July 2007 Electrical Safety Occurrences

There were 12 electrical safety occurrences for July 2007:

- 3 resulted in shocks to a worker
- 2 involved lockout/tagout
- 4 involved electrical workers and 8 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":

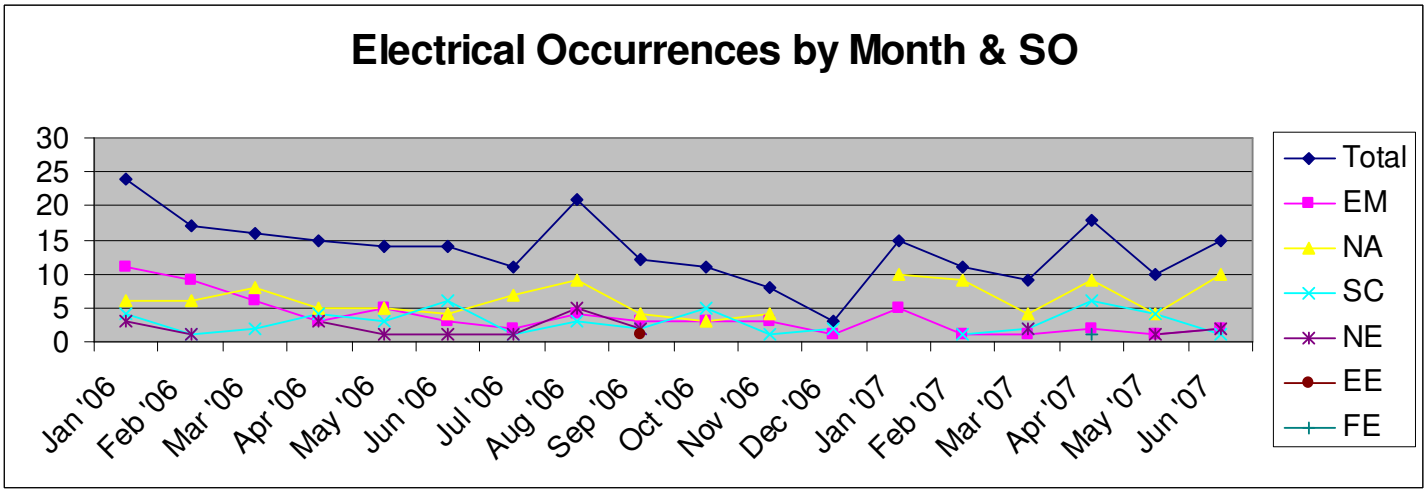
01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

The initial search yielded 12 occurrences and a review of these determined none needed to be culled out.

The rolling summary of 2007 electrical safety occurrences is now:

period	Elec. Safety Occurrences	Shocks	Burns	Fatalities
1/07	15	1	0	0
2/07	11	3	0	0
3/07	9	1	0	0
4/07	18	3	1	0
5/07	11	1	0	0
6/07	15	5	0	0
7/07	12	3	1	0
2007 total	91	17	2	0
2006 total	166	26	3	0
2005 total	165	39	5	0
2004 total	149	25	3	1

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



Electrical Safety Occurrences – July 2007 – as of 8/10 download

No	Report Number	Subject / Title	Ew	n-ew	Sub	Shock	burn	Arc f	Loto	Excav	cut/d	veh
1	EM--PPPO-UDS-PORTDUCON-2007-0004	Unexpected Live Electrical Line Discovered During Excavation Activities		X	X					X		
2	EM-ID--CWI-INLPROGM-2007-0003	UPS Failure Identifies Weaknesses in Response Actions .		X					X			
3	EM-RL--PHMC-FSS-2007-0008	MO-721 Electrical Ground Fault Event	X									
4	EM-RL--PHMC-PFP-2007-0013	2736-ZB Loss of Ventilation and NDA Lab Power Outage due to Planned Electrical Isolation	X									
5	EM-RL--PHMC-SNF-2007-0008	Drop Light Power Cord Cut During Debris Removal at K West Basin		X								
6	EM-SR--WSRC-FSSBU-2007-0003	Subcontractor Receives Electrical Shock		X	X	X						
7	NA--LASO-LANL-NUCSAFGRDS-2007-0004	Engineer Discovers Exposed Energized Wires During Walk-Down of HVAC System		X								
8	NA--NVSO-NST-NLV-2007-0003	Subcontractor Receives Electrical Shock	X		X	X	X					
9	NE-ID--BEA-CFA-2007-0002	Wildland Fire Personnel Shock		X		X						X
10	SC--AMSO-AMES-AMES-2007-0002	Electrical Conduit Penetration at Warehouse		X	X						X	
11	SC--ASO-ANLE-ANLECIS-2007-0001	Subcontractor Initiates Work Noncompliant with Lockout Tagout Procedures	x		X				X			
12	SC--BHSO-BNL-PE-2007-0003	Tree Fell on Powerlines		x								
	Total		4	8	5	3	1		2	1	1	1

Key

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

ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 53353 OR(s) with 56671 occurrences(s) as of 8/10/2007 7:36:31 AM
Query selected 12 OR(s) with 12 occurrences(s) as of 8/10/2007 12:52:42 PM

Download this report in Microsoft Word format.

1)Report Number:	EM--PPPO-UDS-PORTDUCON-2007-0004 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Portsmouth Gaseous Diffusion Plant
Facility Name:	Portsmouth Duf6 Conversion Plant
Subject/Title:	Unexpected Live Electrical Line Discovered During Excavation Activities
Date/Time Discovered:	07/26/2007 13:30 (ETZ)
Date/Time Categorized:	07/26/2007 13:35 (ETZ)
Report Type:	Notification
Report Dates:	Notification 07/30/2007 18:37 (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 Geiger Brothers
Occurrence Description:	The prime contractor was in the process of connecting to an existing natural gas line near X-3002 and X-1300. The excavation affects both DOE controlled and non-DOE areas of the Portsmouth site. Many of the drawings related to the original gas centrifuge facility were never documented as-built. A Geophysical Investigation of the site was performed by a subcontractor but excavation activities uncovered various items that were not identified in the survey. On July 21, 2007, the prime contractors subcontractor was excavating and encountered some buried electrical lines. Five lines were identified on the excavation permit, but it gave only approximate locations due to the legacy of inaccurate facility drawings. During the course of the excavation, a total of 14 lines were discovered. The subcontractor was hand digging around a line using non-conducting tools when the worker heard a sizzle. He immediately withdrew from the location. The worker observed that the insulation on one of the lines was damaged. No injuries resulted from this incident. The worker reported he

	did not receive a shock or tingle and did not witness an arc. On July 30, 2007, UDS management ordered a formal investigation and root cause analysis of the incident. REASON FOR LATE REPORTING: The prime contractor safety representative initiated an initial event report and the compliance officer entered a condition report in the contractors tracking system. The issue was believed to be a legacy issue related to the inaccurate drawings. Based on information provided by DOE Facility Representative on July 26, 2007, the incident was determined to be reportable.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Construction
Immediate Action(s):	Contractor ceased work activities; area was barricaded off; Plant Shift Superintendent and prime contractor's safety representative were contacted.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Compliance Officer By When:
Division or Project:	Uranium Disposition Services
Plant Area:	Grid Map Location H3
System/Building/Equipment:	Trench excavation
Facility Function:	Uranium Conversion/Processing and Handling
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 07D--Electrical Systems - Electrical Wiring 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records
HQ Summary:	While hand digging around electrical lines near buildings x-300 and x1300, a worker struck an unidentified energized line, damaging the insulation. The worker had been using non-conductive tools when he heard a sizzle. The worker did not receive a shock and did not witness an arc. Work was stopped, the area was barricaded, and an investigation will be conducted.
Similar OR Report Number:	1. EM--PPPO-UDS-PORTDUCON-2006-0001
Facility Manager:	Name: MCCOY, JOHN C Phone: (740) 289-5441 Title: PLANT MANAGER

