

May 2010 Electrical Safety Occurrences

There were 7 electrical safety occurrences for May 2010:

- 1 occurrence resulted in an electrical shock to a worker
- 3 occurrences involved inadequate lockout/tagout (LOTO)
- 1 occurrence involved an electrical worker and 6 occurrences involved non-electrical workers
- 4 occurrences involved subcontractors
- 1 occurrence involved inadvertent severing of an energized conductor
- 1 occurrence involved excavation of electrical conductors
- 4 occurrences resulted from inadequate planning
- 3 occurrences were considered near miss to a more serious event

Electrical safety performance in the month of May represented a significant improvement over the previous three months. Only one electrical injury was reported, indicating perhaps the effort to raise awareness has been effective. The trend continues to indicate the need to focus attention on non-electrical workers and subcontract employees. As we saw from last month, hazards recognition still needs to be improved. Workers identified potential electrical hazards in only two of the seven events this month. Another area of concern is the pulling of wiring and cables through conduit, raceways, junction boxes or electrical enclosures that might contain exposed energized parts. In one event this month, arcing occurred as workers installed conductors in a junction box that contained energized 480-volt conductors. These types of events can be very dangerous as evidenced by the 1994 event at the Y12 Site, in which an electrician was burned from an arc flash while pulling cables into an energized 480-volt circuit breaker enclosure. Failing to anticipate electrical hazards during work planning is another area where we can reduce the number of incidents. Applying basic Integrated Safety Management (ISM) to simple or routine tasks will help avoid unanticipated electrical hazards. Overall, the data for the month of May provides a positive indication that the second half of 2010 could be much safer than the first. We need to continue to improve in all areas (e.g., job scoping and planning, hazardous energy control, and work execution and oversight), to protect personnel and property from the hazards involved with the use of electricity.

In compiling the monthly totals, the search initially looked for occurrence discovery dates in this month (excluding Significance Category R reports), and for the following ORPS "HQ keywords":

01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

Using the key words above, seven events were identified. Please continue to report all events and evaluate the events using the Electrical Severity Measurement Tool. During the month of May, four of the events had Medium (31-330) Electrical Severity scores and the other three events had no score.

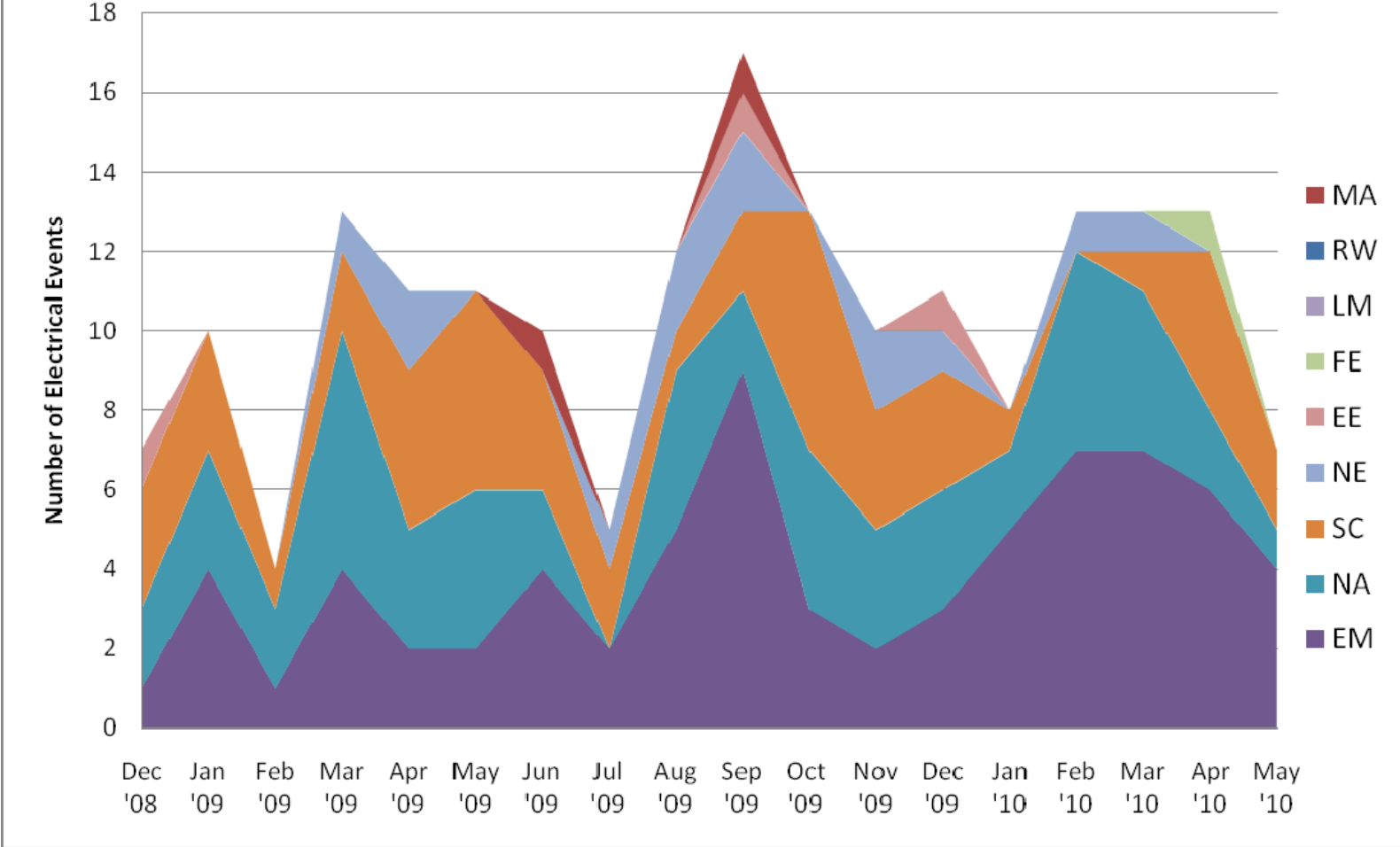
Below is the current summary of 2010 electrical safety occurrences:

Period	Electrical Safety Occurrences	Shocks	Burns	Fatalities
May-10	7	1	0	0
April-10	13	2	0	0
March-10	13	2	0	0
February-10	13	4	0	0
January-10	8	0	0	0
2010 total	54 (avg. 10.8/month)	9	0	0
2009 total	128 (avg. 10.7/month)	25	3	0
2008 total	113 (avg. 9.4/month)	26	1	0
2007 total	140 (avg. 11.7/month)	25	2	0
2006 total	166 (avg. 13.8/month)	26	3	0
2005 total	165 (avg. 13.8/month)	39	5	0
2004 total	149 (avg. 12.4/month)	25	3	1

The seven electrical safety events reported in May 2010, brings the monthly average for the first five months of the year to 10.8 events per month. This represents a slight increase over the rate of electrical safety occurrences in 2009 (10.7 per month). There was one electrical injury event in May resulting in nine reported so far in 2010.

