Office of Health, Safety and Security

Electrical Safety Report

September 2010

Electrical Safety Occurrences

The number of electrical safety events increased from the previous month to seventeen, but only one event resulted in an electrical shock. In that event, an individual riding in an elevator touched the two elevator control panels with his right and left index fingers and received a shock. Electricians measured 110 volts between the two panels. The electricians found that a standoff stud had become disconnected from the control circuit board allowing the board to shift down and short out to the control box case. Equipment problems and defective equipment have been cited in many events in which non-electrical workers have come in contact with electrical energy. We need to ensure that equipment is being properly maintained, including adequate bonding and grounding. In two cases this month, subcontract electrical workers did not follow lockout/tagout procedures when they did not install their Authorized Worker Locks as required. Although workers were not exposed to hazardous energy, the lack of discipline regarding safety requirements is certainly a concern. All workers, both site workers and subcontractors, need to remember that they are responsible for understanding the work rules, safe work practices, and the associated hazards of the job. Sixty-five percent of the events this month involved some type of hazardous energy control issue. The Hazardous Energy Control Working Group, which recently met at the EFCOG Electrical Safety Workshops, is working very hard on these issues and will provide guidance that can help prevent these types of events and move towards better reporting of lockout/tagout events.

The following table shows a breakdown of the electrical safety events for September.

Number of Events	Involving:
1	Electrical Shocks
0	Electrical Burns
11	Hazardous Energy Control
5	Inadequate Job Planning
2	Inadvertent Drilling/Cutting of Electrical Conductor
0	Excavation of Electrical Conductors
2	Vehicle Intrusion of Electrical Conductors
4	Electrical Near Miss
11	Electrical Workers
6	Non-Electrical Workers
9	Subcontractors

In compiling the monthly totals, the search initially looked for occurrence discovery dates in this month (excluding Significance Category R reports), and for the following ORPS "HQ keywords":
01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

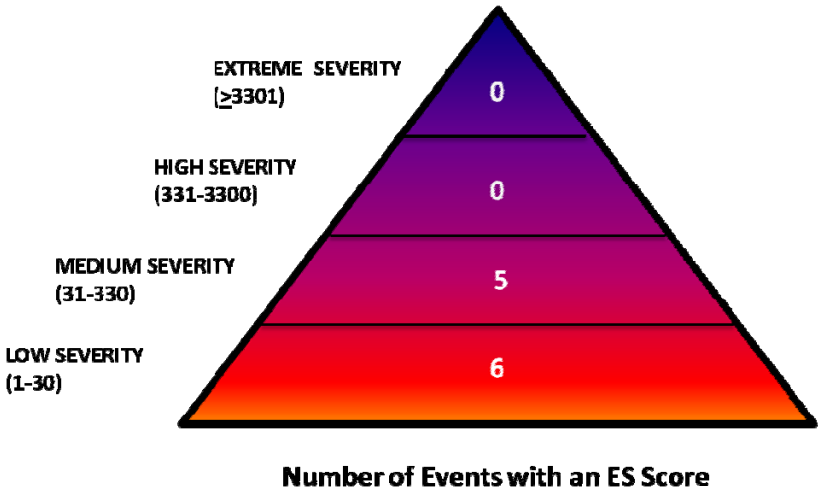
Using the key words above, eighteen events were identified. One event was screened out of the data because the occurrence did not involve an electrical hazard.

Below is the current summary of 2010 electrical safety occurrences:

Period	Electrical Safety Occurrences	Shocks	Burns	Fatalities
September	17	1	0	0
August	13	4	2	0
July	22	5	0	0
June	13	4	0	0
May	7	1	0	0
April	13	2	0	0
March	13	2	0	0
February	13	4	0	0
January	8	0	0	0
2010 total	119 (avg. 13.2/month)	23	2	0
2009 total	128 (avg. 10.7/month)	25	3	0
2008 total	113 (avg. 9.4/month)	26	1	0
2007 total	140 (avg. 11.7/month)	25	2	0
2006 total	166 (avg. 13.8/month)	26	3	0
2005 total	165 (avg. 13.8/month)	39	5	0
2004 total	149 (avg. 12.4/month)	25	3	1

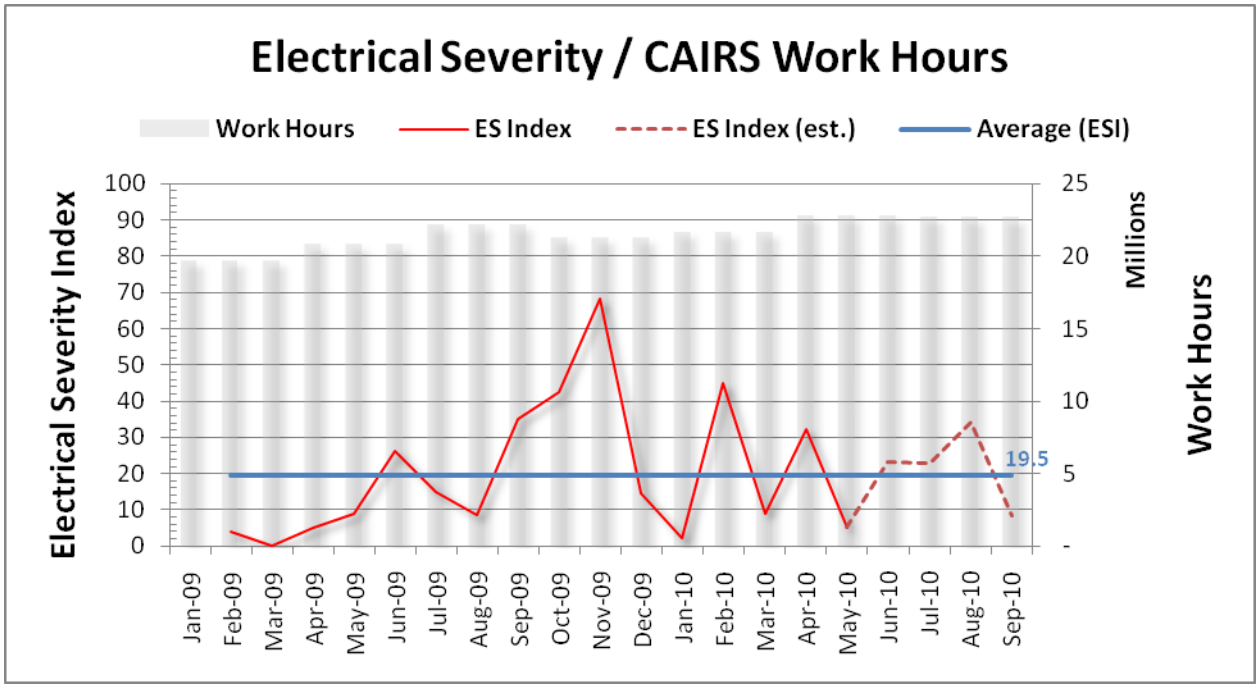
The seventeen events in September 2010, brings the average to 13.2 events with three months left in the year. This represents an increase over the rate of electrical safety occurrences in 2009, which averaged 10.7 per month.

Continue to evaluate electrical events using the Electrical Severity Measurement Tool. Six of the electrical events were determined to have no Electrical Severity (ES) score. The other eleven events were distributed as shown below, with the highest ES score being 330.



Electrical Severity Index

The following chart shows a calculated Electrical Severity Index (ESI) for the DOE complex.



Note: An estimated ESI is calculated until accurate CAIRS man-hours are available. The chart will be updated monthly.

Category	August	September	Δ
Total Occurrences	13	17	+4
Total Electrical Severity	3,870	930	-2940
Estimated Work Hours	22,615,135 (21,958,613)	21,958,613	-31,762
ES Index	34.22* (35.25)	8.24	-25.98
Average ESI	20.3	19.5	-0.8

* These are actual CAIRS work hours for August and ES Index based on the actual hours. The estimated hours and ES Index based on the estimated hours (as reported in August) are shown in parentheses.

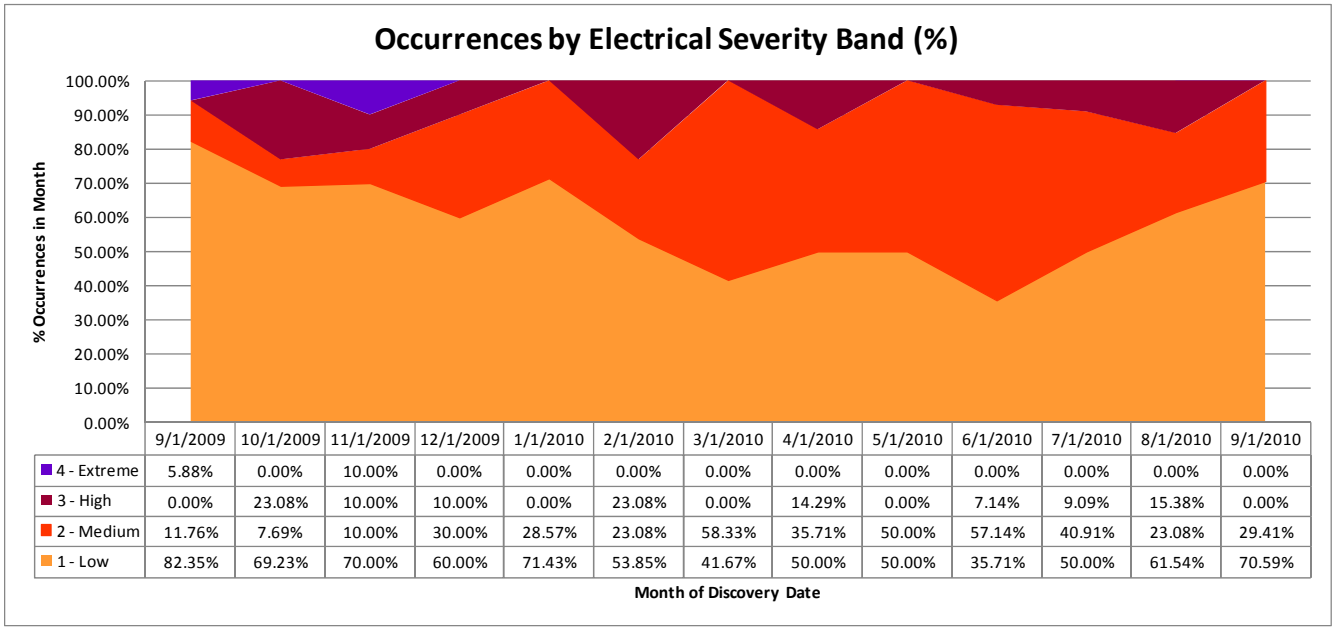
Electrical Severity Index = (Σ Electrical Severity / Σ Work Hours) 200,000