Originator:	Name: BLACKMON, JOSIE Y Phone: (740) 947-4901 Title: SITE INTERFACE MANAGER
HQ OC Notification:	Date: NA, Time: NA, Person Notified: NA, Organization: NA
Other Notifications:	07/26/2007 13:45 (ETZ) Don Parker UDS-LEX 07/26/2007 13:50 (ETZ) Doug Adkisson UDS-LEX 07/26/2007 14:05 (ETZ) John Saluke PPPO 07/26/2007 15:26 (ETZ) John Shine PPPO
Authorized Classifier(AC):	

2)Report Number:	EM-ID--CWI-INLPROGM-2007-0003 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	SITE WIDE & CROSS CUTTING ACTIVITIES
Subject/Title:	UPS Failure Identifies Weaknesses in Response Actions
Date/Time Discovered:	07/26/2007 16:00 (MTZ)
Date/Time Categorized:	07/26/2007 16:00 (MTZ)
Report Type:	Notification/Final
Report Dates:	Notification 07/30/2007 18:11 (ETZ) Initial Update 07/30/2007 18:11 (ETZ) Latest Update 07/30/2007 18:11 (ETZ) Final 07/30/2007 18:11 (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:	A4B1C01 - Management Problem; Management Methods Less Than Adequate (LTA); Management policy guidance / expectations not well-defined, understood or enforced
ISM:	3) Develop and Implement Hazard Controls
Subcontractor Involved:	No
Occurrence Description:	On 7/5/2007 at approximately 1600 hrs, a security patrol noticed a peculiar odor while performing rounds at the Information Operations Research Center (IORC)/IF-608). The patrol contacted the Battelle Energy Alliance (BEA) Facility Duty Officer (FDO) and reported the problem. The FDO responded to the facility and found the odor was originating from the Uninterruptible Power

	Supply (UPS) rooms. He called in the BEA UPS Subject Mater Expert (SME) and an Industrial Safety Engineer (ISE) to investigate the problem. They entered the BEA UPS room and found BEA's UPS operating correctly. They entered the adjoining room and started to investigate the building tenant's, CH2MHill-WG-Idaho (CWI), UPS and found that the cabinet doors were hot to the touch. Upon further investigation, they discovered that the batteries in this unit were bulged. The CWI server manager was notified and responded to the facility. Under the direction of the BEA ISE the UPS was electrically isolated and the batteries disconnected from the UPS unit. On 7/8/2007, the CWI electricians took a voltage reading on the damaged UPS batteries without an approved work document; additionally this voltage measurement was taken without a foreman present as required by the CWI work process. Due to problems with equipment restoration, the fact finding critique was not held until 7/16/2007. Upon review of the results from the fact finding critique, CWI Senior Management directed a second critique be conducted. The second critique was facilitated by a Senior CWI Manager on July 19th, and the following issues identified. 1. A work task was undertaken without an approved work document. 2. There is no Tenant Use Agreement between BEA and CWI defining the boundaries for work control, work authorization, and work release, as required by the Integrated Safety Management System (ISMS). 3. There was no formal configuration document developed that identified the effects of powering down each piece of information technology equipment. Due to the work control problems associated with this event. CWI has determined this event to be ORPS reportable. All the corrective actions identified will be entered into the ICARE system and formally tracked to closure.
Cause Description:	None provided.
Operating Conditions:	Unplaned Outage Operations
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	1. Management was notified. 2. The UPS was isolated.
FM Evaluation:	None provided.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Network/Computer Operation
Plant Area:	IF-608
System/Building/Equipment:	CWI Network/IF-608/UPS System
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	

Lessons(s) Learned:	None provided
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 07E--Electrical Systems - Electrical Equipment 08B--OSHA Reportable/Industrial Hygiene - Indoor Air Quality 12B--EH Categories - Conduct of Operations 13E--Management Concerns - Facility Call Sheet 14E--Quality Assurance - Work Process
HQ Summary:	After a security patrol reported a peculiar odor while performing rounds at the Information Operations Research Center (IF-608), investigative efforts found the Uninterruptible Power Supply (UPS) batteries hot and bulging. The UPS was electrically isolated and the batteries disconnected. Electricians later took a voltage reading of the damaged UPS batteries without an approved work document. Investigation of this event revealed multiple concerns related to work control, work authorization and configuration management. Corrective actions will be developed.
Similar OR Report Number:	1. None

Facility Manager:

Name	K. Mabe
Phone	(208) 526-3029
Title	VP and CFO, Informataion Technologies

Originator:

Name	LEPAGE, HUGHIE R R
Phone	(208) 526-3100
Title	PLANT SHIFT SUPERVISOR

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
07/27/2007	15:25 (MTZ)	R. Claycomb	DOE-ID

Authorized Classifier(AC): LePage Hughie R Date: 07/29/2007

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3)Report Number:	EM-RL--PHMC-FSS-2007-0008 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Facility & Site Services
Subject/Title:	MO-721 Electrical Ground Fault Event
Date/Time Discovered:	07/31/2007 14:00 (PTZ)
Date/Time Categorized:	07/31/2007 15:45 (PTZ)
Report Type:	Notification

Report Dates:

Notification	08/02/2007	15:57 (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:	No		
Occurrence Description:	On 07/31/2007 during the performance of preventive maintenance per work package 4R-496387/P, workers opened the electrical disconnect that provides electrical power to Heating, Ventilation, & Air Conditioning (HVAC) unit #4 at Mobile Office MO-721. Once the disconnect was open, the worker prepared to perform work on the unit, wearing all appropriate Personal Protective Equipment (PPE) i.e., safety glasses, bump cap, appropriate fire retardant clothing, voltage rated gloves. Using voltage rated test equipment, the electrician lifted the hinged cover on the electrical disconnect in order to perform the required Safe to Work check. As the electrician was lifting the disconnect cover, he heard a "sound" and related it to a possible ground fault arc. The electrician stopped work and notified his supervision. Following a fact finding critique held on 08/01/2007, a decision was made to re-categorize the incident to reporting criteria 10(2)SC-3.		
Cause Description:			
Operating Conditions:	Normal Operations		
Activity Category:	Maintenance		
Immediate Action(s):	1. The electrician stopped work and after notifications were made, the electrician put the unit in a safe configuration awaiting arrival of supervision. 2. A Personal Locking Device was installed on Power Panel PP4, Circuits 2, 4, & 6		
FM Evaluation:	The occurrence of this incident affects approximately 25% of the cooling/heating capacity of the building system. Required repair actions will be minimal and will be completed in a timely manner in order to minimize occupant discomfort. Further evaluations, primarily related to Lockout/Tagout procedure compliance, have been completed. The wiring methods used by the installer appear to be a primary contributor to the cause of the incident. The wiring methods also have been determined to be commercially acceptable and meet requirements of the National Electric Code (NEC). This incident is an isolated incident and no similar occurrences have been identified.		
DOE Facility Representative Input:			
DOE Program Manager Input:			
Further Evaluation is Required:	Yes. Before Further Operation? Yes		

