May 2008 Electrical Safety Occurrences

There were 13 electrical safety occurrences for May 2008:

- 1 resulted in an electrical shock
- 3 involved lockout/tagout
- 1 involved cutting an energized cord
- 2 involved contact with vehicles
- 8 involved electrical workers and 5 involved non-electrical workers
- 6 occurrences involved subcontractors

After the January 2008 peak followed by two months of continuous improvement, the total number of electrical safety events for the last two months has been increasing, although the monthly average continues to remain lower than previous years.

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

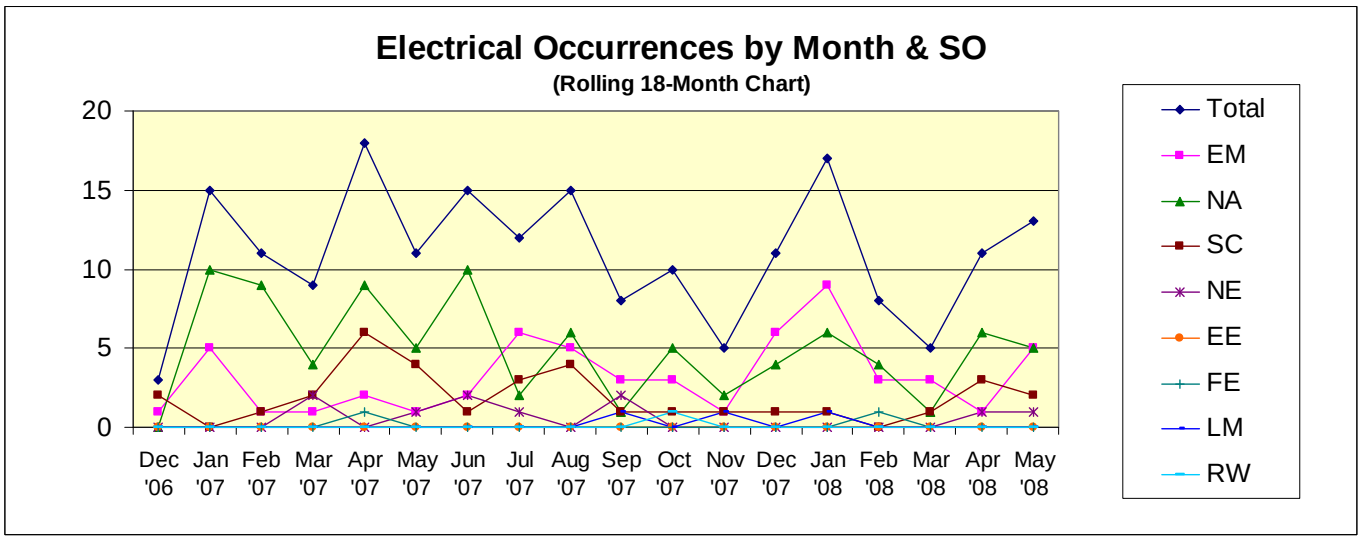
01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

The initial search yielded 13 occurrences and a review of these determined that none needed to be culled out.

Below is the current summary of 2008 electrical safety occurrences:

Period	Electrical Safety Occurrences	Shocks	Burns	Fatalities
Jan-08	17	7	0	0
Feb-08	8	3	0	0
Mar-08	5	1	0	0
Apr-08	11	1	0	0
May-08	13	1	1	0
2008 total	54 (avg. 10.8/month)	13	1	0
2007 total	140 (avg. 11.7/month)	25	2	0
2006 total	166 (avg. 13.8/month)	26	3	0
2005 total	165 (avg. 13.8/month)	39	5	0
2004 total	149 (avg. 12.4/month)	25	3	1

The average rate of electrical safety occurrences in 2008 is now 10.8 per month, which is less than the average rate of 11.7 per month experienced in 2007.



Electrical Safety Occurrences – May 2008

No	Report Number	Subject/Title	EW[1]	N-EW[2]	SUB[3]	SHOCK	BURN	ARCF[4]	LOTO[5]	EXCAV[6]	CUT/D[7]	VEH[8]
1	EM-ORO--BJC-K25ENVRES-2008-0007	Near Miss - Contact with Overhead Electrical Line while Moving a Piece of Heavy Equipment		X								X
2	EM-RL--PHMC-HFD-2008-0001	First Aid/Burn to Left Ring Finger	X				X					
3	EM-RP--BNRP-RPPWTP-2008-0009	Unexpected Discovery of Uncontrolled Hazardous Energy	X									
4	EM-RP--CHG-TANKFARM-2008-0005	Construction Pipefitter Observed Sparks Between a Non-Electric Lifting Magnet and a Metal Fabrication Table		X	X							
5	EM-SR--WSRC-FSSBU-2008-0003	Tractor/Bushhog Pulls Conduit from Pole		X	X							X
6	NA--LASO-LANL-ACCCOMPLEX-2008-0004	Management Concern: Mislabeling Results in Improper LO/TO	X						X			
7	NA--LSO-LLNL-LLNL-2008-0017	Failure to Perform Proper Lockout /Tagout at Trailer 4377	X		X				X			
8	NA--PS-BWXP-PANTEX-2008-0042	Open Electrical Junction Box with Exposed Energized Bare Wire	X		X							
9	NA--SS-SNL-NMFAC-2008-0007	Electrician Fails to Don Electrically Rated Gloves Prior to Performing LOTO Zero Voltage Test in Bldg. 862	X		X							
10	NA--SS-SNL-NMFAC-2008-0008	FMOC Subcontractor Cuts Energized 120-volt Conductor while Disconnecting and Removing Electrical Control Conductors in Bldg. 827	X		X						X	
11	NE-ID--BEA-TSD-2008-0001	Failure to Follow Hazardous Energy Control Process at RSWF	X						X			
12	SC--PNSO-PNNL-PNNLBOPER-2008-0012	Staff Member Receives Non-Injury Electrical Shock while Inspecting Thermocouple		X		X						
13	SC-ORO--ORNL-X10NUCLEAR-2008-0002	Electrical Event at Bldg 3525 North Hot Cell		X								
	TOTAL		8	5	6	1	1		3		1	2

Key

(1)EW = electrical worker, (2)N-EW = non-electrical worker, (3)SUB = subcontractor, (4)ARCF = significant arc flash, (5)LOTO = lockout/tagout, (6)EXCAV = excavation, (7)CUT/D = cutting or drilling, (8)VEH = vehicle event

ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 53746 OR(s) with 57064 occurrences(s) as of 6/9/2008 7:21:14 AM
Query selected 13 OR(s) with 13 occurrences(s) as of 6/9/2008 10:03:02 AM

Download this report in Microsoft Word format.

1)Report Number:	EM-ORO--BJC-K25ENVRES-2008-0007 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	East Tennessee Technology Park
Facility Name:	ETTP Facility D&D/K-25/K-27 Project
Subject/Title:	Near Miss - Contact With Overhead Electrical Line While Moving a Piece of Heavy Equipment
Date/Time Discovered:	05/21/2008 09:30 (ETZ)
Date/Time Categorized:	05/21/2008 12:15 (ETZ)
Report Type:	Notification
Report Dates:	Notification: 05/21/2008 14:34 (ETZ) Initial Update: Latest Update: Final:
Significance Category:	3
Reporting Criteria:	10(3) - A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the four significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)
Cause Codes:	
ISM:	2) Analyze the Hazards
Subcontractor Involved:	No
Occurrence Description:	At approximately 0900 hours on May 21, 2008, an equipment operator was relocating a track hoe on the west side of the K-25 building at the vault level near K-305-4. The equipment operator did not have a spotter while making the movement. Once the operator had the track hoe at the new location, he exited the cab and departed the area. A co-worker passing by the area noticed that a 480-volt double insulated overhead line was touching the boom and notified management.
Cause Description:	
Operating Conditions:	Normal under Decontamination and Decommission
Activity Category:	Facility Decontamination/Decommissioning