Summary of Occurrences by Severity Band

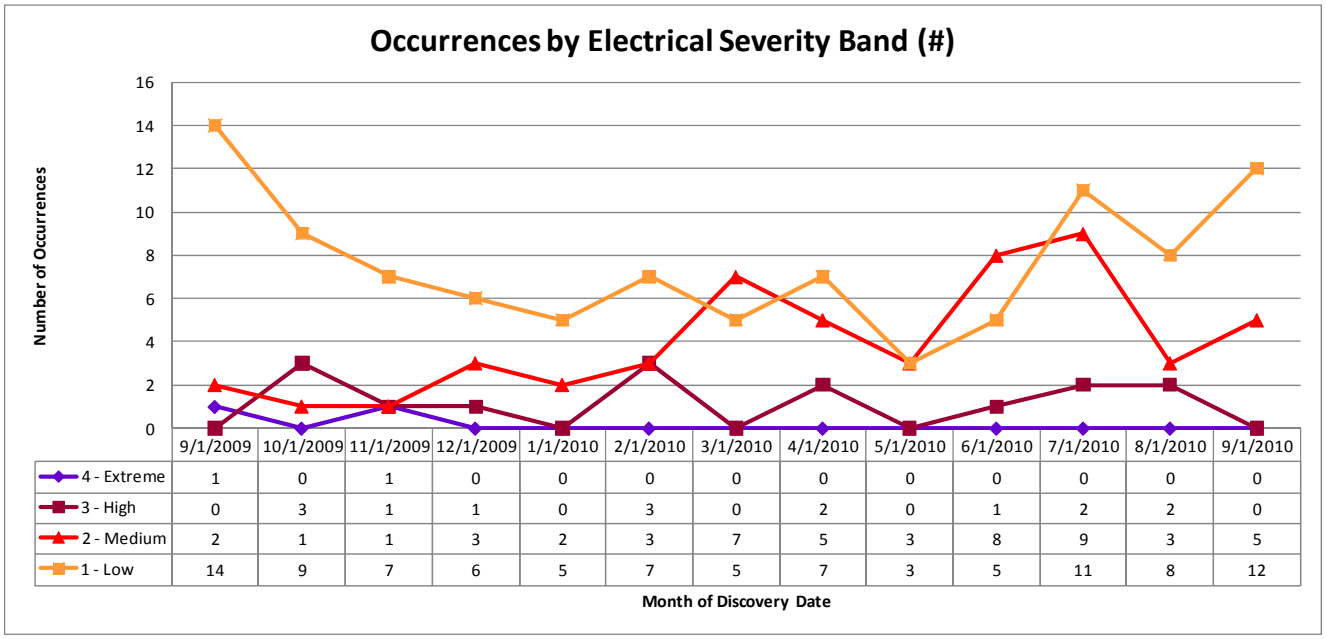
For the interval September 2009 through September 2010 (current month and the past 12), the two charts below summarize occurrences by severity band and month of discovery date:

- By percentage of total occurrences in month
- By number of occurrences in month

The key observation is that Medium severity occurrences as a group are increasing in CY2010.



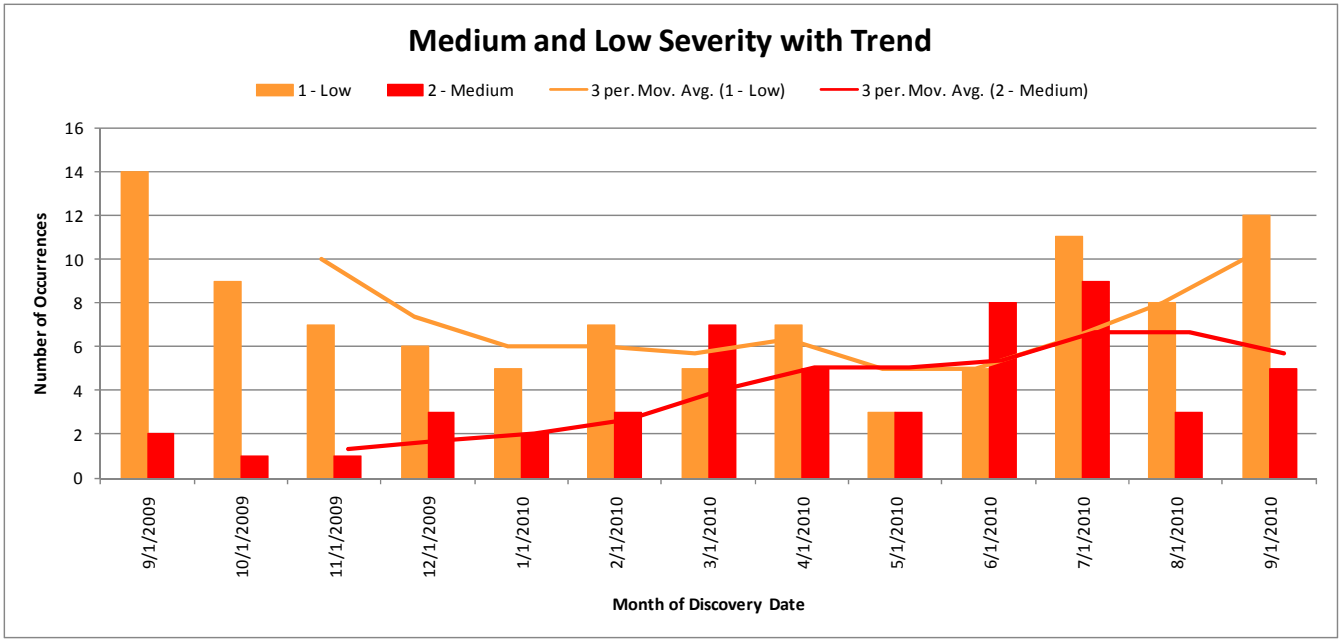
	9/1/2009	10/1/2009	11/1/2009	12/1/2009	1/1/2010	2/1/2010	3/1/2010	4/1/2010	5/1/2010	6/1/2010	7/1/2010	8/1/2010	9/1/2010
4 - Extreme	5.88%	0.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
3 - High	0.00%	23.08%	10.00%	10.00%	0.00%	23.08%	0.00%	14.29%	0.00%	7.14%	9.09%	15.38%	0.00%
2 - Medium	11.76%	7.69%	10.00%	30.00%	28.57%	23.08%	58.33%	35.71%	50.00%	57.14%	40.91%	23.08%	29.41%
1 - Low	82.35%	69.23%	70.00%	60.00%	71.43%	53.85%	41.67%	50.00%	50.00%	35.71%	50.00%	61.54%	70.59%



	9/1/2009	10/1/2009	11/1/2009	12/1/2009	1/1/2010	2/1/2010	3/1/2010	4/1/2010	5/1/2010	6/1/2010	7/1/2010	8/1/2010	9/1/2010
4 - Extreme	1	0	1	0	0	0	0	0	0	0	0	0	0
3 - High	0	3	1	1	0	3	0	2	0	1	2	2	0
2 - Medium	2	1	1	3	2	3	7	5	3	8	9	3	5
1 - Low	14	9	7	6	5	7	5	7	3	5	11	8	12

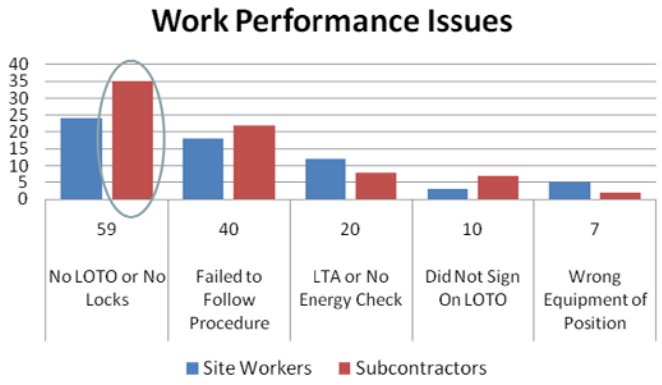
Medium and Low Severity with Trend

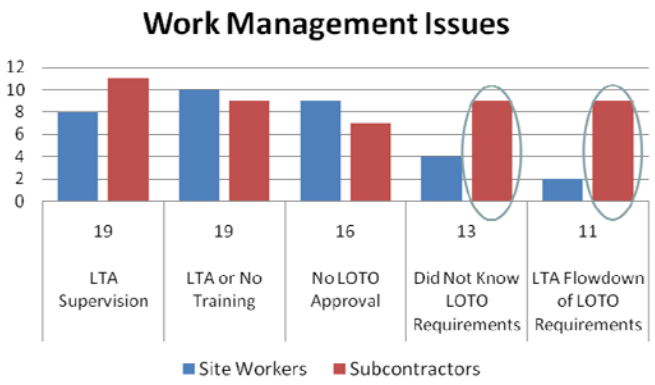
The following chart focuses on the Medium and Low severity data series for September 2009 through September 2010. Trend lines are included for each, using a 3-month moving average.