Electrical Events by Month and Secretarial Office

(Rolling 18-Month Chart)



EE - Energy Efficiency and Renewable Energy, EM - Environmental Management, FE - Fossil Energy, LM - Legacy Management, MA - Management, NA - National Nuclear Security Administration, NE - Nuclear Energy, RW - Civilian Radioactive Waste Management, SC - Science

Electrical Safety Occurrences – May 2010

No	Report Number	Event Summary	SHOCK	BURN	ARCF ⁽¹⁾	LOTO ⁽²⁾	PLAN ⁽³⁾	EXCAV ⁽⁴⁾	CUT/D ⁽⁵⁾	VEH ⁽⁶⁾	SC ⁽⁷⁾	RC ⁽⁸⁾	ES ⁽⁹⁾
1	EM--PPPO-PRS-PGDPENVRES-2010-0006	Arcing occurs at junction box during installation of conductors.				X	X				3	10(3)	300
2	EM-CAFO--WTS-WIPP-2010-0005	Tenant contractor violates site LOTO procedure.				X	X				3	2C(2)	0
3	EM-SR--PSC-SWPS-2010-0004	Worker receives several 120 volt electrical shocks while grinding wet concrete.	X				X				4	10(2)	110
4	EM-SR--SRNS-SIPS-2010-0009	Welding cable damaged creating spark.									4	10(2)	60
5	NA--SS-SNL-NMFAC-2010-0006	Worker severs 120 volt energized conductor.				X	X		X		3	10(2)	110
6	SC--TJSO-JSA-TJNAF-2010-0004	Flooding occurs in area containing energized electrical equipment.									4	10(3)	0
7	SC--TJSO-JSA-TJNAF-2010-0005	Energized 480 volt conductors struck during excavation.						X			3	2C(2)	0
	TOTAL		1	0	0	3	4	1	1	0			

Key

(1) ARCF = significant arc flash, (2) LOTO = lockout/tagout, (3) PLAN = job planning, (4) EXCAV = excavation/penetration, (5) CUT/D = cutting or drilling, (6) VEH = vehicle event, (7) SC = ORPS significance category, (8) RC = ORPS reporting criteria, (9) ES = electrical severity

ES Scores: Extreme is >3301, High is 331-3300, Medium is 31-330, and Low is 1-30

Electrical Safety Occurrences – May 2010

No	Report Number	Event Summary	EW ⁽¹⁾	N-EW ⁽²⁾	SUB ⁽³⁾	HFW ⁽⁴⁾	WFH ⁽⁵⁾	PPE ⁽⁶⁾	70E ⁽⁷⁾	VOLT ⁽⁸⁾		C/I ⁽⁹⁾	NEUT ⁽¹⁰⁾	NM ⁽¹¹⁾
										H	L			
1	EM--PPPO-PRS-PGDPENVRES-2010-0006	Arcing occurs at junction box during installation of conductors.	X			X					X			X
2	EM-CAFO--WTS-WIPP-2010-0005	Tenant contractor violates site LOTO procedure.		X	X		X				X			
3	EM-SR--PSC-SWPS-2010-0004	Worker receives several 120 volt electrical shocks while grinding wet concrete.		X		X		X			X			
4	EM-SR--SRNS-SIPS-2010-0009	Welding cable damaged creating spark.		X		X					X			
5	NA--SS-SNL-NMFAC-2010-0006	Worker severs 120 volt energized conductor.		X	X	X					X			
6	SC--TJSO-JSA-TJNAF-2010-0004	Flooding occurs in area containing energized electrical equipment.		X	X		X				X			X
7	SC--TJSO-JSA-TJNAF-2010-0005	Energized 480 volt conductors struck during excavation.		X	X	X					X			X
	TOTAL		1	6	4	5	2	1	0	0	7	0	0	3

Key

(1) EW = electrical worker, (2) N-EW = non-electrical worker, (3) SUB = subcontractor, (4) HFW = hazard found the worker, (5) WFH = worker found the hazard, (6) PPE = inadequate or no PPE used, (7) 70E = NFPA 70E issues, (8) VOLT = H (>600) L(≤600), (9) C/I = Capacitance/Inductance, (10) NEUT = neutral circuit, (11) NM = near miss

ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 54663 OR(s) with 57973 occurrences(s) as of 6/4/2010 6:37:24 AM
 Query selected 7 OR(s) with 7 occurrences(s) as of 6/4/2010 11:01:22 AM

Download this report in Microsoft Word format. 

1)Report Number:	EM--PPPO-PRS-PGDPENVRES-2010-0006 After 2003 Redesign		
Secretarial Office:	Environmental Management		
Lab/Site/Org:	Paducah Gaseous Diffusion Plant		
Facility Name:	Environmental Restoration		
Subject/Title:	Near Miss - Electrical Arc During Installation of Temporary Power (ARRA)		
Date/Time Discovered:	05/15/2010 13:35 (ETZ)		
Date/Time Categorized:	05/15/2010 16:00 (ETZ)		
Report Type:	Notification		
Report Dates:	Notification	05/19/2010	17:31 (ETZ)
	Initial Update		
	Latest Update		
	Final		
Significance Category:	3		
Reporting Criteria:	10(3) - A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the four significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)		
Cause Codes:			
ISM:	2) Analyze the Hazards 3) Develop and Implement Hazard Controls 4) Perform Work Within Controls		
Subcontractor Involved:	No		
Occurrence Description:	A crew of electricians and other support personnel were working off-shift overtime to install temporary electrical power in a facility that is in the Decontamination and Decommissioning (D&D) stage of the facility lifecycle. Two electricians were installing approximately 15 feet of new conductors between two junction boxes mounted on an exterior wall. The junction boxes contained an energized insulated 480 voltage conductor cable which would not be disturbed during installation of the new conductors and did not contain any exposed conductors, terminals, or other exposed energized equipment. Personnel assessed the situation and agreed		