Immediate Action(s):	Restricted the use of heavy equipment.
FM Evaluation:	There was no damage to the facility, the equipment, or the overhead line and no one was injured. There were other workers in the area, including qualified spotters, but no one was actually acting as spotter for the equipment operator while the movement occurred. Failure to maintain the proper distance from overhead electrical lines and to use a spotter is a procedural violation. The track hoe was removed from the area after power operations personnel deenergized the line and removed it from contact with the track hoe. After a review of the incident, it was determined that the incident was a reportable near miss.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Field Services By When: 06/13/2008
Division or Project:	K-25/K-27 D&D
Plant Area:	Central
System/Building/Equipment:	K-25 Facility west of K-305-4
Facility Function:	Environmental Restoration Operations
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01E--Inadequate Conduct of Operations - Operations Procedure Noncompliance 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 10C--Transportation - Industrial Equipment Movement Incident 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On May 21, 2008, an equipment operator relocated a track hoe on the west side of the K-25 building at the vault level near K-305-4, and then left the area. He did not use a spotter. A co-worker passing by the area noticed that a 480-volt double insulated overhead line was touching the boom of the track hoe, and notified management. The line was de-energized and the track hoe was moved.
Similar OR Report Number:	
Facility Manager:	Name: Kevin OHara

	Phone (865) 241-3602
Originator:	Name SMITH, MILDRED L Phone (865) 241-1703 Title QUALITY ENGINEER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	05/21/2008 12:15 (ETZ) Fred Fillers BJC-QA 05/21/2008 12:15 (ETZ) Jack Howard DOE 05/21/2008 12:15 (ETZ) Edward Najmola BJC 05/21/2008 12:15 (ETZ) Larry Wyatt BJC-PSS 05/21/2008 12:15 (ETZ) Dan Emch DOE-FR 05/21/2008 12:15 (ETZ) Kelly Trice BJC-MOP
Authorized Classifier(AC):	Fred Fillers Date: 05/21/2008

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2)Report Number:	EM-RL--PHMC-HFD-2008-0001 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Hanford Fire Department
Subject/Title:	First Aid/Burn to Left Ring Finger
Date/Time Discovered:	05/19/2008 13:40 (PTZ)
Date/Time Categorized:	05/20/2008 15:00 (PTZ)
Report Type:	Notification/Final
Report Dates:	Notification 05/22/2008 16:40 (ETZ) Initial Update 05/22/2008 16:40 (ETZ) Latest Update 05/22/2008 16:40 (ETZ) Final 05/22/2008 16:40 (ETZ)
Significance Category:	4
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4

	occurrence)
Cause Codes:	
ISM:	4) Perform Work Within Controls
Subcontractor Involved:	No
Occurrence Description:	At approximately 1340 hours on 5/19/08, at the 324 facility, an electrician received a second degree burn to the left ring finger while replacing batteries in a fire alarm control panel (FACP). The batteries for the FACP (2 - 12 V DC batteries) are wired in series. While performing preventive maintenance on a FACP at the 324 facility, the electricians discovered the fire alarm batteries did not meet the annual test requirement. Work was suspended by the 324 facility Field Work Supervisor (FWS) in order to change the work package to allow electricians to replace failed batteries. The electricians returned to their shop for replacement batteries and work package change, to include the battery replacement procedure (FS0049). The electrician's supervisor made the appropriate changes to the work package by adding procedure FS0049 and replacement batteries were obtained. The electricians were then assigned by the facility FWS to complete the battery change and continue the preventive maintenance of the fire alarm panel. The battery box and the FACP were located on opposite sides of a wall and not visible at the same time. According to the worker, during the battery replacement, there was confusion about which lead was the positive and which lead was the negative at the panel, since both wires were the same color. The electrician attempted to label the battery leads with black electrical tape. After placing identification tape on the wires at the batteries, the electrician was applying tape on wires on the FACP side of the wall after verifying polarity. Both battery leads came in contact with the electrician's ring, causing the battery to short circuit and the electrician to receive a burn to his left ring finger. Work was stopped and the electrician was transported to the local first aid station, operated by Advanced Med Hanford. The electrician was treated for a small second degree burn to the left ring finger and returned to work without restrictions or medications.
Cause Description:	
Operating Conditions:	Does Not Apply.
Activity Category:	Maintenance
Immediate Action(s):	1. Work on fire alarm control panel was stopped. 2. The injured electrician was transported to Advanced Med Hanford (AMH) for treatment. 3. The 324 facility FWS, to restore panel and assure the work environment

	was in a safe condition, instructed the electrician to safely reconnect battery leads to FACP, and the FACP was restored to normal condition. 4. A critique of the event of conducted on 5/20/2008, after which it was determined to be a reportable event as a management concern.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	FH Closure Services & Infrastructure
Plant Area:	300 Area
System/Building/Equipment:	Fire System/324 Building/Fire Alarm Control Panel
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 01O--Inadequate Conduct of Operations - Inadequate Maintenance 01Q--Inadequate Conduct of Operations - Personnel error 07E--Electrical Systems - Electrical Equipment Failure 08D--OSHA Reportable/Industrial Hygiene - Injury 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On May 19, 2008, an electrician received a second degree burn to the left ring finger while replacing batteries in a fire alarm control panel. During the battery replacement, there was confusion over which leads were positive and which ones were negative, as the wires were the same color. In order to distinguish the wires, the electrician starting labeling the leads with electrical tape, when two battery leads came in contact with the electrician's ring, causing the battery to short circuit and the electrician to receive a burn to his left ring finger. Work was stopped and the electrician was treated for a small second degree burn to the left ring finger. He was returned to work without restrictions or medications.
Similar OR Report Number:	1. None.
Facility Manager:	Name: True, Thomas N.

	Phone: (509) 373-1701 Title: HFD Assistant Chief, Administration
Originator:	Name: TRUMP, GARY D Phone: (509) 376-4664 Title: OCCURRENCE NOTIFICATION CENTER
HQ OC Notification:	Date: NA, Time: NA, Person Notified: NA, Organization: NA
Other Notifications:	05/20/2008 15:00 (PTZ) L. D. Earley DOE-RL 05/20/2008 15:30 (PTZ) R. L. Smithwick FH-ONC
Authorized Classifier(AC):	

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3)Report Number:	EM-RP--BNRP-RPPWTP-2008-0009 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	RPP Waste Treatment Plant
Subject/Title:	Unexpected discovery of uncontrolled hazardous energy
Date/Time Discovered:	05/09/2008 10:00 (PTZ)
Date/Time Categorized:	05/09/2008 10:15 (PTZ)
Report Type:	Update
Report Dates:	Notification 05/09/2008 18:31 (ETZ) Initial Update 05/21/2008 16:31 (ETZ) Latest Update 06/04/2008 10:26 (ETZ) 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. 10(3) - A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the four significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC

	3 occurrence)
Cause Codes:	A3B1C06 - Human Performance Less Than Adequate (LTA); Skill Based Errors; Wrong action selected based on similarity with other actions -->couplet - A5B3C01 - Communications Less Than Adequate (LTA); Written Communications Not Used; Lack of written communication A3B1C01 - Human Performance Less Than Adequate (LTA); Skill Based Errors; Check of work was LTA -->couplet - NA A4B3C11 - Management Problem; Work Organization & Planning LTA; Inadequate work package preparation
ISM:	3) Develop and Implement Hazard Controls 4) Perform Work Within Controls
Subcontractor Involved:	No
Occurrence Description:	On Friday, May 9, 2008, Construction Utility Group electricians were exposed to a live 480V temporary power cord while removing a cord cap. The electricians were preparing to perform preventive maintenance on the Trailer T-3A HVAC and to ensure positive control of the power, they were to remove the cold side cord cap of the power cord. Instead, they inadvertently removed the hot side cap, exposing both electricians to a live 480V source. When they removed the wires from the cord, an arc and pop ensued. There were no injuries.
Cause Description:	The Causal Analysis Tree, Rev. 0 in DOE G 231.1-2 was the methodology used to determine the causal codes for this incident. Two Construction Utility Group (CUG) electricians escaped potentially serious injury when they were exposed to a live three-phase 480 volt temporary power cord while preparing to perform the monthly preventive maintenance check on the trailer T-3A HVAC system. A3B1C06 - Human Performance LTA - Wrong action selected based on similarity with other actions: This conclusion is based on the past preventive maintenance practice of removing the cord cap as a Lock-out/Tag-out work around so no other option was considered. There were other options available at the time of the incident including for instance, first, removing a whole 50 foot section of the temporary power cord and coiling it back to the work zone to ensure positive control. Second, disconnecting another plug - three connecting plugs were in place on this feed line. Third, opening the disconnect for the 480V feed at the General Distribution Rack. Fourth, a combination of all of the listed. Fifth, a formal request to install an electrical LO/TO device on the disconnect or cord cap. A3B1C01 - Human Performance LTA - Check of work LTA: In addition to failing to recognize the other available options to positively control the power source and most importantly, the electricians did not perform a zero energy check on the plug before proceeding with the removal of the cord

cap. The performance of this step would have alerted the electricians they were handling the wrong plug.