	By Whom: J. Legge By When: 08/02/2007
Division or Project:	Fluor Hanford/Closure Services & Infrastructure
Plant Area:	200 West
System/Building/Equipment:	Mobile Office MO-721/2W/HVAC Unit #4
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 07D--Electrical Systems - Electrical Wiring 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records
HQ Summary:	During performance of preventive maintenance, workers opened the electrical disconnect that provides electrical power to the Heating, Ventilation, & Air Conditioning (HVAC) unit #4 at Mobile Office MO-721. As an electrician lifted the disconnect cover, he heard a sound which indicated a possible ground fault arc. Work was stopped and the unit was placed in a safe configuration.
Similar OR Report Number:	
Facility Manager:	Name: C. W. Stolle Phone: (509) 376-9080 Title: Manager, Facilities & Land Management
Originator:	Name: BOYCE, MICHAEL L Phone: (509) 376-3030 Title: OCCURRENCE REPORTING SPEC.
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	07/31/2007 14:00 (PTZ) E. Yancey FH/CS&I 07/31/2007 14:05 (PTZ) R. Slocum FH/CS&I 07/31/2007 16:05 (PTZ) L. Earley DOERL/OD
Authorized Classifier(AC):	

4)Report Number:	EM-RL--PHMC-PFP-2007-0013 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Plutonium Finishing Plant
Subject/Title:	2736-ZB Loss of Ventilation and NDA Lab Power Outage due to Planned Electrical Isolation
Date/Time Discovered:	07/10/2007 09:53 (PTZ)
Date/Time Categorized:	07/10/2007 16:45 (PTZ)
Report Type:	Notification/Final

Report Dates:	Notification	07/12/2007	17:01 (ETZ)
	Initial Update	07/12/2007	17:01 (ETZ)
	Latest Update	07/12/2007	17:01 (ETZ)
	Final	07/12/2007	17:01 (ETZ)
	Revision 1	07/12/2007	17:24 (ETZ)
Significance Category:	4		
Reporting Criteria:	4B(5) - A facility operational event caused by deviating from a written procedure or using an inadequate procedure resulting in an adverse effect on safety, such as: an inadvertent facility or operations shutdown (i.e., a change of operational mode or curtailment of work or processes), facility or operations shutdown due to alarm response procedures, inadvertent process liquid transfer, or inadvertent release of hazardous material from its engineered containment.		
Cause Codes:			
ISM:	1) Define the Scope of Work		
Subcontractor Involved:	No		
Occurrence Description:	At 0953 hours, 7/10/2007 the shift stationary operating engineer (SOE) reported to the shift operations manager/building emergency director (SOM/BED) that control room alarms were indicating a loss of ventilation in 2736-ZB. In addition to the loss of building ventilation, the 2736-ZB NDA Lab in Room 637 lost electrical power. The ventilation loss and electrical outage prompted emergency actions that disrupted ongoing PFP 2736-Z Complex process operations. The ventilation loss and partial power outage was directly caused by a work team performing modifications under work package 2Z-07-03196 "A/C 2 Mod Install Lites/Gauges on Economizer Sys." The team had isolated electrical power to air conditioning unit # 2 using an approved eight criteria checklist lockout/tagout (LOTO) in panel LP-UP-1 on Circuit Breaker # 1. All field work under this work package was performed compliantly per the work instructions and complied with the PFP Management Directive on CONOPS; i.e., steps were initialed upon completion. The work planning team and controlling organization for LOTO correctly identified Breaker # 1 for isolating the AC unit to ensure worker safety under the LOTO program; however, they did not recognize and evaluate the other systems being fed from Breaker #1. A latent organizational condition impacting this error is attributable to the condition of the electrical drawings used to plan the work and the LOTO. The HVAC design authority (DA), support engineers, planners, PIC, craft, and the surveillance operations staff, including a SOM and the LOTO preparer did not identify the NDA Lab Shutdown (2736-ZB ventilation and NDA Lab power) feed from Breaker # 1. Essential Drawing H-2-80159, Sheet 6 Rev. 5 HVAC Fan & Compression Motor Control Elementary Diagrams uses three separate designations for the same circuitry: LPU-1-1-H, LP-UP-1-1H, and LP-UP-1-1-H (hot leads) and LPU-1-1-N, LP-UP-1-1N, and LP-UP-1-1-N (neutral leads). In addition, on this same drawing, the schematic of Breaker # 1 is		

	fragmented into two separate sections without an obvious link due to the different designators. As a result of this fragmentation, it was not obvious to any of the reviewers that Breaker #1 supplied 120VAC power to the NDA Shutdown Circuit. Essential Drawing H-2-99550, Sheet 72 Rev. 6 Panel Schedule lists LP-UP-1 Breaker # 1 as HVAC Control Panel Power, NDA Shutdown Circuit (H-2-80159\6). While this label clearly indicates that LP-UP-1 Breaker # 1 effects more than HVAC (A/C 1 & A/C 2), Essential Drawing H-2-80159\6, as described above, did not lead the planning and controlling organization personnel to this conclusion. The planned electrical isolation of Breaker # 1 in Panel LP-UP-1 was the sole cause for the 2736-Z Complex loss of ventilation (loss of differential pressure in Zone 2) and loss of power to the NDA Lab in Room 637. Upon restoration of Breaker # 1, building ventilation and NDA Lab power were restored to normal operations.
Cause Description:	
Operating Conditions:	Does not apply
Activity Category:	Maintenance
Immediate Action(s):	BED initiated response per ZPR-006, Loss of Ventilation and ZPR-001, Electrical Power Failure. Backside of ZB evacuated to the administrative area of the building (front side). Entered LCO 3.2.1 Condition D Zone 2 (2736-Z Complex) does not meet the pressure differential requirement (due to 2736-ZB for loss of ventilation). Identified the likely cause as the planned electrical isolation of Breaker # 1 in Panel LP-UP-1. Confirmed that authorized workers were not within a hazardous energy boundary, and authorized the lifting of the electrical isolation of Breaker # 1 in Panel LP-UP-1. Confirmed precautionary radiological surveys were negative.. Directed restoration of ventilation and electrical power to 2736-ZB. Verified restoration of Zone 2 (2736-Z Complex) pressure differential requirement. Exited LCO 3.2.1 Condition D.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No

Division or Project:	Plutonium Finishing Plant Closure Project
Plant Area:	200 West
System/Building/Equipment:	Electrical / 2736-ZB / Panel LP-UP-1
Facility Function:	Plutonium Processing and Handling
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 01I--Conduct of Operations - Safety System Actuation 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 05C--Mechanical/Structural - Ventilation System/Fan 07C--Electrical Systems - Power Outage 12B--EH Categories - Conduct of Operations 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	A loss of ventilation and electrical power occurred in Building 2736-ZB, when workers performed a lockout/tagout (LO/TO) to isolate an air conditioning unit. Personnel in effected areas were evacuated, and a Limiting Condition of Operations was entered. Upon re-energizing the breaker, building ventilation and NDA Lab power were restored. Radiological surveys confirmed that there was no spread of contamination. Subsequently, it was determined that the pre-job planning did not properly identify that the breaker used to isolate the air condition unit also powered the NDA Lab Shutdown feed (2736-ZB ventilation and NDA Lab power).
Similar OR Report Number:	
Facility Manager:	Name: CJ SIMIELE Phone: (509) 373-1519 Title: DIRECTOR, PFP FACILITY OPERATIONS
Originator:	Name: SMITH, JAMES W Phone: (509) 372-3012 Title: OPERATIONS MANAGER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 07/10/2007; Time: 17:10 (PTZ); Person Notified: SL Trine; Organization: DOE-RL
Authorized Classifier(AC):	

5)Report Number:	EM-RL--PHMC-SNF-2007-0008 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Spent Nuclear Fuels Project
Subject/Title:	Drop Light Power Cord Cut During Debris Removal at K West Basin
Date/Time Discovered:	07/19/2007 18:10 (PTZ)
Date/Time Categorized:	07/19/2007 19:05 (PTZ)