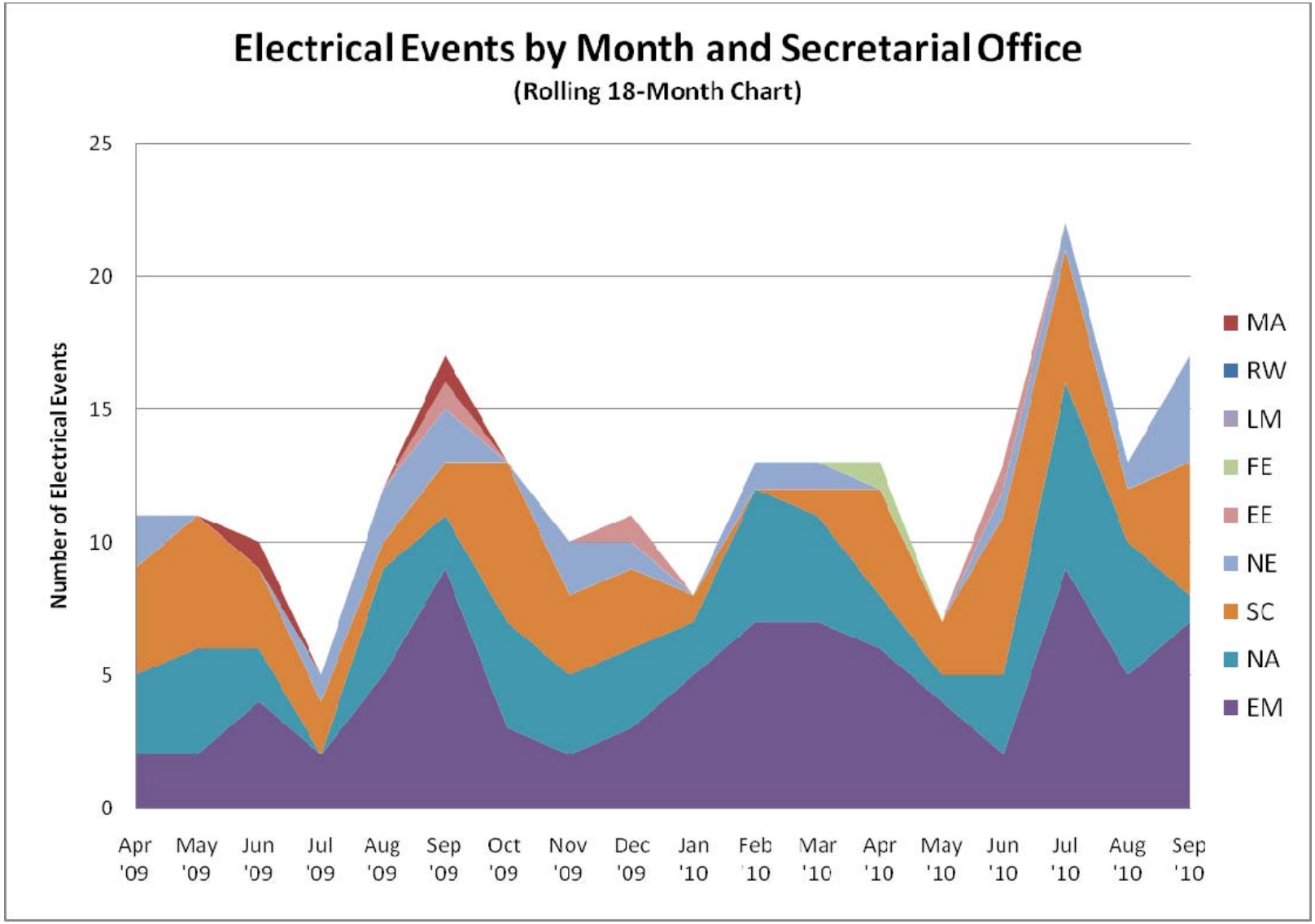


Subcontractors and Hazardous Energy Control

A review of lockout/tagout (LOTO) events for the DOE Complex from August 2008 through August 2010 showed an increase in the number of reported LOTO events. Subcontractors were involved in more than 50 percent of the events. When we compared work performance issues for site workers versus subcontractors we see that subcontractors were more likely to perform work without using a LOTO or applying locks. What is even more telling, is that subcontractors did not know about the LOTO requirements and that the flowdown of these requirements were less than adequate. It is important that both site and subcontractor supervision provide adequate oversight of subcontractor work to ensure that hazardous energy control procedures are followed while performing electrical work. It is important that site/facility supervisors discuss LOTO protection requirements with the subcontractor to eliminate any differences in interpretation and application of procedures and to ensure the subcontractor understands site management's expectations.







EE - Energy Efficiency and Renewable Energy, EM - Environmental Management, FE - Fossil Energy, LM - Legacy Management, MA - Management, NA - National Nuclear Security Administration, NE - Nuclear Energy, RW - Civilian Radioactive Waste Management, SC - Science

Electrical Safety Occurrences – September 2010

No	Report Number	Event Summary	SHOCK	BURN	ARCF[1]	LOTO[2]	PLAN[3]	EXCAV[4]	CUT/D[5]	VEH[6]	SC[7]	RC[8]	ES[9]
1	EM-ORO--BJC-X10WSTEMRA-2010-0005	The boom of an excavator came in contact with an energized 2,400-volt electrical line.								X	2	10(3)	200
2	EM-ORO--WAI-TWPC-2010-0004	An electrician discovered a shared neutral in a light fixture.				X	X				3	2C(2)	20
3	EM-RL--CPRC-GENLAREAS-2010-0018	Disconnect switch covers were found to be open exposing 480-V circuitry.				X					3	2C(2)	0
4	EM-RL--CPRC-SOLIDWASTE-2010-0004	Subcontractor did not install AWL.				X					3	2C(2)	0
5	EM-RL--CPRC-WRAP-2010-0004	A worker did not place their AWL on the lockbox.				X					3	2C(2)	0
6	EM-RL--MSC-HFD-2010-0002	Worker disconnects door opener without installing locks and tags.				X					3	2C(2)	0
7	EM-RP--WRPS-ANALLAB-2010-0002	A carpenter hit an energized conductor with a hand drill.							X		3	2C(2)	70
8	NA--LASO-LANL-TRITFACILS-2010-0014	Work was performed on emergency lighting without signed LOTO authorization.				X	X				4	10(2)	0
9	NE-ID--BEA-MFC-2010-0005	Concrete truck hits energized 120-V overhead power line.								X	4	10(2)	20
10	NE-ID--BEA-MFC-2010-0006	A 110-V spark was observed while moving wires in a J-box.				X	X				3	2C(2)	20
11	NE-ID--BEA-STC-2010-0003	A subcontractor installing com cables removed energized outlets.				X	X				3	2C(2)	20
12	NE-ID--BEA-STC-2010-0005	Worker touches elevator control panel and receives 110-V shock.	X								2	2C(1)	330
13	SC--BSO-LBL-OPERATIONS-2010-0015	Switching of 12.8 kV was performed without an approved LOTO permit.				X					3	2C(2)	0
14	SC--FSO-FNAL-FERMILAB-2010-0006	Metal outlet cover contacts blades of an electrical plug and trips 120-V circuit breaker.				X					3	2C(2)	20
15	SC--PNSO-PNNL-PNNLBOPER-2010-0019	A vendor removed panels on the side of a control cabinet exposing 400-V energized parts.					X				3	2C(2)	50

No	Report Number	Event Summary	SHOCK	BURN	ARCF[1]	LOTO[2]	PLAN[3]	EXCAV[4]	CUT/D[5]	VEH[6]	SC[7]	RC[8]	ES[9]
16	SC--PNSO-PNNL-PNNLBOPER-2010-0020	A contractor severed a conduit containing energized 120-V conductors with a handheld saw.				X			X		3	2C(2)	160
17	SC--PNSO-PNNL-PNNLBOPER-2010-0021	Research equipment found with exposed energized (120-V) conductors.									3	2C(2)	20
	TOTAL		1	0	0	11	5	0	2	2			

Key

(1) ARCF = significant arc flash, (2) LOTO = lockout/tagout, (3) PLAN = job planning, (4) EXCAV = excavation/penetration, (5) CUT/D = cutting or drilling, (6) VEH = vehicle event, (7) SC = ORPS significance category, (8) RC = ORPS reporting criteria, (9) ES = electrical severity