	<p>that the Lock out/Tag out (LOTO) process was not required or needed for this portion of the work. The junction boxes are located one above the other and connected by about six feet of two inch metal conduit. One electrician was working from a man lift to feed three conductors into the upper junction box and down through the conduit and out the lower junction box. A second electrician was standing on the ground and pulling the other end of the conductors from the lower junction box. The new conductors were relatively small and fit easily through the existing conduit without exertion. Very shortly after the conductors had been pulled through the conduit, the electricians had put the conductors down and were moving away from the junction boxes. Suddenly and without warning, both electricians visually observed and heard arcing at the lower junction box. The immediate response of both electricians was to flee the area. The arcing continued in total for approximately twenty seconds. Upon recognizing the situation, a third electrician quickly accessed the disconnect and manually opened it. This action stopped the arcing. Shortly after opening the disconnect, all three electricians placed single-source locks and tags on the disconnect.</p>
Cause Description:	
Operating Conditions:	Does not apply.
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	<p>Personnel immediately halted activities and placed personal lock-out devices on the disconnect to ensure safe conditions.</p> <p>Personnel began notifications and a stop work notice was initiated.</p> <p>A Fact Finding/Critique was held the day of the incident.</p>
FM Evaluation:	The Stop Work Notice was completed for immediate and compensatory actions to restart facility D&D operations. Actions to restart included verifying necessary work controls were in place to make repairs to damaged conductors. A Field Change was issued for the work package to remove any uncertainty regarding sequencing for LOTO of hazardous energy.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	<p>Yes.</p> <p>Before Further Operation? No</p> <p>By Whom: Don Ulrich</p> <p>By When: 06/28/2010</p>

Division or Project:	Paducah Environmental Remediation Project															
Plant Area:	C-746-A															
System/Building/Equipment:	C-746-A East End Smelter															
Facility Function:	Environmental Restoration Operations															
Corrective Action:																
Lessons(s) Learned:																
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 13H--Management Concerns - American Recovery and Reinvestment Act (ARRA) 14E--Quality Assurance - Work Process Deficiency 14H--Quality Assurance - Inspection and Acceptance Testing Deficiency															
HQ Summary:	<p>On May 15, 2010, after two electricians finished pulling three electrical conductors through conduit, both electricians saw and heard arcing at a lower junction box. They immediately fled the area as the arcing continued for approximately 20 seconds. Upon recognizing the situation, a third electrician quickly opened a manual disconnect, which stopped the arcing. Then all three electricians placed single-source locks and tags on the disconnect switch. The electricians had been installing approximately 15 feet of new conductors between two junction boxes that contained energized 480-volt insulated conductor cables. They decided not to use a lockout/tagout because there were no exposed energized parts. Notifications were made and a stop work notice was initiated. A fact finding/critique was held the day of the incident.</p>															
Similar OR Report Number:																
Facility Manager:	<table border="1"> <tr> <td>Name</td> <td colspan="3">Don Ulrich</td> </tr> <tr> <td>Phone</td> <td colspan="3">(270) 441-5079</td> </tr> <tr> <td>Title</td> <td colspan="3">D&D Project Manager</td> </tr> </table>				Name	Don Ulrich			Phone	(270) 441-5079			Title	D&D Project Manager		
Name	Don Ulrich															
Phone	(270) 441-5079															
Title	D&D Project Manager															
Originator:	<table border="1"> <tr> <td>Name</td> <td colspan="3">FREELS, JENNIE P</td> </tr> <tr> <td>Phone</td> <td colspan="3">(270) 441-5192</td> </tr> <tr> <td>Title</td> <td colspan="3">QUALITY ASSURANCE SPECIALIST</td> </tr> </table>				Name	FREELS, JENNIE P			Phone	(270) 441-5192			Title	QUALITY ASSURANCE SPECIALIST		
Name	FREELS, JENNIE P															
Phone	(270) 441-5192															
Title	QUALITY ASSURANCE SPECIALIST															
HQ OC Notification:	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </table>				Date	Time	Person Notified	Organization	NA	NA	NA	NA				
Date	Time	Person Notified	Organization													
NA	NA	NA	NA													

Other Notifications:	Date	Time	Person Notified	Organization
	05/15/2010	13:40 (ETZ)	Dennis Homola	PRS
	05/15/2010	13:50 (ETZ)	Brad Montgomery	PRS
	05/15/2010	14:00 (ETZ)	Kevin Nell	PRS
	05/15/2010	14:45 (ETZ)	Jerry Snellings	PRS
	05/15/2010	15:15 (ETZ)	Greg Bazzell	DOE
	05/15/2010	15:30 (ETZ)	Glen Smith	PRS/ES
Authorized Classifier(AC):	H. T. Anderson Date: 05/19/2010			
2)Report Number:	EM-CAFO--WTS-WIPP-2010-0005 After 2003 Redesign			
Secretarial Office:	Environmental Management			
Lab/Site/Org:	Carlsbad Field Office			
Facility Name:	Waste Isolation Pilot Plant			
Subject/Title:	Tenant failed to follow prescribed hazardous energy control process - Electrical			
Date/Time Discovered:	05/25/2010 13:29 (MTZ)			
Date/Time Categorized:	05/25/2010 15:07 (MTZ)			
Report Type:	Notification			
Report Dates:	Notification	05/27/2010	16:53 (ETZ)	
	Initial Update			
	Latest Update			
	Final			
Significance Category:	3			
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.			
Cause Codes:				
ISM:	6) N/A (Not applicable to ISM Core Functions as determined by management review.)			
Subcontractor Involved:	No			
Occurrence Description:	On May 25, 2010, it was discovered that a violation of the site's hazardous energy control process (electrical - Lockout/Tagout) occurred during the May 7 through May 18, 2010 timeframe. The violation occurred when a site Tenant performed repairs on an Uninterrupted Power Supply (UPS) without a site approved work package. Site procedures require work			

	<p>packages to contain pre-job briefings, Lockout/Tagout (LOTO) requirements, absence of voltage verification and Personal Protection Equipment (PPE) requirements. The Tenant (Leland Stanford Junior University) performs work in the Enriched Xenon Observatory (EXO), located in the WIPP underground, under a Deployment User Facilities Agreement with Department of Energy (DOE) Carlsbad Field Office (CBFO), Washington TRU Solutions (WTS) LLC and Stanford University.</p> <p>Limited information is known at this time. A Critique has been scheduled for June 1, 2010 to gather more information during the Event Investigation process.</p>
Cause Description:	
Operating Conditions:	Does not apply
Activity Category:	Research
Immediate Action(s):	<p>Issued WIPP Form for Issues Management.</p> <p>Scheduled a Critique. Note: The Critique was delayed until 06/01/10 in order to gather sufficient information.</p> <p>WTS issued a memo to EXO personnel to inform them that until further notice, EXO personnel and their vendors are required to follow the site hazardous energy control process and any other activity that requires a WTS approved work package.</p>
FM Evaluation:	As noted in the Description of Occurrence section of this report, information is limited at this time. EXO personnel with knowledge of the occurrence are not available at this time.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	<p>Yes.</p> <p>Before Further Operation? No</p> <p>By Whom: WTS and CBFO</p> <p>By When:</p>
Division or Project:	WTS/WIPP
Plant Area:	Underground
System/Building/Equipment:	Enriched Xenon Observatory (EXO)
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	<p>01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical)</p> <p>01M--Inadequate Conduct of Operations - Inadequate Job Planning</p>