Report Type:	Update
Report Dates:	Notification 07/20/2007 18:46 (ETZ) Initial Update 07/25/2007 15:13 (ETZ) Latest Update 07/25/2007 15:13 (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:	2) Analyze the Hazards
Subcontractor Involved:	No
Occurrence Description:	7/25/07 Update: Following completion of an event critique and HPI interviews which yielded additional information, this occurrence report is being recategorized from Group 10 Subgroup (3), SC-3, Management Concerns/Issues to Group 2, Subgroup (C2), SC-3, Hazardous Energy Control. Date and time of recategorization was 7/25/07, 0900 Hours. Notification of the recategorization was made to all those notified of the original event, and notifications were completed as of 7/25/07, 0945 Hours. On 7/19/07, operators were pulling debris from the North Loadout Pit (NLOP) in K West Basin. A tangled mass of wires consisting of old drop lights, wire, cables, tubing, and a T-handle tool, was raised from the bottom of the pit to above the water, approximately 20 feet using a rope hook. To untangle the mass of debris to allow for disposal in the staged waste container, a cut was made into the power cord of a debris drop light. This drop light cord was energized as exhibited by a spark when the cord was cut. Work was stopped in the area, and all power cords in the vicinity of the NLOP were unplugged. There was no electrical shock to the operator.
Cause Description:	
Operating Conditions:	Debris removal operations were in process at K West Basin.
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Work was stopped and all power cords in the vicinity of the NLOP were unplugged. Work Package 1K-07-02436 was suspended. Event was reviewed for reportability and proper notifications were completed. A critique was scheduled for 7/23/07 (the next work day for the crew involved).
FM Evaluation:	The facility is currently in a safe condition with no injury to personnel or impact to equipment or the environment resulting from this event.
DOE Facility Representative	

Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? Yes By Whom: Facility Management By When: 07/30/2007
Division or Project:	FH/K Basins Closure Project
Plant Area:	100K Area
System/Building/Equipment:	K West Basin, North Load Out Pit
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) 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) 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 13E--Management Concerns - Facility Call Sheet 14E--Quality Assurance - Work Process
HQ Summary:	During debris removal from the North Loadout Pit (NLOP) in K West Basin, an energized drop light power cord was inadvertently cut, creating a spark. At the time, operators were untangling a debris mass consisting of tangled old drop lights, wires, cables, tubing, and a T-handle tool. Work was stopped in the area, and all power cords in the vicinity of the NLOP were unplugged. There was no electrical shock to the operator. A critique was held.
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	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
07/19/2007	18:30 (PTZ)	R. K. Nissen	FH/KBCP
07/19/2007	18:40 (PTZ)	M. W. Peres	FH/KBCP
07/19/2007	18:50 (PTZ)	K. M. Schierman	DOE/OOD
07/19/2007	19:35 (PTZ)	P. M. Pak	DOE/KBC

Authorized Classifier(AC):	

6)Report Number:	EM-SR--WSRC-FSSBU-2007-0003 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Savannah River Site
Facility Name:	Facility Support Generic Reporting
Subject/Title:	Subcontractor Receives Electrical Shock
Date/Time Discovered:	07/25/2007 08:00 (ETZ)
Date/Time Categorized:	07/26/2007 14:00 (ETZ)
Report Type:	Notification/Final

Report Dates:

Notification	07/30/2007	08:08 (ETZ)
Initial Update	07/30/2007	08:08 (ETZ)
Latest Update	07/30/2007	08:08 (ETZ)
Final	07/30/2007	08:08 (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:	A3B1C06 - Human Performance Less Than Adequate (LTA); Skill Based Errors; Wrong action selected based on similarity with other actions -->couplet - A2B3C03 - Equipment/ material problem; Inspection/ testing LTA; Post-maintenance/Post-modification testing LTA
ISM:	2) Analyze the Hazards 5) Provide Feedback and Continuous Improvement
Subcontractor Involved:	Yes Carolina Computers
Occurrence Description:	On 7/25/2007, a subcontract employee of Carolina Computers received what described as an electrical shock while attempting to retrieve a slaving devise. The slaving devise was plugged into a surge protector underneath a desk. The subcontract employee reached under the desk using one hand to remove the plug from the surge protector. A "small shock" was felt on the employee's finger. The employee did not receive any mark or pain and proceeded to another area to do other installs. Later the employee was working in the area where the shock took place and warned workers in the area of the potential shock from the surge protector. At this point the subcontract name was obtained and management was contacted. The subcontract employee was sent to an Off Site Medical facility to be evaluated. No apparent injuries existed and the employee was cleared to return to work. The corrective actions developed as a result of this occurrence will be tracked through closure in the Washington Savannah River Company (WSRC) Site Tracking, Analysis and Reporting (STAR) system, report # 2007-CTS-008615.

Cause Description:	During the Critique the Subcontract Employee re-enacted his activity. The employee used one hand, just as he had stated originally. During questioning, it was determined that he had to reach under the desk and could not clearly see where his hand was. It was determined that the most likely cause of the shock came from his hand coming in contact with one side of the prongs of the plug that was being unplugged from the surge protector.
Operating Conditions:	Normal Operating Conditions
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	1. Work in area stopped. 2. Management notified of event. 3. IT management requested surge protector and device's in immediate area be tested to locate source of electrical shock. All device's were checked and determined to be operating in a safe condition. 4. Subcontract (employee that was shocked) re-enacted the activity that lead to the electrical shock. 5. A critique was scheduled and conducted.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	IT
Plant Area:	B-Area
System/Building/Equipment:	730-4B, Room 3044
Facility Function:	Balance-of-Plant - Offices
Corrective Action 01:	**Target Completion Date:**07/31/2007 **Tracking ID:**2007-CTS-008615, CA#3
	SERB will provide information to Lessons Learned Coordinator to issue a LL that will identify the need to use two hands to remove electrical plugs form surge protectors.
Corrective Action 02:	**Target Completion Date:**07/31/2007 **Tracking ID:**2007-CTS-008615, CA#4
	SERB to issue a Electrical Safety Express notification.
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01P--Conduct of Operations - Communication 01Q--Conduct of Operations - Personnel error 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process
HQ Summary:	A subcontract employee received a shock while removing a plug from a surge protector. Work was stopped and notifications were made. An off-site medical evaluation revealed no injuries, and the employee was cleared to return to work. The surge protector and other devices in the area were checked and determined to be safe. An evaluation determined that the most likely cause of the shock was

	the employee’s hand coming in contact with one side of the prongs of the plug.
Similar OR Report Number:	
Facility Manager:	Name: Denise L. Stephens Phone: (803) 952-8661 Title: Manager, IT
Originator:	Name: BRADFORD, CARL E Phone: (803) 952-9802 Title: ISSUE COORDINATOR
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	07/25/2007 13:00 (ETZ) Tony Smith WSRC 07/25/2007 13:00 (ETZ) Claudia Williamson WSRC 07/25/2007 14:00 (ETZ) Tom Williams DOE 07/25/2007 14:00 (ETZ) Mark Noto DOE 07/26/2007 09:00 (ETZ) William Murphy DOE
Authorized Classifier(AC):	Rod Hutto Date: 07/27/2007

7)Report Number:	NA--LASO-LANL-NUCSAFGRDS-2007-0004 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Los Alamos National Laboratory
Facility Name:	Nuclear Safeguards
Subject/Title:	Engineer Discovers Exposed Energized Wires During Walk-Down of HVAC System
Date/Time Discovered:	07/17/2007 12:30 (MTZ)
Date/Time Categorized:	07/17/2007 13:05 (MTZ)
Report Type:	Notification
Report Dates:	Notification: 07/19/2007 17:41 (ETZ) Initial Update: Latest Update: Final:
Significance Category:	3
Reporting Criteria:	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.
Cause Codes:	

