

## June 2007 Electrical Safety Occurrences

There were 15 electrical safety occurrences for June 2007:

- 5 resulted in shocks to a worker
- 2 involved lockout/tagout
- 11 involved electrical workers and 4 involved non-electrical workers.
- 7 involved subcontractors.

In compiling the monthly totals, the search initially looked for occurrence discovery dates in this month, and for the following ORPS “HQ keywords”:

01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),

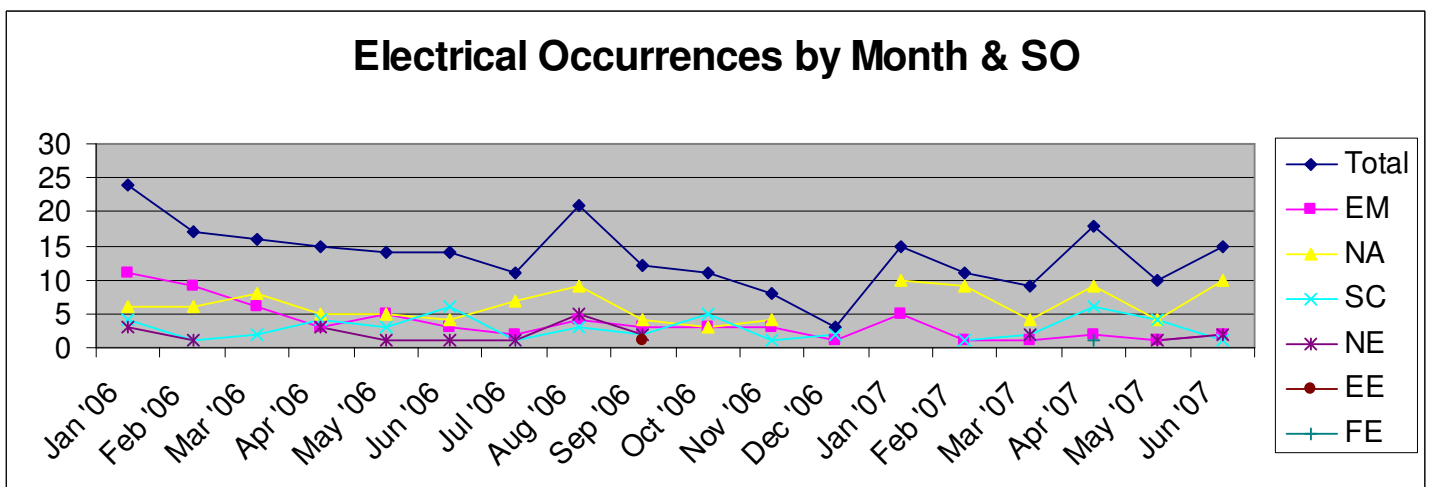
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

The initial search yielded 15 occurrences and a review of these determined none needed to be culled out.

The rolling summary of 2007 electrical safety occurrences is now:

period	Elec. Safety Occurrences	Shocks	Burns	Fatalities
1/07	15	1	0	0
2/07	11	3	0	0
3/07	9	1	0	0
4/07	18	3	1	0
5/07	11	1	0	0
6/07	15	5	0	0
2007 total	79	14	1	0
2006 total	166	26	3	0
2005 total	165	39	5	0
2004 total	149	25	3	1

The average rate of occurrences in 2007 is now 13 per month, which is less and the average rate of 14 per month experienced in 2006.



## Electrical Safety Occurrences – June 2007 – as of 7/12 download

No	Report Number	Subject / Title	Ew	n-ew	sub	Shock	burn	arcf	loto	excav	cut/d	veh
1	EM--PPPO-TPMC-PORTENVRES-2007-0003	OSHA 1910.333 Noncompliance		x	x				x			
2	EM-RL--PHMC-GPP-2007-0003	Zero Energy Check performed on component outside of release work scope.	X						x			
3	NA--LASO-LANL-BOP-2007-0012	Loose Power Connections Discovered on Cord Cap for a Power Distribution Unit	X			x						
4	NA--LASO-LANL-FIRNGHELAB-2007-0001	Electrical Shock from a Limit Switch.	X			x						
5	NA--LASO-LANL-TA55-2007-0022	Management Concern: Poor Wiring Leads to Minor Electrical Shock		x	x	x						
6	NA--NVSO-LLNV-LLNV-2007-0006	Management Concern: Electrical Work in Junction Boxes at LLNL NTS	X		x							
7	NA--PS-BWXP-PANTEX-2007-0087	NEXRAD Feed lost in Operations Center	X									
8	NA--PS-BWXP-PANTEX-2007-0088	MTS #68 Panel Door Left Unsecured	X									
9	NA--PS-BWXP-PANTEX-2007-0092	Electrical Panel Door Found Unsecured	X									
10	NA--PS-BWXP-PANTEX-2007-0099	Circuit Breaker Trip Caused by Incorrect Wiring of Light Switch	X		x							
11	NA--SS-SNL-NMFAC-2007-0007	120 Volt 20 Amp Breaker Trips during Dowcraft Wall Panel Removal in Bldg. 890		x	x							
12	NA--SS-SNL-NMFAC-2007-0008	Construction Electrical Apprentice Cuts Energized Conductor in Bldg. 802 Prior to Performing LOTO and Zero Voltage Verification Testing	X		x							
13	NE-ID--BEA-ATR-2007-0012	Electrician Receives 277 VAC Shock From Unit Heater Thermostat	X			x						
14	NE-ID--BEA-MFC-2007-0001	Meter Probe Damage Due to Improper Connections	X		x							
15	SC--BSO-LBL-EETD-2007-0001	Student assistant received electrical shock		x		x						
	Total		11	4	7	5			2			

### Key

ew= electrical worker, n-ew = non-electrical worker, sub = subcontractor, arcf = significant arc flash, excav = excavation, cut/d = cutting or drilling, veh = vehicle event

# ORPS Operating Experience Report ?

Production GUI - New ORPS

ORPS contains 53302 OR(s) with 56620 occurrences(s) as of 7/12/2007 10:18:33 AM  
Query selected 15 OR(s) with 15 occurrences(s) as of 7/12/2007 3:55:01 PM

Download this report in Microsoft Word format. 

<b>1)Report Number:</b>	<a href="#">EM--PPPO-TPMC-PORTENVRES-2007-0003</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Environmental Management		
<b>Lab/Site/Org:</b>	Portsmouth Gaseous Diffusion Plant		
<b>Facility Name:</b>	Environmental Restoration		
<b>Subject/Title:</b>	OSHA 1910.333 Noncompliance		
<b>Date/Time Discovered:</b>	06/08/2007 14:00 (ETZ)		
<b>Date/Time Categorized:</b>	06/08/2007 15:40 (ETZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	06/11/2007	15:58 (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 Willis & Son Company (Vendor)		
<b>Occurrence Description:</b>	<p>The precursor event to this occurrence occurred on May 30, 2007, at 0930 hours. This precursor event was documented by Theta Pro2Serve Management Company, LLC (TPMC) as Incident Report #IR-TPMC-07-014, Work Package Scope Exceeded. In the subsequent TPMC Subject Matter Expert's (SME) follow-up review, conducted from May 30, 2007 to June 8, 2007, the event was determined to involve an occurrence reportable noncompliance.</p> <p>The precursor event of Incident Report #IR-TPMC-07-014, Work Package Scope Exceeded, occurred when the TPMC Mechanical Supervisor was escorting a vendor Heating, Ventilation, Air Conditioning (HVAC) Technician from Willis &amp; Son Company to determine the cause of air conditioner system problems on the X-720 Building Mezzanine. The HVAC Technician was given a briefing, signed the mechanical troubleshooting work package, and started work in the Equipment Room by setting up equipment and taking pressure readings on Compressor #1 of the air conditioning system, which was operating.</p>		

The Mechanical Supervisor passed off escorting duties to a TPMC Maintenance Mechanic in order to leave the noisy equipment room to make a phone call for TPMC Electrician support to exercise another work package to electrically troubleshoot Compressor #2 of the air conditioning system, which was not operating. While the Mechanical Supervisor was out of the equipment room, the HVAC Technician unbeknownst to the Maintenance Mechanic began electrically troubleshooting Compressor #2 of the air conditioning system, pulled the 480 volt disconnect switch to Compressor #2 of the air conditioning system (incorrectly and unauthorized) and pulled two fuses to check them for continuity. This activity happened very quickly and was not observed by the Maintenance Mechanic. However, as soon as the Maintenance Mechanic discovered the HVAC technician's action and notified the Mechanical Supervisor, the Mechanical Supervisor suspended the work. The HVAC Technician exceeded the scope of the mechanical troubleshooting Work Package, which did not include this activity. The HVAC Technician was not injured. The HVAC Technician was immediately sent off the site.

On June 8, 2007, at 1400 hours, through extensive evaluation by TPMC Safety and Electrical subject matter experts, it was determined that the Work Package Scope Exceeded incident as described above and reported on May 30, 2007, is an OSHA 1910.333(b)(2), Selection and Use of Work Practices, noncompliance. While working on de-energized, fixed electrical equipment, the vendor HVAC technician failed to lock and tag out the equipment as required by TPMC procedures. The vendor acted outside TPMCs knowledge and control and in so doing violated the established OSHA standard and TPMC hazardous energy control process (TPMC-2701, Instructions for Lockout/Tagout). By acting without TPMC knowledge and authorization, the vendor HVAC technician did not afford TPMC the opportunity to properly exercise the appropriate controls. This incident is Occurrence Reportable as a 2C(2)3, Significant Category 3, Failure to follow a prescribed hazardous energy control process.

**Cause Description:**

**Operating Conditions:**

Normal work routine

**Activity Category:**

Maintenance

**Immediate Action(s):**

Actions taken on precursor event:

- Work was suspended in the immediate area.
- The HVAC Technician was evaluated for injuries and none were identified.
- Management was notified of the incident.
- Safety and Quality were notified of the incident.
- Internal Incident Report was completed.
- An internal evaluation was initiated.
- A Critique was conducted.

