January 2007 Electrical Safety Occurrences

There were 15 electrical safety occurrences for January 2007:

- 1 involved a shock to a worker.
- 4 involved lockout/tagout issues.
- 3 involved the unexpected discovery of a shared neutral circuit.
- 2 involved excavation.
- 10 involved electrical workers and 5 involved non-electrical workers.
- 5 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"

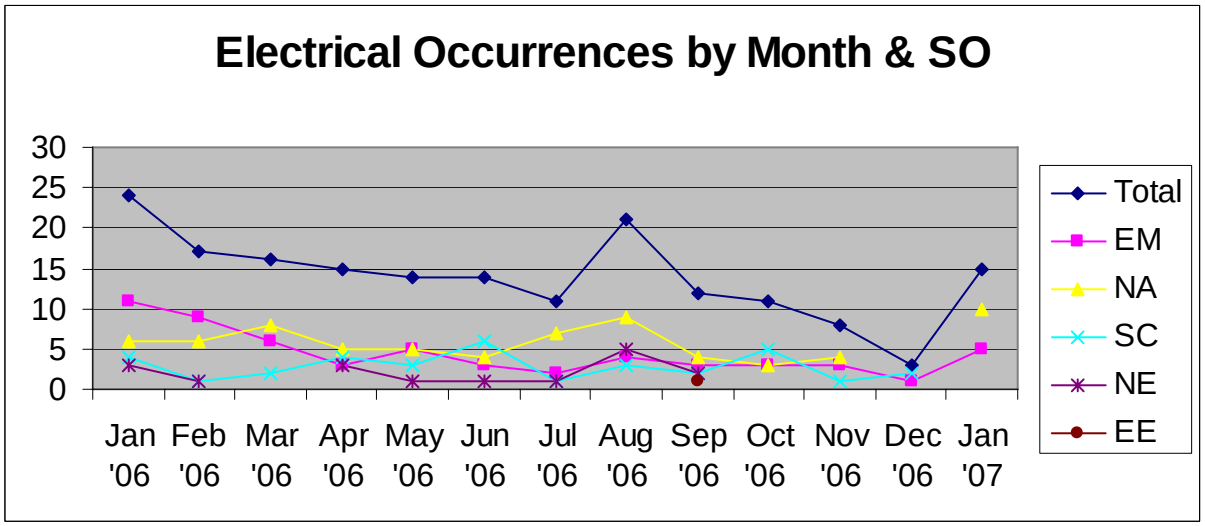
> 01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),
> 08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

The initial search yielded 17 occurrences. However, one occurrence (NA--SS-SNL-1000-2007-0002) involved a radiation rather than electrical hazard, and another (RW--YMPO-BSYM-YMSGD-2007-0001) involved a ventilation loss hazard rather than an electrical hazard. Culling out these two yielded 15 electrical safety occurrences for the month.

The rolling summary of 2007 electrical safety occurrences is now:

period	Elec. Safety Occurrences	Shocks	Burns	Fatalities
1/07	15	1	0	0
2007 total	15	1	0	0
2006 total	166	26	3	0
2005 total	165	39	5	0
2004 total	149	25	3	1

The 15 occurrences in January 2007 exceed the rate of 14 per month experienced in 2006, and reverse a general downward trend in monthly occurrences during 2006.



January 2007 Electrical Safety Occurrences

Report Number and Subject/Title

1)	EM-RL--PHMC-FFTF-2007-0001	Unexpected energy source discovered on lighting fixture neutral wiring.
2)	EM-RL--PHMC-FSS-2007-0001	Lock and Tag Violation at 2101M
3)	EM-RL--PHMC-FSS-2007-0002	Electrical conduit severed during excavation
4)	EM-RL--PHMC-GENERAL-2007-0001	Internal review discovered a failure to follow the prescribed hazardous energy control process
5)	EM-RL--PHMC-SNF-2007-0002	Discovery of Common Neutral during Electrical Work at Cold Vacuum Drying Facility
6)	NA--LASO-LANL-ACCCOMPLEX-2007-0001	Harmonic Testing Performed without the Proper IWD
7)	NA--LSO-LLNL-LLNL-2007-0004	Failure to Follow LOTO Process
8)	NA--NVSO-LANV-U1A-2007-0001	Discovery of energized 120/208v power cord at U1a
9)	NA--NVSO-NST-NLV-2007-0001	Electrical Cable Snagged During Trench Excavation
10)	NA--PS-BWXP-PANTEX-2007-0004	(1) PXSO Contractor, Noresco, Failed to Follow Lockout/Tagout Procedures in Building
11)	NA--PS-BWXP-PANTEX-2007-0005	(2) PXSO Contractor, Noresco, Failed to Follow Lockout/Tagout Procedures in Ramp
12)	NA--PS-BWXP-PANTEX-2007-0012	Unexpected Discovery of Electrical Energy - Shared Neutral
13)	NA--SS-SNL-10000-2007-0001	Bldg. 858EL Electrical/Fire Hazard
14)	NA--SS-SNL-2000-2007-0002	Bldg. 878 Brew Vacuum Furnace Short Circuit
15)	NA--SS-SNL-NMFAC-2007-0001	Employee Receives Electrical Shock from Faulted De-icing System while Entering Building 701

ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 53095 OR(s) with 56413 occurrences(s) as of 2/20/2007 10:50:58 AM
Query selected 15 OR(s) with 15 occurrences(s) as of 2/20/2007 10:52:56 AM

Download this report in Microsoft Word format.

1)Report Number:	EM-RL--PHMC-FFTF-2007-0001 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	FFTF
Subject/Title:	Unexpected energy source discovered on lighting fixture neutral wiring.
Date/Time Discovered:	01/11/2007 13:30 (PTZ)
Date/Time Categorized:	01/11/2007 14:00 (PTZ)
Report Type:	Notification
Report Dates:	Notification 01/15/2007 16:19 (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:	During repair activities in the Maintenance and Storage Facility (MASF) and energized neutral circuit was discovered when a wire nut was removed to allow removal of a halogen lighting fixture to facilitate repair. On 1/11/2007, a lockout/tagout was implemented and following the appropriate energy checks the work package was released to repair a halogen light fixture in a decontamination facility (DECON-II) in MASF. Following the pre-job briefing the electricians dressed in the required radiological clothing and Personal Protective Equipment (PPE). To facilitate repair of the light the forty pound light was to be removed from the ceiling and repaired on the bench in DECON-II. Using a Man-Lift the lighting fixture was separated from its base and the wire nut was removed from the neutral wire. As the wires separated the electrician observed a small arc at the exposed leads and the lights went out in the adjacent room, DECON-I. The wire nut was immediately replaced, putting the system in a safe configuration, and the job was stopped. When the