ISM:	
Subcontractor Involved:	No
Occurrence Description:	MANAGEMENT SYNOPSIS: On July 17, 2007, at 1230, at Technical Area 35, Building 27, Room 205, the Threat Reduction & Physics (TRP) facility operations system engineer (E1) discovered four (4) 120-volt exposed and energized electrical wires during a walk-down of the HVAC system. E1 used a proximity tester to identify the energized wires. Upon discovery, E1 immediately stopped work and notified the TRP operations manager. Because E1 was called out to another job, a second TRP engineer (E2) used a voltmeter and verified the voltage on the exposed ends of the lines before capping the exposed ends with wire nuts. E2 then separated the energized lines from the de-energized lines. The TRP operations manager and E2 locked and tagged the panel access doors to prevent entry until the as-found condition is resolved. The event did not impact the safety of personnel, the facility, or its operations. On July 18, 2007, using the electrical severity tool, the IHS-DO electrical safety representative evaluated the event to determine its electrical severity significance. The evaluation resulted in a low hazard electrical severity significance with a score of 10. BACKGROUND: According to the E1, the building's HVAC has not been operating as designed for many years. Under an approved integrated work document (IWD), E1 was tasked to troubleshoot and identify the HVAC system controls in order to maintain the system. The building was constructed in 1960 and the controls in the control room supported the reactor system; however, the reactor system is no longer in operation. Drawings dated 1963 indicated the HVAC controls were in a panel located in the control room. E1 found that many of the 120-volt electrical lines were located behind an abandoned reactor schematic panel. He also found one of the building's 120-volt lighting panels collocated with the reactor controls. When E1 opened the unlocked control panel door, he discovered that the majority of the electrical wiring had been removed from their termination points and laying on the floor. E1 observed a posting on a panel that stated "Caution 110V inside this compartment Res. Elect Vernon." The access door to the control room also had a posting that stated, "High Voltage." Subsequent review of work documentation for the control room found that the last time work had been performed in the room was 1999. No work has been performed in the control room since then. There are two access doors to the control room. The room on the other (outer) side of the control panel chase is currently configured as offices. According to TRP operations personnel, both doors are normally secured; however, on the day of the event, E1 stated that the control room door was unlocked. The TRP operations manager and E2 locked and posted the panel access doors to prevent entry.
Cause Description:	
Operating Conditions:	Normal Operations
Activity Category:	Inspection/Monitoring
Immediate Action(s):	E1 immediately stopped work and notified the TRP operations manager. E2 placed wire nuts on the ends of the electrical lines and separated the energized lines from the de-energized lines. The TRP operations manager and E2 locked

	and posted the panel access doors to prevent entry. On July 18, 2007, E1 added a latch to the second access door and applied red locks and tags on both access doors pending resolution to the as-found condition. The TRP operations manager will have an industrial hygienist inspect the electrical wires in the panel for asbestos and PCBs. He will issue a work ticket for the resident electricians to determine the energy source and de-energize the circuits. The TRP facility operations director will discuss the event with her operations personnel and have them review their facilities for similar conditions. Any as-found conditions will be mitigated in accordance with LANL requirements.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: FOD-8 & QA-OA By When: 08/31/2007
Division or Project:	Threat Reduction & Physics Facility Operations
Plant Area:	TA35-27-205
System/Building/Equipment:	120-Volt Electrical Wires
Facility Function:	Balance-of-Plant - Offices
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01B--Conduct of Operations - Configuration Management/Control 05C--Mechanical/Structural - Ventilation System/Fan 07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records 14E--Quality Assurance - Work Process
HQ Summary:	A facility operations engineer discovered four 120-volt exposed and energized electrical wires during a walk-down of the HVAC system at TA-35, Building 27. Work was immediately stopped and notifications were made. The panel access doors were locked and tagged to prevent entry until the as-found condition is resolved. The event did not impact the safety of personnel, the facility, or its operations.
Similar OR Report Number:	
Facility Manager:	Name: Gail Johnson Phone: (505) 667-4362 Title: TRP Facility Operations Director
Originator:	Name: YAZZIE, ALVA M Phone: (505) 664-0666

	Title: OCCURRENCE INVESTIGATOR
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 07/17/2007; Time: 15:44 (MTZ); Person Notified: Ed Christie; Organization: NNSA
Authorized Classifier(AC):	Mark Hunsinger Date: 07/19/2007

8)Report Number:	NA--NVSO-NST-NLV-2007-0003 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Las Vegas Office
Facility Name:	North Las Vegas
Subject/Title:	Subcontractor Receives Electrical Shock
Date/Time Discovered:	07/11/2007 11:05 (PTZ)
Date/Time Categorized:	07/11/2007 12:00 (PTZ)
Report Type:	Update/Final
Report Dates:	Notification: 07/12/2007 18:05 (ETZ) Initial Update: 07/30/2007 18:47 (ETZ) Latest Update: 07/30/2007 18:47 (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:	A3B4C02 - Human Performance Less Than Adequate (LTA); Work Practices LTA; Deliberate violation -->couplet - NA A3B1C01 - Human Performance Less Than Adequate (LTA); Skill Based Errors; Check of work was LTA -->couplet - NA
ISM:	4) Perform Work Within Controls
Subcontractor Involved:	Yes Maloy Construction, Inc.
Occurrence Description:	A subcontractor to National Security Technologies (NSTec) constructing the North Las Vegas B-3 Facility received an electrical shock and entry burn from a 277-volt lighting circuit. The qualified electrical worker was removing a lighting fixture without wearing proper protective equipment and knowing that one-wire in the bundle was energized. He accidentally brushed against the energized wire and received a shock and an entry burn approximately the size of pencil lead. The Maloy Subcontractor Health & Safety Representative took the injured employee to a local area hospital for evaluation and treatment.

Cause Description:	Maloy job site policy prohibiting work on energized circuits was not followed by the involved electrician. (A3B4C02) Policy, training and verbal direction prohibiting work on energized circuits were provided to all project electricians by Maloy. The electrician violated Maloy job site policy not to work on energized circuits and proceeded to move wires around in an energized junction box in the overhead lighting and was terminated the same day as the event. Previously cut wire provided exposed conductor extending beyond wire nut. (A3B1C01) The cut wire was left by a previous contractor. The subcontractor Maloy, as part of their immediate actions taken, initiated and completed an inspection and securing effort to identify and safe any wiring configurations like the one contributing to this event. This causal analysis was done in accordance with Company Directive CD-3200.009, 'Root Cause Analysis,' the Cause Mapping process, a NSTec-approved system using logic flow diagramming, was used to objectively look at the facts, identify the problems (or 'effects'), and map the continuum of causes.
Operating Conditions:	Does Not Apply
Activity Category:	Construction
Immediate Action(s):	Subcontractor Health & Safety Representative took the injured employee to a local area hospital for evaluation and treatment. Notifications made to NSTec and NNSA/Nevada Site Office line management. Work halted and placed in safe condition. Critique scheduled.
FM Evaluation:	During a phase of electrical demolition for the removal of non-essential lighting fixtures and associated wiring an electrician contacted a bare conductor from an incorrectly terminated/wire capped live circuit, receiving a minor shock to a finger. The electrician initially complained about pain in chest and arm and a headache and had no signs of physical injury which was concurred by the examining physician. The electrician returned to work that afternoon without any work restrictions or medical treatment. The subcontractor took action immediately after the incident. All junction boxes that contained power for the emergency lights had the covers replaced. The electrical workers were told to leave those particular boxes alone, but to continue testing the conductors in the other boxes before removing the lighting fixtures just as they had been instructed to do. Additionally, Maloy retrained all new and returning project electrical workers, and will continue to emphasize training for electrical workers. The involved electrician was terminated, by the subcontractor, following the critique/apparent cause when it a determined that he had not followed the clear instructions given in the pre-briefing to not touch anything if the Tic-Tracer he was using indicated the presence of power, and to notify his supervisor.
DOE Facility Representative Input:	
DOE Program Manager Input:	