	(Electrical) 11J--Other - Tenants on DOE Property 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency																
HQ Summary:	On May 25, 2010, it was discovered that a site tenant violated the site hazardous energy control process (electrical) during the May 7 through May 18, 2010 timeframe. The violation occurred when the tenant repaired an uninterruptable power supply without a site approved work package. Site procedures require work packages to contain pre-job briefings, lockout/tagout requirements, absence of voltage verification and personal protective equipment requirements. The tenant (Leland Stanford Junior University) performs work in the Enriched Xenon Observatory, located in the WIPP underground, under a Deployment User Facilities Agreement with Department of Energy Carlsbad Field Office, Washington TRU Solutions LLC and Stanford University. Limited information is known at this time. A critique has been scheduled to gather more information during the event investigation process.																
Similar OR Report Number:	1. EM-CAFO--WTS-WIPP-2010-0001 2. NA--LASO-GOLA-BOPLASO-2009-0001																
Facility Manager:	<table border="1"> <tr> <td>Name</td> <td>BRYAN, WESLEY</td> </tr> <tr> <td>Phone</td> <td>(575) 234-8250</td> </tr> <tr> <td>Title</td> <td>FACILITY MANAGER</td> </tr> </table>	Name	BRYAN, WESLEY	Phone	(575) 234-8250	Title	FACILITY MANAGER										
Name	BRYAN, WESLEY																
Phone	(575) 234-8250																
Title	FACILITY MANAGER																
Originator:	<table border="1"> <tr> <td>Name</td> <td>KNOX, JEFF W.</td> </tr> <tr> <td>Phone</td> <td>(575) 234-8462</td> </tr> <tr> <td>Title</td> <td>TECHNICAL COORDINATOR</td> </tr> </table>	Name	KNOX, JEFF W.	Phone	(575) 234-8462	Title	TECHNICAL COORDINATOR										
Name	KNOX, JEFF W.																
Phone	(575) 234-8462																
Title	TECHNICAL COORDINATOR																
HQ OC Notification:	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	NA	NA	NA	NA								
Date	Time	Person Notified	Organization														
NA	NA	NA	NA														
Other Notifications:	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>05/25/2010</td> <td>13:29 (MTZ)</td> <td>JEFF KNOX</td> <td>WTS/FMD</td> </tr> <tr> <td>05/25/2010</td> <td>13:38 (MTZ)</td> <td>GLENN GAMLIN</td> <td>CBFO/FR</td> </tr> <tr> <td>05/25/2010</td> <td>13:42 (MTZ)</td> <td>WES BRYAN</td> <td>WTS/FM</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	05/25/2010	13:29 (MTZ)	JEFF KNOX	WTS/FMD	05/25/2010	13:38 (MTZ)	GLENN GAMLIN	CBFO/FR	05/25/2010	13:42 (MTZ)	WES BRYAN	WTS/FM
Date	Time	Person Notified	Organization														
05/25/2010	13:29 (MTZ)	JEFF KNOX	WTS/FMD														
05/25/2010	13:38 (MTZ)	GLENN GAMLIN	CBFO/FR														
05/25/2010	13:42 (MTZ)	WES BRYAN	WTS/FM														
Authorized Classifier(AC):																	
3)Report Number:	EM-SR--PSC-SWPF-2010-0004 After 2003 Redesign																
Secretarial Office:	Environmental Management																
Lab/Site/Org:	Savannah River Site																
Facility Name:	Salt Waste Processing Facility																
Subject/Title:	Concrete finishers received minor electrical shocks during concrete grinding operations																

Date/Time Discovered:	05/17/2010 08:30 (ETZ)		
Date/Time Categorized:	05/17/2010 08:50 (ETZ)		
Report Type:	Notification/Final		
Report Dates:	Notification	05/19/2010	16:44 (ETZ)
	Initial Update	05/19/2010	16:44 (ETZ)
	Latest Update	05/19/2010	16:44 (ETZ)
	Final	05/19/2010	16:44 (ETZ)
Significance Category:	4		
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)		
Cause Codes:			
ISM:	2) Analyze the Hazards 4) Perform Work Within Controls		
Subcontractor Involved:	No		
Occurrence Description:	<p>Concrete finishers received minor electrical shocks during concrete grinding operations. One worker was applying water to the concrete for dust control while another finisher smoothed the concrete with a grinder. The water being applied to the concrete was wetting the workers gloves and entering the tool, causing the concrete finishers to receive a shock. The grinders were being used with GFCI receptacles and breakers. During the times workers were receiving shocks, no GFCI receptacles tripped.</p> <p>On Monday, May 10th two concrete finishers were performing a grinding operation. One worker was applying water to the concrete for dust control while another finisher smoothed the concrete with a Milwaukee grinder. The water was applied using two methods. The first method was to wet the concrete using a pump sprayer before the grinding began. The second method of applying water was to dip a brush in a bucket of water and use a brush to fling water on the area where grinding was taking place. This second method was performed at the same time the grinding was taking place. The finisher's gloves and the grinder became wet. The finisher received minor electrical shocks, but did not think it was significant and did not report it to his supervisor at the time it occurred.</p> <p>On Tuesday, May 11th the Finisher discussed the event during the Safe Work Brief. The Finisher was instructed by the Supervisor and Safety to report any further incidents as soon as they occurred. Concrete grinding</p>		

activities were performed Tuesday night using the same methods described above with no electrical shocks being felt by any of the Finishers.

On Wednesday, May 12th one of the Finishers received an electrical shock to his hand. He called a time out and notified his supervisor. The Supervisor instructed him to change from the Milwaukee grinder to a Hilti DC 150 grinder and to replace his wet leather gloves with new dry leather gloves. No further shocks occurred.

On Thursday, May 13th concrete grinding was performed with no one receiving a shock from the grinders. Work was performed using the same methods previously employed for this type of work.

On Friday, May 14th a Finisher received a electrical shock to his hand that was touching the trigger assemble of a Hilti DC 150 grinder. The grinder was in the locked on position and after receiving the first shock, the Finisher rested the grinder, still operating, on the rail of the lift he was using. He touched the trigger assemble again to turn the grinder off and received another electrical shock. He was able to turn the grinder off.

A time out was called. The night shift superintendent instructed the Finisher to return the grinder and have it tagged out of service. A continuity check was performed on the grinder. The check showed no signs that the tool was deficient.

The grinders were plugged into a 4 way GFCI that is connected to a GFCI breaker.

The GFCIs were tested and found to trip as required. The National Electric Code requires GFCI's to trip between 4 and 6 milliamps. Based on the GFCI being in good working order and not tripping during the shocking event, the Finishers would have received a shock of less than 6 milliamps.

All grinding was stopped on night shift and notifications of the event were made.

A fact finding meeting was held on 05/17/2010.