	unexpected energy was discovered the electricians were wearing appropriate PPE consistent with the energy level of the potential hazard.
Cause Description:	
Operating Conditions:	Normal facility routines leading to deactivation of the facility were in progress.
Activity Category:	Maintenance
Immediate Action(s):	The wire nut was immediately replaced on the wires to put the system in a safe configuration. The job was stopped and a critique was held.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	FH/FFTF Closure Project
Plant Area:	400 Area
System/Building/Equipment:	MASF/DECON-II Lighting
Facility Function:	Category "A" Reactors
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 01O--Conduct of Operations - Maintenance 07C--Electrical Systems - Power Outage 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	During removal of an overhead lighting fixture that had been locked/tagged out in the Maintenance and Storage Facility, an electrician working from a manlift separated the fixture's wiring and unexpectedly observed a small electrical arc. Subsequently, the system was placed in a safe configuration, the job was stopped, and a critique was held.
Similar OR Report Number:	
Facility Manager:	Name: S.V. Doebler Phone: (509) 376-0604 Title: Senior Director, FFTF Closure Project
Originator:	Name: EBY, MARK E Phone: (509) 376-8991 Title:
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 01/11/2007; Time: 14:00 (PTZ); Person Notified: K.M. Schierman; Organization: DOE-RL

	01/11/2007	14:00 (PTZ)	L.E. Harville	FH/FFTF
	01/11/2007	14:00 (PTZ)	S.U. Zaman	FH/FFTF
	01/11/2007	14:13 (PTZ)	ONC	FH
Authorized Classifier(AC):				

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2)Report Number:	EM-RL--PHMC-FSS-2007-0001 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Facility & Site Services
Subject/Title:	Lock and Tag Violation at 2101M
Date/Time Discovered:	01/24/2007 12:30 (PTZ)
Date/Time Categorized:	01/24/2007 13:37 (PTZ)
Report Type:	Notification

Report Dates:

Notification	01/26/2007	15:44 (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:	A modular Lighting Modification at the 2101M facility in the 200 East Area had been ongoing since August 2006. During a meeting on 1/23/2007 with Maintenance Craft where electrical configuration issues with the modular lighting modification were being discussed, information was shared indicating that a potential Lock and Tag violation took place on 12/27/2007. Following the meeting, an investigation was initiated. A critique was conducted on 1/24/2007 and it was determined at that time that a Lock and Tag violation had occurred on 12/27/2006. On 12/27/2006 while performing work on the modular light modification, the Maintenance Craft requested that the Controlling Organization authorize an Eight Criteria lockout be installed to facilitate troubleshooting. By the electrical drawings, there was only one source of electrical power feeding the lighting circuit which provided a single point isolation. After authorizing the use of an Eight Criteria lockout and the Maintenance Craft hanging their Authorized Worker Locks (AWL), the Maintenance Craft performed a Safe-to-Work check on the line side plug feeding the light circuit. During this check, electrical power

	was found on one of the pin connectors inside the plug connector. Work was discontinued; the Controller Organization Lock and Tag Administrator and Maintenance Supervisor were informed of the situation. The Maintenance Craft were directed to remove their AWLs and the Controlling Organization prepared and installed a Controlling Organization Lock and Tag at two points. A Safe Condition Check was performed as part of the installation of the Controlling Organization Lock and Tag and no power was found on the plug.
Cause Description:	
Operating Conditions:	Does Not Apply
Activity Category:	Maintenance
Immediate Action(s):	1. Work on lighting circuit was discontinued 2. Verified lighting circuit in a safe configuration 3. Suspended Work Package 4. Remove authorization for the Lock and Tag Administrator to perform Controlling Organization Lock and Tag functions.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: John A. Kimbrough By When:
Division or Project:	Closure Services and Infrastructure
Plant Area:	200 East
System/Building/Equipment:	2101M
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 01K--Conduct of Operations - Lockout/Tagout (Electrical) 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	Follow-up efforts indicated that a lockout/tagout violation occurred during work on a December 2006 modular lighting modification at the 2101M facility. There were no personnel injuries. Administrative controls were initiated to prevent future violations.
Similar OR Report Number:	
Facility Manager:	Name: John A. Kimbrough Phone: (509) 373-4974

	Title: Maintenance Services Planning Manager
Originator:	Name: BAKER, SAMUEL G Phone: (509) 376-3030 Title:
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	01/24/2007 13:35 (PTZ) Larry D. Earley DOE-RL 01/24/2007 13:37 (PTZ) Newell L. Crary FH-ONC
Authorized Classifier(AC):	

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3)Report Number:	EM-RL--PHMC-FSS-2007-0002 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Facility & Site Services
Subject/Title:	Electrical conduit severed during excavation
Date/Time Discovered:	01/29/2007 13:50 (PTZ)
Date/Time Categorized:	01/29/2007 14:37 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 01/31/2007 17:15 (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 Diversified Maintenance Systems & Sun River Electric Service
Occurrence Description:	On Monday, January 29, 2007, while performing excavation work associated with the installation of a new electrical service at the Wye Barricade, the subcontractor-operated backhoe contacted and severed a 1.25" PVC conduit that provided electrical power to Building 6701A. The conduit contained three (3) conductors (#4 wire size) and carried current to a 60 amp double throw breaker within a nearby electrical rack. The location of the underground conduit was clearly identified with paint and the subcontractor was given clear direction to

	hand-dig within 5' of known underground conduits prior to the beginning of the excavation activity. When the backhoe bucket contacted and broke the PVC conduit it also strained the conductors. This strain broke the breakers free from the panel board bus bar before breaking the wire conductors. The breaker functioned properly and immediately opened and power was cut to the circuit.
Cause Description:	
Operating Conditions:	The damaged electrical service was energized at the time of the incident.
Activity Category:	Construction
Immediate Action(s):	1. Site maintenance forces were dispatched to the incident scene. All electrical service to the barricade area was terminated and after all appropriate electrical safety and maintenance procedures were applied, the damaged breaker and conductors were removed from the panel. Appropriate electrical safety engineers reviewed conditions within the panel and approved reactivation of the service to the affected electrical panel. 2. A critique and fact-finding review of the incident was scheduled for 0800 hours on Tuesday, January 30, 2007.
FM Evaluation:	An analysis of the results from the critique and fact-finding review of the event is being conducted in order to ascertain the cause(s) and determine the appropriate corrective actions to prevent recurrence.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? Yes By Whom: K. A. Ekstrom By When: 02/21/2007
Division or Project:	Fluor Hanford/Closure Services & Infrastructure
Plant Area:	600 Area
System/Building/Equipment:	Wye Barricade, Building 6701A
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01E--Conduct of Operations - Operations Procedures 07C--Electrical Systems - Power Outage 07D--Electrical Systems - Electrical Wiring 07E--Electrical Systems - Electrical Equipment 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process
HQ Summary:	During excavation work in the 600 Area, a subcontractor-operated backhoe severed a 1.25-inch diameter conduit that provided electrical power to Building 6701A, straining the three energized conductors in the conduit and pulling the 60-ampere breaker free from the panel board bus bar before breaking the wire conductors. All electrical service to the affected area was terminated, the

	damaged breaker and conductors were removed from the panel, and a critique was held.
Similar OR Report Number:	
Facility Manager:	Name: C. W. Stolle Phone: (509) 376-9080 Title: Manager, Facilities & Land Management
Originator:	Name: DAVIS, KENNETH W Phone: (509) 376-3030 Title: OCCURRENCE NOTIFICATION CENTER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	01/29/2007 14:32 (PTZ) R. G. Slocum FH 01/29/2007 14:52 (PTZ) Mat Irwin DOE-RL
Authorized Classifier(AC):	

