placed in his employee file and the EIC has been counseled on the importance of reporting anything out of the ordinary in regards to the Radiation Safety Program. The EIC did complete a Near Miss Report, but failed to notify the Corporate RSO or the HSE Department of the near miss.

Research:

Research conducted to verify that there were no overexposures included calculating the expected dose in the worst case scenario with the transportation shields removed from the wireline unit.

Surface reading:	2.0 mR/hr
TI:	0.4 mR/hr
Time along 79:	30 minutes

Expected dose if a person were sitting on the shield for ½ hour: 1 mR

Since the allowable public dose is 2 mR/hr (100 mR/yr) this research shows the lack of the possibility of an overexposure in this situation.

USNRC License Information:

License Number: 37-30412-01

Docket Number: 030-34542

Signed,

Lew Cessna
HSE Compliance Manager
Superior Well Services
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30.9 Completeness and Accuracy of Information

- (a) Information provided to the Commission by an applicant for a license or by a licensee or information required by statute or by the Commission's regulations, orders, or license conditions to be maintained by the applicant or the licensee shall be complete and accurate in all material respects.
- If you falsify information on any legal document, including shipping papers, you are breaking a Federal law. Potential punishment includes termination of employment from SWS and possibly a prison sentence.
- Regulations and license conditions must be properly followed, including the requirements of providing complete and accurate information to the NRC and maintaining records that are complete and accurate in all material respects.