

## April 2010 Electrical Safety Occurrences

There were 13 electrical safety occurrences for April 2010:

- 2 occurrences resulted in an electrical shock to a worker
- 4 occurrences involved inadequate lockout/tagout (LOTO)
- 7 occurrences involved electrical workers and 6 occurrences involved non-electrical workers
- 7 occurrences involved subcontractors (3 electrical workers and 4 non-electrical workers)
- 2 occurrences involved inadvertent severing of an energized conductor by cutting or drilling into a conduit
- 3 occurrences involved excavation of electrical conduits
- 2 occurrences resulted from inadequate planning

April represented the third consecutive month of thirteen electrical safety events. As in March, two electrical shocks were reported. Although the events reported in April are generally not severe, the continued high number of events is an indication that more attention is needed. Work planning and LOTO are two areas where improvement is warranted. Also, we must continually pay attention to the safety of our non-electrical workers and subcontractors. We have started to see an increase in the number of electrical intrusion events. Electrical intrusion events include accidental contact with underground utilities during excavation and penetration of embedded or concealed utilities within structures such as walls, floors, and ceilings. So far in 2010, there have been five events involving excavation of electrical conduit and wiring and eight events involving cutting or drilling into energized electrical circuits. In 2009, there were six excavation events and twenty-one penetration/cutting events. Electrical intrusion-type events typically involve non-electrical workers (e.g., equipment operators, laborers), performing non-electrical work who may not have any type of electrical safety training or expectation that an electrical hazard exists. The majority of the causes include inaccurate as-built drawings, procedure noncompliance (e.g., not hand digging as required), blind penetrations, lack of zero energy checks, and inadequate component marking during electrical conduit demolition.

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

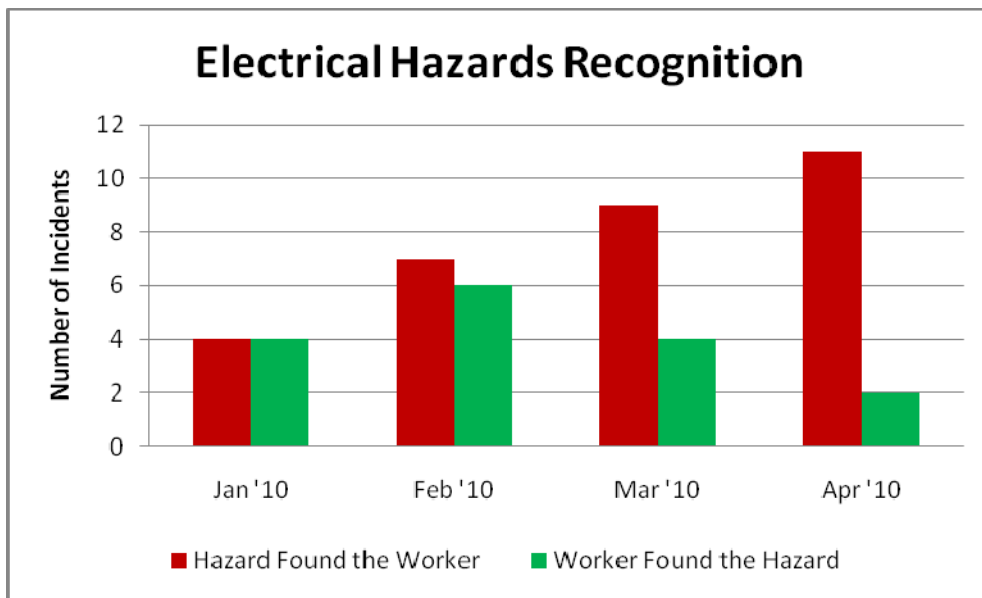
Using the key words above, fifteen events were identified. Two events were excluded from the report as not meeting the criteria to be included in the trending data. Please continue to report all events and evaluate the events using the Electrical Severity Measurement Tool. During the month of April, six events had Electrical Severity scores with four determined to be of Medium severity (31-330) and two determined to be of High severity (331-3300) that involved 480-volt sources.

Below is the current summary of 2010 electrical safety occurrences:

Period	Electrical Safety Occurrences	Shocks	Burns	Fatalities
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	47 (avg. 11.8/month)	8	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

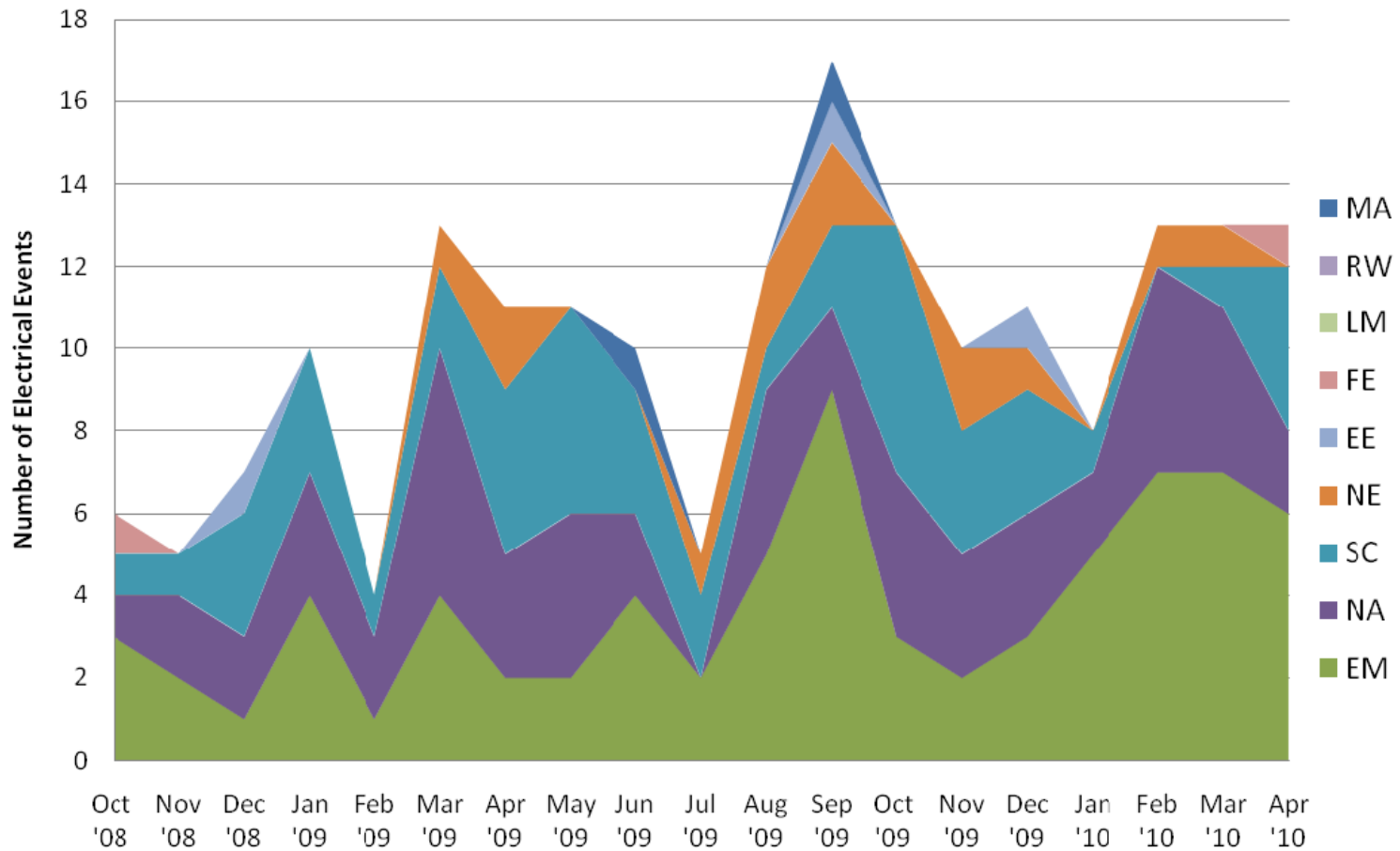
As the table above indicates, the DOE complex averaged 11.8 electrical safety events per month for the first four months of the year, which is higher than the month rate in 2009. Although the data indicates that a plateau has been reached, the trend over the past eighteen months has gradually moved in the wrong direction.

This month there were only two events out of thirteen in which the worker found the electrical hazard. Since the beginning of the year we have seen this count continue to decrease. Recognition and awareness of electrical hazards is important in reducing the number of electrical incidents that can result in electrical shock or injury. Electrical workers typically identify the majority of these hazards, as would be expected because of their vocation, experience, training, and work practices. Unfortunately, some of hazards are not easily apparent, such as the occasional shared neutral circuit, which might get by even the most experienced electrician. The problem of hazards recognition becomes even more difficult when dealing with non-electrical workers, who at best might only have had some form of electrical safety awareness training. In this case, it is important to review how non-electrical workers use electricity in the workplace and to reduce or remove the potential for exposure to any unguarded hazards. For example, ensure proper equipment grounding, remove faulty cord and plug-connected equipment and flexible cord sets from service, and ensure that switches and service receptacles are safe to use. Above all, everyone needs to maintain a questioning attitude. Always verify rather than assume and stop work when unsure of the situation or hazards.