ES Scores: Extreme is >3301, High is 331-3300, Medium is 31-330, and Low is 1-30

Electrical Safety Occurrences – September 2010

No	Report Number	Event Summary	EW[1]	N-EW[2]	SUB[3]	HFW[4]	WFH[5]	PPE[6]	70E[7]	VOLT[8] H	VOLT[8] L	C/I[9]	NEUT[10]	NM[11]
1	EM-ORO--BJC-X10WSTEMRA-2010-0005	The boom of an excavator came in contact with an energized 2,400-volt electrical line.		X	X	X				X				X
2	EM-ORO--WAI-TWPC-2010-0004	An electrician discovered a shared neutral in a light fixture.	X				X				X		X	X
3	EM-RL--CPRC-GENLAREAS-2010-0018	Disconnect switch covers were found to be open exposing 480-V circuitry.	X				X				X			
4	EM-RL--CPRC-SOLIDWASTE-2010-0004	Subcontractor did not install AWL.	X		X		X				X			
5	EM-RL--CPRC-WRAP-2010-0004	A worker did not place their AWL on the lockbox.	X		X		X				X			
6	EM-RL--MSC-HFD-2010-0002	Worker disconnects door opener without installing locks and tags.	X		X	X					X			
7	EM-RP--WRPS-ANALLAB-2010-0002	A carpenter hit an energized conductor with a hand drill.		X		X					X			X
8	NA--LASO-LANL-TRITFACILS-2010-0014	Work was performed on emergency lighting without signed LOTO authorization.	X				X				X			
9	NE-ID--BEA-MFC-2010-0005	Concrete truck hits energized 120-V overhead power line.		X	X	X					X			X
10	NE-ID--BEA-MFC-2010-0006	A 110-V spark was observed while moving wires in a J-box.	X			X					X			
11	NE-ID--BEA-STC-2010-0003	A subcontractor installing com cables removed energized outlets.	X		X	X					X			
12	NE-ID--BEA-STC-2010-0005	Worker touches elevator control panel and receives 110-V shock.		X		X					X			
13	SC--BSO-LBL-OPERATIONS-2010-0015	Switching of 12.8 kV was performed without an approved LOTO permit.	X		X		X			X				
14	SC--FSO-FNAL-FERMILAB-2010-0006	Metal outlet cover contacts blades of an electrical plug and trips 120-V circuit breaker.		X		X					X			
15	SC--PNSO-PNNL-PNNLBOPER-2010-0019	A vendor removed panels on the side of a control cabinet exposing 400-V energized parts.	X		X	X					X			

No	Report Number	Event Summary	EW[1]	N-EW[2]	SUB[3]	HFW[4]	WFH[5]	PPE[6]	70E[7]	VOLT[8] H	VOLT[8] L	C/I[9]	NEUT[10]	NM[11]
16	SC--PNSO-PNNL-PNNLBOPER-2010-0020	A contractor severed a conduit containing energized 120-V conductors with a handheld saw.		X	X	X					X			
17	SC--PNSO-PNNL-PNNLBOPER-2010-0021	Research equipment found with exposed energized (120-V) conductors.	X				X				X			
	TOTAL		11	6	9	10	7	0	0	2	15	0	1	4

Key

(1) EW = electrical worker, (2) N-EW = non-electrical worker, (3) SUB = subcontractor, (4) HFW = hazard found the worker, (5) WFH = worker found the hazard, (6) PPE = inadequate or no PPE used, (7) 70E = NFPA 70E issues, (8) VOLT = H (>600) L(≤600), (9) C/I = Capacitance/Inductance, (10) NEUT = neutral circuit, (11) NM = near miss

ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 54867 OR(s) with 58177 occurrences(s) as of 10/13/2010 8:38:16 AM
Query selected 17 OR(s) with 17 occurrences(s) as of 10/13/2010 10:28:21 AM

Download this report in Microsoft Word format.

1)Report Number:	EM-ORO--BJC-X10WSTEMRA-2010-0005 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Oak Ridge National Laboratory
Facility Name:	Bethel Valley/BOPCP
Subject/Title:	Management Concern Excavator Contacts 2400 Volt Electrical Line
Date/Time Discovered:	09/22/2010 11:30 (ETZ)
Date/Time Categorized:	09/24/2010 11:43 (ETZ)
Report Type:	Notification
Report Dates:	Notification 09/24/2010 13:15 (ETZ) Initial Update Latest Update Final
Significance Category:	2
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 2 occurrence)
Cause Codes:	
ISM:	4) Perform Work Within Controls
Subcontractor Involved:	Yes Demco
Occurrence Description:	On 9/22/10 at approximately 1130, the boom of a long armed track hoe came in contact with a 2400 volt live electrical line while attempting to remove the equipment from the ramp area on the north side of White Oak Dam. At approximately 1100 on 9/22/10, the long armed track hoe was placed near the ramp in order to assist with moving rock into the dam area. The Bechtel Jacobs Company (BJC) Supervisor recognized the equipment was in an inappropriate location and requested the track hoe be moved out of the area. The bucket was full of gravel and as the cab was moved, the boom drifted toward the electrical line. The operator took action to move

	the boom away from the electrical line, but the boom touched the line before it started in the opposite direction. The excavator was then moved out of the area. No one was injured. There were no arcs. The operator was taken to medical for a drug screen and evaluation. Work on the north side of the dam was suspended.
Cause Description:	
Operating Conditions:	Operational, undergoing construction activities
Activity Category:	Inspection/Monitoring
Immediate Action(s):	1) Excavator was moved out of the area. 2) Electrical line was examined by qualified electricians and found there was no damage to the electrical line or equipment. 3) Work was suspended on the north side of the dam.
FM Evaluation:	The facility operation as a dam is not impacted. However the dam construction schedule will be delayed as a result of this occurrence.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? Yes By Whom: BJC Facility Manager By When: 10/30/2010
Division or Project:	Surveillance and Maintenance
Plant Area:	Bethel Valley
System/Building/Equipment:	White Oak Dam
Facility Function:	Environmental Restoration Operations
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01N--Inadequate Conduct of Operations - Inadequate Job Planning (Other) 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 11G--Other - Subcontractor 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 22, 2010, the boom of a long-armed track hoe (excavator) came in contact with an energized 2,400-volt electrical line while the excavator was being removed from the ramp area on the north side of the White Oak Dam. The excavator was placed near the ramp in order to assist with moving rock into the dam area. The Bechtel Jacobs Company

	Supervisor recognized that the excavator was in an inappropriate location and requested that the excavator be moved out of the area. The bucket was full of gravel and as the cab was moved, the boom drifted toward the electrical line. The operator took action to move the boom away from the electrical line, but the boom touched the line before it started in the opposite direction. The excavator was then moved out of the area. The operator was taken to medical for a drug screen and evaluation. Work on the north side of the dam was suspended. Qualified electricians examined the electrical line and found no damage to the line or the excavator. There were no electrical arcs and no injuries.
Similar OR Report Number:	
Facility Manager:	Name: Dennis Smith Phone: (865) 576-5290 Title: Project Engineer
Originator:	Name: SMITH, MILDRED L Phone: (865) 241-1703 Title: QUALITY ENGINEER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/22/2010; Time: 11:30 (ETZ); Person Notified: Gary Young; Organization: BJC SCC Date: 09/22/2010; Time: 11:48 (ETZ); Person Notified: Dennis Smith; Organization: BJC Eng Date: 09/22/2010; Time: 11:48 (ETZ); Person Notified: Jacquie Noble-Dials; Organization: DOE Pr M Date: 09/22/2010; Time: 11:50 (ETZ); Person Notified: Leon Kantola; Organization: BJC MOP Date: 09/22/2010; Time: 11:50 (ETZ); Person Notified: Craig Eutz; Organization: BJC FM Date: 09/22/2010; Time: 11:52 (ETZ); Person Notified: Jore Gonzalez; Organization: DOE FR Date: 09/22/2010; Time: 12:36 (ETZ); Person Notified: Donnie Rader; Organization: BJC QA Date: 09/22/2010; Time: 12:38 (ETZ); Person Notified: Ray Weedon; Organization: BJC OR Date: 09/22/2010; Time: 15:51 (ETZ); Person Notified: John Roddy; Organization: BJC PSS
Authorized Classifier(AC):	Dennis Smith Date: 09/24/2010

2)Report Number:	EM-ORO--WAI-TWPC-2010-0004 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Oak Ridge Operations
Facility Name:	TRU Waste Processing Center
Subject/Title:	Discovery of shared neutral wires between lighting circuits (ckts)
Date/Time Discovered:	09/01/2010 15:36 (ETZ)

Date/Time Categorized:	09/01/2010 16:20 (ETZ)
Report Type:	Notification
Report Dates:	Notification 09/08/2010 08:14 (ETZ) Initial Update Latest Update Final
Significance Category:	3
Reporting Criteria:	10(3) - A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the four significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)
Cause Codes:	
ISM:	2) Analyze the Hazards
Subcontractor Involved:	No
Occurrence Description:	During the process of completing work order CM-10-099 the electrician discovered the neutral of a light fixture being removed to be shared between two other ckts. The package did not identify the shared neutrals and the electrician was not expecting this condition. This resulted in the reliance on the components of the shared ckts to function properly and prevent a hazardous energy from being present on these shared neutral wires. There were no injuries or equipment damage.
Cause Description:	
Operating Conditions:	Operations Mode
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Ceased activities involving electrical work on Work Order CM-10-099 Reported discovery to Duty WOL Informed the Maintenance Manager of the condition Conducted a critique of discovery Developed a recovery plan
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	TRU Waste Processing Center
Plant Area:	7880 So. Stair Tower