A4B3C11 - Management Problem - Inadequate work package preparation: The electricians were using only the skill of the craft and a monthly HVAC checklist to perform this activity. There was no request made for an electrical LO/TO to be included with this activity since removal of the cord cap has been an accepted work around the LO/TO program. The performance of the work relied solely on the skill factor to execute the work steps correctly.

A5B3C01 - Communications LTA - Lack of written communications: The Preventive Maintenance (PM) program did not have a formal work/instruction package for the execution of this evolution. A formal preventive maintenance package would have outlined the controls for the electrical or other hazards present, including performing a zero energy check and instructed the electricians step by step on what the parameters of the PM were.

On Friday, May 9, 2008, two Construction Utility Group (CUG) electricians were tasked with performing the monthly preventive maintenance (PM) on the HVAC units for trailer T-3. This evolution entails isolating the power to the units, inspecting and cleaning the hardware and completing the checklist. The only documentation the electricians were furnished with was the standard cut sheet issued with PM request. This is the standard format for performing PM activities where there is no prescribed Lock-out/Tag-out (LO/TO) requirement.

After completing their pre-job paperwork, they discussed the proper sequence of steps and started work around 0710 hours. At approximately 0720 hours the electricians opened the local disconnect for trailer T-3A located on the north side of the facility. They performed a walkthrough of the trailer and noted a couple of observations.

Next, the electricians unplugged the temporary three-phase 480V power cord adjoining the local disconnect of T-3A being feed from the General Distribution Rack (GDR). To ensure they had positive control of the power source, instead of unplugging another section of the temporary power cord and coiling it next to where they would be working, the electricians decided to removed the cord cap instead. Since the PM package did not specify an electrical LO/TO and they decided to remove the cold side cord cap (male) connected to the trailer as has been the practice when working with temporary power cords. The electricians had not performed a zero energy check on the power cord before removing the cap. If the electricians had performed this step, they would have confirmed the correct cord cap to remove.

	Both described how they planned on removing the plug for the 480V power cord by first loosening and sliding the protective sleeve from the plug. Next, loosen the set screws for the wires and finally, one electrician holds the cable while the other pulls on the plug. Instead, they inadvertently undid the hot side cap (female) from the power cord still connected to the GDR (PT-GDR-054). As one electrician was pulling the cord cap, the other electrician was holding the cable exposing both electricians to a live 480V arc and loud pop. The electricians were wearing only leather gloves. They were not using high voltage gloves and were wearing only level D Personal Protective Equipment (PPE) because no work on systems greater then 50 volts was anticipated. Neither electrician suffered any injury and there was no property damage. After securing the live cable end, the electricians located the GDR for the trailer and opened the disconnect (DS-1) to isolate the power source to the trailer. In addition, they unplugged another section of the power cord along the exterior wall of the trailer. An initial inspection revealed the disconnect for the trailer at the GDR had not tripped and the fuses were not blown. It was stated the senior electrician had felt the practice of removing the cord cap was not a very good method of controlling hazardous energy and opened the door to a future failing. Both electricians agreed a proper LO/TO would have a much better tool instead of removing the cord cap. Both electricians agreed a more formal document to include a step-by-step checklist for controlling hazardous energy should be utilized.
Operating Conditions:	Construction
Activity Category:	Construction
Immediate Action(s):	Halted preventive maintenance work on T-3A HVAC. Contacted Supervision and Safety. Initiated an investigation.
FM Evaluation:	TBD
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Miguel Ojeda By When:
Division or Project:	Waste Vitrification and Treatment Plant
Plant Area:	600
System/Building/Equipment:	Preventive Maintenance on T-3A HVAC
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	

Lessons(s) Learned:	
HQ Keywords:	01O--Inadequate Conduct of Operations - Inadequate Maintenance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	While perform preventive maintenance on Trailer T-3A HVAC, two Construction Utility Group electricians were exposed to an energized 480-volt source when they inadvertently removed the hot side cap on a temporary power cord instead of the cold side cap. When they removed the wires from the cord, an arc and pop occurred. There were no injuries. The preventive maintenance work was halted and an investigation was initiated.
Similar OR Report Number:	
Facility Manager:	Name: Ojeda, Miguel Phone: (509) 373-8629 Title: ISSUES MANAGEMENT COORDINATOR
Originator:	Name: Ojeda, Miguel Phone: (509) 373-8629 Title: ISSUES MANAGEMENT COORDINATOR

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
05/09/2008	10:34 (PTZ)	Jim Navarro	DOE/FR
05/09/2008	10:51 (PTZ)	Gary Trump	ONC
05/09/2008	10:55 (PTZ)	Tony Bocca	BNI/SA
05/09/2008	11:04 (PTZ)	Mike Hood	BNI/Con

Authorized Classifier(AC):	

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4)Report Number:	EM-RP--CHG-TANKFARM-2008-0005 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Tank Farms
Subject/Title:	Construction Pipefitter Observed Sparks Between a Non-Electric Lifting Magnet and a Metal Fabrication Table
Date/Time Discovered:	05/16/2008 14:30 (PTZ)
Date/Time Categorized:	05/16/2008 15:20 (PTZ)

Report Type:	Notification
Report Dates:	Notification 05/20/2008 12:22 (ETZ) Initial Update Latest Update Final
Significance Category:	3
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)
Cause Codes:	
ISM:	6) N/A (Not applicable to ISM Core Functions as determined by management review.)
Subcontractor Involved:	Yes Fluor Federal Services
Occurrence Description:	On 05/16/2008, Fluor Federal Services (FFS) construction pipefitters observed sparks between a non-electric lifting magnet and a metal fabrication table. The lifting device was suspended from an electric motor operated hoist by a metal chain.
Cause Description:	
Operating Conditions:	Does not apply.
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Chain hoist disconnect was opened and area secured with "Danger" tape. Fluor Federal Services applied "Danger, Do Not Operate" tags to the equipment disconnect and remote pendant control. Fact finding scheduled for 05/19/2008.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Freeman-Pollard, Jhivaun R By When:
Division or Project:	CH2MHILL/Office of River Protection
Plant Area:	200 East

System/Building/Equipment:	Construction Shop/Non-Electric Lifting Magnet
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	07D--Electrical Systems - Electrical Wiring 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 13E--Management Concerns - Facility Call Sheet 14L--Quality Assurance - No QA Deficiency
HQ Summary:	On May 16, 2008, construction pipefitters observed sparks between a non-electric lifting magnet and a metal fabrication table. The lifting device was suspended from an electric motor operated hoist by a metal chain. The area was secured and the equipment was tagged out of service.
Similar OR Report Number:	
Facility Manager:	Name: Freeman-Pollard, Jhivaun R Phone: (509) 372-0927 Title: Director, Construction Management
Originator:	Name: WATERS, SHAUN F Phone: (509) 373-3457 Title: OPERATIONS SPECIALIST

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
05/16/2008	15:10 (PTZ)	Ross, W. E.	CH2MHILL
05/16/2008	15:25 (PTZ)	Boyce, M. L.	ONC
05/16/2008	15:32 (PTZ)	Ciola, R. J.	DOE-ORP
05/16/2008	15:38 (PTZ)	Wright, M. A.	CH2MHILL

Authorized Classifier(AC):	

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5)Report Number:	EM-SR--WSRC-FSSBU-2008-0003 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Savannah River Site
Facility Name:	Facility Support Generic Reporting
Subject/Title:	Tractor/Bushhog Pulls Conduit from Pole
Date/Time Discovered:	05/30/2008 11:15 (ETZ)
Date/Time Categorized:	06/02/2008 13:30 (ETZ)