# 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 – April 2010

No	Report Number	Event Summary	SHOCK	BURN	ARCF <sup>(1)</sup>	LOTO <sup>(2)</sup>	PLAN <sup>(3)</sup>	EXCAV <sup>(4)</sup>	CUT/D <sup>(5)</sup>	VEH <sup>(6)</sup>	SC <sup>(7)</sup>	RC <sup>(8)</sup>	ES <sup>(9)</sup>
1	EM--PPPO-SST-PGDENVRES-2010-0001	Subcontract worker failed to follow prescribed LOTO procedure.				X	X				3	2C(2)	0
2	EM-ID--CWI-IWTU-2010-0003	Backhoe severs 120- volt energized conductors in conduit.						X			3	2C(2)	160
3	EM-RL--CPRC-CENTPLAT-2010-0003	Worker created a ground fault when a screwdriver inadvertently contacts energized 120 volts.				X	X				3	2C(2)	110
4	EM-RL--CPRC-GENLAREAS-2010-0006	Subcontract worker failed to follow prescribed LOTO procedure.				X					3	2C(2)	0
5	EM-RL-CPRC-GENLAREAS-2010-0008	Worker damages outer cover of 480 volt power cord while drilling a hole.									3	10(3)	0
6	EM-SR--SRR-WVIT-2010-0002	Worker receives electrical shock from 480- volt buried cable.	X								2	2C(1)	2400
7	FE--NETL-GOPE-NETLALBANY-2010-0001	Worker created a ground fault when metal raceway cover contacted energized 480 volts.									3	2C(2)	550
8	NA--SS-SNL-NMFAC-2010-0003	Worker receives electrical shock from energized 120-volt wires.	X								2	2C(1)	330
9	NA--SS-SNL-NMFAC-2010-0004	Worker sees arc from a circuit thought to be de-energized.				X					3	2C(2)	0
10	SC--BHSO-BNL-BNL-2010-0010	Backhoe severs empty conduit close to energized conductors.						X			3	10(3)	0
11	SC--BSO-LBL-OPERATIONS-2010-0003	Worker severs energized 120 volt conductor while cutting conduit.							X		3	2C(2)	110
12	SC--PNSO-PNNL-PNNLBOPER-2010-0008	Backhoe severs conduit containing 120 volt conductors that were not energized.						X			3	2C(2)	0
13	SC-ORO--ORNL-X10UTILITY-2010-0001	Worker severs energized conductors.							X		3	2C(2)	0
	TOTAL		2	0	0	4	2	3	2	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 – April 2010

No	Report Number	Event Summary	EW <sup>(1)</sup>	N-EW <sup>(2)</sup>	SUB <sup>(3)</sup>	HFW <sup>(4)</sup>	WFH <sup>(5)</sup>	PPE <sup>(6)</sup>	70E <sup>(7)</sup>	VOLT <sup>(8)</sup>		C/I <sup>(9)</sup>	NEUT <sup>(10)</sup>	NM <sup>(11)</sup>
										H	L			
1	EM--PPPO-SST-PGDENVRES-2010-0001	Subcontract worker failed to follow prescribed LOTO procedure.	X		X		X				X			
2	EM-ID--CWI-IWTU-2010-0003	Backhoe severs 120- volt energized conductors in conduit.		X	X	X					X			
3	EM-RL--CPRC-CENTPLAT-2010-0003	Worker created a ground fault when a screwdriver inadvertently contacts energized 120 volts.	X			X					X			
4	EM-RL--CPRC-GENLAREAS-2010-0006	Subcontract worker failed to follow prescribed LOTO procedure.	X		X		X				X			
5	EM-RL--CPRC-GENLAREAS-2010-0008	Worker damages outer cover of 480 volt power cord while drilling a hole.	X			X					X			X
6	EM-SR--SRR-WVIT-2010-0002	Worker receives electrical shock from 480-volt buried cable.		X		X					X			X
7	FE--NETL-GOPE-NETLALBANY-2010-0001	Worker created a ground fault when metal raceway cover contacted energized 480 volts.		X		X					X			X
8	NA--SS-SNL-NMFAC-2010-0003	Worker receives electrical shock from energized 120-volt wires.		X	X	X					X			
9	NA--SS-SNL-NMFAC-2010-0004	Worker sees arc from a circuit believed to be de-energized.	X		X	X					X			
10	SC--BHSO-BNL-BNL-2010-0010	Backhoe severs empty conduit close to energized conductors.		X	X	X					X			X
11	SC--BSO-LBL-OPERATIONS-2010-0003	Worker severs energized 120 volt conductor while cutting conduit.	X			X					X			
12	SC--PNSO-PNNL-PNNLBOPER-2010-0008	Backhoe severs conduit containing 120 volt conductors that were not energized.		X	X	X					X			
13	SC-ORO--ORNL-X10UTILITY-2010-0001	Worker severs energized conductors.	X			X					X			
	TOTAL		7	6	7	11	2	0	0	0	13	0	0	4

### 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 54678 OR(s) with 57996 occurrences(s) as of 5/10/2010 6:45:29 AM  
Query selected 13 OR(s) with 13 occurrences(s) as of 5/10/2010 9:49:37 AM

Download this report in Microsoft Word format. 

<b>1)Report Number:</b>	<a href="#">EM--PPPO-SST-PGDPEVRES-2010-0001</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Environmental Management		
<b>Lab/Site/Org:</b>	Paducah Gaseous Diffusion Plant		
<b>Facility Name:</b>	Environmental Restoration		
<b>Subject/Title:</b>	Failure to Control Vendor Leads to Lock Out/Tag Out Violation		
<b>Date/Time Discovered:</b>	04/23/2010 12:52 (ETZ)		
<b>Date/Time Categorized:</b>	04/23/2010 16:00 (ETZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/27/2010	15:18 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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.		
<b>Cause Codes:</b>			
<b>ISM:</b>			
<b>Subcontractor Involved:</b>	Yes Warden Electric Company		
<b>Occurrence Description:</b>	Notification On April 23, 2010, a local electrical repair company was tasked with repairing an electric arc welder in C-755-A (mechanic's shop). After troubleshooting, the vendor determined that the welder needed to return to the vendor's shop for comprehensive electronic repairs. The vendor disconnected electrical service from the welder in preparation for movement to his truck. The Swift & Staley Safety Supervisor discovered the improper electrical disconnection that had occurred without using the Paducah Gaseous Diffusion Plant (PGDP) lock out/tag out (LO/TO) process and stopped the work.		

	<p>The vendor was procured to perform repairs to the electric arc welder located in C-755-A. The vendor was accompanied by a Swift &amp; Staley employee during the initial troubleshooting stage. At the time that the vendor decided that the repairs needed to be made at the vendor's facility, the Swift &amp; Staley escort went on lunch break, calling in another employee to continue accompanying the vendor. The vendor verified the disconnect switch in the OFF position before disconnecting the power cable and using a "tic tracer" to verify no voltage was present before beginning work. The vendor, who is not trained to the PGDP LO/TO process, then removed the electrical leads from the welder. The second escort did not immediately realize that the vendor's intention to disconnect the welder and prepare it for movement would constitute a LO/TO violation. The second escort went to notify his supervisor of the need for a radiological survey when the first escort overheard their conversation. During their subsequent discussion, the Safety Supervisor joined in the discussion and realized that a LO/TO violation may have occurred by that time. Investigation at the work site indicated that a LO/TO violation had indeed occurred. The job was shut down and a qualified Swift &amp; Staley worker disconnected the power cable from the disconnect switch and applied the Do Not Operate (DNO) tag in accordance with the site program.</p> <p>A critique was held and personal witness statements were provided by all parties involved. A preliminary investigation indicates that Swift &amp; Staley did not adequately define the work scope or provide adequate oversight of the vendor. In addition, the PGDP hazardous energy control process was not followed in that the vendor operated a 480 volt alternating current (vac) electrical disconnect switch without being a Qualified Person and the vendor did not follow requirements regarding single point energy source.</p>
<b>Cause Description:</b>	Swift & Staley did not adequately define the work scope or provide adequate oversight of the vendor. In addition, the PGDP hazardous energy control process was not followed in that the vendor operated a 480 volt alternating current (vac) electrical disconnect switch without being a Qualified Person and the vendor did not follow requirements regarding single point energy source.
<b>Operating Conditions:</b>	Normal Work Routine
<b>Activity Category:</b>	Maintenance
<b>Immediate Action(s):</b>	<p>The Swift &amp; Staley qualified electrician inspected the electrical leads lifted by the vendor to ensure they were in an electrically safe condition. The qualified electrician disconnected the power plug from the disconnect switch and placed a DNO tag on the 480 volt plug.</p> <p>A critique of the event was held.</p> <p>An Initial Event Report was initiated.</p>
<b>FM Evaluation:</b>	
<b>DOE Facility Representative</b>	

<b>Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: Swift & Staley Investigati By When:
<b>Division or Project:</b>	Infrastructure Services/Electrical Repair
<b>Plant Area:</b>	C-755
<b>System/Building/Equipment:</b>	C-755-A, Electric Arc Welder
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 01R--Inadequate Conduct of Operations - Management issues 11L--Other - Supplier 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
<b>HQ Summary:</b>	On April 23, 2010, a local electrical repair company (vendor), tasked with repairing an electric arc welder in Building C-755-A, did not properly disconnect electrical service from the welder using the Paducah Gaseous Diffusion Plant (PGDP) lock out/tag out (LO/TO) process. The vendor had determined that the welder needed to be returned to their shop for comprehensive electronic repairs. The vendor disconnected electrical service from the welder in preparation for movement offsite. In doing so, the vendor operated a 480-volt alternating current electrical disconnect switch without being a Qualified Person and without following requirements regarding single point energy source. A Swift & Staley Safety Supervisor stopped the work after discovering that the improper electrical disconnection had occurred without using the PGDP LO/TO process. A qualified Swift & Staley worker disconnected the power cable from the disconnect switch and applied a Do Not Operate tag. A critique was held and a preliminary investigation indicates that Swift & Staley did not adequately define the work scope or provide adequate oversight of the vendor.
<b>Similar OR Report Number:</b>	



<b>Facility Manager:</b>	Name	STANBERRY, TOM W		
	Phone	(270) 462-4277		
	Title	QA MANAGER		
<b>Originator:</b>	Name	STANBERRY, TOM W		
	Phone	(270) 462-4277		
	Title	QA MANAGER		
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	04/23/2010	13:05 (ETZ)	Leon Owens	SST
	04/23/2010	13:07 (ETZ)	Larry Magrahk, Fac Rep	DOE
	04/23/2010	13:08 (ETZ)	Scott Smith	SST
	04/23/2010	13:35 (ETZ)	Jim McVey	URS
<b>Authorized Classifier(AC):</b>	Robert Jones      Date: 04/27/2010			
<b>2)Report Number:</b>	<a href="#">EM-ID--CWI-IWTU-2010-0003</a> After 2003 Redesign			
<b>Secretarial Office:</b>	Environmental Management			
<b>Lab/Site/Org:</b>	Idaho National Laboratory			
<b>Facility Name:</b>	Integrated Waste Treatment Unit			
<b>Subject/Title:</b>	Backhoe Digs Up Live 110 Volt Electrical Line			
<b>Date/Time Discovered:</b>	04/13/2010 15:45 (MTZ)			
<b>Date/Time Categorized:</b>	04/13/2010 16:50 (MTZ)			
<b>Report Type:</b>	Update			
<b>Report Dates:</b>	Notification	04/15/2010	11:31 (ETZ)	
	Initial Update	04/15/2010	12:09 (ETZ)	
	Latest Update	04/15/2010	12:09 (ETZ)	
	Final			
<b>Significance Category:</b>	3			
<b>Reporting Criteria:</b>	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.			
<b>Cause Codes:</b>				