System/Building/Equipment:	7880 lighting
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12K--EH Categories - Near Miss (Could have been a serious injury or fatality) 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 1, 2010, during the process of completing Work Order CM-10-099, an electrician discovered that the neutral wire for a light fixture, which was being removed, was shared between two other circuits. The work package documentation did not identify the shared neutrals and the electrician was not expecting this condition. This condition resulted in the need for the components of the shared circuits to function properly and prevent hazardous energy from being present on these shared neutral wires. There were no injuries or equipment damage. Electrical work was stopped on Work Order CM-10-099. Required notifications were made. A critique was held and a recovery plan was developed.
Similar OR Report Number:	
Facility Manager:	Name: THOMPSON, CHRIS Phone: (865) 574-3441 Title: FACILITIES MANAGEMENT DIRECTOR
Originator:	Name: CARTER, QUINCY Phone: (865) 576-1629 Title: OPERATIONS MANAGER

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
09/01/2010	16:15 (ETZ)	C Thompson	WAI DFM
09/01/2010	16:15 (ETZ)	Q Carter	WAI OM
09/01/2010	16:25 (ETZ)	Dan Emch	DOE FR
09/01/2010	16:27 (ETZ)	Bob McKay	WAI GM
09/01/2010	16:30 (ETZ)	Bill Mc Millian	DOE FPR

Authorized Classifier(AC):	

3)Report Number:	EM-RL--CPRC-GENLAREAS-2010-0018 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Plateau Remediation General Facilities
Subject/Title:	Open Covers Discovered on Disconnect Switches
Date/Time Discovered:	09/10/2010 08:00 (PTZ)
Date/Time Categorized:	09/11/2010 12:55 (PTZ)
Report Type:	Notification
Report Dates:	Notification 09/14/2010 20:15 (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:	No
Occurrence Description:	On 9/10/2010 disconnect switch covers were found open at two locations. The first location was at the 100DX project, extraction well ME-46. The disconnect switch handle was in the closed (energized) position. The second discovery was made at the ZP-1 Pump and Treat, on Chiller DISC-C-01. This disconnect switch handle was in the open (non-energized) position. With the disconnect switch covers open there was exposed 480 volt circuitry. No personnel were working on equipment in these locations at the time of discovery. It is not known why the covers were open on the disconnect switches.
Cause Description:	
Operating Conditions:	Does not apply
Activity Category:	Construction
Immediate Action(s):	1. Actions were taken to close both disconnect switch covers 2. An investigation was initiated. 3. An investigation was initiated by Physical Security.
FM Evaluation:	

DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Michael Todd By When:
Division or Project:	Central Plateau Remediation Project, EPC
Plant Area:	ME-46 and ZP-1
System/Building/Equipment:	100 DX and 200 West
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 10, 2010, disconnect switch covers were found open at two locations. The first location was at the 100DX project, extraction well ME-46. The disconnect switch handle was in the closed (energized) position. The second discovery was made at the ZP-1 Pump and Treat, on Chiller DISC-C-01. This disconnect switch handle was in the open (non-energized) position. With the disconnect switch covers open 480-volt circuitry was exposed. No personnel were working on equipment in these locations at the time of discovery. It is not known why the covers were open on the disconnect switches. Actions were taken to close both disconnect switch covers. An investigation was initiated.
Similar OR Report Number:	
Facility Manager:	Name: NORTON, STEVE Phone: (509) 376-4250 Title: Director of Site Projects
Originator:	Name: TODD, MICHAEL J Phone: (509) 372-9341 Title: AUTHORITATIVE SOURCE
HQ OC Notification:	Date: NA Time: NA Person Notified: NA Organization: NA

Other Notifications:	

Date	Time	Person Notified	Organization
09/11/2010	13:12 (PTZ)	Brian Biro	DOE-RL
09/11/2010	13:53 (PTZ)	Ron Smithwick	ONC

Authorized Classifier(AC):	
4)Report Number:	EM-RL--CPRC-SOLIDWASTE-2010-0004 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Solid Waste Facility
Subject/Title:	Authorized Worker Lock Not Installed During Subcontractor Work
Date/Time Discovered:	09/22/2010 16:20 (PTZ)
Date/Time Categorized:	09/22/2010 17:15 (PTZ)
Report Type:	Notification
Report Dates:	

Notification	09/24/2010	18:19 (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:	Yes VJ Technology
Occurrence Description:	On September 22, 2010, subcontractor and project personnel were performing work on the RTR unit at the 218-E-12B Burial Grounds. A WRP health and safety professional noted that a subcontract worker performed work under another workers Authorized Worker Lockout. Although the area was appropriately de-energized and there was no risk to personnel, this was a noncompliance with the Hazardous Energy Control program.
Cause Description:	
Operating Conditions:	Construction
Activity Category:	Construction
Immediate Action(s):	The work package was suspended. Lock and Tag activities in WRP were

	suspended pending completion of the critique. A critique was conducted on 9/23/10. A timely order will be issued to assign designated personnel to perform lock and tag pending completion of long term actions.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: WRP By When: 10/31/2010
Division or Project:	Waste and Fuels Management Program
Plant Area:	200 East
System/Building/Equipment:	Real Time Radiography unit at 218-E-12B Burial ground
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 22, 2010, subcontractor and project personnel were performing work on the Real Time Radiography unit at the 218-E-12B Burial Grounds when a WRP health and safety professional noted that a subcontract worker performed work under another worker's Authorized Worker Lockout. Although the area was appropriately de-energized and there was no risk to personnel, this condition was a noncompliance with the Hazardous Energy Control program. The work package activities were suspended. Lock and Tag activities in the WRP were suspended pending a critique. A critique was conducted on September 23. A timely order will be issued to assign designated personnel to perform lock and tag pending completion of long-term actions.
Similar OR Report Number:	
Facility Manager:	Name: Badden, James J Phone: (509) 942-3916 Title: Facillity Manager
Originator:	Name: POOLE, M ELIZABETH Phone: (509) 373-0522

	Title
HQ OC Notification:	Date / Time / Person Notified / Organization NA / NA / NA / NA
Other Notifications:	Date / Time / Person Notified / Organization 09/22/2010 / 17:20 (PTZ) / CV Phillips / WRP 09/22/2010 / 17:40 (PTZ) / JE Trevino / DOE RL 09/22/2010 / 17:57 (PTZ) / Occurrence Notify Center / MSA ONC
Authorized Classifier(AC):	

5)Report Number:	EM-RL--CPRC-WRAP-2010-0004 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	WASTE RECEIVING & PROCESSING FACILIT
Subject/Title:	Authorized Worker Lock Not Installed During Subcontractor Work
Date/Time Discovered:	09/15/2010 12:45 (PTZ)
Date/Time Categorized:	09/15/2010 13:35 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 09/20/2010 19:32 (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 Parallel Electric
Occurrence Description:	On September 15, 2010, subcontractor personnel under the direction of Engineering, Projects, and Construction (EPC) were performing work at the WRAP Facility. During a walkthrough of the area, a WRAP Field Work Supervisor noted that two subcontractor workers were performing work under a Danger Do Not Operate Lockout. However, only one of the

	workers had placed their Authorized Worker Lock on the Controlling Organization lockbox. Although the area was appropriately de-energized and there was no risk to personnel, this was a noncompliance with the Hazardous Energy Control program.
Cause Description:	
Operating Conditions:	Construction
Activity Category:	Construction
Immediate Action(s):	Work on this activity was curtailed. A critique was conducted.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: WRAP By When: 10/28/2010
Division or Project:	Waste & Fuels Management Project
Plant Area:	200 West
System/Building/Equipment:	2336W
Facility Function:	Nuclear Waste Operations/Disposal
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 15, 2010, subcontractor personnel, under the direction of Engineering, Projects, and Construction, were performing work at the Waste Receiving and Processing (WRAP) Facility. During a walkthrough of the area, a WRAP Field Work Supervisor noted that two subcontractor workers were performing work under a Danger Do Not Operate Lockout. However, only one of the workers had placed their Authorized Worker Lock on the Controlling Organization lockbox. Although the area was appropriately de-energized and there was no risk to personnel, this condition was a noncompliance with the Hazardous Energy Control program. Work on this activity was curtailed and a critique was held.
Similar OR Report Number:	
Facility Manager:	Name Mortensen, A. Stuart

	Phone: (509) 373-1486 Title: Facility Manager
Originator:	Name: POOLE, M ELIZABETH Phone: (509) 373-0522 Title:
HQ OC Notification:	Date: NA, Time: NA, Person Notified: NA, Organization: NA
Other Notifications:	09/15/2010 13:00 (PTZ) AS Mortensen WRAP 09/15/2010 14:28 (PTZ) J Trevino DOE RL 09/15/2010 15:12 (PTZ) Occurrence Notify Center MSA ONC
Authorized Classifier(AC):	

6)Report Number:	EM-RL--MSC-HFD-2010-0002 **After 2003 Redesign**
Secretarial Office:	Environmental Management
Lab/Site/Org:	Hanford Site
Facility Name:	Hanford Fire Department
Subject/Title:	Hazardous Energy Control Violation
Date/Time Discovered:	09/08/2010 11:40 (PTZ)
Date/Time Categorized:	09/08/2010 15:00 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 09/10/2010 18:01 (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 Grant Construction