**FM Evaluation:**

**DOE Facility Representative Input:**

**DOE Program Manager Input:**

**Further Evaluation is Required:**

No

<b>Division or Project:</b>	Operations & Maintenance/Electrical Maintenance																		
<b>Plant Area:</b>	F5																		
<b>System/Building/Equipment:</b>	X-720 Building/Heating, Ventilation, Air Conditioning																		
<b>Facility Function:</b>	Environmental Restoration Operations																		
<b>Corrective Action:</b>																			
<b>Lessons(s) Learned:</b>																			
<b>HQ Keywords:</b>	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01K--Conduct of Operations - Lockout/Tagout (Electrical) 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 01R--Conduct of Operations - Management issues 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process 14G--Quality Assurance - Procurement																		
<b>HQ Summary:</b>	On May 30, 2007, a vendor technician conducting mechanical troubleshooting of an HVAC unit performed unauthorized electrical trouble shooting (removing a 480 V disconnect switch, and pulling the fuses to check continuity). The technician was not injured. Work was suspended in the immediate area, the technician was sent off the site, notifications were made, 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">Clarence Sheward</td> </tr> <tr> <td>Phone</td> <td colspan="3">(740) 897-2755</td> </tr> <tr> <td>Title</td> <td colspan="3">President, Theta Pro2Serve Management Company, LLC</td> </tr> </table>			Name	Clarence Sheward			Phone	(740) 897-2755			Title	President, Theta Pro2Serve Management Company, LLC						
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<b>Authorized Classifier(AC):</b>	Henry Thomas     Date: 06/11/2007																		

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<b>2)Report Number:</b>	<a href="#">EM-RL--PHMC-GPP-2007-0003</a> After 2003 Redesign
<b>Secretarial Office:</b>	Environmental Management
<b>Lab/Site/Org:</b>	Hanford Site
<b>Facility Name:</b>	Groundwater Protection Project
<b>Subject/Title:</b>	Zero Energy Check performed on component outside of release work scope.
<b>Date/Time Discovered:</b>	06/13/2007 12:30 (PTZ)

<b>Date/Time Categorized:</b>	06/13/2007 14:00 (PTZ)		
<b>Report Type:</b>	Notification/Final		
<b>Report Dates:</b>	Notification	06/14/2007	17:11 (ETZ)
	Initial Update	06/14/2007	17:11 (ETZ)
	Latest Update	06/14/2007	17:11 (ETZ)
	Final	06/14/2007	17:11 (ETZ)
<b>Significance Category:</b>	4		
<b>Reporting Criteria:</b>	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)		
<b>Cause Codes:</b>			
<b>ISM:</b>	4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	A partial release of a work package was authorized to clean and inspect electrical panels at Soil and Groundwater Remediation Project Pump and Treat, HR-3. The main power supply to the facility was locked and tagged. The appropriate safe condition checks and safe to work checks were done for the specified work. A prejob was done and the scope of work was discussed. The field work supervisor (FWS) requested the Health Physics Technician to survey some of the panels for potential wasp nest contamination. There are several wells in the area and the group went to a well panel to perform a zero energy check. After the electrician found power, the work team stopped, reviewed the work package and determined that they were at a well not included in the released work scope. No work was performed and no personnel were exposed to hazardous energy.		
<b>Cause Description:</b>			
<b>Operating Conditions:</b>	Normal Operations		
<b>Activity Category:</b>	Normal Operations (other than Activities specifically listed in this Category)		
<b>Immediate Action(s):</b>	1. Stopped work. 2. Notified management.		
<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>	Groundwater Remediation Project		
<b>Plant Area:</b>	100 H		
<b>System/Building/Equipment:</b>	HR-3 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>	01O--Conduct of Operations - Maintenance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process												
<b>HQ Summary:</b>	An electrician found power at a well panel while performing a safe to work check in support of a work package to clean and inspect electrical panels at Soil and Groundwater Remediation Project Pump and Treat, HR-3. There are several wells in the area. After the electrician found power, the work team stopped, reviewed the work package, and determined that they were at a well not included in the released work scope. No work was performed and no personnel were exposed to hazardous energy.												
<b>Similar OR Report Number:</b>													
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Brian Von Bargaen</td> </tr> <tr> <td>Phone</td> <td>(509) 373-4166</td> </tr> <tr> <td>Title</td> <td>Groundwater Remediation Project Field Manager</td> </tr> </table>	Name	Brian Von Bargaen	Phone	(509) 373-4166	Title	Groundwater Remediation Project Field Manager						
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<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>SMITHWICK, RONALD L</td> </tr> <tr> <td>Phone</td> <td>(509) 376-3030</td> </tr> <tr> <td>Title</td> <td></td> </tr> </table>	Name	SMITHWICK, RONALD L	Phone	(509) 376-3030	Title							
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06/13/2007	14:06 (PTZ)	Larry Earley	DOERL FR										
<b>Authorized Classifier(AC):</b>													

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<b>3)Report Number:</b>	<a href="#">NA--LASO-LANL-BOP-2007-0012</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Los Alamos National Laboratory		
<b>Facility Name:</b>	"at large" or Balance of Plant		
<b>Subject/Title:</b>	Loose Power Connections Discovered on Cord Cap for a Power Distribution Unit		
<b>Date/Time Discovered:</b>	06/11/2007 14:50 (MTZ)		
<b>Date/Time Categorized:</b>	06/12/2007 09:00 (MTZ)		
<b>Report Type:</b>	Notification/Final		
<b>Report Dates:</b>	Notification	06/13/2007	19:55 (ETZ)
	Initial Update	06/13/2007	19:55 (ETZ)
	Latest Update	06/13/2007	19:55 (ETZ)
	Final	06/13/2007	19:55 (ETZ)
	Revision 2	06/14/2007	14:26 (ETZ)
<b>Significance Category:</b>	4		



<b>Reporting Criteria:</b>	<p>4C(3) - Discovery of any defective item or material, other than a suspect/counterfeit item or material, in any application whose failure could result in a loss of safety function, or present a hazard to public or worker health and safety.</p> <p>A defective item or material is any item or material that does not meet the commercial standard or procurement requirements as defined by catalogues, proposals, procurement specifications, design specifications, testing requirements, contracts, or the like. It does not include parts or services that fail or are otherwise found to be inadequate because of random failures or errors within the accepted reliability level.</p>
<b>Cause Codes:</b>	
<b>ISM:</b>	5) Provide Feedback and Continuous Improvement
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	<p>MANAGEMENT SYNOPSIS: On June 7, 2007, at 0830, High-Performance Computing Systems Group (HPC-2) personnel discovered a burnt Hubbell L5-30C cord cap and receptacle for a Linux-Networks power distribution unit (PDU) located at Technical Area 3, Building 2327, Room 2405. HPC-2 personnel observed that the server had de-energized and found the associated circuit breaker tripped. An attempt to re-set the breaker failed. Subsequent inspection of the cord cap found that the male power connector had overheated and arced due to a loose neutral connection, causing computer failures. HPC-2 personnel removed the PDU from service pending manufacturer inspection. The event did not impact the safety of workers, facility, or programmatic operations.</p> <p>On June 8, 2007, the Institutional Facilities and Central Services facility operations director was notified of the event and categorized the event as sub-threshold reportable. On June 11, 2007, a critique was convened and the event re-categorized as reportable under Group 10, Management Concern; however, after further discussion on June 12, 2007, the IFCS facility operations director re-categorized the event as reportable under Group 4, Facility Status, defective item/material.</p> <p>BACKGROUND: According to HPC-2 management, the PDU is assembled by and procured as a whole unit from the manufacturer, Linux-Networks. It was installed in 2003 and follow-up with the manufacturer after the event revealed that the PDU is still under warranty. The Linux-Networks PDU provides power for the building's computing system and is plugged into a facility receptacle. Per HPC-2 management, there are forty (40) other Linux-Network PDU's currently in use for the computing system at TA3-2327-2405. The PDU's are also in use at other IFCS facilities (TA3-205, TA3-270, and TA3-341).</p> <p>Following the event, HPC-2 personnel inspected two other cord caps on the PDU. On the first cord cap, the wire came off after the cover was removed. On the second cord cap, personnel observed the wiring had started to overheat. HPC-2 personnel indicated that another PDU had failed about three months earlier; the unit was replaced. Review of the manufacturer's torque specifications for the terminations indicated eighteen (18) inch pounds. Because the PDU is assembled by the manufacturer and LANL procured it as a whole unit, HPC-2 management stated that no receipt inspection was performed before</p>



	<p>the PDU was placed in service. Subsequent inspection of the PDU casing found no indication of an Underwriters Laboratories (UL), Inc., listing label or stamp; however, the cable and electrical connectors were labeled as UL listed. HPC-2 management follow up with their procurement representative found that the PDU procurement specifications required a manufacturer's certificate of conformance for a UL listing of the PDU assembly.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Normal Operations
<b>Activity Category:</b>	Normal Operations (other than Activities specifically listed in this Category)
<b>Immediate Action(s):</b>	<p>HPC-2 removed the PDU from service pending manufacturer inspection.</p> <p>Using thermal imaging, HPC-2 facility operations personnel will inspect the other PDUs supporting the TA3-2327 computing system for similar failure. Any units found with temperatures ten degrees above their normal operating rate will be inspected further and the condition mitigated.</p> <p>Based on the data collected from the thermal imaging inspection, HPC-2 management will evaluate the feasibility of bringing the manufacturer on-site to repair or replace any failed PDUs.</p> <p>HPC-2 management will review the PDU procurement documentation to verify that a manufacturer's certificate of conformance was provided for the PDU assembly.</p>
<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>	High-Performance Computing Systems
<b>Plant Area:</b>	TA3-2327-2405
<b>System/Building/Equipment:</b>	Hubbell Cord Cap, Model L5-30C
<b>Facility Function:</b>	Laboratory - Research & Development
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	<p>04E--Instrumentation and Controls - Computer Hardware  07C--Electrical Systems - Power Outage  07D--Electrical Systems - Electrical Wiring  07E--Electrical Systems - Electrical Equipment  08A--OSHA Reportable/Industrial Hygiene - Electrical Shock  11H--Other - Procurement/Defective Items  12E--EH Categories - Equipment Degradation/Failure  14G--Quality Assurance - Procurement</p>
<b>HQ Summary:</b>	<p>High-Performance Computing Systems Group (HPC-2) personnel discovered a burnt Hubbell L6-30R cord cap and receptacle for a Linux-Networks power distribution unit (PDU) located at Technical Area 3, Building 2327, Room 2405. HPC-2 personnel observed that the server had de-energized and found the</p>

associated circuit breaker tripped. An attempt to re-set the breaker failed. Subsequent inspection of the cord cap found that the male power connector had overheated and arced due to a loose neutral connection, causing computer failures. HPC-2 personnel removed the PDU from service pending manufacturer inspection. The event did not impact the safety of workers, facility, or programmatic operations. Using thermal imaging, HPC-2 facility operations personnel will inspect the other PDUs for similar deficiencies.

**Similar OR Report Number:**

<b>Facility Manager:</b>	Name	Andrew Erickson
	Phone	(505) 665-2272
	Title	IFCS Facility Operations Director

<b>Originator:</b>	Name	SISNEROS, ALVA M
	Phone	(505) 664-0666
	Title	OCCURRENCE INVESTIGATOR

<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA

<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	06/11/2007	14:50 (MTZ)	Ted Wald	NNSA
	06/12/2007	09:22 (MTZ)	Notification Line	NNSA

**Authorized Classifier(AC):** Mark Hunsinger Date: 06/14/2007

**4)Report Number:** [NA--LASO-LANL-FIRNGHELAB-2007-0001](#) After 2003 Redesign

**Secretarial Office:** National Nuclear Security Administration

**Lab/Site/Org:** Los Alamos National Laboratory

**Facility Name:** Firing Sites and HE Lab.

**Subject/Title:** Electrical Shock from a Limit Switch.

**Date/Time Discovered:** 06/11/2007 13:07 (MTZ)

**Date/Time Categorized:** 06/11/2007 13:19 (MTZ)

**Report Type:** Final

<b>Report Dates:</b>	Notification	06/13/2007	14:51 (ETZ)
	Initial Update	06/27/2007	17:35 (ETZ)
	Latest Update	06/27/2007	17:35 (ETZ)
	Final	06/27/2007	17:35 (ETZ)
	Revision 1	07/09/2007	13:15 (ETZ)