<b>ISM:</b>	2) Analyze the Hazards
<b>Subcontractor Involved:</b>	Yes URS Washington Division - Construction
<b>Occurrence Description:</b>	<p>At approximately 1545 hours on 4/13/2010, the backhoe hooked the conduit around a 110 Volts electrical line with a tooth on the bucket pulling a section of the conduit out and breaking the conductors for the 110 Volt electrical line. The crew was excavating the area around the lift station (CPP-733), north of the accountability trailer for the Integrated Waste Treatment Unit (IWTU) site, to tie the IWTU sewer line into the INTEC plant sewer system. The crew dug down to the duct back near the manhole and then excavated to the west sloping the sides. At this point they hit the conduit. The conduit was not identified on a drawing or on the subsurface investigation report. The broken electrical line did not a flash or arc. No employees were near the electrical line when it was pulled apart. The soil was damp, but there was no standing water or mud.</p> <p>The crew had worked on installing the north-south leg of the sewer line during the morning. After lunch and before starting work on the east-west section of the tie in trench the crew walked down the area and then went to superintendents trailer to review the subsurface investigation report and verify the paint marks on the ground. They moved to the area around the lift station and manhole and excavated the soil to allow for the tie in of the IWTU sewer line. They dug down to the duct bank near the manhole then dug west establishing a 45 degree slope. The 110 volt electrical line was encountered while grading the west slope, 3 feet east of the IWTU fence line.</p> <p>The crew stopped work when the conduit was pulled up, they reported to management, and secured the area.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	The weather was moderate with sunny condition.
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<ol style="list-style-type: none"> <li>1. Stopped work</li> <li>2. Notified management</li> <li>3. An electrician was called - the electrician donned proper PPE, verified voltage and secured the broken live wire</li> <li>4. Roped and secured the area</li> </ol>
<b>FM Evaluation:</b>	The 110 volt electrical line was buried 2 to 2 1/2 feet below the surface and about 2 feet east of a 240 volt temporary above ground electrical line and the grounded fence line. The drawings of the area around the CPP-733 lift station did not show the 110 volt electrical line. There were no ribbons or red mud installed above the 110 volt electrical line to help the operator identify that the line was there. The subsurface investigation (SI) of the dig area did not identify the 110 volt line. The subsurface investigation process, MCP-1388 was followed and the report reviewed and approved

	<p>by the Subsurface Investigation Chairperson. The primary barrier for preventing the digging up of electrical lines are complete and accurate drawings. Subsurface investigations are mitigative measures used to locate known lines and an attempt to pick up unknown lines depending on interferences.</p> <p>The operator and laborers held a prejob briefing before starting the east-west portion of the excavation and checked the paint marks on the ground against the pictures in the SI report. They followed the work package instruction and subsurface investigation report information. Once the 110 volt line was contacted the crew stopped work, notified management and secured the scene.</p>
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	<p>Yes.          Before Further Operation? Yes          By Whom: Dale Stuart          By When: 04/16/2010</p>
<b>Division or Project:</b>	Idaho Completion Project - IWTU
<b>Plant Area:</b>	IWTU CPP-1696
<b>System/Building/Equipment:</b>	Excavation for sewer line
<b>Facility Function:</b>	Nuclear Waste Operations/Disposal
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	<p>01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control          07D--Electrical Systems - Electrical Wiring          08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues          11G--Other - Subcontractor          12C--EH Categories - Electrical Safety          14D--Quality Assurance - Documents and Records Deficiency</p>
<b>HQ Summary:</b>	<p>On April 13, 2010, a backhoe hooked a conduit containing a 110-Volt electrical line, pulling a section of the conduit out and breaking the conductors inside. The crew was excavating the area around the lift station (CPP-733), north of the accountability trailer for the Integrated Waste Treatment Unit (IWTU) site, to tie the IWTU sewer line into the INTEC plant sewer system. The crew had dug down to the duct back near a manhole and then excavated to the west. At this point, the conduit was contacted. The conduit was buried approximately 2½ feet in damp soil and was not identified on a drawing or on the subsurface investigation report. The broken electrical line did not arc. No employees were near the electrical line when it was pulled apart. The crew had walked down the</p>

	area, reviewed the subsurface investigation report, and verified the paint marks on the ground. The crew stopped work when the conduit was pulled up and secured the area. An electrician wearing proper PPE verified the voltage and secured the energized wire.															
<b>Similar OR Report Number:</b>																
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">White, James M</td> </tr> <tr> <td>Phone</td> <td colspan="3">(208) 533-0872</td> </tr> <tr> <td>Title</td> <td colspan="3">Operation Manager</td> </tr> </table>				Name	White, James M			Phone	(208) 533-0872			Title	Operation Manager		
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<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">BOSLEY, JAMES B</td> </tr> <tr> <td>Phone</td> <td colspan="3">(208) 351-5969</td> </tr> <tr> <td>Title</td> <td colspan="3">STAFF ENGINEER - ISSUE MANAGEMENT CO</td> </tr> </table>				Name	BOSLEY, JAMES B			Phone	(208) 351-5969			Title	STAFF ENGINEER - ISSUE MANAGEMENT CO		
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Title	STAFF ENGINEER - ISSUE MANAGEMENT CO															
<b>HQ OC Notification:</b>	<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				
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<b>Authorized Classifier(AC):</b>	Schmier, Stacey B    Date: 04/15/2010															
<b>3)Report Number:</b>	<a href="#">EM-RL--CPRC-CENTPLAT-2010-0003</a> After 2003 Redesign															
<b>Secretarial Office:</b>	Environmental Management															
<b>Lab/Site/Org:</b>	Hanford Site															
<b>Facility Name:</b>	Central Plateau Remediation Project															
<b>Subject/Title:</b>	Hazardous Energy Control U Canyon Emergency Lighting - ARRA															
<b>Date/Time Discovered:</b>	04/20/2010 13:00 (PTZ)															
<b>Date/Time Categorized:</b>	04/20/2010 14:00 (PTZ)															
<b>Report Type:</b>	Notification															
<b>Report Dates:</b>	<table border="1"> <tr> <td>Notification</td> <td>04/21/2010</td> <td>12:37 (ETZ)</td> </tr> <tr> <td>Initial Update</td> <td></td> <td></td> </tr> <tr> <td>Latest Update</td> <td></td> <td></td> </tr> <tr> <td>Final</td> <td></td> <td></td> </tr> </table>				Notification	04/21/2010	12:37 (ETZ)	Initial Update			Latest Update			Final		
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<b>Significance Category:</b>	3															
<b>Reporting Criteria:</b>	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.															

<b>Cause Codes:</b>	
<b>ISM:</b>	
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	On Tuesday 04/20/2010, while performing work to install new emergency lighting at U-Canyon an electrician's screwdriver contacted an energized circuit which caused the supply breaker to that circuit to trip. The energized wiring was contained within the same junction box as the wiring that was being worked on, which had properly been de-energized and locked out by an AWL. No one was shocked or injured. The job was stopped and notifications made.
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Does not apply
<b>Activity Category:</b>	Facility Decontamination/Decommissioning
<b>Immediate Action(s):</b>	Stopped work and isolated area Made notifications
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: By When:
<b>Division or Project:</b>	CHPRC/D&D Project/D4/U Canyon
<b>Plant Area:</b>	221-U
<b>System/Building/Equipment:</b>	Operating Gallery/221-U
<b>Facility Function:</b>	Environmental Restoration Operations
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 13H--Management Concerns - American Recovery and Reinvestment Act (ARRA) 14E--Quality Assurance - Work Process Deficiency
<b>HQ Summary:</b>	On April 20, 2010, an electrician's screwdriver touched an energized circuit while installing new emergency lighting at the U-Canyon Operating Gallery. The fault caused the supply breaker for the affected circuit to trip.