Occurrence Description:	HFD Fire Systems Maintenance (FSM) personnel discovered a Hazardous Energy Control Program violation by a subcontractor at Building 609 at approximately 1140 9/8/10. The 609 facility is undergoing habitability upgrades. Work was in progress to replace an overhead door by a subcontractor. The subcontractor had conducted a morning safety briefing which included the need for a controlling organization lockout/tagout of the overhead door. Upon arrival at Station 91, FSM personnel discovered that work was being done which would have required a Tagout Authorization Form (TAF) in accordance with DOE-0366. No TAF had yet been completed for the scope of work and no tags or worker locks were hanging. Initial information from the subcontractor was that the isolation for the door opener had been opened, but this was not the only applicable isolation point for the work being performed. The electric door opener had been disconnected from the door, the door had been removed, and track removal was in progress. A Stop Work order was issued by the FSM engineer on site and the job site was placed in a safe configuration.
Cause Description:	
Operating Conditions:	The station was fully operational with habitability upgrades in progress.
Activity Category:	Construction
Immediate Action(s):	-Formal stop work order issued by FSM Engineer on site -Work site placed in safe and stable condition -Notifications made to MSA Construction Management, MSA Senior Management at the VP level, DOE Safeguards and Security, and DOE Facility Operations. -Critique held on 9/9/10.
FM Evaluation:	A stop work order was issued as a result of this event. HFD is working with MSA management to evaluate what actions are needed to resume work on the project and what additional action may be required to ensure there is no recurrence on other MSA construction projects.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? Yes By Whom: Thomas N. True By When: 10/18/2010
Division or Project:	Hanford Fire Department
Plant Area:	100
System/Building/Equipment:	609 bldg apparatus bay door #1
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in

	this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01L--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Other) 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 9, 2010, Fire Systems Maintenance (FSM) personnel discovered that a subcontractor had violated the Hazardous Energy Control Program while replacing an overhead door at Building 609. The subcontractor had conducted a morning safety briefing, which included the need for a controlling organization lockout/tagout of the overhead door. Upon arrival at Station 91, FSM personnel discovered that work was being done and no Tagout Authorization Form had been completed for the scope of work and no tags or worker locks were hanging. Initial information from the subcontractor was that the isolation for the door opener had been opened, but this was not the only applicable isolation point for the work being performed. The electric door opener had been disconnected from the door, the door had been removed, and track removal was in progress. A Stop Work order was issued by the FSM engineer on site and the job site was placed in a safe configuration. A critique was held.
Similar OR Report Number:	
Facility Manager:	Name: Thomas N. True Phone: (509) 373-1701 Title: Assistant Chief of Hanford Fire Department
Originator:	Name: SMITHWICK, RONALD L Phone: (509) 376-3030 Title:
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/08/2010; Time: 14:30 (PTZ); Person Notified: L. D. Earley; Organization: DOE-RL
Authorized Classifier(AC):	

7)Report Number:	EM-RP--WRPS-ANALLAB-2010-0002 **After 2003 Redesign**
Secretarial Office:	Environmental Management

Lab/Site/Org:	Hanford Site
Facility Name:	222-S/Analytical Laboratory
Subject/Title:	Live Electrical Conductor Contacted With Hole Saw (ARRA)
Date/Time Discovered:	09/09/2010 09:15 (PTZ)
Date/Time Categorized:	09/09/2010 10:08 (PTZ)
Report Type:	Notification
Report Dates:	Notification 09/10/2010 18:10 (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:	2) Analyze the Hazards 3) Develop and Implement Hazard Controls
Subcontractor Involved:	No
Occurrence Description:	On September 9, 2010, approximately 0915 hours, a carpenter reported contact with a live electrical conductor with a hole saw attached to a hand held drill. The carpenter was drilling on the exterior wall of the 222-SH building for the purpose of obtaining an asbestos sample. Upon removal of hole saw, there was an observed electrical arc which was later confirmed that a circuit breaker in an adjacent electrical panel had tripped. No injuries or electrical shock occurred.
Cause Description:	
Operating Conditions:	Does not apply.
Activity Category:	Maintenance
Immediate Action(s):	Scene was secured. Power was de-energized. Management was notified. An event investigation was initiated.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	

Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Heinemann, Jay L By When:
Division or Project:	Washington River Protection Solutions, LLC (WRPS)
Plant Area:	200 West
System/Building/Equipment:	222-SH
Facility Function:	Laboratory - Analytical
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01N--Inadequate Conduct of Operations - Inadequate Job Planning (Other) 07D--Electrical Systems - Electrical Wiring 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 12C--EH Categories - Electrical Safety 13H--Management Concerns - American Recovery and Reinvestment Act (ARRA) 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 9, 2010, a carpenter reported hitting an energized electrical conductor with a hole saw that was attached to a hand-held drill. The carpenter was drilling on the exterior wall of the 222-SH building for the purpose of obtaining an asbestos sample. When the carpenter removed the hole saw, an electrical arc was observed, which was later confirmed that a circuit breaker in an adjacent electrical panel had tripped. The scene was secured and power was de-energized. Management was notified and an investigation was initiated. There were no injuries or electrical shock.
Similar OR Report Number:	
Facility Manager:	Name: Heinemann, Jay L Phone: (509) 373-0782 Title: Manager, Laboratory Maintenance
Originator:	Name: WATERS, SHAUN F Phone: (509) 373-3457 Title: OPERATIONS SPECIALIST
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	09/09/2010 09:30 (PTZ) Hardy, D. B. WRPS 09/09/2010 10:10 (PTZ) Sax, S. M. WRPS 09/09/2010 10:38 (PTZ) Wright, D. L. DOE-ORP

	09/09/2010	10:41 (PTZ)	Boyce, M. L.	MSA-ONC
Authorized Classifier(AC):				

8)Report Number:	NA--LASO-LANL-TRITFACILS-2010-0014 **After 2003 Redesign**
Secretarial Office:	National Nuclear Security Administration
Lab/Site/Org:	Los Alamos National Laboratory
Facility Name:	Tritium Facilities, WX5
Subject/Title:	Management Concern: Discovery of Incomplete LOTO Work Package
Date/Time Discovered:	09/01/2010 15:00 (MTZ)
Date/Time Categorized:	09/01/2010 16:15 (MTZ)
Report Type:	Notification/Final

Report Dates:

Notification	09/03/2010	14:46 (ETZ)
Initial Update	09/03/2010	14:46 (ETZ)
Latest Update	09/03/2010	14:46 (ETZ)
Final	09/03/2010	14:46 (ETZ)

Significance Category:	4
Reporting Criteria:	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 4 occurrence)
Cause Codes:	
ISM:	5) Provide Feedback and Continuous Improvement
Subcontractor Involved:	No
Occurrence Description:	Management Synopsis: At 1415 on September 2, 2010, the Weapons Facility Operations (WFO) Facility Operations Director (FOD) Designee for the Weapons Engineering Tritium Facility (WETF) determined he had a management concern related to a Lock Out/Tag Out (LO/TO) that was performed on September 1, 2010, to replace emergency lighting light bulbs. At 1430 on September 1, 2010, the Facility Representative (FR) discovered a LO/TO work package did not have the required Facility Manager signature authorizing the work activity. Subsequent to the discovery of the incomplete work package, the Tritium Operations Lead (TOL) verified that the LO/TO had been performed on the correct panel and circuit for the scoped work activity. Based on information presented at the critique, the FOD Designee re-categorized the event, which was initially categorized as not reportable, as

	a management concern. There was no impact to worker safety, health, or the environment as a result of this event. Background: On January 28, 2010, the Institution issued a provisional revision of P101-3, Lockout/Tagout for Hazardous Energy. The provisional status allowed gradual implementation until July 5, 2010, when the procedure became a requirement. The emergency light repair project walk down was performed on May 26, 2010, and the work order (WO 383702-01) was developed on June 2, 2010. On August 27, 2010, the Facility requested the workers to perform the work activity on August 31, 2010, which was a change to the original schedule. On August 30, 2010, the workers conducted a pre-job briefing and identified that the work package change schedule form and the Specific Written Energy Control Procedure (P101-3 Attachment B, Form 2003) required the Facility Operations Director/Designee approval signature. A Maintenance Site Service (MSS) worker took the work package to the OM and requested a signature on the change schedule. However, the OM was not informed of the need to sign the Form 2003. Upon further review it was noted that additional actions and signatures were not complete on the Form 2003. On August 31, 2010, a LO/TO was performed on the proper circuit, the emergency lights were repaired in room 114, and the LO/TO was removed. On September 1, 2010, a LO/TO was performed on the proper circuit and, at 1430, the FR reviewed the work package and identified the missing signatures.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Maintenance
Immediate Action(s):	1) The work activity was paused. 2) The TOL performed independent verification of the LO/TO and confirmed it was performed correctly.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	WETF
Plant Area:	TA-16
System/Building/Equipment:	TA-16-205 Emergency Lights
Facility Function:	Tritium Activities
Corrective Action:	

Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 11B--Other - Emergency Management System Failure 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 2, 2010, the Weapons Facility Operations Facility Operations Director Designee for the Weapons Engineering Tritium Facility determined that he had a management concern related to a Lock Out/Tag Out (LO/TO) that had been used to replace emergency lighting light bulbs. On September 1, the Facility Representative discovered that the LO/TO work package did not have the required Facility Manager's signature authorizing the work activity, because the Facility Manager had failed to sign one of the two forms presented to him for signature. Subsequent to the discovery of the incomplete work package, the Tritium Operations Lead verified that the LO/TO had been performed on the correct panel and circuit for the scoped work activity. There was no impact to worker safety, health, or the environment as a result of this event. The work activity was paused.
Similar OR Report Number:	
Facility Manager:	Name: Greg Rand Phone: (505) 606-1540 Title: WFO Facility Operations Director Designee
Originator:	Name: HAKONSON-HAYES, AUDREY C Phone: (505) 667-9364 Title: OCCURRENCE INVESTIGATOR
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/01/2010; Time: 15:00 (MTZ); Person Notified: Dave Stewart; Organization: NNSA
Authorized Classifier(AC):	Kimberli Tanner Date: 09/03/2010