**Significance Category:** 4

**Reporting Criteria:** 10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the

	corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)
<b>Cause Codes:</b>	
<b>ISM:</b>	5) Provide Feedback and Continuous Improvement
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	<p>Synopsis: On June 6, 2007 at approximately 1130 a Prototype Fabrication-Technology Development and Implementation (PF-TDI) Electrical Mechanical Technician received a shock while pressing a limit switch that is a part of a servo drive. The technician reported the shock to his team leader. The technician reported to Occupational Medicine at 0745 June 7, 2007. He was released to work with no restrictions. An Electrical Safety Officer (ESO) calculated the electrical severity of this event as moderate using the Electrical Severity Ranking Tool.</p> <p>Background: PF-TDI is tasked with the maintenance of programmatic equipment in machine shops throughout Los Alamos National Laboratory (LANL). A technician was tasked with changing out a servo drive with a refurbished one on a milling machine. The refurbished servo drive was bench tested prior to its installation. Both the original and refurbished drives are readily available “off-the-shelf” items and they are common on a variety of machinery across LANL. The milling machine was unplugged prior to the mechanical installation of the servo drive. The original servo drive was removed and the refurbished servo drive was installed. At this point, the technician would normally check to verify the limit switches are in the right orientation to stop the servo drive at the end of the travel. Over travel will damage milling machines. When the technician pressed the switch, he received what he described as a mild shock to his left index finger. The technician informed his team lead, at approximately 1200 June 6, 2007 of the incident, then left work to attend a scheduled appointment in the afternoon. The technician reported to Occupational Medicine at 0745 June 7, 2007.</p> <p>The team lead de-energized the system then disassembled the limit switch of the servo drive to determine the cause of the shock. There is a microswitch assembly with two actuators attached in the interior of the limit switch. One of the actuators was bent and when the technician depressed the limit switch button, the bent actuator apparently touched a solder connection of the second micro switch thus causing the shock. There is 120 volts going to the limit switch. The technician was not wearing any PPE since none is required for this type of mechanical installation. This activity was covered under a standing IWD for Preventative and Corrective Maintenance in the PF Division machine shops. The technician attended a Plan of the Day prior to beginning work activities. The milling machine is on a rubber mat situated on a cement floor. Neither the milling machine area nor the worker was wet.</p> <p>The categorization of this event was changed to a Management Concern Significance Category 4 (originally categorized as a Group 2C(2)3: Hazardous Energy Control) after a discussion with the institutional electrical officer to reflect a greater understanding of nature of the shock received by the worker. The worker received a shock with a light contact with dry hands. The worker did not violate any procedure and the shock came from a known source due to equipment failure.</p>

<b>Cause Description:</b>									
<b>Operating Conditions:</b>	Normal								
<b>Activity Category:</b>	Maintenance								
<b>Immediate Action(s):</b>	The servo drive was removed from the milling machine.								
<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>	TA-15 Building 313								
<b>Plant Area:</b>	Machine Shop								
<b>System/Building/Equipment:</b>	Milling Machine								
<b>Facility Function:</b>	Explosive								
<b>Corrective Action:</b>									
<b>Lessons(s) Learned:</b>									
<b>HQ Keywords:</b>	07E--Electrical Systems - Electrical Equipment 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 12C--EH Categories - Electrical Safety 14L--Quality Assurance - None								
<b>HQ Summary:</b>	A technician received a mild shock to his left index finger while pressing a limit switch that is a part of a servo drive on a milling machine. The technician reported the shock to his team leader and then reported to Occupational Medicine the next morning. He was released to work with no restrictions. The switch was disassembled, found to contain a short, and the servo drive was removed from service.								
<b>Similar OR Report Number:</b>	1. NA--LASO-LANL-FIRNGHELAB-2006-0003 2. NA--LASO-LANL-FIRNGHELAB-2005-0008								
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Victor Sandoval</td> </tr> <tr> <td>Phone</td> <td>(505) 667-5983</td> </tr> <tr> <td>Title</td> <td>Weapon Facility Operations On-Call Duty Officer</td> </tr> </table>	Name	Victor Sandoval	Phone	(505) 667-5983	Title	Weapon Facility Operations On-Call Duty Officer		
Name	Victor Sandoval								
Phone	(505) 667-5983								
Title	Weapon Facility Operations On-Call Duty Officer								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>TALLARICO, ANTONIA</td> </tr> <tr> <td>Phone</td> <td>(505) 665-6988</td> </tr> <tr> <td>Title</td> <td>OCCURRENCE INVESTIGATOR</td> </tr> </table>	Name	TALLARICO, ANTONIA	Phone	(505) 665-6988	Title	OCCURRENCE INVESTIGATOR		
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<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
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>06/11/2007</td> <td>13:19 (MTZ)</td> <td>Notification Line</td> <td>NNSA</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	06/11/2007	13:19 (MTZ)	Notification Line	NNSA
Date	Time	Person Notified	Organization						
06/11/2007	13:19 (MTZ)	Notification Line	NNSA						
<b>Authorized Classifier(AC):</b>	Antonia Tallarico Date: 07/09/2007								

**5)Report Number:** [NA--LASO-LANL-TA55-2007-0022](#) After 2003 Redesign

<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Los Alamos National Laboratory		
<b>Facility Name:</b>	Plutonium Proc & Handling Fac		
<b>Subject/Title:</b>	Management Concern: Poor Wiring Leads to Minor Electrical Shock		
<b>Date/Time Discovered:</b>	06/27/2007 08:45 (MTZ)		
<b>Date/Time Categorized:</b>	06/29/2007 13:50 (MTZ)		
<b>Report Type:</b>	Notification/Final		
<b>Report Dates:</b>	Notification	07/03/2007	11:43 (ETZ)
	Initial Update	07/03/2007	11:43 (ETZ)
	Latest Update	07/03/2007	11:43 (ETZ)
	Final	07/03/2007	11:43 (ETZ)
<b>Significance Category:</b>	4		
<b>Reporting Criteria:</b>	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)		
<b>Cause Codes:</b>			
<b>ISM:</b>	2) Analyze the Hazards 3) Develop and Implement Hazard Controls		
<b>Subcontractor Involved:</b>	Yes Pro-to-Serve		
<b>Occurrence Description:</b>	<p>Management Synopsis: On the morning of June 27, 2007, a Security Systems (S-3) Technician was performing yearly maintenance on an LANL Field Panel (LFP) at Technical Area 55 (TA-55) Building 313. During the course of this work, he came into contact with an exposed wire and received a mild shock. The S-3 Technician felt a mild tingling and immediately told his co-worker, the Lead S-3 Technician for this job. The panel was placed in a safe and secure configuration, the S-3 Technician was transported to LANL's on-site medical facility (Occupational Medicine), and notifications were made. The S-3 Technician was released later that same day with no restrictions. The Facilities Operations Designee (FOD) declared this a Management Concern on June 29, 2007 at the critique.</p> <p>Background: Two S-3 Technicians were performing yearly preventative maintenance (PM) on an LFP at Building 313 that was installed approximately 3 years ago. This LFP consists of 2 muffin fans, 2 shielded power supplies, and receptacles. Each power supply is wired to separate receptacles through separate cords. The fans have power cables that are wired to the receptacle through a single power cord and plug. This cord has a butt-splice. Each of these wires is attached to the wall of the LFP with ties and adhesive stays.</p> <p>During the course of the PM, it was noted that several of the adhesive stays had come loose. This included the adhesive stay holding the butt-splice to the panel wall. As the S-3 Technician was redoing the adhesive stay, which entailed</p>		

removing the old tie and stay and replacing with new tie and stay, his hand came into contact with an exposed wire leading into the butt-splice.

This butt-splice is in a 120 volt circuit. There was approximately a 1 millimeter gap between the butt-splice and the insulation on the wire. The S-3 Technician felt a mild tingling and informed the Lead Technician. The S-3 Technician had no reflex reaction to the contact with the exposed wire and the skin was not broken. The LFP was placed in a safe configuration and notifications were made to the Acting S-3 Team Lead and to the TA-55 Deployed Security Officer. The S-3 Technician was taken to Occupational Medicine for evaluation.

The PM for TA-55 started on Saturday, June 23, 2007. This round of PM included Argus Field Panels, LFPs, Interior Intrusion Detection System Equipment Panels, Perimeter Intrusion Detection and Assessment Systems, and Automated Access Control Systems. An Integrated Work Document (IWD) exists for this work and was created in April of 2006. The S-3 Technician signed on the IWD on October 14, 2006, acknowledging understanding of the hazards. This IWD expired on May 31, 2007. A new IWD was created and approved by the Responsible Line Manager on May 18, 2007 which expires on September 30, 2007. Usually an IWD is active for 1 year, so the S-3 Lead Technician asked for an extension for 1 year. Because this IWD was still under discussion, an informal briefing was done between the two S-3 Technicians on Saturday using the new IWD. The Lead Technician had signed the new IWD; the assisting technician had not.

The hazards and controls in the old IWD did not change in the new IWD. The Electrical Safety Officer (ESO) for TA-55 noted that neither IWD discusses the hazards and controls of voltage greater than 50. The possibility of exposure to 120 volts while performing this work was not covered in the IWD because servicing the 120-volt components and circuits is not part of the PM procedure.

The LANL ESO calculated the electrical severity of this event as minor using the Electrical Severity Ranking Tool. The TA-55 ESO, after hearing all the facts presented at the critique, agreed with this calculation. The S-3 Technician had dry skin at the time of contact and there was no penetration of the skin by a wire.

**Cause Description:**

**Operating Conditions:**

Normal

**Activity Category:**

Maintenance

**Immediate Action(s):**

- 1) The Lead S-3 Technician made notifications.
- 2) The S-3 Technician was taken to Occupational Medicine
- 3) The LFP was placed into a safe configuration
- 4) Further PM work was stopped until this event could be fully reviewed.
- 5) A critique was held Friday, June 29, 2007.
- 6) S-3 will assess the design of the panels, including the length of cords available.
- 7) S-3 will shrink wrap existing butt-splices that can't be immediately replaced with longer cords.
- 8) S-3 released a notice to unplug the fans when working in panels.

**FM Evaluation:**



<b>DOE Facility Representative Input:</b>																	
<b>DOE Program Manager Input:</b>																	
<b>Further Evaluation is Required:</b>	No																
<b>Division or Project:</b>	TA55																
<b>Plant Area:</b>	Field Panel																
<b>System/Building/Equipment:</b>	Building 313																
<b>Facility Function:</b>	Plutonium Processing and Handling																
<b>Corrective Action:</b>																	
<b>Lessons(s) Learned:</b>																	
<b>HQ Keywords:</b>	01G--Conduct of Operations - Inadequate Procedure 05D--Mechanical/Structural - Mechanical Equipment 07D--Electrical Systems - Electrical Wiring 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process																
<b>HQ Summary:</b>	During yearly maintenance on a LANL Field Panel (LFP) at Technical Area 55 (TA-55) Building 313, a technician contacted an exposed wire and received a mild shock. The panel was placed in a safe and secure configuration and the S-3 Technician was transported to the on-site medical facility. He was released later that same day with no restrictions. The exposed wire was caused by failed adhesive attachment stays and inadequate insulation at a wire splice. Work was stopped pending review of the occurrence and notifications were made.																
<b>Similar OR Report Number:</b>	1. NA--LASO-LANL-FIRNGHELAB-2007-0001																
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Stuart McKernan</td> </tr> <tr> <td>Phone</td> <td>(505) 667-7501</td> </tr> <tr> <td>Title</td> <td>Facilities Operationa Director Designee</td> </tr> </table>	Name	Stuart McKernan	Phone	(505) 667-7501	Title	Facilities Operationa Director Designee										
Name	Stuart McKernan																
Phone	(505) 667-7501																
Title	Facilities Operationa Director Designee																
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>VOSS, SUSAN J</td> </tr> <tr> <td>Phone</td> <td>(505) 667-5979</td> </tr> <tr> <td>Title</td> <td>OCCURRENCE INVESTIGATOR</td> </tr> </table>	Name	VOSS, SUSAN J	Phone	(505) 667-5979	Title	OCCURRENCE INVESTIGATOR										
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<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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06/28/2007	10:19 (MTZ)	Text Page	DNSFB														
<b>Authorized Classifier(AC):</b>	Susan J. Voss      Date: 07/03/2007																