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4)Report Number:	EM-RL--PHMC-GENERAL-2007-0001 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	General
Subject/Title:	Internal review discovered a failure to follow the prescribed hazardous energy control process
Date/Time Discovered:	01/31/2007 08:00 (PTZ)
Date/Time Categorized:	01/31/2007 11:50 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 02/02/2007 14:16 (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:	An internal review of the Hazardous Material Management and Emergency

	Response (HAMMER) facility lockout/tagout files discovered a concern in the administration of the lockout/tagout program. One error met reporting criteria which included a failure to follow a prescribed hazardous energy control process on a work package completed on October 17, 2006. The work evolution required a test of system operability and these instructions were added in Section 12 (reason for partial clearance/addition of tags) of the Tagout Authorization Form. However, the clearance and reinstallation of the same tags resulted in a violation of the Lockout/Tagout Procedure, HNF-PRO-081.
Cause Description:	
Operating Conditions:	Equipment Inoperable
Activity Category:	Maintenance
Immediate Action(s):	1. All Lockout/Tagout activities suspended at facility pending further investigation and the establishment of an independent 3rd party to review and approve future lockout/tagout activities. This 3rd party review will be required until the causal analysis is complete and corrective actions are implemented to prevent recurrence. 2. Critique conducted on 02/01/2007.
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:	FH Safety & Health/HAMMER
Plant Area:	600 Area
System/Building/Equipment:	Turning Target System
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01K--Conduct of Operations - Lockout/Tagout (Electrical) 01L--Conduct of Operations - Lockout/Tagout (Other) 01R--Conduct of Operations - Management issues 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14A--Quality Assurance - Program 14E--Quality Assurance - Work Process
HQ Summary:	An internal review of the Hazardous Material Management and Emergency Response (HAMMER) facility lockout/tagout files discovered a concern in the administration of the lockout/tagout program specifically with clearance and reinstallation of tags. All Lockout/Tagout activities were suspended at the facility pending further investigation. A critique was held
Similar OR Report Number:	

Facility Manager:	Name: P. J. Vandevert Phone: (509) 376-5792 Title: Operations Manager
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:	01/31/2007 12:10 (PTZ) Dennis Humphreys DOE-RL 01/31/2007 12:10 (PTZ) James Spracklen PNSO
Authorized Classifier(AC):	

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5)Report Number:	EM-RL--PHMC-SNF-2007-0002 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Spent Nuclear Fuels Project
Subject/Title:	Discovery of Common Neutral During Electrical Work at Cold Vacuum Drying Facility
Date/Time Discovered:	01/25/2007 13:25 (PTZ)
Date/Time Categorized:	01/25/2007 14:40 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 01/29/2007 18:26 (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:	2) Analyze the Hazards
Subcontractor Involved:	Yes Fluor Federal Services
Occurrence Description:	On 1/25/07, at 1325 Hours, during the performance of Work Package 1C-06-06701, Construction electricians cut the wires on the sixth fluorescent light fixture in a circuit and an unrelated lighting circuit shut off. The work was being

	performed on Work Package 1C-06-06701, Step 7.1, and Controlling Organization (CO) Lockout Tagout Authorization Form (TAF) V-06-007. Tag #1 was utilized to isolate Circuit 5 in Lighting Panel LPN-3. All blocks in the TAF were completed properly through Block Number 23, Safe Condition Check, and craft personnel performed the required Safe To Work Check. Workers did not experience any shock or contact with hazardous energy. The construction electricians immediately stopped work and notified their supervision. Further investigation is underway.
Cause Description:	
Operating Conditions:	Facility modifications in progress in support of Sludge Treatment Project
Activity Category:	Maintenance
Immediate Action(s):	1. Electrical work was stopped. 2. Work site was confirmed to be in a safe condition. 3. Appropriate notifications were completed.
FM Evaluation:	Workers did not experience any injury, shock, or contact with hazardous energy. Investigation has been initiated.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: By When:
Division or Project:	FH/K Basins Closure project
Plant Area:	100K Area
System/Building/Equipment:	CVD Facility/Circuit 5/Lighting Panel LPN-3
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 07C--Electrical Systems - Power Outage 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 13E--Management Concerns - Facility Call Sheet 14C--Quality Assurance - Quality Improvement 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	During work at the Spent Fuels Nuclear Fuels Project, electricians cut the wires on a fluorescent light fixture in a circuit that was under a lockout/tagout and an unrelated lighting circuit shut off. Workers did not experience any electrical shocks, and electrical work was stopped. An investigation was initiated.
Similar OR Report Number:	
Facility Manager:	Name: J. D. Mathews Phone: (509) 373-4598

	Title: Director, K West Closure
Originator:	Name: FEIL, RHONDA K Phone: (509) 373-4551 Title: ADMINISTRATIVE SPECIALIST
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	01/25/2007 14:40 (PTZ) J. D. Mathews FH/KBCP 01/25/2007 15:40 (PTZ) P.M. Knollmeyer FH/KBCP 01/25/2007 16:00 (PTZ) S.M. McDuffie DOE/OOD 01/25/2007 16:20 (PTZ) P.M. Pak DOE/KBC
Authorized Classifier(AC):	