Further Evaluation is Required:	No
Division or Project:	B-3 Construction
Plant Area:	NLVF - B-3
System/Building/Equipment:	B-3 Facility
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action 01:	**Target Completion Date:**07/11/2007 **Actual Completion Date:**07/11/2007
	The involved subcontractor electrician was terminated for deliberate violations of company job site policy. Responsible Manager: Maloy Construction Inc.
Lessons(s) Learned:	Lessons Learned Statement: Disregarding instructions brought forward during pre-briefings can result in accidents and injuries. Specific instructions are part of the controls put into place to mitigate or control hazards that have been identified and analyzed. For more information refer to the following NSTec lessons learned. Title: Disregard of Pre-Brief Instructions Results in Electrical Shock Date: July 30, 2007 Identifier: 2007-NV-NTS-040
HQ Keywords:	08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 08D--OSHA Reportable/Industrial Hygiene - Injury 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 14E--Quality Assurance - Work Process
HQ Summary:	A subcontractor employee at the North Las Vegas B-3 Facility received an electrical shock and entry burn from a 277-volt lighting circuit. The qualified electrical worker was removing a lighting fixture without wearing proper protective equipment and knowing that one-wire in the bundle was energized. He accidentally brushed against the energized wire and received a shock and an entry burn approximately the size of pencil lead. He was taken to a local area hospital for evaluation and treatment. Work was halted and placed in safe condition. Notifications were made and a critique was scheduled.
Similar OR Report Number:	1. NA--NVSO-NST-NLV-2007-0001
Facility Manager:	Name: Susan Livenick Phone: (702) 295-5197 Title: Project Manager
Originator:	Name: GILE, ANDREA L Phone: (702) 295-7438 Title: PROJECT OPERATIONS SPEC.

HQ OC Notification:	

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
07/11/2007	11:05 (PTZ)	Susan Livenick	NSTec
07/11/2007	12:15 (PTZ)	Duty Manager	SOC
07/11/2007	12:15 (PTZ)	Alfred Ogurek	NSTec
07/11/2007	12:30 (PTZ)	Dennis Armstrong	NSO/FR

Authorized Classifier(AC):

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9)Report Number:	NE-ID--BEA-CFA-2007-0002 **After 2003 Redesign**
Secretarial Office:	Nuclear Energy, Science and Technology
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	Central Facilities Area
Subject/Title:	Wildland Fire Personnel Shock
Date/Time Discovered:	07/14/2007 17:59 (MTZ)
Date/Time Categorized:	07/14/2007 18:32 (MTZ)
Report Type:	Notification
Report Dates:	

Notification	07/16/2007	18:40 (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:	
Subcontractor Involved:	No
Occurrence Description:	On July 14 at 17:44 the Idaho National Laboratory (INL) Fire Department responded with personnel and equipment to a wildland fire reported near Highway 20/26 near mile marker 262 on the INL. Upon arrival at the scene they began fire suppression activities with a wildland fire spray unit manned with four firemen; a captain and driver inside the unit and two nozzle men on the ground using a hand line to spray the fire. At 1759 an antenna on the wildland fire unit came into contact with a 69kV line which had become disconnected from the transmission line and was hanging approximately ten feet above the ground. The driver immediately realized he had somehow come into contact with an electrical source and he backed away. The two nozzle men were shocked when the antenna came into contact with the line. At 1756 the two nozzle men started spraying down the black area proceeding

toward the head of the fire located near the power lines. The crew intended on turning before going under the power lines and circling back on the flank. At 1757 the Battalion Chief arrived on scene and noted that there were two pole lines running parallel in the direct path of the fire rather than just one set of lines. The Battalion Chief sent a radio communication to Unit # 1 to use caution when approaching these power lines. This radio transmission was not received. At 1759 the Unit #1 overhead antenna came in contact with a 69kV power line located on the first pole line encountered. The line had been separated from the insulator on the pole and was hanging approximately 10 feet off the ground. Due to visibility constraints associated with the heavy smoke, fire fighters on Unit #1 did not see the downed line until it contacted the unit. Electricity from the 69kV line blew the antenna off of Unit #1 and knocked the two nozzle men to the ground. It appears that the bulk of the electricity went to ground through the left front tire of Unit #1, determined by one of the tires on the unit being flat and arc marks on the metal tire rim. Immediately the driver of Unit # 1 put the truck in reverse and proceeded back until the unit was clear of the line. He then rendered assistance to the firefighters on the ground. The fire fighters were coherent and seemed to be okay. The Battalion Chief recognizing the situation from his command position, ordered fire fighting for both Unit #1 and Unit #2(units on scene) to stop and immediately clear the area. At 1800 the INL ambulance responded to the scene to transport the two nozzle men to INL Medical located at the CFA facility. They were evaluated by the nurse. The nurse conferred with the doctor on the phone, receiving his direction for evaluation and treatment. At 2130 firefighters were released and returned to Fire Station #1 for rest. At 1812 the Battalion Chief's aid contacted the INL Power Dispatcher. The Power Dispatcher contacted the Arco City Fire Chief who then notified the Power Company that operated the power line requesting the line be de-energized. The power company de-energized the line and dispatched a lineman to verify that the right line had been de-energized. At 1955 verification that the line was de-energized was received from the individual who had been dispatched and the fire crew continued to suppress the fire. The perimeter of the fire had been mostly contained prior to the electrical occurrence so further spread of the fire was minimal. At 2222 the fire was declared out and the responders returned to Fire Station #1. At 2245 it was determined that further precautionary evaluation of the two nozzle men should be conducted. They were sent to Eastern Idaho Regional Medical Center (EIRMC) where they were evaluated and released with no duty restrictions. At 2300 a critique was conducted to gather facts and implement immediate corrective actions to ensure that wildland fire activities could be conducted safely that night and in the immediate future.

Immediate corrective actions taken;
Wildland Units will not approach power lines in the black zone closer than a distance of 100 feet when combating wildland fires. If it is required for firefighters to cross the power lines to fight the fire:
Crossing Under Overhead Electrical Lines: If it is necessary to cross under electrical lines, units shall go a minimum of 2 poles beyond the fire and/or effected poles and stop a minimum of 100 feet from the electrical lines. The company officer or crew leader shall verify the following before crossing under the overhead lines: 1. Ensure all firefighters are on the unit inside the cab; 2. Ensure no firefighters are standing on the ground who can contact the unit of any of its attachments; 3. Verify power pole integrity, 4. Ensure all overhead