Cause Description:

Operating Conditions:

SWPF Construction

Activity Category:

Construction

Immediate Action(s):

1. Discussions with all foremen will take place that stresses the need to identify all issues to management no matter how minor.
2. Change PPE requirements to use rubber gloves when using the wet method of grinding.
3. JHA will be changed to identify grinding and spraying of water cannot be performed simultaneous.

	<p>4. Update JHA to only use the sprayer to apply water while grinding.</p> <p>5. Benchmark other construction projects to identify improved methods of performing this activity.</p>
FM Evaluation:	<p>This event is being reported as a Management Concern due to the safety significance of repeated minor electrical shocks occurring without notifying management to ensure a complete investigation was conducted to eliminate the electrical shock hazard. In discussion with workers and first line supervisors it was determined the significance of the minor electrical shocks were not recognized since both the grinders and GFCIs were checked and found in proper working order.</p> <p>It was also concluded the strong emphasis on wetting to control silica dust during the grinding activity resulted in an unintended consequence of applying water simultaneously during grinding operations.</p>
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	SWPF
Plant Area:	J Area
System/Building/Equipment:	J Area
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	<p>01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous)</p> <p>01N--Inadequate Conduct of Operations - Inadequate Job Planning (Other)</p> <p>01P--Inadequate Conduct of Operations - Inadequate Oral Communication</p> <p>08A--OSHA Reportable/Industrial Hygiene - Electrical Shock</p> <p>12C--EH Categories - Electrical Safety</p> <p>14E--Quality Assurance - Work Process Deficiency</p>
HQ Summary:	<p>On May 10, 2010, a concrete finisher received a minor electrical shock during concrete grinding operations. One finisher was applying water to the concrete for dust control while another finisher smoothed the concrete with a grinder. The water being applied to the concrete was wetting the workers gloves and entering the tool, causing the shock. On May 12, one of the finishers received an electrical shock to his hand and the supervisor instructed him to change from the Milwaukee grinder to a Hilti DC 150 grinder and to replace his wet leather gloves with new dry leather gloves. No further shocks occurred. On May 14, a finisher received an electrical shock to his hand that was touching the trigger assemble of a Hilti DC 150 grinder. The grinder was in the locked on position and after receiving the first shock, the finisher rested the grinder, still operating, on the rail of the</p>

lift he was using. He touched the trigger assemble again to turn the grinder off and received another electrical shock. A time out was called and the grinder was checked and found not to be defective. The grinders were plugged into GFCI receptacles and breakers. When the finishers received shocks, no GFCI receptacles tripped. The GFCIs were tested and found to trip as required. Because the GFCI was in good working order and not tripping, the finishers would have received a shock of less than 6 milliamps. A fact finding meeting was held.

Similar OR Report Number:

Facility Manager:	Name	Swanson, Brad
	Phone	(803) 643-2279
	Title	PLANT MANAGER

Originator:	Name	Swanson, Brad
	Phone	(803) 643-2279
	Title	PLANT MANAGER

HQ OC Notification:	Date	Time	Person Notified	Organization
	NA	NA	NA	NA

Other Notifications:	Date	Time	Person Notified	Organization
	05/17/2010	08:50 (ETZ)	Scott McMullin	DOE FR

Authorized Classifier(AC):

4)Report Number: [EM-SR--SRNS-SIPS-2010-0009](#) After 2003 Redesign

Secretarial Office: Environmental Management

Lab/Site/Org: Savannah River Site

Facility Name: Site Infrastructure and Project Systems

Subject/Title: Electrical Spark from Damaged Welding Cable at 484-D Powerhouse

Date/Time Discovered: 05/10/2010 14:30 (ETZ)

Date/Time Categorized: 05/10/2010 16:10 (ETZ)

Report Type: Notification/Final

Report Dates:	Notification	05/12/2010	16:25 (ETZ)
	Initial Update	05/12/2010	16:25 (ETZ)
	Latest Update	05/12/2010	16:25 (ETZ)
	Final	05/12/2010	16:25 (ETZ)

Significance Category: 4

Reporting Criteria: 10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other

	<p>facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)</p>
Cause Codes:	<p>A3B3C01 - Human Performance Less Than Adequate (LTA); Knowledge Based Error; Attention was given to wrong issues -->couplet - A4B1C01 - Management Problem; Management Methods Less Than Adequate (LTA); Management policy guidance / expectations not well-defined, understood or enforced</p>
ISM:	<p>3) Develop and Implement Hazard Controls 4) Perform Work Within Controls</p>
Subcontractor Involved:	No
Occurrence Description:	<p>On Tuesday, May 10th, at approximately 1330 while prepping for welding activities in the D3 boiler rear pass hopper in the D Area Powerhouse, the confined space monitoring attendant observed a small spark where a welding cable was draped over a door and notified the 484-D Control Room. The spark dissipated and a walk down determined the welding machine was energized and the welding lead routed through the door opening had been pinched in the area of the sparking.</p> <p>There was no personnel shock resulting from this event.</p> <p>IS Management has reviewed this event and determined that it will be initially reported under ORPS Criteria 10(2), Management Concern, Significance Level 4 (under the safety significance portion of the criterion). A Fact Finding Meeting was conducted on 05/11/2010. Issue evaluation is in progress, and corrective actions will be tracked in STAR Report 2010-CTS-005898.</p> <p>The SRS Electrical Safety subject matter expert has calculated the electrical severity of this event using guidance developed by the EFCOG/DOE Electrical Safety Subgroup. The calculated severity for this event is 60 (Medium Significance). This event scores as follows: Electrical Hazard: 10 (40-60VDC); Environment Factor: 5; Shock Proximity Factor: 0; Arc Flash: 0; Thermal Factor: 0; PPE mitigations for shock (NA), and Injury Factor: 1. Electrical Severity=10(1+5+0+0+0)*1=60.</p> <p>Electrical Severity (ES) = (Electrical Hazard Factor) * (1 + Environment Factor + Shock Proximity Factor (Reduced to zero by PPE) + Arc Flash Proximity Factor + Thermal Proximity Factor) * (Injury Factor)</p> <p>Actual impacts were the suspension of welding activities until investigation is completed and the cost for replacing the damaged welding cable. Worst case scenario includes possible damage from fire and possible shock potential (40-60 VDC). The electrical severity was</p>