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6)Report Number:	NA--LASO-LANL-ACCCOMPLEX-2007-0001 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Los Alamos National Laboratory
Facility Name:	Accelerator Complex
Subject/Title:	Harmonic Testing Performed without the Proper IWD
Date/Time Discovered:	01/31/2007 12:30 (MTZ)
Date/Time Categorized:	01/31/2007 12:30 (MTZ)
Report Type:	Notification/Final
Report Dates:	Notification 02/05/2007 11:57 (ETZ) Initial Update 02/05/2007 11:57 (ETZ) Latest Update 02/05/2007 11:57 (ETZ) Final 02/05/2007 11:57 (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:	1) Define the Scope of Work
Subcontractor Involved:	Yes Emerson
Occurrence Description:	Manager Synopsis: On January 30, 2007 a KSL supervisor was inspecting a construction job site when he noticed two electrical workers preparing to work on a 480 Volt AC panel. The KSL supervisor was not aware of any planned electrical work. The KSL supervisor asked the electrical workers what they were

	doing. The electrical workers told the KSL supervisor that they were preparing to perform harmonic testing on an electrical panel associated with metering equipment. The KSL supervisor asked the electrical workers for the Integrated Work Document (IWD) for the job. The electrical workers did not have the IWD and did not know that one was required to be at the job site. The KSL supervisor stopped work until he could acquire the IWD. The electrical workers closed the electrical panel and rendered the site in safe condition. Background: As part of a construction project at the Los Alamos Neutron Science Center, metering equipment was installed on an exterior 480VAC electrical panel. An IWD had been written for the metering equipment installation job but the harmonic testing, which is energized testing and troubleshooting work, was not included in the IWD. The IWD was written and approved several months before the day of the event. A fourth tier subcontractor was engaged to install the metering equipment and perform the harmonic testing on the equipment. The electrical workers reviewed and signed off on the IWD several months prior to the installation of the metering equipment. On the day of the event, the electrical workers did a pre-job briefing and signed the pre-task planning form associated with the harmonic testing. The electrical workers did not have the IWD at the work site or use the IWD during the pre-job brief. Neither electrical worker recognized that energized testing and troubleshooting work was not permitted under the IWD as written. The pre-job briefing addressed the actual work to be performed but did not follow the IWD. The electrical workers were wearing Personal Protective Equipment (PPE) appropriate to the job tasks actually performed and were working in accordance to code (NFPA 70E) for diagnostic work. The PPE (which included face shields, class 0 dielectric gloves and 50 cal nomex and cotton suits) was compliant with electrical safety requirements for protection against shock and arc flash hazards. The electrical workers were trained and qualified to perform this class of energized work. At no time were the workers in danger. For the work actually performed, a lockout/tagout (LO/TO) would not be required because this work is energized testing and troubleshooting electrical work. It should be noted that performance of this work with application of a LO/TO would require LO/TO of the panel, zero energy check (which would require use of PPE), installation of the test equipment on the panel, removal of the LO/TO and then performance of the testing with the panel energized (also requiring PPE). These additional steps would add complexity without increasing safety. For this reason, the LANL and NFPA 70 E procedures allow performance of testing/troubleshooting work on energized panels with the use of proper PPE but without application of LO/TO. The Los Alamos National Laboratory (LANL) Electrical Safety Officer (ESO), using the electrical severity ranking tool, categorized this event as low since electrical hazards (480V) were fully mitigated and because workers were fully qualified and used the required PPE for this class of work. As stated above, the workers were not at risk of injury.
Cause Description:	

Operating Conditions:	Normal
Activity Category:	Facility/System/Equipment Testing
Immediate Action(s):	Stop work was implemented until an appropriate IWD was written and approved.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Los Alamos Neutron Science Center
Plant Area:	TA-53, Bldg. 3P
System/Building/Equipment:	Metering equipment
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01E--Conduct of Operations - Operations Procedures 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 01R--Conduct of Operations - Management issues 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	During inspection of a construction job site, a supervisor noticed two workers preparing to perform energized testing and troubleshooting work on a 480-volt electrical panel. Upon inquiry, the supervisor determined that the workers did not have an Integrated Work Document for the energized work, as required. The supervisor stopped the work, the workers closed the electrical panel, and the area was placed in a safe condition.
Similar OR Report Number:	
Facility Manager:	Name: Dan Seely Phone: (505) 665-8363 Title: Facility Operations Director (FOD-4)
Originator:	Name: TALLARICO, ANTONIA Phone: (505) 665-6988 Title: OCCURRENCE INVESTIGATOR

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
02/01/2007	08:00 (MTZ)	Ed Christie	NNSA

Authorized Classifier(AC):	Antonia Tallarico Date: 02/05/2007

7)Report Number:	NA--LSO-LLNL-LLNL-2007-0004 **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 Follow LOTO Process
Date/Time Discovered:	01/31/2007 10:45 (PTZ)
Date/Time Categorized:	01/31/2007 12:45 (PTZ)
Report Type:	Notification
Report Dates:	Notification 02/01/2007 15:10 (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:	1) Define the Scope of Work 2) Analyze the Hazards 3) Develop and Implement Hazard Controls 4) Perform Work Within Controls
Subcontractor Involved:	Yes IAP
Occurrence Description:	On January 30, 2007 while investigating a burning odor, a technician discovered that the plug end of an extension cord plugged into a 110V receptacle was warm to the touch. The extension cord was powering a rack of computer equipment. The routine work activities in this area are covered under a work control document (IWS#13026). The technician removed the plug from the receptacle and discovered that the plug had only two of the three prongs in place (the ground and one of the blades), and that the third prong was still in the receptacle. The technician assumed the blade remaining in the receptacle was the neutral, and proceeded to remove the blade from the receptacle with a pair of insulated pliers. Subsequent investigation revealed that the worker was mistaken and the blade that he removed was in the energized slot of the receptacle. The worker did not contact hazardous energy. The worker did not identify the need to use the LOTO energy control process.
Cause Description:	

Operating Conditions:	Operating status was normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	The NIF Directorate Electrical Safety Officer cut the extension cord and removed it from service, and validated the energy state of the receptacle. An investigation was initiated.
FM Evaluation:	Final Report Due 2/15/07 Entered as received
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Mark Newton By When: 02/15/2007
Division or Project:	NIF
Plant Area:	Site 200
System/Building/Equipment:	Building Not Listed
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01Q--Conduct of Operations - Personnel error 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
HQ Summary:	While investigating a burning odor, a technician discovered that a 110-volt extension cord plugged into a receptacle was warm to the touch. The technician observed that one of the plug's metal blades had broken off in the receptacle and used a pair of insulated pliers to remove the blade without locking/tagging out the energized receptacle, as required. The technician was not shocked. An investigation was initiated.
Similar OR Report Number:	
Facility Manager:	Name: Jeff Wisoff Phone: (925) 423-7775 Title: Deputy Associate Director for Operations
Originator:	Name: ECCHER, BARBARA A Phone: (925) 422-9332 Title: OCCURRENCE REPORTING OFFICER
HQ OC Notification:	Date | Time | Person Notified | Organization

	NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
01/31/2007	14:00 (PTZ)	Salma El-Safwany	NNSA/LSO

Authorized Classifier(AC):

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8)Report Number:	NA--NVSO-LANV-U1A-2007-0001 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Nevada Test Site
Facility Name:	U1a Complex
Subject/Title:	Discovery of energized 120/208v power cord at U1a
Date/Time Discovered:	01/04/2007 16:15 (PTZ)
Date/Time Categorized:	01/04/2007 16:30 (PTZ)
Report Type:	Update

Report Dates:

Notification	01/08/2007	16:43 (ETZ)
Initial Update	02/13/2007	17:20 (ETZ)
Latest Update	02/13/2007	17:20 (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 NSTec
Occurrence Description:	UPDATE: Photos of the power cord plug and a description of the configuration were provided to a member of the LANL Electrical Safety Committee (ESC) on January 18, 2007. The ESC member concurred with the U1a Complex Manager's original assessment that the energized power cord, as discovered, presented a potential electrical hazard. The plug is a pin and sleeve type connector fed from a heavy duty 208 VAC switch (rated for 600 VAC at 60A) through a cable marked "DOE-NV-MC-6 REV. 2 TYPE G 4/C AWG 600V PWR CABLE ANACONDA SEPT/1986." The power cord is hard-wired to the switch and cannot be easily disconnected. A critique of the event was held on January 9, 2007, where it was discovered that the work package did not address removal of the trailer and the associated hazards. The critique also disclosed that there was confusion on the part of the worker and his supervisor regarding work authorization and check-in requirements. NSTec subsequently held a root cause analysis meeting on February 8, 2007 to determine apparent causes and identify further lines of

	inquiry. EVENT: On January 4, 2007 at 1615 PST, the NSTec U1a Complex Operations Manager discovered an energized 120/208v power cord coiled up and lying on the ground. No personnel made contact with hazardous energy. Earlier the same day another NSTec employee had disconnected the cord from a closed circuit television (CCTV) trailer so that he could temporarily relocate the trailer, but he had failed to de-energize the cord. The work was covered under a LANL-approved NSTec work package, but was not authorized via the local plan-of-the-day (POD) until January 8, 2007. The employee that moved the trailer was later questioned about his actions. He stated that he had looked for the power disconnect but the location was not where he remembered it, so he went ahead with unhooking the trailer and then forgot to look further for the disconnect before driving away with the trailer.
Cause Description:	
Operating Conditions:	Does not apply.
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	- An NSTec wireman de-energized the power cord at approximately 1620 PST. - On 1/8/07 the U1a Complex Manager reminded the employee that moved the trailer that work authorization is obtained via the POD, not the completed work package.
FM Evaluation:	The target completion date for the final report on this event is being extended to March 14, 2007. This extension is necessary in order to afford time for NSTec to pursue the additional lines of inquiry identified at the 2/8/07 root cause analysis meeting and to develop a report on their findings.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: WT-9 and QA-OA By When:
Division or Project:	WT-9
Plant Area:	U1a Complex
System/Building/Equipment:	Closed circuit TV power service
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01Q--Conduct of Operations - Personnel error 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 13E--Management Concerns - Facility Call Sheet 14E--Quality Assurance - Work Process
HQ Summary:	The Complex Operations Manager at the U1a Complex discovered an energized

	120/208-volt power cord coiled up and laying on the ground. No personnel made contact with the hazardous energy. Subsequently, a wireman de-energized the cord.
Similar OR Report Number:	
Facility Manager:	Name: Richard Ziegenbein Phone: (702) 295-2810 Title: U1a Complex Manager
Originator:	Name: RICHARDSON, JOSEPH B Phone: (505) 665-4844 Title: OCCURRENCE INVESTIGATOR
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 01/04/2007; Time: 16:40 (PTZ); Person Notified: Kevin Breen; Organization: NNSA-NSO
Authorized Classifier(AC):	Antonia Tallarico Date: 01/08/2007

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9)Report Number:	NA--NVSO-NST-NLV-2007-0001 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Las Vegas Office
Facility Name:	North Las Vegas
Subject/Title:	Electrical Cable Snagged During Trench Excavation
Date/Time Discovered:	01/18/2007 14:00 (PTZ)
Date/Time Categorized:	01/18/2007 15:15 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 01/18/2007 20:30 (ETZ) Initial Update: Latest Update: Final:
Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	
ISM:	4) Perform Work Within Controls
Subcontractor Involved:	No
Occurrence Description:	During excavation in the parking lot of the North Las Vegas Complex by National Security Technologies (NSTec) construction, a 480-volt, 30 amperes,

	power cable was severed. The cable feeds the B-3 facility parking lot lights. The line was not energized at the time of the incident due to the occurrence happening during daylight hours. This line is connected to a photoelectric cell located on B-3 which controls the parking lot lighting. This circuit was not locked and tagged when this incident occurred. There were no injuries, no arcing or sparking, and no impact to any facility.
Cause Description:	
Operating Conditions:	Does Not Apply
Activity Category:	Construction
Immediate Action(s):	Work stopped and area secured. Notifications to NSTec and NNSA/Nevada Support Operations line management. Safety initiated investigation. Critique scheduled
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: NSTec Zone 3 Manager By When: 03/01/2007
Division or Project:	Utility Relocation Project
Plant Area:	NLVF-B-3 Parking Lot
System/Building/Equipment:	B-3 Parking Lot Excavation
Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01M--Conduct of Operations - Inadequate Job Planning (Electrical) 07D--Electrical Systems - Electrical Wiring 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process
HQ Summary:	During a trench excavation in the parking lot of the North Las Vegas Complex, a de-energized 480-volt electrical cable servicing the parking lot lighting was severed. There were no personnel injuries. Work was stopped, the area was secured, and a critique was scheduled.
Similar OR Report Number:	
Facility Manager:	Name: Richard Schmidt Phone: (702) 295-3625 Title: Site Operations Manager, Zone 3
Originator:	Name: GILE, ANDREA L

	Phone: (702) 295-7438 Title: PROJECT OPERATIONS SPEC.
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	01/18/2007 14:30 (PTZ) Duty Manager SOC 01/18/2007 15:15 (PTZ) Kathy Pepin NSTecExe 01/18/2007 15:30 (PTZ) Dennis Armstrong NSO/FR
Authorized Classifier(AC):	

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10)Report Number:	NA--PS-BWXP-PANTEX-2007-0004 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Pantex Plant
Facility Name:	Pantex Plant
Subject/Title:	(1) PXSO Contractor, Noresco, Failed to Follow Lockout/Tagout Procedures in Building
Date/Time Discovered:	01/04/2007 23:00 (CTZ)
Date/Time Categorized:	01/09/2007 14:30 (CTZ)
Report Type:	Final
Report Dates:	Notification 01/11/2007 16:43 (ETZ) Initial Update 02/14/2007 17:21 (ETZ) Latest Update 02/14/2007 17:21 (ETZ) Final 02/14/2007 17:21 (ETZ)
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:	A4B2C01 - Management Problem; Resource Management LTA; Too many administrative duties assigned to immediate supervisors
ISM:	1) Define the Scope of Work
Subcontractor Involved:	No
Occurrence Description:	On January 4, 2007, at the beginning of swing shift, Noresco, a PXSO contractor, planned to perform electrical lighting retrofit work in Zone 11. Noresco had requested that the building be entirely locked out, however the BWXT electricians could not support this request due to a faulty circuit breaker. Noresco then agreed to allow the BWXT electricians to install a lockout on a downstream circuit breaker, at Panel F, circuit 2, that would only isolate a portion of the building lighting. The BWXT lockout was installed at 2045 hours. As per BWXT Pantex Lockout/Tagout procedure, Noresco then performed their