	electrical lines are properly suspended, 5. Ensure no electrical lines can come in contact with any part of the unit or any of its attachments. If going 2 poles beyond the fire or effected poles may cause an unsafe condition by failing to suppress fire on the flank, the company officer or crew leader shall determine if it would be more appropriate to cross under in the black. The company officer or crew leader shall verify the previous conditions AND receive concurrence from the Incident Commander. Authorization to Commence Suppression Operations: If a company officer or crew leader arrives first on scene and assumes Incident Command, (for fires starting near MFC or TAN/SMC, or multiple fire starts) the company officer/crew leader shall inform the shift battalion chief of the fire size up and incident action plan. The battalion chief shall concur and authorize commencement of suppression operations. Upon arrival, the shift battalion chief shall assume command.
Cause Description:	
Operating Conditions:	Wild Land Fire
Activity Category:	Emergency Response
Immediate Action(s):	* Wild Land Fire Unit # 1 driver backed up truck to stop contact with power line * Rendered assistance to nozzle men to clear the area * Stop work near power lines - to keep personnel out of electrical hazardous area * Ambulance responsed and transported nozzle men to CFA Medical - evaluate medical condition and released personnel * Requested de-energizing of power lines - mitigate electrical hazard * Sent Nozzle men to EIRMC for precautionary evaluation - result released personnel
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Reva Nickelson, Deputy Dir By When: 07/24/2007
Division or Project:	SITE WIDE COMPLEX
Plant Area:	SITE WIDE COMPLEX
System/Building/Equipment:	Rocky Mountain Power 69KV Transmission Line
Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action:	
Lessons(s) Learned:	Fire figthers to expect the unexpected while approaching power lines during fire fighting activities.
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01P--Conduct of Operations - Communication 03A--Fire Protection and Explosives Safety - Fire Protection Equip Degradation 03C--Fire Protection and Explosives Safety - Fire/Explosion 03E--Fire Protection and Explosives Safety - National Fire Protection Association/Life Safety Code

	07D--Electrical Systems - Electrical Wiring 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 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) 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 14E--Quality Assurance - Work Process
HQ Summary:	While responding to a wildland fire near electrical power lines on Highway 20/26 near mile marker 262, a fire truck with four personnel contacted an energized 69-kV overhead line which had become disconnected from the transmission line and was hanging approximately ten feet above the ground. The resultant electrical shock blew the antenna off the truck and knocked two firemen to the ground. The driver realized that he had contacted the line and immediately put the truck in reverse and backed the unit clear of the line. He then rendered assistance to the firefighters on the ground, who were coherent. The two firemen were transported to Eastern Idaho Regional Medical Center where they were evaluated and released without restrictions. Subsequently, the local utility de-energized the power line and the fire was extinguished.
Similar OR Report Number:	
Facility Manager:	Name: WINN, STEVEN L Phone: (208) 526-1075 Title: SWC FACILITY COMPLEX MANAGER
Originator:	Name: ALLEN, JEFFREY K Phone: (208) 526-5320 Title: OPERATIONS ASSISTANT
HQ OC Notification:	Date: NA, Time: NA, Person Notified: NA, Organization: NA
Other Notifications:	07/14/2007 18:32 (MTZ) Dwayne Coburn F&SS 07/14/2007 20:15 (MTZ) Steve Winn SWC 07/14/2007 20:35 (MTZ) Bryan Bowser DOE-ID
Authorized Classifier(AC):	

10)Report Number:	SC--AMSO-AMES-AMES-2007-0002 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Ames Laboratory
Facility Name:	Ames Laboratory (BOP)
Subject/Title:	Electrical Conduit Penetration at Warehouse
Date/Time Discovered:	07/27/2007 10:00 (CTZ)
Date/Time Categorized:	07/27/2007 15:00 (CTZ)
Report Type:	Notification/Final

Report Dates:	<table><tr><td>Notification</td><td>07/30/2007</td><td>15:06 (ETZ)</td></tr><tr><td>Initial Update</td><td>07/30/2007</td><td>15:06 (ETZ)</td></tr><tr><td>Latest Update</td><td>07/30/2007</td><td>15:06 (ETZ)</td></tr><tr><td>Final</td><td>07/30/2007</td><td>15:06 (ETZ)</td></tr></table>
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:	A3B2C02 - Human Performance Less Than Adequate (LTA); Rule Based Error; Signs to stop were ignored and step performed incorrectly -->couplet - A4B1C04 - Management Problem; Management Methods Less Than Adequate (LTA); Management follow-up or monitoring of activities did not identify problems
ISM:	4) Perform Work Within Controls
Subcontractor Involved:	Yes D.C. Taylor
Occurrence Description:	On Friday morning, July 27th, Facilities Services received notification that an overhead door opener at the Laboratory Warehouse was not working. Upon investigation, it was discovered that the circuit breaker had tripped because a contractor applying a replacement roof membrane had penetrated a conduit and shorted a wire. The door was closed at the time the penetration was made so it was not evident until the next morning when the warehouse personnel tried to open the door. No contractor employees received a shock and no sparks were observed. During the roof application process an employee was stationed under the ceiling to confirm that the self-tapping screws entered the proper location of the fluted roofing surface. The observer utilizes a radio to communicate with the employee on the roof. The penetration occurred at a location where a support member of the building blocked the view of the observer.
Cause Description:	While applying mechanical fasteners (self tapping screws) to secure roofing membrane, a screw penetrated a conduit that was not visible to the spotter inside due to support a support member (beam).
Operating Conditions:	Does not apply
Activity Category:	Construction
Immediate Action(s):	Contacted the employee who penetrated the conduit and offered medical evaluation. Reminded employee of Stop Work Authority. Initiated investigation.

FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Replacement Roof
Plant Area:	Campus Warehouse
System/Building/Equipment:	Campus Warehouse
Facility Function:	Laboratory - Research & Development
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Conduct of Operations - Conduct of Operations (miscellaneous) 01Q--Conduct of Operations - Personnel error 07C--Electrical Systems - Power Outage 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:	A contractor applying a replacement roof membrane penetrated a conduit and shorted a wire, causing a loss of power to an overhead door opener. The problem was not evident until the following morning when personnel tried to open the overhead door, and subsequent investigative efforts found the penetrated conduit. No contractor employees received a shock and no sparks were observed.
Similar OR Report Number:	
Facility Manager:	Name: WESSELS, TOM E Phone: (515) 294-2153 Title: Manager, ESH&A
Originator:	Name: NELSON, SHAWN A Phone: (515) 294-9769 Title: INDUSTRIAL SAFETY SPECIALIST
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 07/27/2007; Time: 16:00 (CTZ); Person Notified: Mike Saar; Organization: AmSo
Authorized Classifier(AC):	Tom Wessels Date: 07/30/2007

11)Report Number:	SC--ASO-ANLE-ANLECIS-2007-0001 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Argonne National Laboratory East

Facility Name:	Computing Information Systems
Subject/Title:	Subcontractor Initiates Work Noncompliant with Lockout Tagout Procedures
Date/Time Discovered:	07/17/2007 13:31 (CTZ)
Date/Time Categorized:	07/17/2007 14:01 (CTZ)
Report Type:	Notification
Report Dates:	Notification 07/19/2007 09:03 (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 Climatemp (Sprint/Nextel)
Occurrence Description:	At approximately 1:30 pm on Tuesday July 17, 2007, Argonne safety personnel observed a subcontractor employee standing on a ladder attaching an air conditioner cover at a telecommunications building adjacent to a cell phone tower. After the subcontractor employee was questioned he told Argonne safety that he had replaced a part and was testing the system. It became apparent that the individual had performed work on the air-conditioning system without proper lockout/tagout. Additionally it was determined that the individual had not received the required Contractor Safety Orientation, did not have an approved JSA, no proof of NFPA 70E or LOTO training, no signs or barricades, and was not utilizing the proper PPE for the task being performed.
Cause Description:	
Operating Conditions:	Does not apply
Activity Category:	Maintenance
Immediate Action(s):	Climatemp employee was told to pack up tools, badge was confiscated and escorted offsite by Argonne safety personal.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No