Report Type:	Notification/Final
Report Dates:	Notification 06/04/2008 14:54 (ETZ) Initial Update 06/04/2008 14:54 (ETZ) Latest Update 06/04/2008 14:54 (ETZ) Final 06/04/2008 14:54 (ETZ)
Significance Category:	4
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)
Cause Codes:	A5B2C05 - Communications Less Than Adequate (LTA); Written Communication Content LTA; Ambiguous instructions / requirements
ISM:	1) Define the Scope of Work 2) Analyze the Hazards 3) Develop and Implement Hazard Controls 4) Perform Work Within Controls
Subcontractor Involved:	Yes EnviroAg Science
Occurrence Description:	At approximately 1115 hours on Friday, May 30, 2008, Subcontract Technical Representative (STR) for EnviroAg Science contacted the EnviroAg Science Project Manager about grass cutting on the road shoulders. The EnviroAg Science Project Manager notified the STR that one of his tractor operators had an accident at L-Lake. While cutting grass with a tractor and a bat-wing bushhog, the tractor operator passed too close to a light pole catching a conduit and pulling it away from the pole. The electrical wire was pulled loose from the connection point but did not fall to the ground. All personnel in the area moved away from the pole pending arrival of WSRC electrical personnel. The power line (and conduit) to the light, at top of pole, was de-energized and out of service at the time of the incident. The WSRC Electrical Safety subject matter expert has calculated the electrical severity of this event using guidance developed by the EFCOG Electrical Safety Subgroup. The calculated severity for this event is 50 (medium significance). This event scores as follows: Electrical Hazard: 50 (480V); Environment Factor: 0; Shock Proximity Factor: 0; Arc Flash: 0; Thermal Factor: 0; no PPE mitigations, Injury Factor:1. Total Severity event

	score: 50 (Medium significance).
Cause Description:	Problem Cause: Operator inattention to detail and mowing too close to objects. Root Cause: Operator not adhering to safe distance of operation.
Operating Conditions:	Normal Conditions
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	A "Time Out" was called and all grass-cutting operations at L-Lake Dam were suspended pending an investigation into the cause. The electrical line was locked out. The area was barricaded.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	PMM/STR
Plant Area:	L Area
System/Building/Equipment:	L Area/L Area Lake
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action 01:	**Target Completion Date:**06/05/2008 / **Tracking ID:**2008-CTS-009706,CA#1
	Subcontractor EnviroAg Science to develop Corrective Actions and submit to WSRC.
Corrective Action 02:	**Target Completion Date:**07/07/2008 / **Tracking ID:**2008-CTS-009706,CA#2
	WSRC STR to monitor to completion and add to STAR as necessary, the EnviroAg Science Corrective Actions.
Corrective Action 03:	**Target Completion Date:**07/31/2008 / **Tracking ID:**2008-CTS-009706, CA#3
	Schedule and complete an Apollo Analysis of event.
Corrective Action 04:	**Target Completion Date:**06/05/2008 / **Tracking ID:**2008-CTS-009706, CA#4
	PRE CUT RIDING EVALUATION - Tractor crews are transported to the job site in a truck or a van during which time it is the responsibility of the operator to place mowing signs at both ends of the cutting site to alert vehicles of oncoming mowing activities. During this exercise, operators will

	inspect the areas for hazards as they journey along. Individual operators will also drive down the area before the intended cut to ensure hazards have been identified and properly flagged. RIDING MOWER OPERATORS will ride over the site prior to cutting in a zigzag pattern to look for hidden obstacles.
Corrective Action 05:	**Target Completion Date:**06/05/2008 | **Tracking ID:**2008-CTS-009706, CA#5
	PGR, HERBICIDES AND SMALL TRACTORS - in order to reduce the need to get close to fixtures and obstructions the firm will adopt means and methods to eliminate the need to get close to these items. Where the presences of vegatation is desirable, Plant Growth Regulators (GPR) will be used to stunt the growth. Where elimination of the vegatation is acceptable, Herbicides or Weed Killers like Roundup will be utilized. Where chemical means are not practical the firm will utilize smaller equipment (i.e. small tractors, flail mowers) instead of the 15ft to 18 ft batwing mowers to allow proper cutting distance. Weed eaters will be used to provide close area trimming where tractors or mowers are used. EnviroAg Science will utilize a distance of 5 feet as the limit of mowing for tire batwing.
Corrective Action 06:	**Target Completion Date:**06/05/2008 | **Tracking ID:**2008-CTS-009706, CA#6
	SATURDAY WORK - To reduce the potential for damage to property or disturbance to pedestrians, the firm will implement SATURDAY work schedules in certain office areas and parking lots.
Corrective Action 07:	**Target Completion Date:**06/05/2008 | **Tracking ID:**2008-CTS-009706, CA#7
	SAFETY TRAINING - The firm's safety rep will conduct focused observation on work to develop customized individual and group training activities. Certain safety training activities will be scheduled during inclement weather. Documentation will be made available to SRS upon request.
Corrective Action 08:	**Target Completion Date:**06/05/2008 | **Tracking ID:**2008-CTS-009706, CA#8
	VIDEO TRAINING - Manufacturer DVD or CD on equipment operations will be provided and reviewed by all employees. Wiewing will be verified for individuals and leaders. Documentation will be made available to SRS as requested.
Corrective Action 09:	**Target Completion Date:**06/05/2008 | **Tracking ID:**2008-CTS-009706, CA#9
	SKILL EVALUATION - The firm will set up written and manual skill tests for each major piece of equipment. Operators will be tested and qualified based on experience and test performance.
Corrective Action 10:	**Target Completion** | **Tracking ID:**2008-CTS-009706,

	Date:06/05/2008 CA#10
	PRE-JOB DAILY & MONTHLY SAFETY MEETINGS - The firm will continue to conduct start of day and end of day meetings with a section on safety. A more detailed Monthly Safety meeting will also be conducted. Meeting notes will be recorded and kept on file and made available to SRS upon requests.
Corrective Action 11:	**Target Completion Date:**06/30/2008 **Tracking ID:**2008-CTS-009706, CA#11
	ADDITIONAL SAFETY REPRESENTATIVE - The Safety representative will be trained and ready to assume duties the week of June 30.
Corrective Action 12:	**Target Completion Date:**06/02/2008 **Tracking ID:**2008-CTS-009706, CA#12
	TOOL SAFETY MEETING - A toolbox meeting was held with all EnviroAg Science, Inc. employees, including tractor drivers, on June 2, 2008. Topics addressed during the meeting included: staying a safe distance from hazards and obstacles, being over confident and taking short cut approaches. Performing walkdowns of areas and identifying hazards before proceeding to cut was re-emphasized by the Safety Representative.
Lessons(s) Learned:	To be issued as required by EFCOG Electrical Safety Group.
HQ Keywords:	01F--Inadequate Conduct of Operations - Training Deficiency 07D--Electrical Systems - Electrical Wiring 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14B--Quality Assurance - Training and Qualification Deficiency 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	While cutting grass with a tractor and a bat-wing bushhog, the tractor operator passed too close to a light pole and snagged a conduit, pulling it away from the pole. The electrical wire was pulled loose from the connection point but did not fall to the ground. All personnel in the area moved away from the pole pending arrival of electrical personnel.
Similar OR Report Number:	1. NONE
Facility Manager:	Name: Brian Kirkpatrick Phone: (803) 952-9991 Title: STR Manager
Originator:	Name: BRADFORD, CARL E Phone: (803) 952-9802 Title: ISSUE COORDINATOR

HQ OC Notification:	

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
05/30/2008	11:15 (ETZ)	Brian Kirkpatrick	WSRC
05/30/2008	11:15 (ETZ)	Elijah McCalister	WSRC
05/30/2008	11:20 (ETZ)	Jerry Furse	WSRC
05/30/2008	11:25 (ETZ)	Franklin Black	DOE
05/30/2008	11:30 (ETZ)	Bonnie Barnes	WSRC
05/30/2008	11:35 (ETZ)	John Swafford	WSRC
05/30/2008	11:45 (ETZ)	Sabrina Elam	WSRC

Authorized Classifier(AC): Rod Hutto Date: 06/03/2008

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6)Report Number:	NA--LASO-LANL-ACCCOMPLEX-2008-0004 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Los Alamos National Laboratory
Facility Name:	Accelerator Complex
Subject/Title:	Management Concern: Mislabeling Results in Improper LO/TO
Date/Time Discovered:	05/30/2008 16:00 (MTZ)
Date/Time Categorized:	05/30/2008 16:15 (MTZ)
Report Type:	Notification/Final
Report Dates:	

Notification	06/03/2008	15:59 (ETZ)
Initial Update	06/03/2008	15:59 (ETZ)
Latest Update	06/03/2008	15:59 (ETZ)
Final	06/03/2008	15:59 (ETZ)

Significance Category:	4
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)
Cause Codes:	
ISM:	3) Develop and Implement Hazard Controls
Subcontractor Involved:	No
Occurrence Description:	Management Synopsis: At 1615 on May 30, 2008, management identified a

concern related to label discrepancies that resulted in an improper lock out/tag out (LO/TO) being performed. On May 16, 2008 during early morning hours LANSCE Operations shift personnel discovered a water leak on a magnet cooling system. A technician was notified of the problem magnet at 0443 and he reported to work at 05:45 to begin repairs. The technician identified the magnet based on the magnet label and information provided by the on-shift operations personnel. The technician obtained the standing Integrated Work Document for minor repair of beam line devices and reviewed the hazards prior to beginning work. As was standard practice he used the Magnet Power Supply database to identify the power supply to lock out to work on the identified magnet. The technician locked out the affected supply and performed a zero-energy verification at the magnet as required by the IWD. He then replaced the damaged cooling hose. He observed degradation of other cooling hoses and recommended that a full hose replacement be done during the next scheduled maintenance period. The equipment was then returned to service.