	dual Lockout/Tagout. Once the Noresco lockout was installed, Noresco proceeded to work. Subsequently, another Noresco employee also proceeded to work on what he assumed to be the locked out scope. The additional contractor checked two task lights over a workbench for absence of voltage. Once absence of voltage was verified (verification of lockout/tagout circuit was not performed), Noresco then retrofitted the two lights over the workbench. At about 2300 hours, a BWXT electrician walked into the building, walked over to the workbench area and turned on a light switch that energized the two task lights. The lockout at Panel F, circuit 2 was still in place so the BWXT electrician then asked why these lights were worked on when not properly locked out. The Noresco employee that performed the work on the task lights replied that he thought they were indeed part of the existing lockout and had not noticed the associated light switch. The BWXT electrician then proceeded to remove the lockout at 2312 hours.
Cause Description:	Investigation was conducted by BWXT Pantex. It was determined the involved individual was responsible for too many tasks associated with the project and there was an inadequacy in field supervision.
Operating Conditions:	Normal Operations
Activity Category:	Construction
Immediate Action(s):	Stop Work Notified OC Notified D. Beall, PSTR's Supervisor
FM Evaluation:	N/A - Investigation will suffice.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	PXSO
Plant Area:	Zone 11
System/Building/Equipment:	Zone 11
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action 01:	**Target Completion Date:**03/09/2007 **Actual Completion Date:**
	BWXT Maintenance Division needs to determine and communicate how LO/TO will be performed in support of NORESCO. This is to include current facility drawings. POC: Leroy McMurtry, x
Corrective Action 02:	**Target Completion Date:**04/02/2007 **Actual Completion Date:**
	Assess current LO/TO support for subcontractors related to Pantex-CAS-2006-0088. This will include support from other divisions and will include a thorough review of WI 02.01.01.05.25. POC: Dick Prather, x6212
Corrective Action 03:	**Target Completion Date:**02/28/2007 **Actual Completion Date:**
	Revise WI 02.01.01.05.25 to clarify who places a lock on a LO/TO system and

	to clarify who communicates boundaries to other subcontractor personnel. This will include refresher training. POC: Tony Birkenfeld, x3415
Corrective Action 04:	**Target Completion Date:**02/28/2007 **Actual Completion Date:**
	Revise PX-2235 to include a step check that subcontractors verify and communicate LO/TO boundaries. POC: TonyBirkenfeld, x3415
Corrective Action 05:	**Target Completion Date:**02/23/2007 **Actual Completion Date:**
	C&EPD will approve a Corrective Action Plan to be submitted by NORESCO identifying measures to be taken to prevent possible recurrence of events. This will include the role and responsibility of the NORESCO site supervision. POC: David Beall, x5810
Corrective Action 06:	**Target Completion Date:**03/23/2007 **Actual Completion Date:**
	Provide training to PSTR personnel on conservative decision making in regards to communication, adhering to Work Instructions, and the need for timely reporting. POC: Norm Sproles, x4491
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01G--Conduct of Operations - Inadequate Procedure 01K--Conduct of Operations - Lockout/Tagout (Electrical) 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 01P--Conduct of Operations - Communication 01R--Conduct of Operations - Management issues 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	After subcontract employees performed electrical lighting retrofit work in Zone 11, a BWXT electrician discovered that the lockout/tagout (LOTO) did not comply with Pantex LOTO procedures. Appropriate notifications were made.
Similar OR Report Number:	1. N/A
Facility Manager:	Name: Susan Nelson Phone: (806) 477-7187 Title: PXSO Contract Administrator
Originator:	Name: GRAHAM, BRENDA LEE Phone: (806) 477-5103 Title: ADMINISTRATIVE SPECIALIST III
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 01/09/2007; Time: 14:30 (CTZ); Person Notified: Mark Blackburn; Organization: PXSO

Authorized Classifier(AC):	Bob Barr Date: 01/11/2007

11)Report Number:	NA--PS-BWXP-PANTEX-2007-0005 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Pantex Plant
Facility Name:	Pantex Plant
Subject/Title:	(2) PXSO Contractor, Noresco, Failed to Follow Lockout/Tagout Procedures in Ramp
Date/Time Discovered:	01/08/2007 23:15 (CTZ)
Date/Time Categorized:	01/09/2007 17:45 (CTZ)
Report Type:	Final
Report Dates:	Notification 01/11/2007 16:43 (ETZ) Initial Update 02/14/2007 17:20 (ETZ) Latest Update 02/14/2007 17:20 (ETZ) Final 02/14/2007 17:20 (ETZ)
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:	A5B4C01 - Communications Less Than Adequate (LTA); Verbal Communications LTA; Communication between work groups LTA
ISM:	1) Define the Scope of Work
Subcontractor Involved:	No
Occurrence Description:	On January 8, 2007, at the beginning of swing shift, a Noresco contractor planned to perform electrical lighting retrofit work in Zone 11 and an associated ramp. BWXT electricians installed two (2) lockouts to support the work. The first lockout was installed on circuits located in Zone 11, Panels F and J, at 1704 hours. Noresco contractor, as per Lockout/Tagout procedure, installed their lock and began work. As work was proceeding, BWXT electricians initiated a second lockout on circuits located in the ramp, Panel R, at 1827 hours. BWXT electricians informed Noresco contractor that a second lockout had been applied and Noresco contractor would need to transfer their locks to the second lockout point prior to working past a ramp barrier. Noresco contractor continued with lighting retrofits when it was discovered by a BWXT electrician that they exceeded the lockout boundary of the first lockout. At that time, work ceased and the Noresco contractor electricians went to the second lockout point and verified lockout information and transferred locks to lockout box.
Cause Description:	Investigation was conducted by BWXT Pantex. It was determined that there was improper communication from the organization performing the LO/TO to the employees performing the actual work.