<b>6)Report Number:</b>	<a href="#">NA--NVSO-LLNV-LLNV-2007-0006</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Lawrence Livermore National Lab.		
<b>Facility Name:</b>	Lawrence Livermore Nat. Lab. (BOP)		
<b>Subject/Title:</b>	Management Concern: Electrical Work in Junction Boxes at LLNL NTS		
<b>Date/Time Discovered:</b>	06/20/2007 17:30 (PTZ)		
<b>Date/Time Categorized:</b>	06/21/2007 15:00 (PTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	06/25/2007	18:28 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)		
<b>Cause Codes:</b>			
<b>ISM:</b>			
<b>Subcontractor Involved:</b>	Yes NSTEC (DOE M&O)		
<b>Occurrence Description:</b>	<p>On June 21, 2007, LLNL managers at the Device Assembly Facility (DAF) at the Nevada Test Site (NTS), determined a management concern occurrence due to continual unexpected conditions identified during controlled preliminarily electrical work at the NTS DAF. At this time, DAF management has required that all electrical work in junction boxes (in DAF) will be treated as an anticipated unexpected electrical hazard even if all appropriate steps for LOTO and absence of energy have been completed.</p> <p>On June 7, 2007, NSTec (an M&amp;O contractor) qualified electrical workers (QEWs) identified exposed 480 volt energized wires while performing preliminary investigation on a junction box. At that time, this condition was not reported due to the criteria exemption on discoveries made by precautionary investigations made before work is authorized to begin. There were no injuries and electrical work in junction boxes was suspended temporarily.</p> <p>On June 19, 2007, at 900 hours, a second discovery was made while workers were preparing for preliminary demolition activities. DAF management received notification that electrical workers found an unacceptable configuration of exposed electrical wires in another junction box. The wires were un-terminated, straight cut, and exposed. This junction box was label as having 120 VAC power source and had been found by a proximity tester. This junction box had been previously de-energized by a lockout/tag-out (LOTO).</p>		

	<p>The work being performed in DAF was part of the demolition work activities. QEWs were performing additional LOTO to support equipment removal as part of the demolition work. When the QEWs found this condition, they immediately suspended work on the approved work packages and notified their foreman.</p> <p>These junction boxes previously thought to have been de-energized represents a management concern when LOTOs have already been performed. All electrical work in junction boxes will be treated as an anticipated unexpected electrical hazard even if all appropriate steps for LOTO and absence of energy have been completed.</p> <p>At this time, it is unknown if this condition existed prior to DAF's occupancy of this facility. Further review is pending.</p> <p>Notification: Bob Golden, NNSA/NSO DAF Program Manager was notified on June 21, 2007 at 1530 hours.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	na
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<p>Electrical work in junction boxes was suspended.</p> <p>All electrical work in junction boxes will be treated as an anticipated unexpected electrical hazard even if all appropriate steps for LOTO and absence of energy have been completed.</p>
<b>FM Evaluation:</b>	Final Report Due 8/4/07
<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? Yes</p> <p>By Whom: Rick Higgs</p> <p>By When: 08/04/2007</p>
<b>Division or Project:</b>	DNT
<b>Plant Area:</b>	NST
<b>System/Building/Equipment:</b>	DAF
<b>Facility Function:</b>	Special Nuclear Materials Storage
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	<p>01M--Conduct of Operations - Inadequate Job Planning (Electrical)</p> <p>07D--Electrical Systems - Electrical Wiring</p> <p>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance</p> <p>11G--Other - Subcontractor</p> <p>12C--EH Categories - Electrical Safety</p> <p>13A--Management Concerns - HQ Significant (High-lighted for Management attention)</p> <p>14E--Quality Assurance - Work Process</p>

	14H--Quality Assurance - Inspection and Acceptance Testing								
<b>HQ Summary:</b>	On June 7, 2007, qualified electrical workers at the Nevada Test Site Device Assembly Facility identified exposed 480 volt energized wires while performing preliminary investigation on a junction box. On June 19, 2007, a second discovery was made while workers were preparing for preliminary demolition activities when un-terminated, and exposed 120 VAC wires within a junction box were found using a proximity tester. This junction box had been previously de-energized by a lockout/tag-out (LOTO). Work in junction boxes was suspended, notifications were made, and further review is pending.								
<b>Similar OR Report Number:</b>	1. na								
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Richard Higgs</td> </tr> <tr> <td>Phone</td> <td>(702) 295-4080</td> </tr> <tr> <td>Title</td> <td>JNPO Deputy Program Leader</td> </tr> </table>	Name	Richard Higgs	Phone	(702) 295-4080	Title	JNPO Deputy Program Leader		
Name	Richard Higgs								
Phone	(702) 295-4080								
Title	JNPO Deputy Program Leader								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>ECCHER, BARBARA A</td> </tr> <tr> <td>Phone</td> <td>(925) 422-9332</td> </tr> <tr> <td>Title</td> <td>OCCURRENCE REPORTING OFFICER</td> </tr> </table>	Name	ECCHER, BARBARA A	Phone	(925) 422-9332	Title	OCCURRENCE REPORTING OFFICER		
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Date	Time	Person Notified	Organization						
06/21/2007	15:30 (PTZ)	Bob Golden	NNSA/LSO						
<b>Authorized Classifier(AC):</b>									

<b>7)Report Number:</b>	<a href="#">NA--PS-BWXP-PANTEX-2007-0087</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Pantex Plant		
<b>Facility Name:</b>	Pantex Plant		
<b>Subject/Title:</b>	NEXRAD Feed lost in Operations Center		
<b>Date/Time Discovered:</b>	06/16/2007 06:45 (CTZ)		
<b>Date/Time Categorized:</b>	06/16/2007 06:45 (CTZ)		
<b>Report Type:</b>	Final		
<b>Report Dates:</b>	Notification	06/19/2007	17:39 (ETZ)
	Initial Update	06/25/2007	12:27 (ETZ)
	Latest Update	06/25/2007	12:27 (ETZ)
	Final	06/25/2007	12:27 (ETZ)
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	4A(1) - Performance degradation of any Safety Class or Safety Significant Structure, System, or Component (SSC) that prevents satisfactory performance of its design function when it is required to be operable.		
<b>Cause Codes:</b>	A7B1C02 - Other problem; External Phenomena; Power failure or transient		
<b>ISM:</b>	4) Perform Work Within Controls		

<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	<p>On 6/16/07 at 0645, the on-duty PSS entered LCO 3.5.1C due to inaccessibility of the Lubbock and Clovis NEXRAD radar sites. (NEXRAD is an unclassified information feed from the National Weather Service)</p> <p>Due to the scheduled electrical shutdown, the PXOC lost Internet capability to monitor the Lubbock and Clovis NEXRAD sites. The satellite feed for NEXRAD was also not operational.</p> <p>No weapons operations were occurring during the scheduled outage.</p>		
<b>Cause Description:</b>	The web-based feed was being used as a backup to the satellite feed which was not operational at the time the power went out. The power was a scheduled outage, however its effect on the web computers was not communicated to the OC. Using a second level backup, the PXOC contacted the National Weather Service and received a 4-hour lightning free window within 35 miles of the plant.		
<b>Operating Conditions:</b>	Operational		
<b>Activity Category:</b>	Normal Operations (other than Activities specifically listed in this Category)		
<b>Immediate Action(s):</b>	The PXOC contacted the National Weather Service and received a 4-hour lightning free window within 35 miles of the plant. TSR LCO 3.5.1C was entered.		
<b>FM Evaluation:</b>	The combination of the loss of the satellite feed and then the scheduled power loss unexpectedly interrupting the web feed, created the need to declare this Occurrence.		
<b>DOE Facility Representative Input:</b>			
<b>DOE Program Manager Input:</b>			
<b>Further Evaluation is Required:</b>	No		
<b>Division or Project:</b>	ENGINEERING/SYSTEM ENGINEERING		
<b>Plant Area:</b>	Operations Center		
<b>System/Building/Equipment:</b>	NEXRAD Feed		
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)		
<b>Corrective Action 01:</b>	<table border="1"> <tr> <td><b>Target Completion Date:</b>06/17/2007</td> <td><b>Actual Completion Date:</b>06/17/2007</td> </tr> </table>	<b>Target Completion Date:</b> 06/17/2007	<b>Actual Completion Date:</b> 06/17/2007
<b>Target Completion Date:</b> 06/17/2007	<b>Actual Completion Date:</b> 06/17/2007		
	The availability of NEXRAD information was restored in the PXOC. TSR LCO 3.5.1C was exited		
<b>Lessons(s) Learned:</b>			
<b>HQ Keywords:</b>	<p>01A--Conduct of Operations - Conduct of Operations (miscellaneous)</p> <p>01M--Conduct of Operations - Inadequate Job Planning (Electrical)</p> <p>01P--Conduct of Operations - Communication</p> <p>04A--Instrumentation and Controls - I &amp; C Equipment</p> <p>04E--Instrumentation and Controls - Computer Hardware</p> <p>07C--Electrical Systems - Power Outage</p> <p>11B--Other - Emergency Management</p> <p>12E--EH Categories - Equipment Degradation/Failure</p> <p>14E--Quality Assurance - Work Process</p>		
<b>HQ Summary:</b>	During a scheduled electrical outage, the Pantex Operational Center (PXOC)		

lost the primary backup satellite communications for the Lubbock and Clovis NEXRAD radar sites, and unexpectedly lost internet capability to monitor these sites. Using a second level backup, the PXOC contacted the National Weather Service and received a 4-hour lightning free window within 35 miles of the plant. An LCO was entered.

**Similar OR Report Number:** 1. none

<b>Facility Manager:</b>	Name	Roger Robertson
	Phone	(806) 477-3332
	Title	System Engineer

<b>Originator:</b>	Name	MITCHELL, GLEN A
	Phone	(806) 477-4953
	Title	PROJECT SPECIALIST

<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA

<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	06/16/2007	06:45 (CTZ)	Jimmy Coaxum	PXSO-DO
	06/16/2007	06:45 (CTZ)	Tom Gallegos	BWXT-DM

**Authorized Classifier(AC):** Bob Barr      Date: 06/19/2007

**8)Report Number:** [NA--PS-BWXP-PANTEX-2007-0088](#) After 2003 Redesign

**Secretarial Office:** National Nuclear Security Administration

**Lab/Site/Org:** Pantex Plant

**Facility Name:** Pantex Plant

**Subject/Title:** MTS #68 Panel Door Left Unsecured

**Date/Time Discovered:** 06/19/2007 10:00 (CTZ)

**Date/Time Categorized:** 06/19/2007 10:40 (CTZ)

**Report Type:** Notification

<b>Report Dates:</b>	Notification	06/20/2007	13:41 (ETZ)
	Initial Update		
	Latest Update		
	Final		

**Significance Category:** 3

**Reporting Criteria:** 2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.

**Cause Codes:**

**ISM:** 6) N/A (Not applicable to ISM Core Functions as determined by management)

	review.)
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	<p>On June 18, 2007, a BWXT Plant employee noticed an unsecured panel door on electrical system manual transfer switch (MTS) #68 near Building 12-138. The MTS is part of the Plant electrical distribution system. Voltage at connections inside the MTS is 12,470 volts. Internal barriers at the MTS were in place at the time of discovery.</p> <p>There were no injuries to personnel or damage to equipment or the environment as a result of this event.</p>
<b>Cause Description:</b>	Corrective actions will be tracked through the Issues Management system on PER-2007-0664.
<b>Operating Conditions:</b>	Does Not Apply
<b>Activity Category:</b>	Maintenance
<b>Immediate Action(s):</b>	<p>Plant Electricians secured the panel door on MTS #68.</p> <p>Plant Electricians verified the panel doors were properly closed (ATS/MTS were involved in scheduled outage on June 16, 2007).</p> <p>Plant Maintenance Department Manager dispatched Plant Electricians to verify other ATS/MTS switch gear had the panel doors closed and secured.</p> <p>A critique was conducted on June 19, 2007, and the event was categorized as 2C(2) S/C 3, Personnel Safety and Health, Hazardous Energy Control, Failure to follow a prescribed hazardous energy control process.</p>
<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: Plant Maintenance  By When:</p>
<b>Division or Project:</b>	Division Manager
<b>Plant Area:</b>	Zone 12 North
<b>System/Building/Equipment:</b>	Manual Transfer Switch #68
<b>Facility Function:</b>	Balance-of-Plant - Site/outside utilities
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	<p>01O--Conduct of Operations - Maintenance  08H--OSHA Reportable/Industrial Hygiene - Safety Compliance  12C--EH Categories - Electrical Safety  14E--Quality Assurance - Work Process</p>
<b>HQ Summary:</b>	An employee noticed an unsecured panel door on an electrical system manual transfer switch (MTS). Voltage inside the MTS is 12,470 volts. Internal barriers at the MTS were in place at the time of discovery. Notifications were made and the panel was secured.