	The energized wiring was contained within the same junction box as the wiring that was being worked on, which had been properly de-energized and locked out by an Authorized Worker Lock. The job was stopped and notifications were made. No one was shocked or injured.																			
<b>Similar OR Report Number:</b>																				
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">S.V. Doebler</td> </tr> <tr> <td>Phone</td> <td colspan="3">(509) 376-0604</td> </tr> <tr> <td>Title</td> <td colspan="3">Manager, U Canyon Project</td> </tr> </table>				Name	S.V. Doebler			Phone	(509) 376-0604			Title	Manager, U Canyon Project						
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Phone	(509) 376-0604																			
Title	Manager, U Canyon Project																			
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">MORRIS, KAREN R</td> </tr> <tr> <td>Phone</td> <td colspan="3">(509) 373-5152</td> </tr> <tr> <td>Title</td> <td colspan="3">OPERATIONS SPECIALIST</td> </tr> </table>				Name	MORRIS, KAREN R			Phone	(509) 373-5152			Title	OPERATIONS SPECIALIST						
Name	MORRIS, KAREN R																			
Phone	(509) 373-5152																			
Title	OPERATIONS SPECIALIST																			
<b>HQ OC Notification:</b>	<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																	
<b>Other Notifications:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>04/20/2010</td> <td>14:00 (PTZ)</td> <td>SV Doebler</td> <td>D&amp;D D4</td> </tr> <tr> <td>04/20/2010</td> <td>14:03 (PTZ)</td> <td>RV Johnson</td> <td>DOE-RL</td> </tr> <tr> <td>04/20/2010</td> <td>14:08 (PTZ)</td> <td>KL Kehler</td> <td>D&amp;D</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	04/20/2010	14:00 (PTZ)	SV Doebler	D&D D4	04/20/2010	14:03 (PTZ)	RV Johnson	DOE-RL	04/20/2010	14:08 (PTZ)	KL Kehler	D&D
Date	Time	Person Notified	Organization																	
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04/20/2010	14:03 (PTZ)	RV Johnson	DOE-RL																	
04/20/2010	14:08 (PTZ)	KL Kehler	D&D																	
<b>Authorized Classifier(AC):</b>																				
<b>4)Report Number:</b>	<a href="#">EM-RL--CPRC-GENLAREAS-2010-0006</a> After 2003 Redesign																			
<b>Secretarial Office:</b>	Environmental Management																			
<b>Lab/Site/Org:</b>	Hanford Site																			
<b>Facility Name:</b>	Plateau Remediation General Facilities																			
<b>Subject/Title:</b>	Unauthorized Entry Made to Electrical Vault that was under Lock and Tag Control (ARRA)																			
<b>Date/Time Discovered:</b>	04/12/2010 09:30 (PTZ)																			
<b>Date/Time Categorized:</b>	04/12/2010 16:04 (PTZ)																			
<b>Report Type:</b>	Notification																			
<b>Report Dates:</b>	<table border="1"> <tr> <td>Notification</td> <td>04/14/2010</td> <td>17:42 (ETZ)</td> </tr> <tr> <td>Initial Update</td> <td></td> <td></td> </tr> <tr> <td>Latest Update</td> <td></td> <td></td> </tr> <tr> <td>Final</td> <td></td> <td></td> </tr> </table>				Notification	04/14/2010	17:42 (ETZ)	Initial Update			Latest Update			Final						
Notification	04/14/2010	17:42 (ETZ)																		
Initial Update																				
Latest Update																				
Final																				
<b>Significance Category:</b>	3																			
<b>Reporting Criteria:</b>	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.
<b>Cause Codes:</b>	
<b>ISM:</b>	4) Perform Work Within Controls
<b>Subcontractor Involved:</b>	Yes Sun River Electric, George Grant Construction,
<b>Occurrence Description:</b>	<p>On 4/12/2010 at the 100DX Pump and Treat facility a technical Lock and Tag (LOTO) violation occurred when a subcontract lineman entered an electrical vault under Lock and Tag Control without first installing an Authorized Worker Lock (AWL). There was no actual hazard presented to the employee or other workers in the area. This was a new electrical installation; the circuit was installed on the pole, but not connected to the incoming line.</p> <p>During review of the investigation results at the critique, management determined that this should be reported as a Hazardous Energy Control occurrence in the Occurrence Reporting and Processing System.</p> <p>In support of a construction services electrician concern for safety, several weeks prior to the event, MSA Electric Utilities (EU) had installed a hold-off tag on the pole where the power will be supplied to the facility. CHPRC Construction Services installed a Controlling Organization (CO) Danger Do Not Operate (DDNO) tag over the hold-off tag on the pole. Although wiring had been run to the pole it had not yet been connected at the pole. The tags were installed as an extra precaution to make the workers more comfortable that EU would not complete the circuit on the pole until they were ready inside the building.</p> <p>When a modification was necessary to the high voltage supply feed to the process building's main transformer an electrical subcontractor was contracted for the work. The scope of work for the subcontractor on 4/12/2010 was to install the empty conduit from the power pole to outside the vault and complete the trench backfill. During the pre-job, on that morning, since the three subcontract lineman did not have LOTO Authorized Worker training, they were instructed not to enter the electrical vault. As part of the field evaluation, the subcontract lineman and their field work supervisor opened the electrical vault lid to look into the vault. It was determined they could install conduit in the trench they had excavated to the vault. When the installation resulted in the conduit pushing into the vault, one of the electricians entered the vault to hold the end of the conduit to prevent it from extending too far into the vault. He was observed leaving the vault by the Construction Services Field Work Supervisor.</p> <p>Because the new circuit had not been connected and connection was</p>

	prevented by the DDNO and hold-off tags, the electrical vault had no energized circuits; therefore at no time was the worker exposed to an electrical hazard.
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Does not apply
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<ol style="list-style-type: none"> <li>1. The work activity was stopped.</li> <li>2. Barrier was placed around area.</li> <li>3. An event investigation was initiated and critique was held.</li> <li>4. After complete information received, the issue was categorized as reportable</li> </ol>
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	<p>Yes.  Before Further Operation? No  By Whom:  By When:</p>
<b>Division or Project:</b>	Central Plateau Remediation Project, EPC
<b>Plant Area:</b>	100 D
<b>System/Building/Equipment:</b>	100 DX Pump and Treat
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 13H--Management Concerns - American Recovery and Reinvestment Act (ARRA) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
<b>HQ Summary:</b>	<p>On April 12, 2010, a subcontractor electrician was observed leaving an electrical vault that he was not qualified to enter. The entry was associated with work on the high voltage supply feed to the process building's main transformer. The subcontractor's scope of work was to install the empty conduit from the power pole to outside the vault and complete the trench backfill. The subcontractor electricians, who did not have LOTO Authorized Worker training, were instructed not to enter the electrical</p>



vault. As part of the field evaluation, the subcontract lineman and the field work supervisor opened the electrical vault lid to look into the vault. They determined that conduit could be installed in the trench that they had excavated to the vault. When the installation resulted in the conduit pushing into the vault, one of the electricians entered the vault to hold the end of the conduit to prevent it from extending too far into the vault. The electrician was observed leaving the vault by the Construction Services Field Work Supervisor. Because the new circuit had not been connected and connection was prevented, the electrical vault had no energized circuits; therefore at no time was the electrician exposed to an electrical hazard. Work was stopped and a barrier was installed. An investigation was initiated. A critique was held.

**Similar OR Report Number:**

**Facility Manager:**

Name	BACHAND, MARIE
Phone	(509) 373-0771
Title	Project Manager

**Originator:**

Name	TODD, MICHAEL J
Phone	(509) 372-9341
Title	AUTHORITATIVE SOURCE

**HQ OC Notification:**

Date	Time	Person Notified	Organization
NA	NA	NA	NA

**Other Notifications:**

Date	Time	Person Notified	Organization
04/12/2010	16:04 (PTZ)	KM Schierman	DOE-RL
04/12/2010	16:30 (PTZ)	KA Dorr	EPC
04/12/2010	16:30 (PTZ)	VM Pizzuto	CHPRC
04/12/2010	17:25 (PTZ)	KW Davis	ONC

**Authorized Classifier(AC):**

**5)Report Number:** [EM-RL--CPRC-GENLAREAS-2010-0008](#) After 2003 Redesign

**Secretarial Office:** Environmental Management

**Lab/Site/Org:** Hanford Site

**Facility Name:** Plateau Remediation General Facilities

**Subject/Title:** Temporary power cable nicked by drill (ARRA)

**Date/Time Discovered:** 04/23/2010 14:45 (PTZ)

**Date/Time Categorized:** 04/23/2010 15:50 (PTZ)

**Report Type:** Notification

**Report Dates:**

Notification	04/27/2010	16:11 (ETZ)
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	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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)		
<b>Cause Codes:</b>			
<b>ISM:</b>	4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	An electrician was installing a junction box to a metal plate on an electric rack at the 100 DX Process Building construction site. After using a cordless drill to make the holes, the worker noticed that there was an electric cord behind the plate. During investigation, the electrician discovered that there was a nick in the cord, the nick penetrated the outer jacket of the cord, allowing the insulation to be visible. The cord is used to supply temporary 480 Volt power to a heater. The heater was not in service. The cord had been coiled and tucked behind the rack to clear a path for a scissor lift that was to be used in the area. The cord was energized at the time of this event. No sparks or shock occurred during the drilling of the hole.		
<b>Cause Description:</b>			
<b>Operating Conditions:</b>	Does not apply		
<b>Activity Category:</b>	Construction		
<b>Immediate Action(s):</b>	<ol style="list-style-type: none"> <li>1. Work activity was stopped</li> <li>2. Lock and Tag was applied so that the cord could be inspected</li> <li>3. Work activities for the following day were suspended.</li> <li>4. An event investigation was initiated and critique was held.</li> </ol>		
<b>FM Evaluation:</b>			
<b>DOE Facility Representative Input:</b>			
<b>DOE Program Manager Input:</b>			
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: By When:		
<b>Division or Project:</b>	Central Plateau Remediation Project, EPC		
<b>Plant Area:</b>	100 D		

<b>System/Building/Equipment:</b>	100 DX Pump and Treat																							
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)																							
<b>Corrective Action:</b>																								
<b>Lessons(s) Learned:</b>																								
<b>HQ Keywords:</b>	01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 07D--Electrical Systems - Electrical Wiring 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 13H--Management Concerns - American Recovery and Reinvestment Act (ARRA) 14E--Quality Assurance - Work Process Deficiency																							
<b>HQ Summary:</b>	On April 23, 2010, during the installation of a junction box to a metal plate on an electric rack at the 100 DX Process Building construction site, the presence of a cord behind the metal plate was discovered. During the investigation, an electrician discovered that there was a nick in an energized electrical cord, which penetrated the outer jacket of the cord, allowing the insulation to be visible. The cord is used to supply temporary 480-volt power to a heater, which was not in service. The cord had been coiled and tucked behind the rack to clear a path for a scissor lift that was to be used in the area. No sparks or shock occurred during the drilling of the hole. Area work was stopped. An event investigation was initiated and a critique was held.																							
<b>Similar OR Report Number:</b>																								
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">BACHAND, MARIE</td> </tr> <tr> <td>Phone</td> <td colspan="3">(509) 373-0771</td> </tr> <tr> <td>Title</td> <td colspan="3">Project Manager</td> </tr> </table>				Name	BACHAND, MARIE			Phone	(509) 373-0771			Title	Project Manager										
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Phone	(509) 373-0771																							
Title	Project Manager																							
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">TODD, MICHAEL J</td> </tr> <tr> <td>Phone</td> <td colspan="3">(509) 372-9341</td> </tr> <tr> <td>Title</td> <td colspan="3">AUTHORITATIVE SOURCE</td> </tr> </table>				Name	TODD, MICHAEL J			Phone	(509) 372-9341			Title	AUTHORITATIVE SOURCE										
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Date	Time	Person Notified	Organization																					
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04/23/2010	16:58 (PTZ)	N Cray	ONC																					