	By Whom: Gary Schessleman By When:
Division or Project:	Computing & Infromation Systems Division
Plant Area:	300 Area
System/Building/Equipment:	Air Conditioning / Facility 585/ Nextel Hut
Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01E--Conduct of Operations - Operations Procedures 01F--Conduct of Operations - Training 01K--Conduct of Operations - Lockout/Tagout (Electrical) 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance 11G--Other - Subcontractor 12B--EH Categories - Conduct of Operations 14B--Quality Assurance - Training and Qualification 14E--Quality Assurance - Work Process
HQ Summary:	A subcontract employee performed work on an air-conditioning system without applying proper lockout/tagout. Additionally the individual had not received the required Contractor Safety Orientation, did not have an approved JSA, had no proof of NFPA 70E or LOTO training, used no signs or barricades, and was not utilizing the proper PPE for the task being performed. The employee's badge was confiscated and the employee was escorted from the site.
Similar OR Report Number:	
Facility Manager:	Name: WHITAKER-SHEPPARD, DANNY Phone: (630) 252-1581 Title: ENVIR, SFTY, HEALTH & QUALITY ASSUR
Originator:	Name: MEREDITH, STUART G Phone: (630) 252-6312 Title: PAAA COORDINATOR
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 07/17/2007; Time: 14:01 (CTZ); Person Notified: Stuart Meredith; Organization: ANL-EQO Date: 07/17/2007; Time: 14:38 (CTZ); Person Notified: Craig Schumann; Organization: DOE-ASO
Authorized Classifier(AC):	

12)Report Number:	SC--BHSO-BNL-PE-2007-0003 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Brookhaven National Laboratory
Facility Name:	Plant Engineering
Subject/Title:	Tree Fell on Powerlines
Date/Time Discovered:	07/12/2007 19:00 (ETZ)

Date/Time Categorized:	07/13/2007 11:00 (ETZ)
Report Type:	Notification/Final
Report Dates:	Notification 07/18/2007 13:47 (ETZ) Initial Update 07/18/2007 13:47 (ETZ) Latest Update 07/18/2007 13:47 (ETZ) Final 07/18/2007 13:47 (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:	A3B1C02 - Human Performance Less Than Adequate (LTA); Skill Based Errors; Step was omitted due to distraction -->couplet - NA A3B2C04 - Human Performance Less Than Adequate (LTA); Rule Based Error; Previous success in use of rule reinforces continued use of rule -->couplet - NA A4B3C11 - Management Problem; Work Organization & Planning LTA; Inadequate work package preparation
ISM:	3) Develop and Implement Hazard Controls
Subcontractor Involved:	No
Occurrence Description:	On July 12, 2007, between the hours of 1630 and 2000, a Grounds crew consisting of four personnel were tasked with cutting down a number of Locust trees on the south east side of building 96 in preparation for its demolition. Clearing the trees was necessary to permit the removal of the asbestos shingles from the building. After cutting down several trees and in the process of cutting one 10 inch diameter tree in a cluster of four trees (2, 5 and 6 inches), the 10 inch tree began to bend and then swing back in the opposite direction intended. This resulted in the tree leaning against the 2400V overhead transmission lines causing two of the lines to come in contact with each other, their cut out fuses opening terminating power to the lines and causing a power interruption to building 452. The transmission lines were over 50 feet above and 50 feet horizontally away from the work site. There were no injuries and no damage to equipment.
Cause Description:	A3B1C02 Step was omitted due to distraction A3B2C04 Previous success in use of rule reinforces continued use of rule When cutting down a tree, a notch cut is made on the side of the tree in line with the direction the tree is to be felled. This is accomplished by making a top and bottom cut to create a notch. Once the notch cut is removed a downward top cut is made on the opposite side of the tree in line with the notch, which allows the tree to fall towards the notch. In this event, the notch cut was started but not completed. Completion of the notch cut was interrupted to replace the chain saw blade. Prior to resuming work the operator noticed that the tree was starting to bend towards the notch cut and decided to perform the downward top cut to fell

	the tree rather then completing the notch cut and removing the notch as would be proper. Evidence indicated that other trees in the area were brought down with the notch not removed, thus improperly reinforcing to the workers that a tree could be felled safely without removing the notch. As the tree bent towards the notch cut it was prevented from falling freely due to the notch still being in place. Due to the sudden stop of the tree as it was in motion, the tree swung (bounced) back in direction of the downward top cut and fell against the transmission lines. It is believed that if the notch cut had been completed and the notch removed the tree would have been able to fall in the desired direction. A4B3C11 Inadequate work package preparation A pre-job walk down was performed and identified the transmission lines as a hazard. Planning failed to adequately develop and implement hazard controls by removing the hazard (electrical energy) and rendering the transmission lines safe. It was improperly assumed that the direction that the tree was to be felled could be controlled and thus the job was classified low ES&H risk, low complexity and low work coordination by the workers and their supervisor. The presence of the energized transmission lines should have raised the work planning to a level requiring a more thorough formal review, or the lines should have been deenergized.
Operating Conditions:	Normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	The Grounds crew ceased their activities, exited the area and made notification to the Tower Line Crew. The Site Shift Supervisor and Fire/Rescue responded. Upon arrival, the Tower Line Crew opened the remaining transmission line cut out rendering all transmission lines electrically safe. They then worked with the Grounds group to gain access to the area with their line bucket truck. The Tower Line Crew, utilizing their bucket and on-board pole saw, cut the tree free from the overhead transmission lines. The Tower Line Crew inspected the transmission lines and did not find any damage. They then replaced the two cut out fuses and restored power to the transmission lines which restored power to Building 452. The Tower Line Crew completed their activities approximately 45 minutes after they arrived. No personnel were injured and no critical or programmatic buildings or systems were affected by the outage.
FM Evaluation:	The completion of the notch cut could have prevented this event. However, The presence of the energized transmission lines should have raised the work planning to a level requiring a more thorough formal review, or the lines should have been deenergized. The actions below address these issues.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Plant Engineering
Plant Area:	Outside of Bldg. 96
System/Building/Equipment:	Outside of Bldg. 96

Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action 01:	**Target Completion Date:**08/01/2007 **Actual Completion Date:**
	Conduct a review of this event with individuals performing tree cutting operations. Emphasize the necessity to remove/control all know hazards in the area and the importance of completing the notch cuts.
Corrective Action 02:	**Target Completion Date:**09/03/2007 **Actual Completion Date:**
	The Plant Engineering Work Control Manager will review with Plant Engineering Work Control Coordinators the proper classification levels of ES&H risk, complexity and work coordination when planning work and properly controlling hazards identified in and near the work area.
Lessons(s) Learned:	
HQ Keywords:	01E--Conduct of Operations - Operations Procedures 01M--Conduct of Operations - Inadequate Job Planning (Electrical) 01N--Conduct of Operations - Inadequate Job Planning (Other) 07C--Electrical Systems - Power Outage 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) 13A--Management Concerns - HQ Significant (High-lighted for Management attention) 14E--Quality Assurance - Work Process
HQ Summary:	A four-employee ground crew were cutting down trees near Building 96 when a tree inadvertently fell in the wrong direction and came to rest while leaning against energized overhead 2,400-volt power transmission lines, causing two of the lines to short out and resulting in a power interruption to nearby Building 452. There were no personnel injuries. Work was stopped, the employees exited the area, and management was notified. Subsequently, the overhead lines were de-energized, the tree was removed, and power was restored to Building 452.
Similar OR Report Number:	1. None
Facility Manager:	Name: COSTA, RAYMOND R Phone: (631) 344-8227 Title: Manager, F&O ESHQT
Originator:	Name: SIERRA, EDWARD A Phone: (631) 344-4080 Title: LLL/ORPS COORDINATOR

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
07/13/2007	08:30 (ETZ)	L. Bates	BNL
07/13/2007	11:00 (ETZ)	M. Hanson	DOE/BHSO

Authorized Classifier(AC):	

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Please include detailed information when reporting problems.