Operating Conditions:	Normal Operations
Activity Category:	Construction
Immediate Action(s):	Stop Work Notified OC
FM Evaluation:	N/A - Investigation will suffice.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	PXSO
Plant Area:	Zone 11
System/Building/Equipment:	Zone 11
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action 01:	**Target Completion Date:**02/16/2007 **Actual Completion Date:**02/14/2007
	Corrective Actions are being tracked ORPS-2007-0004 and PER-2007-0033.
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01K--Conduct of Operations - Lockout/Tagout (Electrical) 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 01P--Conduct of Operations - Communication 01R--Conduct of Operations - Management issues 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process
HQ Summary:	Subcontract employees performing electrical lighting retrofit work in a Zone 11 ramp did not comply with the facility's lockout/tagout procedures. Upon discovery of the noncompliant activities, work was stopped and appropriate notifications were made.
Similar OR Report Number:	1. NA--PS-BWXP-PANTEX-2007-0004
Facility Manager:	Name: Susan Nelson Phone: (806) 477-7187 Title: PXSO Contract Administrator
Originator:	Name: GRAHAM, BRENDA LEE Phone: (806) 477-5103 Title: ADMINISTRATIVE SPECIALIST III
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 01/09/2007; Time: 17:45 (CTZ); Person Notified: Carlos Alvarado; Organization: PXSO

Authorized Classifier(AC):	Bob Barr Date: 01/11/2007

12)Report Number:	NA--PS-BWXP-PANTEX-2007-0012 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Pantex Plant
Facility Name:	Pantex Plant
Subject/Title:	Unexpected Discovery of Electrical Energy - Shared Neutral
Date/Time Discovered:	01/31/2007 18:38 (CTZ)
Date/Time Categorized:	02/01/2007 15:00 (CTZ)
Report Type:	Notification
Report Dates:	Notification 02/02/2007 15:43 (ETZ) Initial Update Latest Update Final
Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	
ISM:	6) N/A (Not applicable to ISM Core Functions as determined by management review.)
Subcontractor Involved:	No
Occurrence Description:	On January 31, 2007, while performing work in Building 12-37, BWXT Electricians encountered unexpected energy due to a shared neutral in an electrical circuit. There were no injuries to personnel or damage to equipment or the environment as a result of this event.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Maintenance
Immediate Action(s):	BWXT Electrician placed the wiring and new Herman Miller electrical connection in a code compliant and safe configuration. BWXT Electricians notified the Electrical Craft Supervisor. Electrical Craft Supervisor briefed the Maintenance Division Manager and the Plant Maintenance Department Manager. Maintenance Division Manager notified the Operations Center (OC). A critique was conducted on February 1, 2007. The event was categorized as

	2C(2) S/C 3, Personnel Safety and Health, Hazardous Energy Control, A site condition that results in the unexpected discovery of an uncontrolled hazardous energy source. This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
FM Evaluation:	Event will be tracked through the Issues Management System on PER-2007-0144.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Maintenance Division
Plant Area:	Zone 12 North
System/Building/Equipment:	12-37
Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 12C--EH Categories - Electrical Safety 13E--Management Concerns - Facility Call Sheet 14D--Quality Assurance - Documents and Records
HQ Summary:	While performing work in Building 12-37, BWXT Electricians encountered unexpected energy due to a shared neutral in an electrical circuit. There were no injuries to personnel or damage to equipment or the environment as a result of this event. The electrical work was placed in a safe configuration, notifications were made and a critique was held.
Similar OR Report Number:	
Facility Manager:	Name: Dale Stapp Phone: (806) 477-3247 Title: Plant Maintenance Department Manager
Originator:	Name: HALL, BEVERLY J Phone: (806) 477-3222 Title:
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 01/31/2007; Time: 18:38 (CTZ); Person Notified: Brian Jones; Organization: PXSO
Authorized Classifier(AC):	Don Gerber Date: 02/01/2007

13)Report Number:	NA--SS-SNL-10000-2007-0001 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration

Lab/Site/Org:	Sandia National Laboratories - SS
Facility Name:	SNL Division 10000
Subject/Title:	Bldg. 858EL Electrical/Fire Hazard
Date/Time Discovered:	01/30/2007 08:36 (MTZ)
Date/Time Categorized:	01/30/2007 10:00 (MTZ)
Report Type:	Notification
Report Dates:	Notification 02/01/2007 13:11 (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:	
Subcontractor Involved:	No
Occurrence Description:	A SNL employee was preparing to leave work Monday evening (1/29/07) when she heard a loud "pop" under her computer workstation. Shortly afterwards, she heard another pop and noticed sparks and smoke coming from a power cord that was routed through her metal footrest. The employee advised her OAA to call Telecon (a Facilities Helpline) to report the problem. The OAA was told that someone would come over and check out the situation. Early the next morning the employee returned to work to find the power cord still plugged in. Assuming the problem had been taken care of, she resumed work. When she attempted to put her feet on the footrest, however, she heard another loud pop and saw more sparks. The employee then reported the matter to her Manager. Shortly afterwards, Facilities personnel arrived and unplugged the power cord. The Manager took digital photos of burn marks on the footrest and sent them together with a short description of the incident to his L-II Manager and the Center ES&H Coordinator. Upon receiving this e-mail message and viewing the photos, the ES&H Coordinator conferred with others (the employee, Div. ES&H Coordinator, Electrical Safety, & SNL Occurrence Management) and it was mutually agreed that there had been a potential for severe electrical shock and possibility of a fire.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	The outlet strip was unplugged & replaced. The metal footrest was also removed from service, which removed the electrical/fire hazard.
FM Evaluation:	
DOE Facility Representative Input:	

DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Causal Analysis Team By When: 03/16/2007
Division or Project:	10000/1000 & 9000 Procurement
Plant Area:	Tech Area I
System/Building/Equipment:	Powerstrip Cord/Bldg. B 858EL, Rm. L2168
Facility Function:	Balance-of-Plant - Offices
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01R--Conduct of Operations - Management issues 03C--Fire Protection and Explosives Safety - Fire/Explosion 07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 13E--Management Concerns - Facility Call Sheet 14E--Quality Assurance - Work Process
HQ Summary:	An employee heard a loud "pop" under her computer workstation and noticed sparks/smoke coming from a power cord that was routed through her metal footrest. The employee reported the problem and left work to go home. On the following day, the employee returned to work to find the power cord still plugged in. Assuming the problem had been resolved, the employee resumed work and put her feet on the footrest. Subsequently, the employee again heard a loud "pop" and observed more sparks. The employee again reported the problem and Facilities personnel arrived on the scene and the power cord was replaced.
Similar OR Report Number:	

Facility Manager:

Name	Gary Romero
Phone	(505) 844-5560
Title	Manager, Dept. 10244

Originator:

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

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
01/30/2007	10:00 (MTZ)	Wayne Walker, FR	DOE/SSO
01/30/2007	10:05 (MTZ)	Marc Evans	10030
01/30/2007	10:08 (MTZ)	Bonnie Apodaca	10200
01/30/2007	10:15 (MTZ)	Frank Figueroa	10000

	01/30/2007	10:20 (MTZ)	Chris Tolendino	10312
	01/30/2007	10:55 (MTZ)	Management & DOE FR	DOE/SSO

Authorized Classifier(AC): Lynn Kaczor Date: 01/31/2007

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14)Report Number:	NA--SS-SNL-2000-2007-0002 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Sandia National Laboratories - SS
Facility Name:	SNL Division 2000
Subject/Title:	Bldg. 878 Brew Vacuum Furnace Short Circuit
Date/Time Discovered:	01/25/2007 15:35 (MTZ)
Date/Time Categorized:	01/25/2007 16:30 (MTZ)
Report Type:	Notification