	<p>calculated to be 60 (Medium Significance).</p> <p>Preliminary corrective actions include:</p> <ol style="list-style-type: none"> 1. Install cut-outs in doors where access is needed. 2. Issue guidance for penetrations of doors, windows, etc., to include inspection by custodian, work groups, Safety SME, as needed. 3. Share Lessons Learned to personnel on site.
Cause Description:	The welding cable had been ran through a door opening the week before. The door was tied opening to prevent crimping of the cable. Someone untied the door cable over the past week, probably due to cold weather to allow the door to close. This caused the start of a wear spot on the welding cable. The operation of the door over the next few days caused a larger wear area on the welding cable.
Operating Conditions:	The facility was operating with two boilers. The D3 boiler was shutdown for maintenance.
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	The attendant made a general announcement to personnel in the area over the radio to stop welding. The control room personnel heard the radio communications and made a PA announcement to cease welding in 484-D. Fire Department personnel were notified of the incident. The event area was secured and photographs taken. The welding machine was secured with welding leads removed and tagged out of service. All other welding machine cables/leads currently in use in D-Area have been walked down and no similar issues were identified. Verbal notifications were made to IS Line Management and the DOE-FR.
FM Evaluation:	The facility manager has reviewed and concurs with this report.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	M&O/ Infrastructure Services
Plant Area:	D
System/Building/Equipment:	484-D Powerhouse
Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	<p>01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous)</p> <p>01Q--Inadequate Conduct of Operations - Personnel error</p> <p>01R--Inadequate Conduct of Operations - Management issues</p>

	07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency																												
HQ Summary:	On May 10, 2010, while prepping for welding activities in the D Area Powerhouse, the confined space monitoring attendant observed a small spark where a welding cable was draped over a door and notified the 484-D Control Room. The spark dissipated and a walk down determined that the welding machine was energized and that the welding lead, which was routed through the door opening, had been pinched in the area of the sparking. There was no personnel shock resulting from this event. A fact finding meeting was conducted. The SRS Electrical Safety subject matter expert has calculated the DOE electrical severity of this event to be 60 (Medium Significance). Welding has been suspended until the investigation is completed. Preliminary corrective actions include installing cut-outs in doors and windows for penetrations, and sharing Lessons Learned with personnel on site.																												
Similar OR Report Number:																													
Facility Manager:	<table border="1"> <tr> <td>Name</td> <td>Gleaton, W.M.</td> </tr> <tr> <td>Phone</td> <td>(803) 725-5170</td> </tr> <tr> <td>Title</td> <td>Manager, D-Area Operations</td> </tr> </table>	Name	Gleaton, W.M.	Phone	(803) 725-5170	Title	Manager, D-Area Operations																						
Name	Gleaton, W.M.																												
Phone	(803) 725-5170																												
Title	Manager, D-Area Operations																												
Originator:	<table border="1"> <tr> <td>Name</td> <td>HAAS, GARY M</td> </tr> <tr> <td>Phone</td> <td>(803) 557-4353</td> </tr> <tr> <td>Title</td> <td>LEAD OPERATIONS SPECIALIST - PROGRAM</td> </tr> </table>	Name	HAAS, GARY M	Phone	(803) 557-4353	Title	LEAD OPERATIONS SPECIALIST - PROGRAM																						
Name	HAAS, GARY M																												
Phone	(803) 557-4353																												
Title	LEAD OPERATIONS SPECIALIST - PROGRAM																												
HQ OC Notification:	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </table>	Date	Time	Person Notified	Organization	NA	NA	NA	NA																				
Date	Time	Person Notified	Organization																										
NA	NA	NA	NA																										
Other Notifications:	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>05/10/2010</td> <td>16:10 (ETZ)</td> <td>Gentry, R.E.</td> <td>Site Inf</td> </tr> <tr> <td>05/10/2010</td> <td>16:10 (ETZ)</td> <td>Belote, R.</td> <td>IS ESH&Q</td> </tr> <tr> <td>05/10/2010</td> <td>16:10 (ETZ)</td> <td>Bolton, T.A.</td> <td>Site Inf</td> </tr> <tr> <td>05/10/2010</td> <td>16:15 (ETZ)</td> <td>Fryar, S.J.</td> <td>DOE-SR</td> </tr> <tr> <td>05/10/2010</td> <td>16:15 (ETZ)</td> <td>Hynes, J.J.</td> <td>DOE-SR</td> </tr> <tr> <td>05/10/2010</td> <td>16:45 (ETZ)</td> <td>Gibson, T.</td> <td>SRSOC</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	05/10/2010	16:10 (ETZ)	Gentry, R.E.	Site Inf	05/10/2010	16:10 (ETZ)	Belote, R.	IS ESH&Q	05/10/2010	16:10 (ETZ)	Bolton, T.A.	Site Inf	05/10/2010	16:15 (ETZ)	Fryar, S.J.	DOE-SR	05/10/2010	16:15 (ETZ)	Hynes, J.J.	DOE-SR	05/10/2010	16:45 (ETZ)	Gibson, T.	SRSOC
Date	Time	Person Notified	Organization																										
05/10/2010	16:10 (ETZ)	Gentry, R.E.	Site Inf																										
05/10/2010	16:10 (ETZ)	Belote, R.	IS ESH&Q																										
05/10/2010	16:10 (ETZ)	Bolton, T.A.	Site Inf																										
05/10/2010	16:15 (ETZ)	Fryar, S.J.	DOE-SR																										
05/10/2010	16:15 (ETZ)	Hynes, J.J.	DOE-SR																										
05/10/2010	16:45 (ETZ)	Gibson, T.	SRSOC																										
Authorized Classifier(AC):	Haas, G.M. Date: 05/11/2010																												
5)Report Number:	NA--SS-SNL-NMFAC-2010-0006 After 2003 Redesign																												
Secretarial Office:	National Nuclear Security Administration																												
Lab/Site/Org:	Sandia National Laboratories - SS																												

Facility Name:	SNL NM Site-wide F & M		
Subject/Title:	Energized Conductor Cut by Worker Results in Electrical Short at Building 6577		
Date/Time Discovered:	06/01/2010 13:05 (MTZ)		
Date/Time Categorized:	06/01/2010 13:10 (MTZ)		
Report Type:	Notification		
Report Dates:	Notification	06/03/2010	14:18 (ETZ)
	Initial Update		
	Latest Update		
	Final		
Significance Category:	3		
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)		
Cause Codes:			
ISM:	1) Define the Scope of Work 2) Analyze the Hazards		
Subcontractor Involved:	Yes Engineering Contractors Inc. (ECI)		
Occurrence Description:	<p>At approximately 7:45am on May 28, 2010, a general contract worker cut an energized 120volt electrical conductor which caused a short at building 6577. The contractor was tasked with the removal of a communication panel from the wall and cut the conductors inside of the communication panel using insulated diagonal cutting pliers when the electrical short occurred. The worker was wearing standard construction PPE which included safety glasses, safety shoes, hard hat, and gloves during the operation. The contractor believed that the panel was de-energized and in a safe electrical condition. There were no injuries or impact to the facilities due to this event.</p> <p>Due to the new configuration in this work area, the panel was not required for operations and was out of service.</p> <p>The electrical subcontractor was called after the event and traced the circuit and locked and tagged out CKT. 22, on PANEL E2, and performed a zero energy verification on the entire communication panel PLC-C2, which put the panel in an electrical safe condition.</p>		