<b>Authorized Classifier(AC):</b>													
<b>6)Report Number:</b>	<a href="#">EM-SR--SRR-WVIT-2010-0002</a> After 2003 Redesign												
<b>Secretarial Office:</b>	Environmental Management												
<b>Lab/Site/Org:</b>	Savannah River Site												
<b>Facility Name:</b>	Vitrification Facility												
<b>Subject/Title:</b>	Shock Incident During Cathodic Protection Troubleshooting												
<b>Date/Time Discovered:</b>	04/23/2010 14:40 (ETZ)												
<b>Date/Time Categorized:</b>	04/23/2010 15:40 (ETZ)												
<b>Report Type:</b>	Notification												
<b>Report Dates:</b>	<table border="1"> <tr> <td>Notification</td> <td>04/26/2010</td> <td>14:03 (ETZ)</td> </tr> <tr> <td>Initial Update</td> <td></td> <td></td> </tr> <tr> <td>Latest Update</td> <td></td> <td></td> </tr> <tr> <td>Final</td> <td></td> <td></td> </tr> </table>	Notification	04/26/2010	14:03 (ETZ)	Initial Update			Latest Update			Final		
Notification	04/26/2010	14:03 (ETZ)											
Initial Update													
Latest Update													
Final													
<b>Significance Category:</b>	2												
<b>Reporting Criteria:</b>	2C(1) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or disturbance of a previously unknown or mislocated hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas) resulting in a person contacting (burn, shock, etc.) hazardous energy.												
<b>Cause Codes:</b>													
<b>ISM:</b>													
<b>Subcontractor Involved:</b>	No												
<b>Occurrence Description:</b>	The DWPF cathodic protection system is used to protect underground piping systems. A recent degradation in the system lead to troubleshooting efforts to attempt to find the source of the problem. An excavation was performed just east of the area to access the first in a series of possible cathodic line breaks. After briefing with the Shift Operation Manager (SOM), workers reported to the job site and accessed the excavation. Proximity tests using two different models showed an absence of voltage on the cables in the excavation and work proceeded. The first of 3 wires exposed in the excavation had its insulation breached for troubleshooting to check for low voltage (approximately 5 VDC) and none was detected. The second cable was breached and in doing so the worker felt a mild shock and stopped work. A time out was called and the SOM notified.												
<b>Cause Description:</b>													
<b>Operating Conditions:</b>	Wind Direction: West Southwest, Wind Speed: 8 mph, Temperature: 80 F, Precipitation: None												
<b>Activity Category:</b>	Normal Operations (other than Activities specifically listed in this Category)												

<b>Immediate Action(s):</b>	A Time Out was called, work stopped and the area barricaded. After the Fact Finding meeting, E&I determined that the source of the voltage was a previously unidentified 480V live conductor fed from MCCB122-5B in Z-area. The system/area was placed in a safe state pending further evaluation.							
<b>FM Evaluation:</b>								
<b>DOE Facility Representative Input:</b>								
<b>DOE Program Manager Input:</b>								
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: Facility Manager By When:							
<b>Division or Project:</b>	Defense Waste Processing Facility							
<b>Plant Area:</b>	DWPF							
<b>System/Building/Equipment:</b>	210-S							
<b>Facility Function:</b>	Nuclear Waste Operations/Disposal							
<b>Corrective Action:</b>								
<b>Lessons(s) Learned:</b>								
<b>HQ Keywords:</b>	01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records Deficiency							
<b>HQ Summary:</b>	On April 23, 2010, a worker received a mild electrical shock while engaged in cathodic system troubleshooting. Testing showed an absence of voltage on the cables in the excavation and the troubleshooting work proceeded. The first of three wires exposed in the excavation had its insulation breached for troubleshooting to check for low voltage (approximately 5-volts DC) and none was detected. The second cable was breached and in doing so the worker felt a mild shock and stopped work. A time out was called and management notifications were made. The area was barricaded and the system placed in a safe condition. A previously unidentified 480-volt energized conductor was determined to be the voltage source. A fact finding meeting was held.							
<b>Similar OR Report Number:</b>	1. None							
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>SONNENBERG, LESLIE K</td> </tr> <tr> <td>Phone</td> <td>(803) 208-6022</td> </tr> <tr> <td>Title</td> <td>FACILTY MANAGER</td> </tr> </table>		Name	SONNENBERG, LESLIE K	Phone	(803) 208-6022	Title	FACILTY MANAGER
Name	SONNENBERG, LESLIE K							
Phone	(803) 208-6022							
Title	FACILTY MANAGER							

<b>Originator:</b>	Name	GREEN, MICHAEL J.		
	Phone	(803) 208-3171		
	Title	PROGRAM MANAGER C		
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	04/23/2010	15:30 (ETZ)	Jose Blanco	DOE FR
	04/23/2010	15:40 (ETZ)	Frank Vick	Ops Mgr
	04/23/2010	15:40 (ETZ)	Les Sonnenberg	Fac Mgr
	04/23/2010	15:40 (ETZ)	Steve Wilkerson	Prg Mgr
	04/23/2010	15:42 (ETZ)	Dennis Booth	SERB
	04/23/2010	16:20 (ETZ)	Michael Green	SIRIM
	04/23/2010	16:26 (ETZ)	Mark Sautman	DNFSB
	04/23/2010	16:26 (ETZ)	Dan Burnfield	DNFSB
	04/23/2010	17:09 (ETZ)	John Occhipinti	Eng Mgr
<b>Authorized Classifier(AC):</b>				

<b>7)Report Number:</b>	<a href="#">FE--NETL-GOPE-NETLALBANY-2010-0001</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Fossil Energy		
<b>Lab/Site/Org:</b>	National Energy Technology Laboratory		
<b>Facility Name:</b>	NETL - Albany		
<b>Subject/Title:</b>	Electrical Raceway Arcing Resulting in Inadvertent Facility Shutdown		
<b>Date/Time Discovered:</b>	04/28/2010 11:50 (ETZ)		
<b>Date/Time Categorized:</b>	04/28/2010 14:45 (ETZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/30/2010	15:56 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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.		

	<p>4B(7) - A facility or site stand-down resulting from safety reasons reportable as an occurrence or occurrences.</p> <p>Note: This is a secondary reporting criterion, and does not require a separate occurrence report.</p> <p>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)</p>
<b>Cause Codes:</b>	A3B1C03 - Human Performance Less Than Adequate (LTA); Skill Based Errors; Incorrect performance due to mental lapse -->couplet - NA
<b>ISM:</b>	4) Perform Work Within Controls
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	While working on equipment in Building 17, Lab 115, a technician noticed an access cover on a 480V electrical raceway was loose - which left an open path into the raceway. The technician attempted to slide the cover back into place using a screwdriver, which inadvertently caused the cover plate to come in contact with an internal electrical connector -resulting in arcing within the raceway. The technician was not injured during the event, but the arcing subsequently tripped several circuit breakers in both Buildings 17 and 34 - resulting in total loss of power to buildings 17 and 34-39. Once the source of the problem was located, the damaged circuit was locked out and power was restored to the remainder of the facilities. Interruption of power lasted approximately an hour.
<b>Cause Description:</b>	LTA human performance due to mental lapse or poor judgment concerning work beyond qualifications and outside of safety analysis review process.
<b>Operating Conditions:</b>	Facility was conducting normal operations, with active research activities on-going.
<b>Activity Category:</b>	Research
<b>Immediate Action(s):</b>	All impacted main electrical circuits were locked out by a qualified electrician. After the circuit for the damaged raceway was identified and verified, the subcircuit was isolated via lockout. Electrical power was then re-established to all impacted facilities (minus the damaged raceway).
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is</b>	No

<b>Required:</b>									
<b>Division or Project:</b>	Office of Institutional & Business Operations								
<b>Plant Area:</b>	Building 17, Room 15								
<b>System/Building/Equipment:</b>	Building 17								
<b>Facility Function:</b>	Laboratory - Research & Development								
<b>Corrective Action:</b>									
<b>Lessons(s) Learned:</b>	The potential energy associated with live 480V electrical circuits warrants the use of proper procedures and qualified electricians for any work effort.								
<b>HQ Keywords:</b>	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01Q--Inadequate Conduct of Operations - Personnel error 07C--Electrical Systems - Power Outage 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency								
<b>HQ Summary:</b>	On April 28, 2010, while working on equipment in Building 17, Lab 115, a technician noticed an access cover on a 480-Volt electrical raceway was loose, which left an open path into the raceway. The technician attempted to slide the cover back into place using a screwdriver, which inadvertently caused the cover plate to come in contact with an internal electrical connector resulting in arcing within the raceway. The technician was not injured during the event, but the arcing subsequently tripped several circuit breakers in both Buildings 17 and 34, resulting in total loss of power to Buildings 17 and Buildings 34-39. Once the source of the problem was located, the damaged circuit was locked out and power was restored to the remainder of the facilities. Interruption of power lasted approximately an hour.								
<b>Similar OR Report Number:</b>	1. FE--NETL-GOPE-NETLALBANY-2008-0002 2. FE--NETL-GOPE-NETLALBANY-2008-0001								
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>BUTERBAUGH, JEFFERY L.</td> </tr> <tr> <td>Phone</td> <td>(304) 285-4214</td> </tr> <tr> <td>Title</td> <td>EMERGENCY RESPONSE COORDINATOR</td> </tr> </table>	Name	BUTERBAUGH, JEFFERY L.	Phone	(304) 285-4214	Title	EMERGENCY RESPONSE COORDINATOR		
Name	BUTERBAUGH, JEFFERY L.								
Phone	(304) 285-4214								
Title	EMERGENCY RESPONSE COORDINATOR								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>BUTERBAUGH, JEFFERY L.</td> </tr> <tr> <td>Phone</td> <td>(304) 285-4214</td> </tr> <tr> <td>Title</td> <td>EMERGENCY RESPONSE COORDINATOR</td> </tr> </table>	Name	BUTERBAUGH, JEFFERY L.	Phone	(304) 285-4214	Title	EMERGENCY RESPONSE COORDINATOR		
Name	BUTERBAUGH, JEFFERY L.								
Phone	(304) 285-4214								
Title	EMERGENCY RESPONSE COORDINATOR								
<b>HQ OC Notification:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>04/28/2010</td> <td>16:42 (ETZ)</td> <td>Ron Foote</td> <td>DOE HQ</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	04/28/2010	16:42 (ETZ)	Ron Foote	DOE HQ
Date	Time	Person Notified	Organization						
04/28/2010	16:42 (ETZ)	Ron Foote	DOE HQ						
<b>Other Notifications:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> </tbody> </table>	Date	Time	Person Notified	Organization				
Date	Time	Person Notified	Organization						