9)Report Number:	NE-ID--BEA-MFC-2010-0005 **After 2003 Redesign**
Secretarial Office:	Nuclear Energy, Science and Technology
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	Materials and Fuels Complex
Subject/Title:	Concrete Truck contact with overhead 120 volt power line

Date/Time Discovered:	09/07/2010 15:15 (MTZ)
Date/Time Categorized:	09/07/2010 17:23 (MTZ)
Report Type:	Notification/Final
Report Dates:	Notification 09/08/2010 18:57 (ETZ) Initial Update 09/08/2010 18:57 (ETZ) Latest Update 09/08/2010 18:57 (ETZ) Final 09/08/2010 18:57 (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:	2) Analyze the Hazards 3) Develop and Implement Hazard Controls
Subcontractor Involved:	Yes Horrick's Ready Mix
Occurrence Description:	On September 07, 2010 at approximately 1345 hrs. at the Material Fuel Complex (MFC), a subcontractor driving a concrete truck came in contact with and broke an overhead 120 volt power line. The driver of the concrete truck off loaded sand in preparation for winter snow removal activities. He was then directed by a BEA escort to (go around the trailer) and (follow us out) to the exit gate. The escort intended for the driver to travel around the trailer on the left side, and follow the escort to the gate. This was understood by the driver of the concrete truck to mean (follow me around the trailer on the right side). The escort drove around the right side of the trailer underneath the power lines, and the driver of the concrete truck following the escort thereby contacting the overhead line. Upon coming in contact with and breaking the overhead line. The driver immediately stopped, and notified the escort. The BEA personnel immediately notified supervision of the problem.
Cause Description:	
Operating Conditions:	1345 hrs, clear skies, no wind.
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Work was suspended, the area barricaded, and immediate notifications

	made.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Facilities and Site Services
Plant Area:	MFC-790
System/Building/Equipment:	120 volt overhead power line
Facility Function:	Balance-of-Plant - Site/outside utilities
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01P--Inadequate Conduct of Operations - Inadequate Oral Communication 07B--Electrical Systems - Electrical Distribution 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical) 10B--Transportation - Vehicle Accident 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 7, 2010, at the Material Fuel Complex, a subcontractor was driving a concrete truck that came in contact with and severed an overhead 120-volt power line. The concrete truck driver had delivered sand in preparation for winter snow removal activities. The driver was then directed by an escort to drive around the trailer and follow the escort to the exit gate. This instruction was misunderstood by the concrete truck driver to mean driving around the trailer on the right side. The escort drove around the right side of the trailer underneath the power lines, and the concrete truck, following the escort, contacted the overhead line. The driver immediately stopped, and notified the escort. Required notifications were made. Work was suspended and the area barricaded.
Similar OR Report Number:	
Facility Manager:	Name: Crofts, Bryan P Phone: (208) 533-7995 Title: FACILITY PROJECT MANAGER
Originator:	Name: Crofts, Bryan P

	Phone (208) 533-4081 Title FACILITY PROJECT MANAGER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/07/2010; Time: 17:23 (MTZ); Person Notified: John C. Martin; Organization: DOEID
Authorized Classifier(AC):	Bevin Brush Date: 09/08/2010

10)Report Number:	NE-ID--BEA-MFC-2010-0006 **After 2003 Redesign**
Secretarial Office:	Nuclear Energy, Science and Technology
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	Materials and Fuels Complex
Subject/Title:	Security Maintenance Systems (SMS) worker witnessed a110 volt visual spark
Date/Time Discovered:	09/09/2010 16:15 (MTZ)
Date/Time Categorized:	09/09/2010 18:15 (MTZ)
Report Type:	Notification
Report Dates:	Notification: 09/14/2010 17:59 (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:	No
Occurrence Description:	On 09/09/2010 at about 1415 hrs., a Security Maintenance Systems (SMS) worker was installing a back plane to the back of a routing junction box, and was manipulating the existing wires around the side of the plane when he noticed a visual spark. The worker immediately stopped work, and notified supervision. The SMS worker was working the wires with his hands to manipulate

	them around the plane. The wires are insulated energized 110 volt lines that are routed through this J-box. No exposed wires, terminals, or connections exist inside this panel. The worker had donned the appropriate PPE per the work package.
Cause Description:	
Operating Conditions:	None that apply
Activity Category:	Maintenance
Immediate Action(s):	Stopped work. Notified Supervision. Barricaded area Installed Lock and Tagout on breaker to place in safe configuration.
FM Evaluation:	Event was re-categorized on 09/14/2010 to 2(C) 2.3 at 1330 hrs.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Jeffery K. Allen By When:
Division or Project:	Facility and Site Services
Plant Area:	MFC-768
System/Building/Equipment:	Security Maintenance Systems
Facility Function:	Balance-of-Plant - Storage (except SNM)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 9, 2010, a Security Maintenance Systems worker was installing a back plane to the back of a routing junction box, and was manipulating the existing wires with his hands around the side of the plane when he noticed a spark. The worker immediately stopped work, and notified supervision. The energized wires are insulated 110-volt lines that are routed through the junction box. No exposed wires, terminals, or connections exist inside the panel. The worker had donned the appropriate personal protective equipment per the work package. Work was stopped and the area was barricaded. A lock and tagout was installed on the circuit breaker to place it in a safe configuration.

Similar OR Report Number:	
Facility Manager:	Name: Crofts, Bryan P Phone: (208) 533-4081 Title: FACILITY PROJECT MANAGER
Originator:	Name: Crofts, Bryan P Phone: (208) 533-4081 Title: FACILITY PROJECT MANAGER

HQ OC Notification:

Date	Time	Person Notified	Organization
NA	NA	NA	NA

Other Notifications:

Date	Time	Person Notified	Organization
09/09/2010	16:23 (MTZ)	David B Lively	F&SS
09/09/2010	16:30 (MTZ)	Scott D. McBride	F&SS
09/09/2010	18:15 (MTZ)	John C. Martin	DOE ID
09/14/2010	13:30 (MTZ)	John C. Martin	DOE ID

Authorized Classifier(AC):

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11)Report Number:	NE-ID--BEA-STC-2010-0003 **After 2003 Redesign**
Secretarial Office:	Nuclear Energy, Science and Technology
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	Science and Technology Campus
Subject/Title:	Discovery of Work Control Process Violation Willow Creek Building
Date/Time Discovered:	09/20/2010 17:15 (MTZ)
Date/Time Categorized:	09/21/2010 10:30 (MTZ)
Report Type:	Notification

Report Dates:

Notification	09/21/2010	13:44 (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:	Yes CTSI
Occurrence Description:	On September 20, 2010 on the Idaho National Laboratory (INL) Willow Creek Building (WCB) at approximately 1700 a service subcontract employee was installing multi-media (communication cables) in the alternate emergency operations center. During installation the workers were removing the back panel of a work station. The design was such that several of the electrical outlets had to be removed to allow removal of the back panel. During the removal of the electrical outlets the subcontract worker was exposed to a live electrical source. This situation was identified by others and a time out (work stoppage) was initiated.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Construction
Immediate Action(s):	Work time out was initiated Complex Lockout Tagout was applied on all circuits A critique of the event was conducted on 9-21-10
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Paul Martinez By When:
Division or Project:	Infrastructure
Plant Area:	REC
System/Building/Equipment:	WCB Alternate Emergency Operations Center
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 11G--Other - Subcontractor

	12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 20, 2010, during the removal of the electrical outlets, a subcontract worker was exposed to a live electrical source at the Idaho National Laboratory Willow Creek Building. A service subcontract employee was installing multi-media (communication cables) in the alternate emergency operations center. During installation, workers were removing the back panel of a work station. The design was such that several of the electrical outlets had to be removed first to allow removal of the back panel. This situation was identified by others and a time out (work stoppage) was initiated. A complex lockout/tagout was applied on all circuits. A critique was held on September 21.
Similar OR Report Number:	
Facility Manager:	Name: Martinez, Paul L. Phone: (208) 526-1183 Title: Manager -Infrastructure Services
Originator:	Name: LINDBERG, STEVEN Phone: (208) 526-4007 Title: OPERATIONS MANAGER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	09/20/2010 17:15 (MTZ) Lorenzo D. Smith BEA 09/20/2010 18:13 (MTZ) Mike Goriup DOE-ID
Authorized Classifier(AC):	Jeffrey L. Garner Date: 09/21/2010

12)Report Number:	NE-ID--BEA-STC-2010-0005 **After 2003 Redesign**
Secretarial Office:	Nuclear Energy, Science and Technology
Lab/Site/Org:	Idaho National Laboratory
Facility Name:	Science and Technology Campus
Subject/Title:	Mislocated energy source in elevator control panel resulted in a person contacting the hazardous energy source
Date/Time Discovered:	09/28/2010 15:45 (MTZ)
Date/Time Categorized:	09/28/2010 16:15 (MTZ)
Report Type:	Notification
Report Dates:	Notification 09/30/2010 12:54 (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 09/28/2010 at approximately 15:45 two individuals were riding the IF-602 elevator down to the main lobby area of the Research Office Building(IF-602) at the Idaho National Laboratory (INL). They were discussing the improved looks of the interior of the elevator when one of the individuals pointed at one of the control panels and felt something like a static shock. Since there was new carpet and wall coverings he assumed it was a static shock from the carpet. He again touched the panels individually without receiving any further shock. Then he touched both panels with his left and right index finger and felt the shock again. He immediately notified the building FPM and informed him of the issue. The Facility Project Manager (FPM) accompanied by the individuals reported to the complex manager and informed him of the issue. The individuals, FPM, Facility Complex Manager (FCM) and a facility electrician returned to the elevator where the individual pointed out the place he was touching when shocked. The electricians donned his Personal Protective Equipment (PPE), using a volt meter, measured the two control panels and found 110V passing between the panels. Power to the elevator was shut off and a work order processed and a Lockout/Tagout (LO/TO) processed on the elevator controls. The electricians investigated the two boxes and found a standoff stud had become disconnected from the control circuit board allowing the board to shift down and short out to the control box case. The electricians installed a new plastic standoff stud and reassembled the panel. Power was restored, a check made between the two control panels and no current was detected. As part of the building lobby upgrade project that was underway last week the elevator subcontractor, that maintains this elevator, was hired to install the upgraded carpet and wall coverings in the elevator. The face plates of the control panels were removed to accomplish this, but no wiring was disconnected or changed. This activity was worked a week earlier on the 15 - 16 of September.		