<b>Similar OR Report Number:</b>	1. NA--PS-BWXP-PANTEX-2007-0069			
<b>Facility Manager:</b>	Name	Dale Stapp		
	Phone	(806) 477-3247		
	Title	Plant Maintenance Department Manager		
<b>Originator:</b>	Name	HALL, BEVERLY J		
	Phone	(806) 477-3222		
	Title			
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	06/19/2007	10:40 (CTZ)	James Coaxum	PXSO
<b>Authorized Classifier(AC):</b>	George C. Weathers      Date: 06/20/2007			

<b>9)Report Number:</b>	<a href="#">NA--PS-BWXP-PANTEX-2007-0092</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Pantex Plant		
<b>Facility Name:</b>	Pantex Plant		
<b>Subject/Title:</b>	Electrical Panel Door Found Unsecured		
<b>Date/Time Discovered:</b>	06/22/2007 16:30 (CTZ)		
<b>Date/Time Categorized:</b>	06/25/2007 07:54 (CTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	06/26/2007	09:46 (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>	6) N/A (Not applicable to ISM Core Functions as determined by management review.)		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	On June 22, 2007, at approximately 1630 hours, a BWXT Pantex employee discovered a 480 volt disconnect enclosure in the "OFF" position with the access door in the open and latched position. The enclosure is located in an open field north of Building 12-72. This is in an area outside of general plant		



	<p>pedestrian traffic. Internal barriers covering 480 voltage connections were in place. The three fuses had been removed, so there was no load. Plant Electricians and the Plant Maintenance Department Manager performed an initial site survey for hazards and secured the door.</p> <p>NFPA 70E, "Standard for Electrical Safety in the Workplace," requires electrical panel covers be closed to protect unqualified personnel from exposure to shock or arc fault hazards.</p> <p>There were no injuries to personnel or damage to equipment or the environment as a result of this event.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Does Not Apply
<b>Activity Category:</b>	Normal Operations (other than Activities specifically listed in this Category)
<b>Immediate Action(s):</b>	<p>Plant Electricians closed the enclosure.</p> <p>On June 25, 2007, the event was categorized as 2C(2) SC 3, Personnel Safety and Health, Hazardous Energy Control, Failure to follow a prescribed hazardous energy control process or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source.</p>
<b>FM Evaluation:</b>	Corrective actions will be tracked through the Issues Management System on PER-2007-0683.
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	No
<b>Division or Project:</b>	Maintenance
<b>Plant Area:</b>	Zone 12 North
<b>System/Building/Equipment:</b>	Zone 12 North
<b>Facility Function:</b>	Balance-of-Plant - Site/outside utilities
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	<p>01Q--Conduct of Operations - Personnel error</p> <p>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance</p> <p>12C--EH Categories - Electrical Safety</p> <p>14E--Quality Assurance - Work Process</p>
<b>HQ Summary:</b>	An employee discovered a 480 volt disconnect enclosure in the "OFF" position with the access door in the open and latched position. The enclosure is located in an open field north of Building 12-72 in an area outside of general plant pedestrian traffic. Internal barriers covering 480 voltage connections were in place. The three fuses had been removed, so there was no load. An initial site survey for hazards was performed and the door was secured. There were no injuries to personnel or damage to equipment or the environment as a result of this event.
<b>Similar OR Report Number:</b>	1. NA--PS-BWXP-PANTEX-2007-0069

<b>Facility Manager:</b>	Name	Dale Stapp		
	Phone	(806) 477-3247		
	Title	Plant Maintenance Department Manager		
<b>Originator:</b>	Name	HALL, BEVERLY J		
	Phone	(806) 477-3222		
	Title			
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	06/22/2007	16:40 (CTZ)	Julian Biggers	PXSO
<b>Authorized Classifier(AC):</b>	Robert A. Barr     Date: 06/26/2007			

<b>10)Report Number:</b>	<a href="#">NA--PS-BWXP-PANTEX-2007-0099</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Pantex Plant		
<b>Facility Name:</b>	Pantex Plant		
<b>Subject/Title:</b>	Circuit Breaker Trip Caused by Incorrect Wiring of Light Switch		
<b>Date/Time Discovered:</b>	06/21/2007 15:08 (CTZ)		
<b>Date/Time Categorized:</b>	06/21/2007 15:08 (CTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	07/10/2007	15:05 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)		
<b>Cause Codes:</b>			
<b>ISM:</b>	4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	Yes		
	Noresco/LRI		
<b>Occurrence Description:</b>	Noresco/LRI had retrofitted the lights and replaced the dimmer switches with on/off switches in the break room. When electrical power was restored at Building 16-1, the lights on the east half of the break room did not work. The facility electrical panel was locked out and Noresco/LRI reworked the light switch for that side of the room. When they restored facility power, the break room lighting circuit breaker tripped. A neutral wire had been connected directly		

	to the hot wire through the switch.															
<b>Cause Description:</b>																
<b>Operating Conditions:</b>	LO/TO for electrical work.															
<b>Activity Category:</b>	Maintenance															
<b>Immediate Action(s):</b>	The circuit for the east side of the room was L0/TO and LRI reworked the light switch.															
<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>	Noresco Light Switch Replement - NNSA/DOE Project															
<b>Plant Area:</b>	Zone 16															
<b>System/Building/Equipment:</b>	16-1															
<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>	07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process															
<b>HQ Summary:</b>	A subcontractor, retrofitting light switches in the Building 16-1 Break Room, incorrectly wired a switch causing a circuit breaker to trip when the circuit was re-energized. Subsequently, the subcontractor locked and tagged out the switches and corrected the wiring.															
<b>Similar OR Report Number:</b>																
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">Susan Nelson</td> </tr> <tr> <td>Phone</td> <td colspan="3">(806) 477-7187</td> </tr> <tr> <td>Title</td> <td colspan="3">PXSO Contract Administrator</td> </tr> </table>				Name	Susan Nelson			Phone	(806) 477-7187			Title	PXSO Contract Administrator		
Name	Susan Nelson															
Phone	(806) 477-7187															
Title	PXSO Contract Administrator															
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">Taylor, Karen W</td> </tr> <tr> <td>Phone</td> <td colspan="3">(806) 477-3730</td> </tr> <tr> <td>Title</td> <td colspan="3">QUALITY ASSURANCE SPECIALIST</td> </tr> </table>				Name	Taylor, Karen W			Phone	(806) 477-3730			Title	QUALITY ASSURANCE SPECIALIST		
Name	Taylor, Karen W															
Phone	(806) 477-3730															
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<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				
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>06/21/2007</td> <td>15:08 (CTZ)</td> <td>D Stapp</td> <td>BWXT</td> </tr> <tr> <td>06/21/2007</td> <td>15:08 (CTZ)</td> <td>J Biggers</td> <td>PXSO</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	06/21/2007	15:08 (CTZ)	D Stapp	BWXT	06/21/2007	15:08 (CTZ)	J Biggers	PXSO
Date	Time	Person Notified	Organization													
06/21/2007	15:08 (CTZ)	D Stapp	BWXT													
06/21/2007	15:08 (CTZ)	J Biggers	PXSO													
<b>Authorized Classifier(AC):</b>	T Otto Date: 07/10/2007															

<b>11)Report Number:</b>	<a href="#">NA--SS-SNL-NMFAC-2007-0007</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>	120 Volt 20 Amp Breaker Trips during Dowcraft Wall Panel Removal in Bldg. 890		
<b>Date/Time Discovered:</b>	06/17/2007 13:00 (MTZ)		
<b>Date/Time Categorized:</b>	06/18/2007 09:45 (MTZ)		
<b>Report Type:</b>	Final		
<b>Report Dates:</b>	Notification	06/19/2007	15:26 (ETZ)
	Initial Update	07/10/2007	14:45 (ETZ)
	Latest Update	07/10/2007	14:45 (ETZ)
	Final	07/10/2007	14:45 (ETZ)
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	<p>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> <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>	<p>A4B5C01 - Management Problem; Change Management LTA; Problem identification methods did not identify need for change</p> <p>A1B2C04 - Design/Engineering Problem; Design output LTA; Inconsistent design output</p>		
<b>ISM:</b>	<p>2) Analyze the Hazards</p> <p>3) Develop and Implement Hazard Controls</p>		
<b>Subcontractor Involved:</b>	<p>Yes</p> <p>Engineering Constructors, Inc.</p>		
<b>Occurrence Description:</b>	<p>On June 15, 2007 at approximately 10:15 a.m., a Facilities Management &amp; Operations Center (FMOC) Prime Time &amp; Material Construction Contactor had a work crew in the basement of building 890 in room B75 relocating Dow Craft panels as part of a remodel project. The task consisted of relocating two doors and swapping metal wall panels to form a new wall configuration. The walls are constructed of metal panels: four feet wide by eight feet high and some two feet wide by eight feet high. There are small strips approximately three inches wide by eight feet high between each of the panel strips. There are metal panels on each side of the wall, with a hollow space between them with cap strips on the bottom and top.</p> <p>When workers removed a metal strip from one side of the wall they found two</p>		

	<p>conductors located in the wall. These conductors were #12, one white neutral and one red hot. The electrical subcontractor had removed all other electrical conductors from the wall sections that were being reconfigured. The metal strip was not being moved, but the wall panels located next to the strip were part of the remodel and needed to be removed and relocated. On the metal strip opposite the one removed by the workers there was a four square box that contained two receptacles. The presence of conductors was not expected, but the workers felt they could remove the wall panel located next the strip and conductors without incident and proceeded with their work. While removing the metal wall panel, the panel pinched the conductors causing a short to ground that tripped the 20 amp breaker.</p> <p>The Crew Leader had five years of experience working on Facilities projects and the other crew member two had two years of experience on Facilities projects. Both had experience working with Dow Craft panels and had received training from their company on electrical hazards. The Contractor's Contract Specific Safety Plan includes a requirement to stop work if previously unidentified hazards are encountered and the crew members had received training on the Plan.</p> <p>There was no electrical shock, no impact to the environment or line operations as a result of this incident.</p>
<p><b>Cause Description:</b></p>	<p>Timeline, causal factors analysis</p> <p>A4B5C01 Problem identification did not identify need for change: When the workers identified that conductors were present in the wall they did not suspend activities and notify their foreman to ensure appropriate controls were in place. The conductors represented a hazard that had not been identified as part of the task. Workers thought they could remove the panel adjacent to the wall strip containing conductors without impacting the conductors and therefore the activity would be safe.</p> <p>A1B2C04 Inconsistent design: Facilities Specification 16001, Electrical Work currently requires: All installations in demountable metal partitions (Dow Craft, VMP) shall be run in flexible metallic conduit or MC cable to a junction box located above the panel. Specification 10619, Demountable Metal Partition - Installation and Disassembly, does not include this requirement which may lead to confusion for personnel or contractors removing and relocating the wall panels and electrical components installed in or on the panels. The partitions that were being remodeled were installed prior to the requirement for metal clad cable.</p>
<p><b>Operating Conditions:</b></p>	<p>Normal</p>
<p><b>Activity Category:</b></p>	<p>Construction</p>
<p><b>Immediate Action(s):</b></p>	<ol style="list-style-type: none"> <li>1. Workers suspended work on the wall panels, barricaded the area, and contacted their Safety Officer.</li> <li>2. The Safety Officer contacted the Electrical Subcontractor and requested support.</li> <li>3. The Electrical Subcontractor sent an electrician. The Electrician:</li> </ol>