Cause Description:	Critique/Fact Finding Performed: 6/1/10
Operating Conditions:	Normal
Activity Category:	Construction
Immediate Action(s):	Electrical circuit was placed in a safe condition. Work was suspended on the project. Investigation was initiated. 4800 Early Notifications were conducted.
FM Evaluation:	EOC # 16329
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Causal Analysis Team By When: 07/16/2010
Division or Project:	4000/Modify space for storage and personnel
Plant Area:	Tech Area V
System/Building/Equipment:	Security Panel/Bldg. 6577, Rm. 2A
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On May 28, 2010, a general contract worker cut an energized 120-volt electrical conductor, causing an electrical short at Building 6577. The contractor was removing a communication panel from a wall and cut the conductors inside of the panel using insulated diagonal cutting pliers. The worker was wearing standard construction PPE that included safety glasses, safety shoes, a hard hat, and gloves. The worker believed that the panel was de-energized and in an electrically safe condition. An electrical

	subcontractor was called after the event to trace the circuit and lock and tag it out. The electrical subcontractor also performed zero energy verification on the entire communication panel to ensure the panel is in an electrically safe condition. There were no injuries or impact to the facilities. An investigation was initiated.																											
Similar OR Report Number:																												
Facility Manager:	<table border="1"> <tr> <td>Name</td> <td colspan="3">Greg C. Kirsch</td> </tr> <tr> <td>Phone</td> <td colspan="3">(505) 845-9497</td> </tr> <tr> <td>Title</td> <td colspan="3">FMOC FESH Lead</td> </tr> </table>				Name	Greg C. Kirsch			Phone	(505) 845-9497			Title	FMOC FESH Lead														
Name	Greg C. Kirsch																											
Phone	(505) 845-9497																											
Title	FMOC FESH Lead																											
Originator:	<table border="1"> <tr> <td>Name</td> <td colspan="3">LUCERO, JEWEELEE A</td> </tr> <tr> <td>Phone</td> <td colspan="3">(505) 845-4727</td> </tr> <tr> <td>Title</td> <td colspan="3">REPORTING ADMINISTRATOR</td> </tr> </table>				Name	LUCERO, JEWEELEE A			Phone	(505) 845-4727			Title	REPORTING ADMINISTRATOR														
Name	LUCERO, JEWEELEE A																											
Phone	(505) 845-4727																											
Title	REPORTING ADMINISTRATOR																											
HQ OC Notification:	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </table>				Date	Time	Person Notified	Organization	NA	NA	NA	NA																
Date	Time	Person Notified	Organization																									
NA	NA	NA	NA																									
Other Notifications:	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>06/01/2010</td> <td>13:10 (MTZ)</td> <td>Joyce Arviso-Benally, FR</td> <td>DOE/SSO</td> </tr> <tr> <td>06/01/2010</td> <td>13:15 (MTZ)</td> <td>William Lucy</td> <td>4021</td> </tr> <tr> <td>06/01/2010</td> <td>13:15 (MTZ)</td> <td>Arthur Ratzel</td> <td>4800</td> </tr> <tr> <td>06/01/2010</td> <td>13:15 (MTZ)</td> <td>Michael Quinlan</td> <td>4840</td> </tr> <tr> <td>06/01/2010</td> <td>13:15 (MTZ)</td> <td>EOC</td> <td>4136</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	06/01/2010	13:10 (MTZ)	Joyce Arviso-Benally, FR	DOE/SSO	06/01/2010	13:15 (MTZ)	William Lucy	4021	06/01/2010	13:15 (MTZ)	Arthur Ratzel	4800	06/01/2010	13:15 (MTZ)	Michael Quinlan	4840	06/01/2010	13:15 (MTZ)	EOC	4136
Date	Time	Person Notified	Organization																									
06/01/2010	13:10 (MTZ)	Joyce Arviso-Benally, FR	DOE/SSO																									
06/01/2010	13:15 (MTZ)	William Lucy	4021																									
06/01/2010	13:15 (MTZ)	Arthur Ratzel	4800																									
06/01/2010	13:15 (MTZ)	Michael Quinlan	4840																									
06/01/2010	13:15 (MTZ)	EOC	4136																									
Authorized Classifier(AC):	John Norwalk Date: 06/03/2010																											
6)Report Number:	SC--TJSO-JSA-TJNAF-2010-0004 After 2003 Redesign																											
Secretarial Office:	Science																											
Lab/Site/Org:	Thomas Jefferson National Accelerator Site																											
Facility Name:	Thomas Jefferson Nat'l Accelerator																											
Subject/Title:	FML-10-0503-NEW, Electrical Near Miss During Test Lab Basement Flooding																											
Date/Time Discovered:	05/03/2010 11:30 (ETZ)																											
Date/Time Categorized:	05/11/2010 15:30 (ETZ)																											
Report Type:	Notification/Final																											
Report Dates:	<table border="1"> <tr> <td>Notification</td> <td>05/12/2010</td> <td>13:59 (ETZ)</td> </tr> <tr> <td>Initial Update</td> <td>05/12/2010</td> <td>13:59 (ETZ)</td> </tr> <tr> <td>Latest Update</td> <td>05/12/2010</td> <td>13:59 (ETZ)</td> </tr> <tr> <td>Final</td> <td>05/12/2010</td> <td>13:59 (ETZ)</td> </tr> </table>				Notification	05/12/2010	13:59 (ETZ)	Initial Update	05/12/2010	13:59 (ETZ)	Latest Update	05/12/2010	13:59 (ETZ)	Final	05/12/2010	13:59 (ETZ)												
Notification	05/12/2010	13:59 (ETZ)																										
Initial Update	05/12/2010	13:59 (ETZ)																										
Latest Update	05/12/2010	13:59 (ETZ)																										
Final	05/12/2010	13:59 (ETZ)																										
Significance Category:	4																											

Reporting Criteria:	10(3) - A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the four significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)
Cause Codes:	
ISM:	3) Develop and Implement Hazard Controls
Subcontractor Involved:	Yes D.E. Kirby, Inc.
Occurrence Description:	<p>On Monday, May 3rd at approximately 1115, a large pipe fitting in the Test Lab basement failed during pressure testing, releasing over 8000 gallons in approximately 4700 square feet before being secured. Water reached the top of electrical-equipment concrete service pads, approximately 3 inches, but did not breach them nor cause any injuries.</p> <p>During pressure testing of newly installed sections of cooling tower pipe, the responsible contractor observed a significant pressure drop and immediately went to the affected area to investigate, descending the stairs just before the arrival of JLab Facilities and Test Lab personnel. The JLab Facilities representative arrived, assessed the situation, and immediately instructed all personnel to leave the basement due to the water level and possible electrical shock hazard. Meanwhile, other members of the construction subcontractor crew had secured all valves at the cooling tower location in order to minimize water flow into the basement.</p> <p>The affected area's water level began to recede, at which point the Facilities Electrical representative descended the stairway far enough to assess potential hazards associated with the water level. He determined that electrical power did not need to be secured since the water level was receding and was not within 3 inches of any enclosed electrical components.</p> <p>Once the water level receded to about an inch or less, the basement was cleared for access. The construction subcontractors and Facilities Management staff entered the basement to determine the cause of the leak and equipment status.</p>
Cause Description:	
Operating Conditions:	Normal Operations
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Water was secured from the supply source.
FM Evaluation:	
DOE Facility Representative	