04/28/2010	12:20 (ETZ)	Robert Reuther	NETL
04/28/2010	12:20 (ETZ)	Dan McCollum	NETL
04/28/2010	12:20 (ETZ)	Dave Hyman	NETL
04/28/2010	12:30 (ETZ)	Tom Torkos	NETL
04/28/2010	12:30 (ETZ)	Cindy Powell	NETL
04/28/2010	12:30 (ETZ)	Anthony Cugini	NETL
04/28/2010	12:30 (ETZ)	Martin Davis	NETL
04/28/2010	15:30 (ETZ)	Mark Matarrese	HQ-FE

**Authorized Classifier(AC):**

<b>8)Report Number:</b>	<a href="#">NA--SS-SNL-NMFAC-2010-0003</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Sandia National Laboratories - SS		
<b>Facility Name:</b>	SNL NM Site-wide F & M		
<b>Subject/Title:</b>	Asbestos Worker Shocked During Abatement Operations in Bldg. 872		
<b>Date/Time Discovered:</b>	04/16/2010 08:30 (MTZ)		
<b>Date/Time Categorized:</b>	04/16/2010 09:06 (MTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/19/2010	17:30 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	2		
<b>Reporting Criteria:</b>	2C(1) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or disturbance of a previously unknown or mislocated hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas) resulting in a person contacting (burn, shock, etc.) hazardous energy.		
<b>Cause Codes:</b>			
<b>ISM:</b>	1) Define the Scope of Work 2) Analyze the Hazards		
<b>Subcontractor Involved:</b>	Yes SW Hazard Control		
<b>Occurrence Description:</b>	At approximately 9:15 am on April 15, 2010, an asbestos abatement worker wearing gloves and full asbestos required PPE received a shock to the right hand while working above a ceiling area. The asbestos worker notified their supervisor of the "small tingle" and the work area was placed in a safe condition. Work was suspended and the asbestos worker and the		

	<p>supervisor went to Sandia Medical where the worker was released without restrictions.</p> <p>The work area was inside an asbestos containment area. Asbestos containing materials were being abated as part of a renovation to Building 872. The worker was on an 8 foot insulated stepladder and was wearing the following PPE: full-faced powered air purifying respirator (PAPR), disposable coveralls, hard hat, rubber boots, and gloves.</p> <p>Because this was an active abatement project, the area had to be placed in a safe condition, cleaned, and sampled to allow a proper investigation to be conducted. The area was cleared of asbestos hazards at approximately 3:20 pm on April 15 and discovery was completed at 8:30 am on April 16.</p> <p>The exposed 120 volt 30 amp circuit contained two # 10 conductors (a white neutral and a blue energized conductor) that were cut flush and came out of a conduit approximately eight inches. The circuit was located in Panel A on breaker # 27. The energized circuit was abandoned in place with no load attached.</p> <p>The project contained provisions for an electrical pre-task verification of hazards prior to the start of abatement. The area was checked by the electrical subcontractor on the project to ensure that no energized conductors were present. These two conductors were located above the hard ceiling area running parallel to and directly behind a pipe. The electrician working from a ladder and looking through an access hole did not see the conductors. Due to the PPE required for abatement (full face PAPR), the conductors were not readily visible to the worker.</p> <p>The exposed energized circuit was not part of the project and it appears to be a legacy electrical hazard from previous work in the area.</p>
<b>Cause Description:</b>	Critique/Fact Finding Performed 4/16/10
<b>Operating Conditions:</b>	Normal
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<p>Area was placed in a safe condition</p> <p>Worker was taken to Medical and released</p> <p>Notifications were conducted</p> <p>Investigation was initiated</p>
<b>FM Evaluation:</b>	EOC # 15736
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager</b>	

<b>Input:</b>							
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: Causal Analysis Team By When: 05/28/2010						
<b>Division or Project:</b>	4000/872 Bathroom Renovation						
<b>Plant Area:</b>	Tech Area I						
<b>System/Building/Equipment:</b>	120 Volt 30 amp circuit/Bldg. 872/Women's Restroom						
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)						
<b>Corrective Action:</b>							
<b>Lessons(s) Learned:</b>							
<b>HQ Keywords:</b>	08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency						
<b>HQ Summary:</b>	On April 15, 2010, an asbestos abatement worker received an electrical shock to the right hand while working above a ceiling area. The worker was on an 8-foot insulated stepladder and was wearing a full-faced powered air purifying respirator, disposable coveralls, hard hat, rubber boots, and gloves. The worker notified their supervisor of the "small tingle" and the work area was placed in a safe condition. The worker and supervisor went to Sandia Medical where the worker was released without restrictions. The exposed 120-volt, 30-amp circuit contained two #10 conductors (a neutral and an energized conductor) that were cut flush and came out of a conduit approximately 8 inches. The exposed energized circuit was not part of the asbestos abatement project and appears to be a legacy electrical hazard that had been abandoned in place. An electrician had pre-checked the area; however, because the two conductors were running parallel to and directly behind a pipe, the electrician did not see them. An investigation was initiated.						
<b>Similar OR Report Number:</b>							
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Greg Kirsch</td> </tr> <tr> <td>Phone</td> <td>(505) 845-9497</td> </tr> <tr> <td>Title</td> <td>Facilities ES&amp;H Lead</td> </tr> </table>	Name	Greg Kirsch	Phone	(505) 845-9497	Title	Facilities ES&H Lead
Name	Greg Kirsch						
Phone	(505) 845-9497						
Title	Facilities ES&H Lead						
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>LUCERO, JEWELLEE A</td> </tr> <tr> <td>Phone</td> <td>(505) 845-4727</td> </tr> <tr> <td>Title</td> <td>REPORTING ADMINISTRATOR</td> </tr> </table>	Name	LUCERO, JEWELLEE A	Phone	(505) 845-4727	Title	REPORTING ADMINISTRATOR
Name	LUCERO, JEWELLEE A						
Phone	(505) 845-4727						
Title	REPORTING ADMINISTRATOR						
<b>HQ OC Notification:</b>	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> </table>	Date	Time	Person Notified	Organization		
Date	Time	Person Notified	Organization				

	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	04/16/2010	08:30 (MTZ)	Marc Williams	4122
	04/16/2010	08:30 (MTZ)	Michael Quinlan	4840
	04/16/2010	08:30 (MTZ)	Gerald Lipka	4842
	04/16/2010	09:00 (MTZ)	Arthur Ratzel	4800
	04/16/2010	09:06 (MTZ)	Debbie Garcia-Sanchez, FR	DOE/SSO
	04/16/2010	09:08 (MTZ)	EOC	4136
	04/16/2010	10:00 (MTZ)	Bill Lucy	4021
<b>Authorized Classifier(AC):</b>	John Norwalk      Date: 04/16/2010			

<b>9)Report Number:</b>	<a href="#">NA--SS-SNL-NMFAC-2010-0004</a> <b>After 2003 Redesign</b>		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Sandia National Laboratories - SS		
<b>Facility Name:</b>	SNL NM Site-wide F & M		
<b>Subject/Title:</b>	Electrical Arc from Receptacle in Bldg. 720		
<b>Date/Time Discovered:</b>	04/21/2010 10:55 (MTZ)		
<b>Date/Time Categorized:</b>	04/21/2010 16:06 (MTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/23/2010	09:00 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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.		
<b>Cause Codes:</b>			
<b>ISM:</b>	4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	Yes B&D Electric		
<b>Occurrence Description:</b>	At approximately 10:55 am, on April 21, 2010, an electrical arc was identified while an electrical subcontractor was working on a receptacle on the Ion Beam Lab (IBL) equipment installation contract in Building 720.		

	<p>There were no injuries or loss of power to programmatic equipment due to the event. The 120/208 volt, 20 amp circuit contained five conductors (#1 ground, #1 neutral and #3 hot) and was connected to one of approximately 50 "Woodhead" pendant type drop receptacles.</p> <p>The electrical subcontractor was preparing for the final inspection and testing of the three overhead buss ducts at the time of the event. Preliminary inspections identified a loose connection within the system necessitating the need for quality assurance continuity testing of all receptacle connections. To perform this test, each receptacle had to be disassembled and inspected. The worker had locked and tagged the circuit for the buss ducts and was checking connections in the drop receptacles. The electrical subcontract worker had conducted 25 voltage checks on previous receptacles. The electrical subcontractor came back from break and started to check the next electrical drop and an arc occurred. Upon return the worker did not conduct a voltage test on this circuit drop that was similar to the previous electrical drops. It was discovered that the receptacle was not fed from the buss duct but rather from a separate circuit in the same panel. The proximity of the circuit to the buss duct was not readily distinguishable from the electrical contractor's location. During disassembly, a loose wire shorted to ground causing the 120 volt arc flash and tripping the circuit breaker. The contractor was wearing a hard hat, safety glasses, gloves, and cotton clothing. The contractor was a second year journeyman with six years experience with the company.</p> <p>Work was suspended, the area was barricaded, and the affected breaker was locked and tagged.</p>
<b>Cause Description:</b>	Critique/Fact Finding Performed: 4/22/10
<b>Operating Conditions:</b>	Normal
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<p>Area was barricaded</p> <p>Breaker was locked and tagged</p> <p>Notifications were conducted</p> <p>Investigation was initiated</p>
<b>FM Evaluation:</b>	EOC # 15825
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	<p>Yes.</p> <p>Before Further Operation? No</p> <p>By Whom: Causal Analysis Team</p>