	<p>a) identified the circuit supplying power to the receptacle,  b) performed LOTO, and  c) removed the conductors back to the first j-box in the ceiling.</p> <p>4. Safety Officer notified the FMOC SDR through e-mail and notified the Construction Observer by phone.</p> <p>5. The remodel crew resumed work relocating the wall panels.</p>		
<b>FM Evaluation:</b>	<p>DOE/SSO Early Notification Date &amp; Time:  EOC - 6/18/07 - 09:53  FR - Wayne Walker - 6/18/07 - 09:50</p> <p>One of the seven guiding principles of ISMS states that: Tailor hazard controls to the work being performed. If the workers had identified the potential hazard introduced by the conductors and requested that the conductors be removed prior to relocating the adjacent panel this incident could have been prevented. The workers believed they could remove the panel in a safe manner and not impact the electrical conductors. Remodel projects create an environment where conditions are often different than those planned for. It is important to perform a complete evaluation and include supervision and subject matter experts when necessary to ensure controls are appropriate to provide a safe working environment.</p>		
<b>DOE Facility Representative Input:</b>			
<b>DOE Program Manager Input:</b>			
<b>Further Evaluation is Required:</b>	No		
<b>Division or Project:</b>	10000/Bldg. 890, B75 Remodel		
<b>Plant Area:</b>	Tech Area I		
<b>System/Building/Equipment:</b>	Low Voltage Electrical/Bldg. 890, Rm. B75		
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)		
<b>Corrective Action 01:</b>	<table border="1"> <tr> <td><b>Target Completion Date:</b>06/21/2007</td> <td><b>Actual Completion Date:</b>06/21/2007</td> </tr> </table> <p>Department 4826 - The contractor will review the lesson learned from this incident with their workers stressing the following: 1) reminding workers of the company's safety plan require to stop work when unexpected conditions are encountered or new hazards are identified; 2) workers or the foreman should have notified the electrical subcontractor to remove the conductors so that the wall panels could be removed and relocated in a safe manner; and 3) workers have the right and responsibly to stop and evaluate all work which appears to be hazardous. There will not be any negative consequences for stopping work even if the activity is determined to be safe. [A4B5C01]</p>	<b>Target Completion Date:</b> 06/21/2007	<b>Actual Completion Date:</b> 06/21/2007
<b>Target Completion Date:</b> 06/21/2007	<b>Actual Completion Date:</b> 06/21/2007		
<b>Corrective Action 02:</b>	<table border="1"> <tr> <td><b>Target Completion Date:</b>10/15/2007</td> <td><b>Actual Completion Date:</b></td> </tr> </table> <p>Department 4861 - Specification 10619, Demountable Metal Partition - Installation and Disassembly, will be updated to include the Specification 16001, Electrical Work requirement: "All installations in demountable metal partitions (Dow Craft, VMP) shall be run in flexible metallic conduit or MC</p>	<b>Target Completion Date:</b> 10/15/2007	<b>Actual Completion Date:</b>
<b>Target Completion Date:</b> 10/15/2007	<b>Actual Completion Date:</b>		



	cable to a junction box located above the panel." This should help ensure that conductors installed in the metal wall panels are protected and reduce the potential for damaging the conductors which could expose workers to a shock hazard when removing and relocating the metal wall panels. [A1B2C04]
<b>Corrective Action 03:</b>	<b>Target Completion Date:</b> 10/31/2007 <b>Actual Completion Date:</b>
	Department 4800 - The change to Specification 10619 will be shared with all Project Managers in special meetings held with the Facilities Express Project Managers. [A1B2C04]
<b>Corrective Action 04:</b>	<b>Target Completion Date:</b> 10/31/2007 <b>Actual Completion Date:</b>
	Department 4800 - Lessons learned from this incident will be shared through the SNL Corporate Lesson Learned process and with FMOC construction contractors at the Construction Quarterly Safety Meeting and the Construction Monthly NewsSense. Lessons learned will emphasize the need to suspend work when field conditions change, ensure appropriate controls are identified, and remind electrical contractors that conductors installed in demountable metal partitions are now required to be flexible metallic conduit. [A4B5C01, A1B2C04]
<b>Corrective Action 05:</b>	<b>Target Completion Date:</b> 07/05/2007 <b>Actual Completion Date:</b> 07/05/2007
	Department 4820 - A meeting will be held with the Construction Contractor Owner and the Senior Manager to discuss this incident and SNL/FMOC early notification requirements. [A4B5C01, A1B2C04]
<b>Lessons(s) Learned:</b>	<p>Title: Contractor Trips 110 Volt 20 Amp Breaker during Dowcraft Wall Panel Removal</p> <p>Lesson Learned Statement: One of the seven guiding principles of ISMS states that: Tailor hazard controls to the work being performed. When a new hazard is identified or changed/unexpected conditions encountered, work should be suspended and controls evaluated to ensure they provide a safe working environment. Obtain supervisor or subject matter expert input as appropriate.</p> <p>Discussion of Activities: A Facilities Management &amp; Operations Center (FMOC) Prime Time &amp; Material Construction Contactor had a work crew relocating Dow Craft panels as part of a remodel project. The task consisted of relocating two doors and swapping metal wall panels to form a new wall configuration. The walls are constructed of metal panels: four feet wide by eight feet high and some two feet wide by eight feet high. There are small strips approximately three inches wide by eight feet high between each of the panel strips. There are metal panels on each side of the wall, with a hollow space between them with cap strips on the bottom and top.</p> <p>When workers removed a metal strip from one side of the wall they found two conductors located in the wall. These conductors were #12, one white neutral and one red hot. The electrical subcontractor had removed all other electrical conductors from the wall sections that were being reconfigured. The metal strip was not being moved, but the wall panels located next to the strip were part of the remodel and needed to be removed and relocated. On the metal strip</p>



opposite the one removed by the workers there was a four square box that contained two receptacles. The presence of conductors was not expected, but the workers felt they could remove the wall panel located next the strip and conductors without incident and proceeded with their work. While removing the metal wall panel, the panel pinched the conductors causing a short to ground that tripped the 20 amp breaker.

**Analysis:**

Problem identification did not identify need for change: When the workers identified that conductors were present in the wall they did not suspend activities and notify their foreman to ensure appropriate controls were in place. The conductors represented a hazard that had not been identified as part of the task. Workers thought they could remove the panel adjacent to the wall strip containing conductors without impacting the conductors and therefore the activity would be safe.

**Recommended Actions:**

Take this opportunity to remind personnel that a thorough evaluation needs to be performed when conditions change that introduce a new hazards or risk. Include your supervisor and subject matter experts as appropriate to ensure a safe environment for all workers in the area.

**HQ Keywords:**

- 01M--Conduct of Operations - Inadequate Job Planning (Electrical)
- 07D--Electrical Systems - Electrical Wiring
- 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance
- 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical)
- 11G--Other - Subcontractor
- 12C--EH Categories - Electrical Safety
- 13A--Management Concerns - HQ Significant (High-lighted for Management attention)
- 14E--Quality Assurance - Work Process

**HQ Summary:**

Workers were removing one side of a metal wall in the basement of building 890 when the metal wall panel pinched a neutral conductor, which shorted to ground and tripped a 20 amp breaker. There was no electrical shock, no impact to the environment or line operations as a result of this incident. The Safety Officer was notified, work was suspended and the area was barricaded. Lockout/Tagout and repairs were made by an electrician.

**Similar OR Report Number:**

- 1. EM-RFO--KHLL-PUFAB-2002-0052
- 2. DP-ALO-AO-BWXP-PANTEX-2002-0021

**Facility Manager:**

Name	Carla Lamb
Phone	((50) 5) -1753
Title	ES&H Coordinator

**Originator:**

Name	LUCERO, JEWEELEE A
Phone	(505) 845-4727
Title	REPORTING ADMINISTRATOR

**HQ OC Notification:**

Date	Time	Person Notified	Organization
NA	NA	NA	NA

<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	06/17/2007	13:00 (MTZ)	Rick Hykes	10827
	06/18/2007	09:30 (MTZ)	Rick Ramirez	10827
	06/18/2007	09:40 (MTZ)	Carla Lamb	10800
	06/18/2007	09:50 (MTZ)	Wayne Walker, FR	DOE/SSO
	06/18/2007	10:00 (MTZ)	Jeff Quintenz	10800
	06/18/2007	10:00 (MTZ)	Mike Quinlan	10820
	06/18/2007	10:57 (MTZ)	Phil Newman	10300
	06/18/2007	10:57 (MTZ)	Roy Fitzgerald	10000
	06/18/2007	10:57 (MTZ)	Marc Evans	10000
<b>Authorized Classifier(AC):</b>	Roger Rizkalla     Date: 07/09/2007			

<b>12)Report Number:</b>	<a href="#">NA--SS-SNL-NMFAC-2007-0008</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>	Construction Electrical Apprentice Cuts Energized Conductor in Bldg. 802 Prior to Performing LOTO and Zero Voltage Verification Testing		
<b>Date/Time Discovered:</b>	06/21/2007 11:15 (MTZ)		
<b>Date/Time Categorized:</b>	06/21/2007 12:30 (MTZ)		
<b>Report Type:</b>	Final		
<b>Report Dates:</b>	Notification	06/25/2007	18:04 (ETZ)
	Initial Update	07/02/2007	15:22 (ETZ)
	Latest Update	07/11/2007	10:37 (ETZ)
	Final	07/11/2007	10:37 (ETZ)
	Revision 1	07/11/2007	11:21 (ETZ)
<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>	A3B3C03 - Human Performance Less Than Adequate (LTA); Knowledge Based Error; Individual justified action by focusing on biased evidence -->couplet - A4B4C09 - Management Problem; Supervisory Methods LTA; Assignment did not consider worker's need to use higher-order skills		
<b>ISM:</b>	4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	Yes Del Rio Enterprises (sub to Brycon)		
<b>Occurrence Description:</b>	On Thursday, 6/21/07, the Facilities Management and Operations Center (FMOC) was notified that on Wednesday, 6/13/07, at approximately 11:30pm, a Construction Electrical Subcontract Apprentice Electrician (4th year) cut into a 120volt, 20-amp energized circuit (hot and neutral) while splicing conductors in		

a j-box located in the ceiling on the 1st floor of building 802. The conductors supplied power to a new Variable Air Volume (VAV) box. The Apprentice Electrician used insulated side-cutters (not electrically rated) and was wearing standard construction PPE (leather work gloves, long sleeve shirt and safety glasses) while cutting the conductors. The Apprentice was not wearing electrically rated gloves or other PPE that is required for this type of energized electrical work.