Input:							
DOE Program Manager Input:							
Further Evaluation is Required:	No						
Division or Project:	Jefferson Science Associates						
Plant Area:	Test Lab						
System/Building/Equipment:	Building 58, Test Lab						
Facility Function:	Accelerators						
Corrective Action:							
Lessons(s) Learned:							
HQ Keywords:	02F--Environmental - Potable Water Release 05D--Mechanical/Structural - Mechanical Equipment Failure/Damage 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 11G--Other - Subcontractor 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 14L--Quality Assurance - No QA Deficiency						
HQ Summary:	On May 3, 2010, a large pipe fitting in the Test Lab basement failed during pressure testing, releasing over 8,000 gallons of water in approximately 4,700 ft ² before the leak was stopped. Water reached the top of electrical-equipment concrete service pads, a height of approximately 3 inches, but did not breach them. During pressure testing of newly installed sections of cooling tower pipe, subcontractor personnel observed a significant pressure drop and immediately went to the affected area to investigate. The Facilities representative arrived, assessed the situation, and immediately instructed all personnel to leave the basement because of the water level and possible electrical shock hazard. Meanwhile, other subcontractor personnel had closed all valves at the cooling tower location in order to minimize water flow into the basement. The water level began to recede, at which point the Facilities electrical representative descended the stairway far enough to assess potential hazards associated with the water level. He determined that electrical power did not need to be secured since the water level was receding. Once the water level receded to about an inch or less, the basement was cleared for access. Facilities and subcontractor personnel entered the basement to determine the cause of the leak and the equipment status.						
Similar OR Report Number:							
Facility Manager:	<table border="1"> <tr> <td>Name</td> <td>SMITH, STEPHEN JAY</td> </tr> <tr> <td>Phone</td> <td>(757) 269-7007</td> </tr> <tr> <td>Title</td> <td>LEAD QUALITY AND SAFETY ENGINEER</td> </tr> </table>	Name	SMITH, STEPHEN JAY	Phone	(757) 269-7007	Title	LEAD QUALITY AND SAFETY ENGINEER
Name	SMITH, STEPHEN JAY						
Phone	(757) 269-7007						
Title	LEAD QUALITY AND SAFETY ENGINEER						
Originator:	<table border="1"> <tr> <td>Name</td> <td>SMITH, STEPHEN JAY</td> </tr> </table>	Name	SMITH, STEPHEN JAY				
Name	SMITH, STEPHEN JAY						

	Phone	(757) 269-7007		
	Title	LEAD QUALITY AND SAFETY ENGINEER		
HQ OC Notification:	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
Other Notifications:	Date	Time	Person Notified	Organization
	05/05/2010	12:00 (ETZ)	Steve Neilson	TJSO
Authorized Classifier(AC):	Stephen Smith Date: 05/11/2010			

7)Report Number:	SC--TJSO-JSA-TJNAF-2010-0005 After 2003 Redesign		
Secretarial Office:	Science		
Lab/Site/Org:	Thomas Jefferson National Accelerator Site		
Facility Name:	Thomas Jefferson Nat'l Accelerator		
Subject/Title:	12GeV-10-0513-NEW Marked, energized temporary electrical line struck at Hall D Site		
Date/Time Discovered:	05/13/2010 14:00 (ETZ)		
Date/Time Categorized:	05/14/2010 10:00 (ETZ)		
Report Type:	Notification		
Report Dates:	Notification	05/14/2010	14:30 (ETZ)
	Initial Update		
	Latest Update		
	Final		
Significance Category:	3		
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.		
Cause Codes:			
ISM:			
Subcontractor Involved:	Yes CinTer Construction		
Occurrence Description:	<p>On Thursday, May 13, at approximately 1155, a marked, energized 480 volt temporary electrical line was struck during an excavator event on the Hall D construction site. There were no injuries.</p> <p>The excavation consisted of scraping 12 inches of soil from a 24 foot wide area. The line was marked and pot-holed in two different locations prior to</p>		

	excavating, however, unknown to the contractor, the line depth was not consistent and crossed the plane of the excavation area at approximately a 45 degree angle.
	Immediately after the event, the prime contractor ceased all excavations, power was secured and a lock-out applied to the appropriate circuit breaker.
Cause Description:	
Operating Conditions:	Hall D Construction Activities
Activity Category:	Construction
Immediate Action(s):	All excavations were ceased, power was secured and a lock-out applied to the appropriate circuit breaker.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Jefferson Science Associates
Plant Area:	Hall D Site
System/Building/Equipment:	Hall D Construction Site, temporary power line
Facility Function:	Accelerators
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 07D--Electrical Systems - Electrical Wiring 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 11G--Other - Subcontractor 12G--EH Categories - Industrial Operations 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On May 13, 2010, a marked energized 480 volt temporary electrical line was struck during excavation on the Hall D construction site. The excavation consisted of scraping 12 inches of soil from a 24-foot wide area. The line was marked and pot-holed in two different locations prior to excavation. However, unknown to the contractor, the line depth was not consistent and crossed the plane of the excavation area at a 45 degree angle. Immediately after the event, the prime contractor ceased all excavations. Power was secured and a lock-out was applied to the

	appropriate circuit breaker. There were no injuries.			
Similar OR Report Number:	1. SC--TJSO-JSA-TJNAF-2009-0004			
Facility Manager:	Name	SMITH, STEPHEN JAY		
	Phone	(757) 269-7007		
	Title	LEAD QUALITY AND SAFETY ENGINEER		
Originator:	Name	SMITH, STEPHEN JAY		
	Phone	(757) 269-7007		
	Title	LEAD QUALITY AND SAFETY ENGINEER		
HQ OC Notification:	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
Other Notifications:	Date	Time	Person Notified	Organization
	05/13/2010	15:10 (ETZ)	Steve Neilson	TJSO
Authorized Classifier(AC):	Stephen Smith Date: 05/14/2010			

[| ORPS HOME](#) | [Search & Reports](#) | [Authorities](#) | [Help](#) | [Security/Privacy Notice](#) |
 Please send comments or questions to orpssupport@hq.doe.gov or call the Helpline
 at (800) 473-4375. Hours: 7:30 a.m. - 5:00 p.m., Mon - Fri (ETZ).
 Please include [detailed information](#) when reporting problems.