Report Dates:

Notification	01/29/2007	19:00 (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. 4B(7) - A facility or site stand-down resulting from safety reasons reportable as an occurrence or occurrences. Note: This is a secondary reporting criterion, and does not require a separate occurrence report.
Cause Codes:	
ISM:	
Subcontractor Involved:	No
Occurrence Description:	On January 25, 2007, at approximately 11:45 am, in Building 878, Room B1712, a technologist was working on the control cabinet of the Brew Vacuum Furnace. He was performing a routine function of changing the type C thermocouples to type K thermocouples. This controller cabinet is fed from a 480V source. Upon opening the cabinet, the technologist recognized a number of spare parts stored in the bottom of the cabinet. He removed the parts and noticed an out-of-service piece of equipment attached to the front of the cabinet. This equipment had a power cable coiled around a second cable, which runs to the exit port of the controller cabinet. The equipment power cable had one-half inch of exposed copper wire used to connect to a power source. After untying the equipment cable, he pulled on the wire to remove it from the cabinet. The wire fell off of the supporting cabling and contacted a 277V terminal lug causing an electrical short circuit.

	After the incident, the Control Cabinet was locked out pending investigation of the incident. All energized electrical work above 50V in the department has been suspended until corrective actions can be instituted. The technologist is current with R&D Electrical Safety training.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	After the incident, the Control Cabinet was locked out pending investigation of the incident. All energized electrical work above 50V in the department has been suspended until corrective actions can be instituted. The technologist's R&D Electrical Safety training was verified as current.
FM Evaluation:	Early Notification Dates and Times: EOC 1/25/07 - 16:35 FR - William Wechsler, 1/25/07, 16:30
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? Yes By Whom: Causal Analysis Team By When: 03/09/2007
Division or Project:	2000/Product Division
Plant Area:	Tech Area I
System/Building/Equipment:	Brew Vacuum Furnace/Bldg. 878, Rm. B1712
Facility Function:	Balance-of-Plant - Machine shops
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process
HQ Summary:	An employee was working inside a vacuum furnace control cabinet in Building 878 when an electrical short circuit involving an energized 277-volt terminal lug occurred. All energized electrical work above 50 volts in the department has been suspended until corrective actions can be instituted.
Similar OR Report Number:	
Facility Manager:	Name: John L. Zich Phone: (505) 845-8571 Title: ES&H Coordinator
Originator:	Name: LUCERO, JEWELEE A Phone: (505) 845-4727 Title: REPORTING ADMINISTRATOR

HQ OC Notification:	

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
01/25/2007	16:30 (MTZ)	William Wechsler, FR	DOE/SSO
01/25/2007	16:41 (MTZ)	David W. Plummer	2400
01/25/2007	16:41 (MTZ)	Dianna S. Blair	2452
01/25/2007	16:41 (MTZ)	J. Stephen Rottler	2000
01/25/2007	16:41 (MTZ)	Melecita M. Archuleta	2000
01/25/2007	16:41 (MTZ)	Mark F. Smith	2540

Authorized Classifier(AC): Mark F. Smith Date: 01/29/2007

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15)Report Number:	NA--SS-SNL-NMFAC-2007-0001 **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:	Employee Receives Electrical Shock from Faulted De-icing System while Entering Building 701
Date/Time Discovered:	01/31/2007 07:00 (MTZ)
Date/Time Categorized:	01/31/2007 08:30 (MTZ)
Report Type:	Update

Report Dates:

Notification	02/01/2007	18:58 (ETZ)
Initial Update	02/06/2007	16:42 (ETZ)
Latest Update	02/06/2007	16:42 (ETZ)
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:	
Subcontractor Involved:	No
Occurrence Description:	On January 31, 2007, at approximately 7:00 am, an SNL employee in organization 10312 received a shock while entering Building 701. The employee received a shock when contact was made with the right entry door of the entrance located at the northeast corner of the building. After observing other employees entering through the left door way without incident, the employee attempted to enter through the left door and was once again shocked. The employee called the non-emergency hot line. The Emergency Operations Center notified the Incident Commander (IC). IC and medical personnel responded to the site.

	The Facilities Maintenance & Operations Center (FMOC) electricians were notified and responded to the site at approximately 7:30 a.m. A de-icing system is installed in the concrete leading to the northeast entry. Conditions were wet and icy at the time of the incident and FMOC electricians determined that the de-icing system in the concrete was the source of the electrical shock. Electrical test readings between the door frame and the concrete were between 70 and 106 volts. Once the de-icing system had been de-energized, tests identified no electrical readings between the door and concrete. The de-icing system is a 480 volt 2 pole 20 amp circuit, with a potential of 277 volts to ground. The circuit did not have ground fault equipment protection. The system was installed in 1996 and the NEC code did not require ground fault equipment protection for deicing systems until 1999. It was further identified that the shocked employee had a hole in their boot and their sock was wet. As a result, the employee provided an electrical path between faulted electrical de-icing system installed in the concrete and the grounded metal entry doors.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	The employee that received the shock was transported to SNL medical for evaluation and was released at approximately 7:40. The electrical de-icing system was locked and tagged out. FMOC Electrical Systems Engineering identified which buildings have deicing systems and FMOC electricians will de-energize the systems and install administrative locks and tags by close of business February 2, 2007. The systems will then be evaluated to determine the manufacture and if the systems have ground fault equipment protection prior to be re-energized.
FM Evaluation:	Early Notification Dates and Times: EOC - 1/31/07 - 06:56 FR - Wayne Walker - 1/31/07 - 08:30
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? Yes By Whom: Causal Analysis Team By When: 03/16/2007
Division or Project:	10000
Plant Area:	Tech Area I
System/Building/Equipment:	Bldg. 701/Northeast Entrance/ Concrete De-icing System
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	

Lessons(s) Learned:	
HQ Keywords:	07D--Electrical Systems - Electrical Wiring 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 14L--Quality Assurance - None
HQ Summary:	An employee received an electrical shock after touching a metal door while entering Building 701. Electricians were dispatched to the scene and identified a 480-volt de-icing system installed in the concrete as the electrical source. The circuit did not have ground fault equipment protection. The shocked employee was sent to the site medical facility for evaluation, and then released. The de-icing system was locked/tagged out. Similar de-icing systems in nearby buildings were also locked/tagged out, pending further evaluation.
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	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
01/31/2007	08:30 (MTZ)	Wayne Walker, FR	DOE/SSO
01/31/2007	08:30 (MTZ)	Jeff Quintenz	10800
01/31/2007	08:30 (MTZ)	Jose E. Martinez	10840
02/01/2007	08:58 (MTZ)	Frank Figueroa	10000
02/01/2007	08:58 (MTZ)	Marc Evans	10030

Authorized Classifier(AC): Roger Rizkalla Date: 02/01/2007