The full hose replacement on several magnets in the same area was planned for a scheduled maintenance period on May 29-30, 2008. On Thursday, May 29, 2008 the same technician with a co-worker completed a full hose replacement on the magnet that was initially repaired on May 16, 2008 using the procedure that was followed on May 16, 2008. While preparing to replace the hoses on a second similar magnet the technician, and a different co-worker discovered a discrepancy between the label on the second magnet and the power supply they believed to feed that magnet It was during this effort that the technician discovered that the power supply he had LO/TO to conduct the emergent repair on May 16, 2008 and the subsequent full repair on May 29, 2008 did not supply the magnet he worked on. Specifically, the power supply designator and magnet label in the beam tunnel were inconsistent.

A critique was held at 1445 on May 30, 2008. During the critique, it was discovered that all of the magnet systems were shut down for maintenance on the main water cooling system. As a result, the technicians zero voltage verification provided confirmation that the system was de-energized. Management determined that it was unlikely the system could have been energized thus resulting in worker injury because interlock systems prevent the power supply from being energized in the absence of magnet water flow; the water system itself was off for maintenance, and the water circuits supplying the individual magnets had been isolated. Additionally, it was unlikely than an attempt would be made to unexpectedly energize the magnet the technician was working on because it was not in alignment for the planned scheduled work. The institutional subject matter expert (SME) stated that the system being worked on was roughly equivalent to a car battery. The magnet power supply could not present a shock hazard (low voltage), only a possible burn hazard, if it could have been turned on.

	Background: Additional information provided at the critique indicated the Accelerator Operations Manual (AOM) 5.3.A had been revised in March 2008. During the revision process, facility staff updated some of the magnet designators to better identify the magnets. The AOM procedure was updated and the road map was updated and issued in April 2008. The technician was working from a 2007 roadmap. Management also determined that it was likely the power supplies were consistently labeled with the 2008 updates. Management determined there were potential consistency issues with some magnet labels (one was found missing, one was handwritten, and one was discrepant), the EPICS control panel from which operators control the magnets, and the power supply database. All data, with the exception of the magnet labels, were subsequently verified to be self-consistent.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Maintenance
Immediate Action(s):	1) Discrepant/missing labels were replaced. 2) Control System screen labels were verified. 3) The power supply database was verified.
FM Evaluation:	This event identified weaknesses in the configuration management system relied upon to perform proper LO/TOs of accelerator magnets. The corrective actions are designed to correct these deficiencies.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	LANSCE
Plant Area:	TA53
System/Building/Equipment:	D.C. Electromagnet and Power Supply
Facility Function:	Accelerators
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 01O--Inadequate Conduct of Operations - Inadequate Maintenance 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14D--Quality Assurance - Documents and Records Deficiency

	14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On May 29, 2008, workers were performing a full hose replacement on a magnet cooling system. This was done as a follow-up to work performed on May 16, 2008, in which one hose had been replaced, and during which a worker determined that a full hose replacement was needed. During the May 29, 2008 activity, workers discovered that due to discrepant labeling, the Lockout/Tagout (LO/TO) that was performed during the May 16, 2008 work was not on the correct power supply, nor was it on the correct power supply for the May 29 work. A subsequent critique revealed that the entire system had been de-energized, thereby posing no shock hazard to the workers. This event identified weaknesses in the configuration management system relied upon to perform proper LO/TOs of accelerator magnets. Corrective actions have been designed to address these deficiencies.
Similar OR Report Number:	
Facility Manager:	Name: Dan Seely Phone: (505) 665-8363 Title: LANSE Facility Operations Director
Originator:	Name: HAKONSON-HAYES, AUDREY C Phone: (505) 667-9364 Title: OCCURRENCE INVESTIGATOR
HQ OC Notification:	Date: NA, Time: NA, Person Notified: NA, Organization: NA
Other Notifications:	06/02/2008 08:30 (MTZ) Edwin Christie NNSA 06/02/2008 09:55 (MTZ) John Zavicar PAAA
Authorized Classifier(AC):	Antonia Tallarico Date: 06/03/2008

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7)Report Number:	NA--LSO-LLNL-LLNL-2008-0017 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Lawrence Livermore National Lab.
Facility Name:	Lawrence Livermore Nat. Lab. (BOP)
Subject/Title:	Failure To Perform Proper Lockout / Tagout At Trailer 4377
Date/Time Discovered:	05/28/2008 07:15 (PTZ)
Date/Time Categorized:	05/28/2008 09:15 (PTZ)
Report Type:	Notification
Report Dates:	Notification 05/29/2008 12:50 (ETZ) Initial Update

	Latest Update		
	Final		

Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	
ISM:	
Subcontractor Involved:	Yes Johnson Controls
Occurrence Description:	On Wednesday May 28, 2008 at approximately 0715, a Facilities and Infrastructure (F&I) Electrician performing work in a Trailer 4377 server room noticed exposed electrical wires on an air conditioning unit without the appropriate Lock Out/ Tag Out (LOTO) lock present. On Tuesday May 27, 2008 an air conditioning subcontract service provider commenced work on a Trailer 4377 A/C unit, but failed to apply the required LOTO lock to the applicable electrical circuit. Upon investigation (5-28-08), exposed electrical wiring was noted near the A/C unit being repaired. Although the subcontractor had de-energized the disconnect near the unit and removed the fuses, he had failed to hang the necessary LOTO locks to properly identify that the A/C unit was in a safed (de-energized) capacity. No electrical shock or injury resulted from this event. The event is under review.
Cause Description:	
Operating Conditions:	Does not apply
Activity Category:	Maintenance
Immediate Action(s):	1. The F&I/Plant Engineering Department Electrician immediately notified his supervisor. 2. The F&I/Plant Engineering Department initiated a responding HVAC mechanic to Trailer 4377 who immediately applied a Lock Out / Tag Out lock to the AC unit. 3. F&I line management was immediately notified about the event.
FM Evaluation:	The Final Report is due by 7/12/2008.
DOE Facility Representative Input:	

DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Kevin Akey By When: 07/12/2008
Division or Project:	O&B F&I
Plant Area:	Site 200
System/Building/Equipment:	Trailer 4377 Air Conditioning Unit Electrical System
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On Tuesday May 27, 2008 an air conditioning subcontract service provider commenced work on a Trailer 4377 air conditioning unit, but failed to apply the required lockout/tagout (LOTO) lock to the applicable electrical circuit. Although the subcontractor had opened the disconnect near the unit and removed the fuses, he failed to hang the necessary LOTO locks. An LLNL electrician performing work in a Trailer 4377 server room on Wednesday, May 28, noticed exposed electrical wires on the air conditioning unit without the appropriate LOTO lock present, and reported the situation to supervision. An appropriate LOTO lock was placed, and an investigation was initiated.
Similar OR Report Number:	1. NA--LSO-LLNL-LLNL-2008-0012
	2. NA--LSO-LLNL-LLNL-2008-0011
	3. NA--LSO-LLNL-LLNL-2008-0010
	4. NA--LSO-LLNL-LLNL-2007-0026
	5. NA--LSO-LLNL-LLNL-2007-0004
Facility Manager:	Name: Harold Conner Phone: (925) 422-5786 Title: Facilities & Infrastructure Associate Director
Originator:	Name: FREEMAN, JEFFREY W Phone: (925) 424-6787 Title: OCCURRENCE REPORTING
HQ OC Notification:	Date | Time | Person Notified | Organization

	NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
05/28/2008	09:50 (PTZ)	Sarah Spagnolo	NNSA/LSO
05/28/2008	09:53 (PTZ)	Beverly DeOcampo	ESH TL
05/28/2008	10:00 (PTZ)	Craig Wuest	LEDO

Authorized Classifier(AC):

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8)Report Number: NA--PS-BWXP-PANTEX-2008-0042 **After 2003 Redesign**

Secretarial Office: National Nuclear Security Administration

Lab/Site/Org: Pantex Plant

Facility Name: Pantex Plant

Subject/Title: Open Electrical Junction Box With Exposed Energized Bare Wire

Date/Time Discovered: 05/06/2008 15:00 (CTZ)

Date/Time Categorized: 05/06/2008 15:09 (CTZ)

Report Type: Notification

Report Dates:

Notification	05/07/2008	15:42 (ETZ)
Initial Update		
Latest Update		
Final		

Significance Category: 3

Reporting Criteria: 10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)

Cause Codes:

ISM:

Subcontractor Involved: Yes
NORESCO / LRI

Occurrence Description: On the morning of 5/2/2008 during a management walkthrough, personnel observed two wires with exposed wire hanging from a junction box. The wires were over 8' from the floor. Crafts were called and arrived in the area about 10:30 AM and determined one wire was energized with 110 volts and the second wire was a ground wire. Crafts isolated the junction box and performed a Lockout/Tagout, removed the wires and put a cover plate on the junction box. Work was completed about 12:30 PM.