The Apprentice was working on the VAV Box Replacement Project and had finished the electrical conductor splices in j-boxes above the ceiling for two new VAV boxes on the first floor. The Apprentice Electrician had locked and tagged the circuit to the first two VAV boxes and verified zero voltage prior to splicing the conductors. The Apprentice was not wearing electrically rated gloves when performing the zero voltage tests. The Apprentice opened the third j-box and, because the conductors were the same color, the Apprentice incorrectly assumed that the conductors were fed by the same breaker and cut the conductors without verifying zero voltage.

The Apprentice notified his Journeyman that the Apprentice had cut energized conductors. The Apprentice and Journeyman traced the impacted conductors, de-energized the circuit, performed LOTO utilizing the proper electrical PPE, and completed the splice work. The Apprentice and Journeyman did not immediately notify their Foreman of the incident.

On June 18, 2007 (night) the Journeyman and Apprentice reported the incident to their Foreman. The following night the Foreman notified the Prime Contractor's Superintendent that conductors had been cut but failed to identify that the conductors were energized until the evening of June 20, 2007. The following morning the Superintendent followed the SNL Early Notification process and notified the FMOC Construction Manager that energized conductors had been cut on June 13th, 2007 by the Electrical Subcontractor's Electrical Apprentice.

There was no electrical shock, no impact to the environment or line operations as a result of this incident.

**Cause Description:**

Timeline, Causal Factors Analysis

A3B3C03, Individual justified action by focusing on biased evidence: The Apprentice made the incorrect assumption that the third j-box contained de-energized conductors without performing the required testing. This assumption was based on the fact that the j-box conductors were the same color as those in the two previous j-boxes which had been de-energized.

A5B4C09, Assignment did not consider worker's need to use higher-order skills: An Apprentice by definition is completing on-the-job training, and the Journeyman assigned to work with the Apprentice is responsible for ensuring that the Apprentice understands the hazards and controls associated with the tasks to which they are assigned. The Journeyman is also responsible for providing oversight to ensure that the Apprentice has the skills and qualifications to perform the work assignments safely. The Apprentice was not wearing the appropriate PPE when performing zero voltage checks on the first

	two splices and made the incorrect decision to assume that the third j-box contained de-energized conductors without completing the required testing.		
<b>Operating Conditions:</b>	Normal		
<b>Activity Category:</b>	Construction		
<b>Immediate Action(s):</b>	1) De-energized and performed LOTO on circuit where conductors were cut. 2) An investigation was initiated on two topics: late reporting and failure to follow procedures. 3) The electrical work was paused to review the lessons learned and corrective actions needed.		
<b>FM Evaluation:</b>	<p>Early Notifications: SNL EOC: 6/21/07; 12:57pm Bill Wechsler, NNSA/SSO FR: 6/21/07;12:55pm</p> <p>One of the ISMS seven guiding principles states that management is responsible to ensure personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities (work assignments). This incident highlights the importance of the Journeyman's responsibilities to ensure the safety of Apprentices assigned to their oversight. If the Journeymen had ensured that the Apprentice understood the PPE, LOTO, and testing requirements and had provided adequate oversight to ensure those requirements were followed, this incident would not have occurred. The NFPA 70E standard identifies that testing electrical conductors and systems is energized work and all PPE, electrical gloves and flash protection, is required.</p>		
<b>DOE Facility Representative Input:</b>			
<b>DOE Program Manager Input:</b>			
<b>Further Evaluation is Required:</b>	No		
<b>Division or Project:</b>	4000		
<b>Plant Area:</b>	Tech Area I		
<b>System/Building/Equipment:</b>	120volt, 20 amp, Electrical system for VAV		
<b>Facility Function:</b>	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)		
<b>Corrective Action 01:</b>	<table border="1"> <tr> <td><b>Target Completion Date:</b>07/12/2007</td> <td><b>Actual Completion Date:</b></td> </tr> </table> <p>Department 4824 - The Contractor will re-train all Apprentice and Journeyman electricians on NFPA 70E LOTO and PPE requirements when testing electrical conductors and components/equipment. [A3B3C03, A5B4C09]</p>	<b>Target Completion Date:</b> 07/12/2007	<b>Actual Completion Date:</b>
<b>Target Completion Date:</b> 07/12/2007	<b>Actual Completion Date:</b>		
<b>Corrective Action 02:</b>	<table border="1"> <tr> <td><b>Target Completion Date:</b>07/12/2007</td> <td><b>Actual Completion Date:</b></td> </tr> </table> <p>Department 4824 - The Apprentice will receive coaching and counseling concerning the importance of wearing required PPE when testing and to ensure that all conductors and electrical components are tested prior to making any contact with tools to ensure they have been de-energized as required by NFPA, OSHA, SNL, FMOC, and the Contractor's safety plan. The Apprentice will also be coached and counseled on SNL early notification requirements. [A3B3C03, A5B4C09]</p>	<b>Target Completion Date:</b> 07/12/2007	<b>Actual Completion Date:</b>
<b>Target Completion Date:</b> 07/12/2007	<b>Actual Completion Date:</b>		

<b>Corrective Action 03:</b>	<b>Target Completion Date:</b> 07/12/2007 <b>Actual Completion Date:</b>
	Department 4824 - The Journeyman will receive coaching and counseling concerning responsibilities of the Journeyman regarding oversight and job assignments of Apprentices. [A3B3C03, A5B4C09]
<b>Corrective Action 04:</b>	<b>Target Completion Date:</b> 06/21/2007 <b>Actual Completion Date:</b> 06/21/2007
	Department 4824 - Journeyman and Apprentice received appropriate disciplinary action. [A3B3C03, A5B4C09]
<b>Corrective Action 05:</b>	<b>Target Completion Date:</b> 10/31/2007 <b>Actual Completion Date:</b>
	Department 4800 - Lessons learned will be shared through the SNL Corporate Lessons Learned process, with construction contractors at the next Quarterly Safety Seminar (early notification will be covered) and the Monthly Construction NewsSense, and with maintenance craftspeople at monthly safety meetings. [A3B3C03, A5B4C09]
<b>Corrective Action 06:</b>	<b>Target Completion Date:</b> 08/31/2007 <b>Actual Completion Date:</b>
	Department 4841 - Additional job observations (one per week for 6 weeks) of electrical work being performed by the Electrical Contractor will be performed by Electrical Safety Professionals to ensure personnel are following all PPE, LOTO, and testing requirements identified in NFPA 70E. If additional problems are identified, a Stop Work Order will be issued to the contractor, including a requirement for the contractor to perform a self-assessment and submit a corrective action plan for FMOC approval. [A3B3C03, A5B4C09]
<b>Corrective Action 07:</b>	<b>Target Completion Date:</b> 07/31/2007 <b>Actual Completion Date:</b>
	Department 4827 - This incident was not reported in a timely manner by the contractor. A memo will be sent to the contractor reminding them of the early notification requirements at SNL. [A3B3C03, A5B4C09]
<b>Corrective Action 08:</b>	<b>Target Completion Date:</b> 04/30/2008 <b>Actual Completion Date:</b>
	Department 4800 - Verification of completion and validation of effectiveness of all corrective actions will be performed within 6 months of completion of last corrective action. [A3B3C03, A5B4C09]
<b>Lessons(s) Learned:</b>	<p>Title: Construction Electrical Contract Apprentice Electrician Cuts Energized Conductor in Building 802 Prior to Performing LOTO and Zero Voltage Verification Testing</p> <p>Lesson Learned Statement: Journeyman Electrician fails to provide adequate oversight to ensure Apprentice Electrician performs electrical work in a safe and compliant manner.</p> <p>Discussion of Activities: A Construction Electrical Contract Electrical Apprentice (4th year) cut into a 120volt, 20-amp energized circuit (hot and neutral) while splicing conductors in a j-box located in the ceiling on the 1st floor of building 802. The conductors supplied power to a new Variable Air Volume (VAV) box. The Apprentice used insulated side-cutters (not electrically rated) and was wearing standard construction PPE (leather work gloves, long sleeve shirt and safety glasses) while cutting the conductors. The Apprentice was not wearing electrically rated</p>

gloves or other PPE that is required for this type of energized electrical work.

The Apprentice was working on the VAV Box Replacement Project and had finished the electrical conductor splices in j-boxes above the ceiling for two new VAV boxes on the first floor. The Apprentice Electrician had locked and tagged the circuit to the first two VAV boxes and verified zero voltage prior to splicing the conductors. The Apprentice was not wearing electrically rated gloves when performing the zero voltage tests. The Apprentice opened the third j-box and because the conductors were the same color the Apprentice incorrectly assumed that the conductors were fed by the same breaker and cut the conductors without verifying zero voltage.

**Analysis:**

Individual justified action by focusing on biased evidence: The Apprentice made the incorrect assumption that the third j-box contained de-energized conductors without performing the required testing. This assumption was based on the fact that the j-box conductors were the same color as the conductors in the two previous j-boxes which had been de-energized.

Assignment did not consider worker's need to use higher-order skills: An Apprentice by definition is completing on-the-job training, and the Journeyman assigned to work with the Apprentice is responsible for ensuring that the Apprentice understands the hazards and controls associated with the tasks they are assigned. The Journeyman is also responsible for providing oversight to ensure that the Apprentice has the skills and qualifications to perform the work assignments in a safe manner. The Apprentice was not wearing the appropriate PPE when performing zero voltage checks on the first two splices and made the incorrect decision to assume the third j-box contained de-energized conductors without completing the required testing.

**Recommended Actions:**

Management should ensure that personnel possess the experience, knowledge, skills and abilities that are necessary to discharge their responsibilities.

**HQ Keywords:**

- 01A--Conduct of Operations - Conduct of Operations (miscellaneous)
- 01E--Conduct of Operations - Operations Procedures
- 01M--Conduct of Operations - Inadequate Job Planning (Electrical)
- 01P--Conduct of Operations - Communication
- 07D--Electrical Systems - Electrical Wiring
- 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance
- 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical)
- 11G--Other - Subcontractor
- 12K--EH Categories - Near Miss (Could have been a serious injury or fatality)
- 14E--Quality Assurance - Work Process
- 14H--Quality Assurance - Inspection and Acceptance Testing

**HQ Summary:**

A construction electrical subcontract electrician cut into a 120 volt, 20-amp energized circuit (hot and neutral) while terminating Variable Air Volume (VAV) boxes on the 1st Floor of Bldg. 802. The electrician was using insulated side-cutters and was wearing standard PPE (leather work gloves and safety glasses) during the event. Notifications were made, the circuit was isolated, and an investigation was initiated. There was no electrical shock, no impact to the



	environment or line operations as a result of this incident.																			
<b>Similar OR Report Number:</b>	1. EM-RFO--KHLL-PUFAB-2002-0052																			
	2. DP-ALO-AO-BWXP-PANTEX-2002-0021																			
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">Carla Lamb</td> </tr> <tr> <td>Phone</td> <td colspan="3">(505) 844-1753</td> </tr> <tr> <td>Title</td> <td colspan="3">ES&amp;H Coordinator - Facilities Mgmt &amp; Ops Ctr</td> </tr> </table>				Name	Carla Lamb			Phone	(505) 844-1753			Title	ES&H Coordinator - Facilities Mgmt & Ops Ctr						
Name	Carla Lamb																			
Phone	(505) 844-1753																			
Title	ES&H Coordinator - Facilities Mgmt & Ops Ctr																			
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">LUCERO, JEWEELEE A</td> </tr> <tr> <td>Phone</td> <td colspan="3">(505) 845-4727</td> </tr> <tr> <td>Title</td> <td colspan="3">REPORTING ADMINISTRATOR</td> </tr> </table>				Name	LUCERO, JEWEELEE A			Phone	(505) 845-4727			Title	REPORTING ADMINISTRATOR						
Name	LUCERO, JEWEELEE A																			
Phone	(505) 845-4727																			
Title	REPORTING ADMINISTRATOR																			
<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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<b>Authorized Classifier(AC):</b>	Roger Rizkalla      Date: 07/09/2007																			