	By When: 06/04/2010															
<b>Division or Project:</b>	4000/720 IBL															
<b>Plant Area:</b>	Tech Area I															
<b>System/Building/Equipment:</b>	120/208volt 20amp circuit/Bldg. 720/Tandem Vault Room 217															
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)															
<b>Corrective Action:</b>																
<b>Lessons(s) Learned:</b>																
<b>HQ Keywords:</b>	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 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															
<b>HQ Summary:</b>	<p>On April 21, 2010, an electrical arc occurred while an electrical subcontractor was working on a 120-volt receptacle for the Ion Beam Lab equipment installation activity. While conducting final inspection and testing of three overhead buss ducts, the electrical subcontractor found a loose connection that required quality assurance continuity testing of all receptacle connections. The worker had locked and tagged the circuit for the buss ducts and was checking connections in the drop receptacles. After conducting 25 voltage checks on previous receptacles, the worker took a break. Upon return, the worker did not conduct a voltage test on the next circuit drop, which was similar to the previous drops. During disassembly, a loose wire shorted to ground causing the arc flash and tripping a circuit breaker. It was discovered that the receptacle was not fed from the buss duct but rather from a separate circuit in the same panel. The contractor was wearing a hard hat, safety glasses, gloves, and cotton clothing. Work was suspended, the area was barricaded, and the affected breaker was locked and tagged. There were no injuries or loss of power to programmatic equipment. Notifications were made and an investigation was initiated.</p>															
<b>Similar OR Report Number:</b>																
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">Greg Kirsch</td> </tr> <tr> <td>Phone</td> <td colspan="3">(505) 845-9497</td> </tr> <tr> <td>Title</td> <td colspan="3">Facilities ES&amp;H Lead</td> </tr> </table>				Name	Greg Kirsch			Phone	(505) 845-9497			Title	Facilities ES&H Lead		
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<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">ARMSTRONG, KAREN N.</td> </tr> <tr> <td>Phone</td> <td colspan="3">(505) 845-8379</td> </tr> <tr> <td>Title</td> <td colspan="3">OCCURRENCE MANAGEMENT</td> </tr> </table>				Name	ARMSTRONG, KAREN N.			Phone	(505) 845-8379			Title	OCCURRENCE MANAGEMENT		
Name	ARMSTRONG, KAREN N.															
Phone	(505) 845-8379															
Title	OCCURRENCE MANAGEMENT															
<b>HQ OC Notification:</b>	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> </table>				Date	Time	Person Notified	Organization								
Date	Time	Person Notified	Organization													

	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	04/21/2010	11:35 (MTZ)	EOC	4136
	04/21/2010	16:00 (MTZ)	Lynnwood Dukes	4820
	04/21/2010	16:00 (MTZ)	Michael J. Quinlan	4840
	04/21/2010	16:00 (MTZ)	Arthur Ratzel	4800
	04/21/2010	16:06 (MTZ)	Debbie Garcia-Sanchez, FR	DOE/SSO
	04/21/2010	16:15 (MTZ)	William Lucy	4021
	04/21/2010	16:30 (MTZ)	Gerald Lipka	4842
<b>Authorized Classifier(AC):</b>	John K. Norwalk		Date: 04/22/2010	

<b>10)Report Number:</b>	<a href="#">SC--BHSO-BNL-BNL-2010-0010</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Science		
<b>Lab/Site/Org:</b>	Brookhaven National Laboratory		
<b>Facility Name:</b>	Brookhaven National Laboratory (BOP)		
<b>Subject/Title:</b>	Contractor Contacts an Empty Conduit		
<b>Date/Time Discovered:</b>	04/19/2010 12:00 (ETZ)		
<b>Date/Time Categorized:</b>	04/19/2010 13:45 (ETZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/21/2010	08:19 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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)		
<b>Cause Codes:</b>			
<b>ISM:</b>			
<b>Subcontractor Involved:</b>	Yes Torcon		
<b>Occurrence Description:</b>	During an excavation at the NSLS-II construction site, an excavator pulled up an underground electrical conduit. The conduit was one of six buried in the same vicinity. The conduit which was damaged was empty, however one of the others contained two 120-V live circuits.		

	Due to the proximity of the live circuit conduit to the damaged conduits, this event was declared as a near-miss.
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Construction
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	All excavation activities were suspended until an investigation could be conducted
<b>FM Evaluation:</b>	Excavation activities were voluntary suspended by Torcon. A meeting was held with Torcon and NSLS-II staff to determine causal factors. A corrective action plan needs to be formulated and presented to the Project Director before excavation activities can be resumed.
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? Yes By Whom: Torcon By When: 04/22/2010
<b>Division or Project:</b>	NSLS-II
<b>Plant Area:</b>	Ring Building
<b>System/Building/Equipment:</b>	Ring Building Construction
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	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
<b>HQ Summary:</b>	On April 19, 2010, while a subcontractor was excavating at the construction site for the National Synchrotron Light Source II, an excavator pulled up and damaged an empty underground electrical conduit. The conduit was one of six buried in the same vicinity. The event was declared a near miss because of the proximity of the damaged conduit to one of the other conduits that contained two 120-volt energized circuits.



	All excavation was suspended until an investigation could be conducted. A corrective action plan will be formulated and presented to the project director before excavation can be resumed.			
<b>Similar OR Report Number:</b>				
<b>Facility Manager:</b>	Name	KRASNER, KENNETH		
	Phone	(631) 344-2563		
	Title	Construction Safety Engineer		
<b>Originator:</b>	Name	KRASNER, KENNETH		
	Phone	(631) 344-2563		
	Title			
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	04/19/2010	12:15 (ETZ)	M. Fallier	BSA/NSLS
	04/19/2010	12:15 (ETZ)	S. Hoey	BSA/NSLS
<b>Authorized Classifier(AC):</b>				

<b>11)Report Number:</b>	<a href="#">SC--BSO-LBL-OPERATIONS-2010-0003</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Science		
<b>Lab/Site/Org:</b>	Lawrence Berkeley Laboratory		
<b>Facility Name:</b>	Operations Division		
<b>Subject/Title:</b>	B66 Live Conduit Penetrated - No Injuries		
<b>Date/Time Discovered:</b>	04/20/2010 10:48 (PTZ)		
<b>Date/Time Categorized:</b>	04/20/2010 10:53 (PTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/22/2010	17:05 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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.		

<b>Cause Codes:</b>	
<b>ISM:</b>	<p>2) Analyze the Hazards</p> <p>3) Develop and Implement Hazard Controls</p> <p>4) Perform Work Within Controls</p>
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	<p>On 04/20/2010, while attempting to trace wires damaged during a previous incident, an LBNL electrician cut through a conduit and contacted an energized wire. There were no injuries.</p> <p>This incident occurred on the third floor in B66 while Facilities personnel were attempting to trace the wires in conduits damaged during a January core drilling activity. When the damage occurred in January, access to the conduit was limited, evaluations and tests done then indicated that the wire was unlikely to be energized. Efforts to trace the wire was unsuccessful at the time.</p> <p>On 03/06/2010, as part of the effort to delineate the damaged conduits and the wires, LBNL laborers chipped around the damaged conduits to allow for easier access to cut back the conduits. This was done to expose the wires so as to connect a device to trace the wires in both directions. During the week of 04/12-16, Facilities made arrangements to have a scanning subcontractor and an LBNL electricians work together to identify the wires, with the electrician testing and connecting the tracing equipment to the wires.</p> <p>On 04/20/2010 at around 0900 hours, a Facilities Maintenance Supervisor (MS) spoke with the electrician at the work site and told him to make sure the wires were de-energized before starting work. The electrician stated that he was going to try to cut away the damaged conduit with a piece of nylon string so he could expose both ends of the wires to make repairs. At approximately 10:45 hours, the MS heard a pop 15 feet away, at the electrician work site. Suspecting an electrical short, the MS immediately asked the work stopped and talked with the electrician to determine what had happened. According to the electrician, he had used a non-contact voltage tester to check the wire in both directions. He was unable to verify the power status with a contact meter because the ends of the wire were too far up inside the conduit. He verified that his tester was working in a known outlet and then tested the damaged wires and found there was no power. He then used a vacuum to clear the rocks and dust from the conduit and checked the wires again. He was unable to find a nylon string so he used a small keyhole saw in an attempt to cut the pipe about half way through from both sides to break the conduit off without damaging the wires inside. While making the second cut, he contacted the wire that he thought was de-energized and the short occurred. The electrician was wearing leather work gloves but not insulated liners. There were no</p>

	injuries as a result of this incident.
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Indoors, lighted, dry
<b>Activity Category:</b>	Maintenance
<b>Immediate Action(s):</b>	Work on site was stopped until further precaution can be taken.
<b>FM Evaluation:</b>	The Facilities Operations Department Head has stopped the work until the power to the entire building can be turned off. Workers will use the same precautions as would be used on energized circuit. What these wire are connected to remain unknown after many attempts to find out after the core drilling incident in January.
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? Yes By Whom: Facilities and EH&S By When: 04/26/2010
<b>Division or Project:</b>	Facilities Division
<b>Plant Area:</b>	Building 66
<b>System/Building/Equipment:</b>	Building 66, 3rd floor
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01Q--Inadequate Conduct of Operations - Personnel error 07D--Electrical Systems - Electrical Wiring 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
<b>HQ Summary:</b>	On April 20, 2010, while attempting to trace wires damaged during a core drilling activity in January, an LBNL electrician cut through a conduit and touched an energized wire that he thought was de-energized. The Facilities Maintenance Supervisor (MS) heard a pop 15 feet away from the electrician's work site. Suspecting an electrical short, the MS immediately stopped work and talked with the electrician to determine what had happened. According to the electrician, he had used a non-contact voltage tester to check the wire in both directions. He was unable to verify the power status with a contact meter because the ends of the wire were too far up inside the conduit. The non-contact voltage tester indicated no power. The Facilities Operations Department Head stopped the work until the

	power to the entire building can be turned off. Workers will use the same precautions as would be used on energized circuit. Actual wire connections remain unknown.			
<b>Similar OR Report Number:</b>				
<b>Facility Manager:</b>	Name	Jennifer Ridgeway		
	Phone	(510) 486-6339		
	Title	Division Director		
<b>Originator:</b>	Name	MOU, FLORENCE P.		
	Phone	(510) 486-7872		
	Title	SENIOR ADMINISTRATOR		
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	04/20/2010	11:02 (PTZ)	Kevin Hartnett	BSO
<b>Authorized Classifier(AC):</b>				