	The event was initially categorized at 12:15 PM as a 2C(2) SC3. This categorization was cancelled after an evaluation using the Electrical Severity Tool determined it did not meet the reportability threshold. A critique was conducted on 5/6/08 to determine any additional facts. After the critique the site office requested that B&W Pantex report the event as a management concern (Noresco is a contractor for NNSA but is not set up to report occurrences). According to the daily log, a Noresco subcontractor, LRI, removed seven light fixtures and installed three new light fixtures in the 12-58 ramp on 3/4/2008. The junction box in question is one where the light fixture was removed and was not to be replaced. There is no evidence that any other work was performed on these circuits after 3/4/2008 until the crafts were called as a result of the management walkthrough on 5/2/2008.
Cause Description:	
Operating Conditions:	Operational
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Access to the area was restricted until the cover was on the box. A lockout/tagout was done,the wires were removed and a cover plate installed on the junction box to eliminate the electrical hazard. At the critique, additional actions were to be completed. 1. LRI is changing its process so that the person removing the light fixture is responsible for either installing a new fixture, or putting a cover on the junction box. 2. Noresco will implement a "Hold Point" inspection process.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Noresco By When:
Division or Project:	Noresco / LRI Lighting Upgrade Project
Plant Area:	Zone 12 South MAA
System/Building/Equipment:	12-58 Ramp
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)

Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01Q--Inadequate Conduct of Operations - Personnel error 07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	During a management walkthrough, personnel observed two exposed wires hanging from a junction box over 8 feet from the floor. One wire was energized with 110 volts and the second wire was a ground wire. Craft personnel de-energized the circuit, performed a lockout/tagout, removed the wires and put a cover plate on the junction box. A subcontractor had removed a light fixture from this junction box on March 4, 2008.
Similar OR Report Number:	
Facility Manager:	Name: T. Zimmerman Phone: (806) 477-9455 Title: Facility Representative
Originator:	Name: OTTO, THOMAS L Phone: (806) 477-4298 Title: PROJECT SCIENTIST
HQ OC Notification:	Date: NA, Time: NA, Person Notified: NA, Organization: NA
Other Notifications:	05/06/2008 15:09 (CTZ) Robert Asbury B&W 05/06/2008 15:09 (CTZ) Noel Williams NNSA
Authorized Classifier(AC):	Don Gerber Date: 05/07/2008

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9)Report Number:	NA--SS-SNL-NMFAC-2008-0007 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Sandia National Laboratories - SS
Facility Name:	SNL NM Site-wide F & M
Subject/Title:	Electrician Fails to Don Electrically Rated Gloves Prior to Performing LOTO Zero Voltage Test in Bldg. 862
Date/Time Discovered:	05/07/2008 15:30 (MTZ)
Date/Time Categorized:	05/07/2008 15:45 (MTZ)

Report Type:	Update
Report Dates:	Notification 05/08/2008 18:05 (ETZ) Initial Update 05/08/2008 18:11 (ETZ) Latest Update 05/08/2008 18:11 (ETZ) Final
Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	
ISM:	
Subcontractor Involved:	Yes Del Rio Electric
Occurrence Description:	On May 7, 2008, at approximately 3:30, an Electrician working on the Heating System Modernization Project failed to don electrically rated gloves prior to performing a zero voltage check on a 120 Volt 30 amp circuit. The circuit supplied electrical power to a hot water heater located in an approximately six foot deep X ten foot wide X thirty feet long trench (has an open grading cover) located in the basement of building 862. The trench is classified as a non-permitted confined space. The Prime Mechanical Contractor determined that prior to having mechanical craftspeople enter the trench they would isolate all energy sources (water, steam, electrical). The Construction Prime Contractor requested that the electrical subcontractor isolate the electrical power to the hot water heater as part of this effort. No work was scheduled or performed on the water heater by the electrician or mechanical workers. The electrician performed a zero voltage test by placing the tester into the bottom of the wire nuts connecting the 120 volt 30 amp conductors to the water heater. Therefore there was no exposed electrical energy and the test did not result in potential exposure or shock to the electrician. The electrician did have on required arc flash protection required by NFPA 70E and the contractor's Contract Specific Safety Plan.
Cause Description:	Critique/Fact Finding Performed 5/8/08
Operating Conditions:	Normal
Activity Category:	Construction

Immediate Action(s):	Electrician coached by Superintendent of proper use of electrical gloves
FM Evaluation:	EOC Event #6303 DOE/SSO Early Notification Date & Time: EOC - 5/8/08 - 08:20 FR - Wayne Walker - 5/7/08 - 15:50
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Causal Analysis Team By When: 06/20/2008
Division or Project:	4000/Heating System Modernization Project
Plant Area:	Tech Area I
System/Building/Equipment:	120 Volt 30 amp electrical power/Bldg. 862/Basement Area
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	An electrician working on the Heating System Modernization Project failed to don electrically rated gloves before performing a zero voltage check on a 120-volt 30-amp circuit. The test did not result in potential exposure or shock to the electrician. The Superintendent coached the electrician on the proper use of electrical gloves.
Similar OR Report Number:	
Facility Manager:	Name: Carla Lamb Phone: (505) 844-1753 Title: ES&H Coordinator - Facilities Management & Ops Ctr
Originator:	Name: LUCERO, JEWELEE A Phone: (505) 845-4727 Title: REPORTING ADMINISTRATOR
HQ OC Notification:	Date: NA Time: NA Person Notified: NA Organization: NA

Other Notifications:	

Date	Time	Person Notified	Organization
05/07/2008	15:45 (MTZ)	John Norwalk	4827
05/07/2008	15:50 (MTZ)	Wayne Walker, FR	DOE/SSO

Authorized Classifier(AC):	John Norwalk Date: 05/08/2008

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10)Report Number:	NA--SS-SNL-NMFAC-2008-0008 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Sandia National Laboratories - SS
Facility Name:	SNL NM Site-wide F & M
Subject/Title:	FMOC Subcontractor Cuts Energized 120-volt Conductor While Disconnecting and Removing Electrical Control Conductors in Bldg. 827
Date/Time Discovered:	05/20/2008 14:10 (MTZ)
Date/Time Categorized:	05/20/2008 14:30 (MTZ)
Report Type:	Update
Report Dates:	

Notification	05/22/2008	17:33 (ETZ)
Initial Update	05/23/2008	10:33 (ETZ)
Latest Update	05/23/2008	10:33 (ETZ)
Final		

Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	
ISM:	
Subcontractor Involved:	Yes Siemens Building Technologies, Inc.
Occurrence Description:	On May 20, 2008, at approximately 2:00 pm, an electrical technician working for the Control Subcontractor on the Facilities Management & Operations Center (FMOC) Heating System Modernization Project in Building 827 cut an energized 120-volt, 20 amp, #16 blue conductor. The conductor was cut using a pair of electrical cutters that was in contact with the j-box that housed the conductor, and resulted in a small arc. The electrical technician did not receive a shock and was not injured as a result of the incident. The #16 blue conductor was terminated on a flow switch approximately

	three feet from the junction box where it was cut. Following the incident, the #16 blue conductor was traced back to another junction box were it was spliced to a #12 black conductor. The #12 black conductor originated in the Modular Building Controller-I (MBC-I) where it was terminated on an energized 120-volt terminal strip. Prior to performing the control disconnect and removal activities, the Control Subcontractor electrical technician contacted a Facilities Control System (FCS) member and requested support/consultation prior to performing the work. An FCS technician went to the work site, and the Subcontract Tech and the FMOC Tech opened the MBC-I to determine the status of the system and the actions required to place the system in a safe work condition. Two digital output modules were "pulled" in the system to eliminate any 120-volt power supplying the components which were to be removed. The digital input modules were evaluated to determine what inputs the MBC was monitoring; there were two digital input modules for flow switches and one for a glycol tank level sensor. In 100 percent of the Facilities Control Systems these modules operate on and are rated for 24 volts. The specification in place at the time of the original system installation stated that #16 blue conductors were to be used for digital inputs in the MBCs. Because the digital input modules are rated for 24 volts AC, connecting 120-volt power to the digital input modules in the MBCs will result in failure of the module. After identifying which components were monitored and needed to be removed, the Subcontractor's Control Technician began cutting and removing conductors from the flow switch and the glycol tank level sensor. The Tech was cutting the #16 blue conductors to the flow switch (this color and size had been specified for less than or equal to 24 volt conductors going to and from the digital input modules) for removal when the Tech noticed the small arc.
Cause Description:	Critique/Fact Finding Performed 5/21/08
Operating Conditions:	Normal
Activity Category:	Maintenance
Immediate Action(s):	System was placed in a safe condition. Notifications were performed. Initial investigation was started.
FM Evaluation:	EOC #6459 DOE/SSO Early Notification Date & Time: EOC - 5/20/08 - 14:20

	FR - Wayne Walker - 5/20/08 - 14:30
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Causal Analysis Team By When: 06/19/2008
Division or Project:	4000
Plant Area:	Tech Area I
System/Building/Equipment:	Bldg. 827
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On May 20, 2008, an electrical technician working on the Facilities Management & Operations Center (FMOC) Heating System Modernization Project in Building 827 cut an energized 120-volt, 20 amp, #16 blue conductor. The conductor was cut using a pair of electrical cutters that was in contact with the j-box that housed the conductor, and resulted in a small arc. The electrical technician did not receive a shock and was not injured as a result of the incident. Following the incident, the #16 blue conductor was traced back to another junction box were it was spliced to a #12 black conductor. The #12 black conductor originated in the Modular Building Controller-I (MBC-I) where it was terminated on an energized 120-volt terminal strip. The system was placed in a safe condition and an investigation was initiated.
Similar OR Report Number:	
Facility Manager:	Name: Carla Lamb Phone: (505) 844-1753 Title: ES&H Coordinator - Facilities Management & Ops Ctr
Originator:	Name: ARMSTRONG, KAREN N.

	Phone (505) 845-8379 Title OCCURRENCE MANAGEMENT
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	05/20/2008 14:15 (MTZ) William Tierney 4827 05/20/2008 14:30 (MTZ) Wayne Walker, FR DOE/SSO 05/20/2008 15:00 (MTZ) Nenita Estes 4845 05/20/2008 15:00 (MTZ) John Norwalk 4827
Authorized Classifier(AC):	John Norwalk Date: 05/21/2008

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11)Report Number:	NE-ID--BEA-TSD-2008-0001 **After 2003 Redesign**
Secretarial Office:	Nuclear Energy, Science and Technology
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	Treatment Storage and Disposal
Subject/Title:	Failure to Follow Hazardous Energy Control Process at RSWF
Date/Time Discovered:	05/19/2008 15:30 (MTZ)
Date/Time Categorized:	05/20/2008 14:13 (MTZ)
Report Type:	Notification
Report Dates:	Notification 05/22/2008 16:22 (ETZ) Initial Update Latest Update Final
Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	
ISM:	
Subcontractor Involved:	No
Occurrence Description:	On May 19 at 1330, engineering and environmental personnel, the Facility Area Supervisor (FAS), and a DOE Facility Representative entered the Radioactive Scrap and Waste Facility (RSWF) to observe annual preventive

	maintenance of the cathodic protection system being performed a qualified electrician. At 1500, the environmental personnel asked to see how the rectifier heat test of the preventive maintenance was performed. Using a job safety analysis (JSA) that addressed working on or near energized electrical circuits greater than 240 volts and up to 600 volts, the electrician opened the panel cover to expose the rectifier unit (all voltage levels at the rectifier are less than 50 volts ac or dc but there are exposed 480 volt ac conductors located away from the rectifiers). The panel disconnect was already opened as part of the maintenance in progress. The electrician then demonstrated how the rectifier was checked for heating issues by touching the rectifier fins with his bare hands, at no time, did the electrician contact the hazardous energy. The DOE Facility Representative observed this activity and then began to question whether a lock out tagout should have been used. The Nuclear Facility Manager was notified about the DOE Facility Representative's concerns by the FAS at 15:30. At 15:45, it was decided to perform a time out (part of the stop work process) on the work until it could be determined that the hazardous energy control process had or had not been followed. At 11:15 on May 20, following lengthy discussion and inspection of the job site, a critique of the work was held and it was determined that there was a failure to follow the prescribed hazardous energy control process (JSA) and that the occurrence was ORPS reportable. The JSA used to perform work was followed except that the actual short circuit current was not calculated, listed or available in the work order to correctly determine which personal protective equipment was required resulting in the failure of the worker to wear a hard hat. In addition, the work order did not adequately refer to the use of the JSA. The overall risk, associated with the electrical safety hazard to the qualified electrician, was determined to be low. During the initial discussions on May 19 it was not readily apparent that a hazardous energy control process was not followed and the event was initially categorized as not reportable. This decision was later changed to categorize the event as reportable at 1413, May 20, 2008.
Cause Description:	
Operating Conditions:	Normal storage operations
Activity Category:	Maintenance
Immediate Action(s):	The maintenance activity was suspended. A critique was performed.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No

Division or Project:	Battelle Energy Alliance
Plant Area:	RSWF
System/Building/Equipment:	RSWF Cathodic Protection System
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 01O--Inadequate Conduct of Operations - Inadequate Maintenance 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On May 19, 2008, engineering and environmental personnel, the Facility Area Supervisor, and a DOE Facility Representative were observing annual preventive maintenance of the cathodic protection system. In order to demonstrate how the rectifier heat test of the preventive maintenance is performed, the electrician opened the panel cover to expose the rectifier unit, and demonstrated how the rectifier was checked for heating issues by touching the rectifier fins with his bare hands. At no time, did the electrician contact the hazardous energy. The DOE Facility Representative asked whether a lockout/tagout should have been used. A time out was called, and subsequent evaluation concluded that there was a failure to follow the prescribed hazardous energy control process. The overall risk associated with the electrical safety hazard to the qualified electrician was determined to be low.
Similar OR Report Number:	

Facility Manager:

Name	FLATTEN, LOREN R
Phone	(208) 533-7680
Title	OPERATIONS STAFF SPECIALIST - TSD FA

Originator:

Name	FLATTEN, LOREN R
Phone	(208) 533-7680
Title	OPERATIONS STAFF SPECIALIST - TSD FA

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
05/20/2008	14:15 (MTZ)	Scott Ferrara	DOE-ID
05/20/2008	14:15 (MTZ)	Robert Seal	DOE-ID

	05/20/2008	14:15 (MTZ)	Van Sandifer	BEA
Authorized Classifier(AC):	Vernon R Kubiak Date: 05/22/2008			

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12)Report Number:	SC--PNSO-PNNL-PNNLBOPER-2008-0012 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Pacific Northwest National Laboratory
Facility Name:	Energy Research Programs (PNNL)
Subject/Title:	Staff Member Receives Non-Injury Electrical Shock While Inspecting Thermocouple
Date/Time Discovered:	05/22/2008 10:00 (PTZ)
Date/Time Categorized:	05/22/2008 11:16 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 05/23/2008 17:38 (ETZ) Initial Update: Latest Update: Final:
Significance Category:	2
Reporting Criteria:	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.
Cause Codes:	
ISM:	5) Provide Feedback and Continuous Improvement
Subcontractor Involved:	No
Occurrence Description:	A Pacific Northwest National Laboratory (PNNL) staff member received a non-injury electrical shock while inspecting electrical connections to a thermocouple. The researcher was investigating a spurious temperature reading from a thermocouple (TC) installed in a laboratory oven he was using in an experiment. While tracing the lines, he noticed that two of the thermocouple (TC) wires, which are expected to be low voltage/amperage, appeared to be touching each other. The staff member then used metal forceps to move one wire away from the other. As he contacted one of the TC leads, he received a non-injury shock (no burns).
Cause Description:	
Operating Conditions:	N/A
Activity Category:	Research