<b>13)Report Number:</b>	<a href="#">NE-ID--BEA-ATR-2007-0012</a> After 2003 Redesign														
<b>Secretarial Office:</b>	Nuclear Energy, Science and Technology														
<b>Lab/Site/Org:</b>	Idaho National Laboratory														
<b>Facility Name:</b>	Advanced Test Reactor														
<b>Subject/Title:</b>	Electrician Receives 277 VAC Shock From Unit Heater Thermostat														
<b>Date/Time Discovered:</b>	06/06/2007 14:30 (MTZ)														
<b>Date/Time Categorized:</b>	06/06/2007 14:30 (MTZ)														
<b>Report Type:</b>	Notification														
<b>Report Dates:</b>	<table border="1"> <tr> <td>Notification</td> <td>06/07/2007</td> <td>19:02 (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	06/07/2007	19:02 (ETZ)	Initial Update			Latest Update			Final		
Notification	06/07/2007	19:02 (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>	On June 6, 2007, at approximately 1400 hours a Reactor Technology Complex (RTC) electrician received an electrical shock while adjusting a thermostat in														



	<p>the Advanced Test Reactor Critical (ATRC) facility fan room.</p> <p>RTC electricians were performing preventative maintenance (PM) on duct heater (DH)-73, which was tagged out and zero energy checked, in the ATRC fan room. A step in the PM is to check operability of the duct heater thermostat. The electrician adjusted a thermostat that he thought was for DH-73 and received an electrical shock. (The thermostat was for a permanently installed unit heater, not the duct heater being PM'd.)</p> <p>The electricians stopped work and called their supervisor, who immediately responded to the scene. Another electrician performed a voltage check from the thermostat to the electrical box and it read 277 vac. A lock was placed on the disconnect and another energy reading indicated no voltage.</p> <p>Further investigation determined that the thermostat is rated for 24V and should be rated for 120V. The thermostat is also installed on the primary side of a 480V circuit and should be installed on the secondary side, which is 120V. It is believed that the thermostat was incorrectly installed approximately 20 years ago during building modifications.</p> <p>It should be noted that the electricians were performing the duct heater PM in accordance with all proper procedures and precautions.</p> <p>The electrician who received the shock was sent to the RTC medical dispensary for evaluation (including an EKG) and was released to return to work with no restrictions.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	The Advanced Test Reactor was in shutdown condition in support of the scheduled Cycle 139B-1 outage.
<b>Activity Category:</b>	Maintenance
<b>Immediate Action(s):</b>	<p>Appropriate levels of BEA management and NE-ID were notified of this event.</p> <p>Work was stopped, the unit heater and thermostat were tagged out, and the room was roped off in order to place the area in a safe condition.</p> <p>A critique was held at 1500 hours.</p> <p>The electrician who received the shock was sent to the medical dispensary for evaluation. An EKG was also performed with satisfactory results and the electrician was released to go back to work with no restrictions.</p> <p>The thermostat and heater unit will remain tagged out and in a safe condition until a properly rated thermostat is obtained and properly installed.</p>
<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>	ATR Programs								
<b>Plant Area:</b>	ATRC								
<b>System/Building/Equipment:</b>	ATRC Fan Room Thermostat								
<b>Facility Function:</b>	Category "A" Reactors								
<b>Corrective Action:</b>									
<b>Lessons(s) Learned:</b>									
<b>HQ Keywords:</b>	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01B--Conduct of Operations - Configuration Management/Control 01Q--Conduct of Operations - Personnel error 07D--Electrical Systems - Electrical Wiring 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 12C--EH Categories - Electrical Safety 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 13E--Management Concerns - Facility Call Sheet 14E--Quality Assurance - Work Process								
<b>HQ Summary:</b>	A Reactor Technology Complex electrician received an electrical shock while adjusting a thermostat in the Advanced Test Reactor Critical (ATRC) facility fan room. He had been performing preventative maintenance (PM) on duct heater (DH)-73, which was tagged out and zero energy checked, in the ATRC fan room. However, the electrician adjusted the wrong thermostat, which was energized, and he received an electrical shock. Work was stopped and management was notified. The electrician was evaluated medically and returned to work without restrictions.								
<b>Similar OR Report Number:</b>									
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>MCDONOUGH, MARTIN B</td> </tr> <tr> <td>Phone</td> <td>(208) 533-4321</td> </tr> <tr> <td>Title</td> <td>ATR OPERATIONS FACILITY MANAGER</td> </tr> </table>	Name	MCDONOUGH, MARTIN B	Phone	(208) 533-4321	Title	ATR OPERATIONS FACILITY MANAGER		
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Phone	(208) 533-4321								
Title	ATR OPERATIONS FACILITY MANAGER								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>OWENS, MARJORIE A</td> </tr> <tr> <td>Phone</td> <td>(208) 533-4563</td> </tr> <tr> <td>Title</td> <td>ATR OPERATIONS FACILITY ADMINISTRATI</td> </tr> </table>	Name	OWENS, MARJORIE A	Phone	(208) 533-4563	Title	ATR OPERATIONS FACILITY ADMINISTRATI		
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06/06/2007	14:30 (MTZ)	M. Goriup	NE-ID						
<b>Authorized Classifier(AC):</b>	BROOKS P. CLEMENTS      Date: 06/07/2007								

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<b>14)Report Number:</b>	<a href="#">NE-ID--BEA-MFC-2007-0001</a> After 2003 Redesign
<b>Secretarial Office:</b>	Nuclear Energy, Science and Technology
<b>Lab/Site/Org:</b>	Idaho National Laboratory
<b>Facility Name:</b>	Materials and Fuels Complex
<b>Subject/Title:</b>	Meter Probe Damage Due to Improper Connections

<b>Date/Time Discovered:</b>	06/06/2007 10:15 (MTZ)		
<b>Date/Time Categorized:</b>	06/06/2007 16:40 (MTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	06/11/2007	18:02 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)		
<b>Cause Codes:</b>			
<b>ISM:</b>	2) Analyze the Hazards 3) Develop and Implement Hazard Controls 4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	Yes NORESCO		
<b>Occurrence Description:</b>	Two INL electricians made connections as directed in a 480 Volt panel for a Fluke 39/41B Power Harmonics Tester provided by the NORESCO representative to the phase A and B electrical supply to a building ventilation supply fan located in MFC building 75. The purpose was to measure the power factor when the fan was running. The red lead was connected to phase A and the black lead to phase B on the load side of the breaker. The clamp on induction probe was connected around the phase A wire in the controller. When the breaker was shut a noise was heard, a small blue flash observed and the supply breaker tripped. The coil in the clamp on induction probe had failed.		
<b>Cause Description:</b>			
<b>Operating Conditions:</b>	Normal Operation		
<b>Activity Category:</b>	Maintenance		
<b>Immediate Action(s):</b>	1.) The leads were removed and the door was closed on the controller.  2.) The electricians involved contacted their supervisor and management.  3.) All work on the electrical data gathering for NORESCO was stopped.  4.) A critique was held at 1500 on June 6, 2007.		
<b>FM Evaluation:</b>	A review of the Flute Vendor Manual indicates the 80i-400 AC Current clamp was not approved for use with the Fluke 39 meter, however, the current clamp is rated for use with other Category III-600 volt meters. Further evaluation must be completed prior to any use of this type Fluke meter for power factor measurements.		
<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: MFC F&SS Management By When:												
<b>Division or Project:</b>	Facility and Site Services												
<b>Plant Area:</b>	Lab. and Office Buil												
<b>System/Building/Equipment:</b>	Building 752												
<b>Facility Function:</b>	Balance-of-Plant - Offices												
<b>Corrective Action:</b>													
<b>Lessons(s) Learned:</b>													
<b>HQ Keywords:</b>	01E--Conduct of Operations - Operations Procedures 07D--Electrical Systems - Electrical Wiring 07E--Electrical Systems - Electrical Equipment 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process												
<b>HQ Summary:</b>	Two INL electricians made connections as directed in a 480 Volt panel for a Fluke 39/41B Power Harmonics Tester to the phase A and B electrical supply to a building ventilation supply fan located in MFC building 75 to measure the power factor. When the breaker was shut a noise was heard, a small blue flash observed and the supply breaker tripped. The coil in the clamp on induction probe had failed. The leads were removed and the door was closed on the controller, work was suspended, notifications were made and a critique was held. A review of the Flute Vendor Manual indicates the 80i-400 AC Current clamp was not approved for use with the Fluke 39 meter.												
<b>Similar OR Report Number:</b>													
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06/06/2007	11:45 (MTZ)	John Martin	DOE-ID										
<b>Authorized Classifier(AC):</b>													

**15)Report Number:** [SC--BSO-LBL-EETD-2007-0001](#) After 2003 Redesign

<b>Secretarial Office:</b>	Science		
<b>Lab/Site/Org:</b>	Lawrence Berkeley Laboratory		
<b>Facility Name:</b>	Environmental Energy Technologies Division		
<b>Subject/Title:</b>	Student assistant received electrical shock		
<b>Date/Time Discovered:</b>	06/22/2007 13:30 (PTZ)		
<b>Date/Time Categorized:</b>	06/22/2007 14:30 (PTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	06/26/2007	20:47 (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>	2) Analyze the Hazards		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	<p>On 06/21/2007 at about 1745, an LBNL student assistant received an electrical shock while using a wrench to loosen a Swegelock compression fitting on an air sample dilution tube at an offsite location. The shock received was considered mild and the Lab's Health Services examination conducted on the following day showed no physical injury.</p> <p>The event was reported the following morning (6/22) to the division safety coordinator who received the message that afternoon (6/22) and categorized the event as reportable after conferring with EH&amp;S and OCA (Office of Contract Assurance) staff.</p>		
<b>Cause Description:</b>			
<b>Operating Conditions:</b>	Outdoors, sunny, dry		
<b>Activity Category:</b>	Research		
<b>Immediate Action(s):</b>	<p>Use of the outlet was discontinued until the problem is investigated and corrected.</p> <p>The research group has incorporated into its procedures a check of outlets with a tester to verify proper polarity and ground.</p>		
<b>FM Evaluation:</b>	There was a fault with the electrical outlet resulting in a hot ground.		
<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: EETD and EHS staff By When:								
<b>Division or Project:</b>	EETD (Environmental Energy Technologies)								
<b>Plant Area:</b>	off site								
<b>System/Building/Equipment:</b>	Air sample dilution tube								
<b>Facility Function:</b>	Laboratory - Research & Development								
<b>Corrective Action:</b>									
<b>Lessons(s) Learned:</b>									
<b>HQ Keywords:</b>	07D--Electrical Systems - Electrical Wiring 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 11I--Other - Visiting Scientist/Researcher or Student Employee 12C--EH Categories - Electrical Safety 14L--Quality Assurance - None								
<b>HQ Summary:</b>	An LBNL student assistant received an electrical shock while using a wrench to loosen a Swegelock compression fitting on an air sample dilution tube at an offsite location. The shock received was considered mild and a health services examination conducted on the following day showed no physical injury. Use of the outlet was discontinued until the problem is investigated and corrected.								
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<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Bill Fisk</td> </tr> <tr> <td>Phone</td> <td>(510) 486-5901</td> </tr> <tr> <td>Title</td> <td>Acting Division Director</td> </tr> </table>	Name	Bill Fisk	Phone	(510) 486-5901	Title	Acting Division Director		
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