<b>12)Report Number:</b>	<a href="#">SC--PNSO-PNNL-PNNLBOPER-2010-0008</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Science		
<b>Lab/Site/Org:</b>	Pacific Northwest National Laboratory		
<b>Facility Name:</b>	Energy Research Programs (PNNL)		
<b>Subject/Title:</b>	Electrical Conduit Damage by Subcontractor during Excavation		
<b>Date/Time Discovered:</b>	04/12/2010 15:00 (PTZ)		
<b>Date/Time Categorized:</b>	04/12/2010 16:35 (PTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	04/14/2010	14:01 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	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.		
<b>Cause Codes:</b>			

<b>ISM:</b>	5) Provide Feedback and Continuous Improvement
<b>Subcontractor Involved:</b>	Yes South Bay EDC and Alabama Rail Road Company
<b>Occurrence Description:</b>	On Monday, April 12, 2010 at approximately 1400 hours (Pacific), a PNNL subcontractor preparing for a Radiological Portal Monitor (RPM) installation in Mobile, Alabama, damaged an electrical conduit while excavating with a backhoe. The conduit contained two conductors (that were on a photo cell timer and not energized at the time of the event). There was no personnel injury or equipment damage.
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	N/A
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	The Port Authority was contacted and the affected circuit was locked and tagged out. A critique was held Wednesday, April 14, 2010.
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	No
<b>Division or Project:</b>	National Security Directorate
<b>Plant Area:</b>	Offsite
<b>System/Building/Equipment:</b>	Mobile, AL
<b>Facility Function:</b>	Laboratory - Research & Development
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 07D--Electrical Systems - Electrical Wiring 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
<b>HQ Summary:</b>	On April 12, 2010, a PNNL subcontractor preparing for a Radiological Portal Monitor installation in Mobile, AL, damaged an electrical conduit during excavating with a backhoe. The conduit contained two conductors (that were on a photo cell timer and not energized at the time of the event). There was no personnel injury or equipment damage. The Port Authority was contacted. The affected circuit was locked and tagged out. A critique

	was held.								
<b>Similar OR Report Number:</b>	1. SC-RL--PNNL-PNNLBOPER-2009-0013 2. SC-RL--PNNL-PNNLBOPER-2009-0010								
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Prigge, J. G.</td> </tr> <tr> <td>Phone</td> <td>(509) 375-6807</td> </tr> <tr> <td>Title</td> <td>RPMP Special Projects Manager</td> </tr> </table>	Name	Prigge, J. G.	Phone	(509) 375-6807	Title	RPMP Special Projects Manager		
Name	Prigge, J. G.								
Phone	(509) 375-6807								
Title	RPMP Special Projects Manager								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>POLLARI, ROGER A</td> </tr> <tr> <td>Phone</td> <td>(509) 371-7700</td> </tr> <tr> <td>Title</td> <td></td> </tr> </table>	Name	POLLARI, ROGER A	Phone	(509) 371-7700	Title			
Name	POLLARI, ROGER A								
Phone	(509) 371-7700								
Title									
<b>HQ OC Notification:</b>	<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						
<b>Other Notifications:</b>	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> <tr> <td>04/12/2010</td> <td>16:40 (PTZ)</td> <td>Carlson, J. L.</td> <td>PNSO</td> </tr> </table>	Date	Time	Person Notified	Organization	04/12/2010	16:40 (PTZ)	Carlson, J. L.	PNSO
Date	Time	Person Notified	Organization						
04/12/2010	16:40 (PTZ)	Carlson, J. L.	PNSO						
<b>Authorized Classifier(AC):</b>	Pollari, R. A.    Date: 04/14/2010								

<b>13)Report Number:</b>	<a href="#">SC-ORO--ORNL-X10UTILITY-2010-0001</a> After 2003 Redesign												
<b>Secretarial Office:</b>	Science												
<b>Lab/Site/Org:</b>	Oak Ridge National Laboratory												
<b>Facility Name:</b>	ORNL Utilities												
<b>Subject/Title:</b>	Energized Electrical Cable Inadvertently Severed at Bldg. 2519 During Removal Operations												
<b>Date/Time Discovered:</b>	04/20/2010 18:00 (ETZ)												
<b>Date/Time Categorized:</b>	04/20/2010 20:43 (ETZ)												
<b>Report Type:</b>	Notification												
<b>Report Dates:</b>	<table border="1"> <tr> <td>Notification</td> <td>04/22/2010</td> <td>18:25 (ETZ)</td> </tr> <tr> <td>Initial Update</td> <td></td> <td></td> </tr> <tr> <td>Latest Update</td> <td></td> <td></td> </tr> <tr> <td>Final</td> <td></td> <td></td> </tr> </table>	Notification	04/22/2010	18:25 (ETZ)	Initial Update			Latest Update			Final		
Notification	04/22/2010	18:25 (ETZ)											
Initial Update													
Latest Update													
Final													
<b>Significance Category:</b>	3												
<b>Reporting Criteria:</b>	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.												
<b>Cause Codes:</b>													

<b>ISM:</b>	
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	<p>On April 20, 2010, an approved work package was being implemented to pull and remove cables previously de-energized and air-gapped. This activity was in preparation for boiler demolition in support of the Energy Savings Performance Contract (ESPC) being implemented as part of the DOE TEAM Initiative. When this event occurred, approximately 2000 feet of cable had been successfully removed.</p> <p>The de-energized cables intersected a cable tray that contained both energized and de-energized cables which were inter-twined. Following standard practice, electricians working within close proximity pulled on an individual cable to identify those to be removed. When a length of cable being manipulated was confirmed by the electricians, it was cut using an insulated cable cutter and then removed. At approximately 1745 hours, an electrician inadvertently cut an energized cable (i.e., a five conductor cable with unknown voltage) that produced a spark. Work was immediately stopped, and the electricians put the severed cable in a safe configuration. The attending Maintenance Supervisor and other ORNL management were notified of the event. The Lab Shift Superintendent (LSS) was contacted, and the event was categorized as a 2C(2) occurrence, i.e., unexpected discovery of an uncontrolled hazardous energy source.</p> <p>The work planning process was appropriate for the conditions reviewed and anticipated. A pre-job briefing was conducted. The appropriate Personal Protective Equipment (PPE) was established for this task. Although not required by the work plan, the electrician performing the cut wore PPE that exceeded the established requirements.</p> <p>There were no injuries to the electrician or other personnel, or impacts to other processes, as a result of this activity.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Normal
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<p>On April 20, 2010, after the energized cable was cut, work was stopped, and the cable was placed in a safe configuration. ORNL management was notified of the event.</p> <p>At approximately 2043 hours, the LSS was notified, and the event was categorized as a 2C(2) hazardous energy control occurrence.</p> <p>A critique was conducted on April 21, 2010.</p>
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	

<b>DOE Program Manager Input:</b>									
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: Utilities Division By When: 06/04/2010								
<b>Division or Project:</b>	Utilities Division								
<b>Plant Area:</b>	Bldg 2519								
<b>System/Building/Equipment:</b>	Bldg. 2519								
<b>Facility Function:</b>	Balance-of-Plant - Site/outside utilities								
<b>Corrective Action:</b>									
<b>Lessons(s) Learned:</b>									
<b>HQ Keywords:</b>	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01Q--Inadequate Conduct of Operations - Personnel error 07D--Electrical Systems - Electrical Wiring 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency								
<b>HQ Summary:</b>	On April 20, 2010, while electricians were pulling and removing de-energized and air-gapped cables in preparation for boiler demolition, the cables intersected a cable tray that contained both energized and de-energized cables which were inter-twined. When an electrician used an insulated cable cutter to cut free a de-energized cable, the electrician inadvertently cut an energized cable, producing a spark. Work was immediately stopped, and the electricians put the severed cable in a safe configuration. ORNL management was notified. There were no injuries and the electrician who performed the cut wore personal protective equipment that exceeded the established requirements. A critique was conducted.								
<b>Similar OR Report Number:</b>									
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Robert Baugh</td> </tr> <tr> <td>Phone</td> <td>(865) 574-7050</td> </tr> <tr> <td>Title</td> <td>Complex Manager</td> </tr> </table>	Name	Robert Baugh	Phone	(865) 574-7050	Title	Complex Manager		
Name	Robert Baugh								
Phone	(865) 574-7050								
Title	Complex Manager								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>STORMER, R WAYNE</td> </tr> <tr> <td>Phone</td> <td>(865) 574-6999</td> </tr> <tr> <td>Title</td> <td>EVENT REPORTING GROUP</td> </tr> </table>	Name	STORMER, R WAYNE	Phone	(865) 574-6999	Title	EVENT REPORTING GROUP		
Name	STORMER, R WAYNE								
Phone	(865) 574-6999								
Title	EVENT REPORTING GROUP								
<b>HQ OC Notification:</b>	<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
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NA	NA	NA	NA						
<b>Other Notifications:</b>	<table border="1"> <tr> <td>Date</td> <td>Time</td> <td>Person Notified</td> <td>Organization</td> </tr> </table>	Date	Time	Person Notified	Organization				
Date	Time	Person Notified	Organization						



	04/20/2010	20:43 (ETZ)	Lab Shift Superintendent	ORNL LSS
	04/20/2010	22:41 (ETZ)	Michele Branton	DOE ORNL
	04/20/2010	22:41 (ETZ)	Johnny Moore	DOE ORNL

**Authorized Classifier(AC):**

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at (800) 473-4375. Hours: 7:30 a.m. - 5:00 p.m., Mon - Fri (ETZ).  
Please include [detailed information](#) when reporting problems.*