Immediate Action(s):	The staff member immediately notified the PNNL Single Point of Contact (375-2400) and their Line Manager. He was taken to the on-site medical provider, where he was evaluated and returned to work without restrictions. A follow-up inspection by a qualified electrician discovered that the Deltech oven controller, serving the oven, had been miswired. Incoming 208 volt power and the thermocouple leads were both found to be landed on the thermocouple terminals in the controller; however, the staff member touched only one of the wires and received a shock of 120 volts (as measured by an electrician later in the day). It is not known how or when the miswiring occurred. The controller was rewired to a safe configuration, but taken out of service, pending further examination. Similar units in this space have also been taken out of service pending further evaluation. A critique was held Friday, May 23, 2008.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: By When:
Division or Project:	Energy & Environment Directorate
Plant Area:	RCHN Area
System/Building/Equipment:	APEL / Lab 204
Facility Function:	Laboratory - Research & Development
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 01Q--Inadequate Conduct of Operations - Personnel error 07D--Electrical Systems - Electrical Wiring 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 12C--EH Categories - Electrical Safety 13E--Management Concerns - Facility Call Sheet 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency 14H--Quality Assurance - Inspection and Acceptance Testing Deficiency
HQ Summary:	A Pacific Northwest National Laboratory staff member received a non-

	injury electrical shock while inspecting electrical connections to a thermocouple installed in a laboratory oven. While tracing the lines, he noticed that two of the thermocouple (TC) wires, which are expected to be low voltage/amperage, appeared to be touching each other. The staff member then used metal forceps to move one wire away from the other, and received a non-injury shock (no burns) when he contacted one of the leads. A qualified electrician inspected the oven controller and found the incoming 208-volt power and the thermocouple leads were both landed on the thermocouple terminals in the controller. The miswired controller resulted in a 120-volt shock when the staff member touched one of the wires. The controller was rewired to a safe configuration, and taken out of service pending further examination. Similar units in this space have also been taken out of service pending further evaluation. A critique was held.
Similar OR Report Number:	1. None
Facility Manager:	Name: Bredt, P. R. Phone: (509) 376-3777 Title: Manager, Advanced Processing & App Group
Originator:	Name: POLLARI, ROGER A Phone: (509) 371-7700 Title:
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 05/22/2008; Time: 11:34 (PTZ); Person Notified: Higgins, R. L.; Organization: PNSO
Authorized Classifier(AC):	Pollari, R. A. Date: 05/23/2008

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13)Report Number:	SC-ORO--ORNL-X10NUCLEAR-2008-0002 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Oak Ridge National Laboratory
Facility Name:	ORNL Nonreactor Nuclear Facilities
Subject/Title:	Electrical Event at Bldg 3525 North Hot Cell
Date/Time Discovered:	05/30/2008 08:10 (ETZ)
Date/Time Categorized:	05/30/2008 10:57 (ETZ)
Report Type:	Notification/Final
Report Dates:	Notification: 06/03/2008 19:46 (ETZ) Initial Update: 06/03/2008 19:46 (ETZ)

	Final	06/03/2008	19:46 (ETZ)
Significance Category:	4		
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)		
Cause Codes:			
ISM:	2) Analyze the Hazards 3) Develop and Implement Hazard Controls		
Subcontractor Involved:	No		
Occurrence Description:	On 5/29/2008, change-out of a shield service plug was initiated in the Bldg. 3525 North Hot Cell. The work was conducted in accordance with approved work plans and was performed by trained and qualified personnel. At approximately 1735 hours, a stainless steel release cable attached to the service plug came into contact with an uncovered 120 volt fuse receptacle located on the Hot Cell face. This resulted in a small spark against the stainless steel plate surrounding the shield service plug. There was no injury or shock to any personnel performing the activity and no equipment was damaged. The 3525 Facility Supervisor, Facility Manager, and the Safety, Engineering and Support Manager were in the area at the time of the incident. The work was stopped to investigate the source of the spark. An uncovered fuse receptacle on the Hot Cell face was identified and covered at approximately 1745 hours. Work was resumed to restore cell configuration, and the job was completed at approximately 1800 hours. Background/Sequence of Events On 5/29/2008, change-out of a shield service plug was initiated in the Bldg. 3525 North Hot Cell. The work was conducted in accordance with approved work plans and was performed by trained and qualified personnel. The change-out process required that a stainless steel release cable be pulled to disconnect the alpha plug service cable from the shield wall prior to removal of the plug. By design, the release cable remained attached to the plug after the cable was pulled. However, the cable had been cut during removal of the service plug leaving approximately 15 inches of cable hanging free. The shield service plug was then manually pulled onto wooden blocks supported by a mechanical lifting device. At approximately 1735 hours, the release cable came into contact with an uncovered 120 volt fuse receptacle located on the Hot Cell face. This resulted in a small spark against the stainless steel plate surrounding the shield service plug. There was no injury or shock to any personnel performing the activity and no equipment was damaged. The		

	work was stopped at this time. The source of the spark was investigated and determined to be the fuse receptacle. At approximately 1745 hours, the uncovered receptacle was covered. Work was resumed, and the job was completed at approximately 1800 hours. The 3525 Facility Supervisor, Facility Manager, and the Safety, Engineering and Support Manager were in the area at the time of the event. The Division Safety Officer was contacted at approximately 1812 hours. At this time, Bldg 3525 management did not judge that the event constituted an occurrence. On 5/30/2008 at approximately 0720 hours, an investigation of the electrical event was initiated by Bldg 3525 management. At approximately 0730, electricians were contacted and requested to perform voltage checks of the fuse receptacles. The electricians determined that there was power to the fuse receptacles and capped them at approximately 0810 hours. At approximately 0745 hours, the ORNL electrical Authority Having Jurisdiction (AHJ) was contacted as part of a follow-up investigation of the event. The Nonreactor Nuclear Facilities Division (NNFD) Director was contacted at approximately 0820 hours regarding the event. At approximately 0900 hours, the Facility Manager and the Nonreactor Nuclear Facilities Division (NNFD) Director discussed reportability of the event. It was decided to report the event as an occurrence under criteria 10(2) [management concern], Significance Category 4. The ORNL LSS was notified of the event at approximately 1057 hours. At 1107 hours, an e-mail was sent from the NNFD Director to DOE ORNL personnel describing the event and NNFD's decision to report it as a management concern. On Monday, 6/2/2008, a critique of the electrical event was conducted by NNFD.
Cause Description:	
Operating Conditions:	Normal operations
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Thursday, 5/29/2008 At approximately 1742 hour, change-out of the shield service plug was stopped and the source of the spark was investigated. At approximately 1745 hours, the open end of the fuse receptacle was covered and the work was continued. The new shield service plug was installed with no additional problems. Friday, 5/30/2008 At approximately 0720 hours, an investigation of the event was initiated by Bldg. 3525 management. Electricians were contacted to perform voltage checks, and they determined that there was power to the fuse receptacles. All receptacles were capped at approximately 0810 hours. At approximately 0745 hours, the ORNL AHJ was contacted to support the follow-up investigation.

	Monday, 6/2/2008 A critique of the electrical event was conducted by NNFD.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Nonreactor Nuclear Facilities Division (NNFD)
Plant Area:	Bldg 3525
System/Building/Equipment:	North Hot Cell, Bldg 3525
Facility Function:	Irradiated Fissile Material Storage
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01O--Inadequate Conduct of Operations - Inadequate Maintenance 07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On May 29, 2008, during a change-out of a shield service plug in the Building 3525 North Hot Cell, a stainless steel release cable attached to the service plug came into contact with an uncovered 120-volt fuse receptacle located on the Hot Cell face, causing a small spark against the stainless steel plate surrounding the shield service plug. There was no injury or shock to any personnel performing the activity and no equipment was damaged. Work was stopped, the fuse receptacle was covered, and work resumed.
Similar OR Report Number:	
Facility Manager:	Name: Dale Caquelin Phone: (865) 576-1353 Title: Material Development & Exam. Complex Manager
Originator:	Name: BAXTER, CHARLES PHIL Phone: (865) 576-8361 Title: PAAA ASSISTANT

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
05/30/2008	10:57 (ETZ)	Lab Shift Superintendent	ORNL LSS

	05/30/2008	11:07 (ETZ)	Johnny Moore	DOE ORNL
	05/30/2008	11:07 (ETZ)	Gary Clifton	DOE ORNL
	05/30/2008	11:07 (ETZ)	Michele Branton	DOE ORNL
Authorized Classifier(AC):				