	Further investigation will continue.
Cause Description:	
Operating Conditions:	Normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	Facility Complex Manager , Facility Project Manager and Electrician were contacted and returned to the elevator to investigate concern. When current was identified the power to the elevator was shut off and tagged out.
FM Evaluation:	
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Facility Management By When:
Division or Project:	J120
Plant Area:	REC
System/Building/Equipment:	IF-602 INL Research Office Building
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 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 28, 2010, two individuals were riding an elevator down to the main lobby area of the Research Office Building when one experienced an apparent static shock. They were discussing the improved looks of the interior of the elevator when one of the individuals pointed at one of the control panels and felt something like a static shock. Since there were new carpet and wall coverings, he assumed it was a static shock from the carpet. He again touched the panels individually without receiving any further shock. Then he touched both panels with his left and right index finger and felt the shock again. He immediately notified building management. A facility electrician returned to the elevator where the individual pointed out the place that he was touching when shocked. The electrician found 110-volts passing between the panels. Power to the elevator was shut off, a work order was processed and a lockout/tagout was installed on the elevator controls. Electricians investigated the two

	boxes and found a standoff stud had become disconnected from the control circuit board that allowed the board to shift down and short out to the control box case. The electricians installed a new plastic standoff stud and reassembled the panel. Further investigation will continue.
Similar OR Report Number:	
Facility Manager:	Name: LINDBERG, STEVEN Phone: (208) 526-4007 Title: OPERATIONS MANAGER
Originator:	Name: TUCK, KENNETH H Phone: (208) 526-2970 Title: SUPERVISOR
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/28/2010; Time: 17:00 (MTZ); Person Notified: M.R. Goriup; Organization: DOE-ID
Authorized Classifier(AC):	Dale J Claflin Date: 09/28/2010

13)Report Number:	SC--BSO-LBL-OPERATIONS-2010-0015 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Lawrence Berkeley Laboratory
Facility Name:	Operations Division
Subject/Title:	LOTO Violation at NERSC - No Injuries or Exposures (ARRA partially funded)
Date/Time Discovered:	09/08/2010 15:55 (PTZ)
Date/Time Categorized:	09/08/2010 16:02 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 09/10/2010 19:14 (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:	A3B4C02 - Human Performance Less Than Adequate (LTA); Work Practices LTA; Deliberate violation -->couplet - NA
ISM:	4) Perform Work Within Controls
Subcontractor Involved:	Yes JR Griffin
Occurrence Description:	On 09/03/2010, a LOTO violation occurred at the LBNL Oakland Scientific Facility (OSF). There were no injuries nor exposures. On 09/03/2010, at approximately 1500 hours, an LBNL electrical safety engineer observed a possible Lockout/Tagout (LOTO) violation during the preparation of permits for switching of high voltage power (12.8 kv) at the National Energy Research Scientific Computing Center (NERSC) on 20th Street in Oakland. The subcontractor, JR Griffin, were performing the power switching without a required permit. On 09/08/2010, the Facilities Division held a meeting with OSF management and the project construction manager and confirmed that LOTO work had been performed previously without a permit. The Lab management determined this is a violation of LOTO procedures and declared the incident an ORPS occurrence.
Cause Description:	Subcontractor completed installation of new electrical switch gear, transformer, ductbank and vaults for the power upgrade project at the Oakland Scientific Facility. Utility service provider made final connections up to and including the transformer and switch gear. While the switch gear was locked open in the safe position, the LOTO permit had not been approved. Utility service provider energized the system to the switch gear on 09/01/2010. Systems "down stream" of the switch gear had proper and approved LOTO permits.
Operating Conditions:	Indoors, lighted, dry
Activity Category:	Construction
Immediate Action(s):	On 09/08/2010, immediate action was taken by Facilities and EHS Staff. 1) Project team was interviewed; all work being conducted at the time of the interview was being conducted safely and per LBNL procedures, 2) EHS oversight of the OSF project is being increased to daily reviews, 3) Facilities management of the project is being increased with the Chief Construction Manager (CM) being on-site daily (in addition to the current full time CM), 4) Facilities staff, Project Team and subcontractor will be in a mandatory stand down meeting on 09/09/2010 at 7am.
FM Evaluation:	- On 09/08/2010 the Facilities management interviewed the project team. All work is being conducted safely and per LBNL procedures. - Effective 09/08/2010, the LBNL EH&S oversight of the OSF project is

	being increased to daily reviews. - Effective 09/08/2010, Facilities management of the project is being increased with the chief construction manager(CCM) being on site daily (in addition to the current full-time CM). - On 09/09/2010, the Facilities Division conducted a mandatory LOTO Stand-Down meeting for all Capital Projects Department personnel, Construction Projects Department personnel, Alterations and Construction Services Group personnel and the project subcontractors. - On 09/09/2010 an investigation team was charted.
DOE Facility Representative Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	Yes. Before Further Operation? No By Whom: Facilities By When:
Division or Project:	Facilties Division
Plant Area:	NERSC-OSF
System/Building/Equipment:	Oakland Scientific Facility (OSF) - 20th Street Oakland
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01Q--Inadequate Conduct of Operations - Personnel error 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 11G--Other - Subcontractor 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 13H--Management Concerns - American Recovery and Reinvestment Act (ARRA) 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 3, 2010, an LBNL electrical safety engineer observed a possible Lockout/Tagout (LOTO) violation during the preparation of permits for switching of high voltage power (12.8 kV) at the National Energy Research Scientific Computing Center (NERSC). The subcontractor was performing the power switching without a required

	permit. On September 8, the Facilities Division held a meeting with Oakland Scientific Facility management and the project construction manager and confirmed that LOTO work had been performed previously without a permit. The Lab management determined this is a violation of LOTO procedures. The Facilities Division conducted a mandatory LOTO Stand-Down meeting for all Capital Projects Department personnel, Construction Projects Department personnel, Alterations and Construction Services Group personnel and the project subcontractors. An investigation was started.
Similar OR Report Number:	
Facility Manager:	Name: Jennifer Ridgeway Phone: (510) 486-6339 Title: Division Director
Originator:	Name: Butson, Marie L. Phone: (510) 486-7456 Title: EXECUTIVE ASSISTANT
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/08/2010; Time: 16:12 (PTZ); Person Notified: Kevin Hartnett; Organization: BSO
Authorized Classifier(AC):	

14)Report Number:	SC--FSO-FNAL-FERMILAB-2010-0006 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	FERMI National Accelerator Laboratory
Facility Name:	FERMI National Accelerator Lab.(BOP)
Subject/Title:	Inadvertent Circuit Grounding
Date/Time Discovered:	09/30/2010 11:45 (CTZ)
Date/Time Categorized:	09/30/2010 16:00 (CTZ)
Report Type:	Notification
Report Dates:	Notification: 10/01/2010 17:39 (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 4) Perform Work Within Controls
Subcontractor Involved:	No
Occurrence Description:	On September 30, a Fermilab Particle Physics Division employee was completing work on a piece of sensitive electronic equipment that requires the use of a wrist grounding strap to be worn by the employee to prevent equipment damage. Work had been completed and the employee wanted to relocate the grounding strap. The grounding strap was connected to an energized duplex electrical outlet attachment screw as a ground. The outlet was in use for other electrical equipment at the time. The employee was removing the grounding strap from the cover of the duplex electrical outlet. While unscrewing the outlet cover screw, the metal outlet cover loosened and the outlet cover slid down onto the metal blades of an electrical plug. The contact between the metal outlet and the metal blades of the electrical plug created a ground condition and caused the circuit breaker to trip de-energizing the 120V AC circuit. No injuries or equipment damage resulted from the occurrence. The supervisor was notified and the circuit locked and tagged out by the supervisor. The investigation will focus on why proper lock out/tag out procedures was not used. The division is looking into safer grounding techniques when working on sensitive equipment.
Cause Description:	While unscrewing the outlet cover screw, the metal outlet cover loosened and contacted the electrically energized conductors in the right plug causing a spark. There was a space in between the plug and the outlet. The circuit breaker tripped de-energizing the outlet. The outlet was 120v AC service
Operating Conditions:	Normal
Activity Category:	Normal Operations (other than Activities specifically listed in this Category)
Immediate Action(s):	The supervisor was notified and locked and tagged the circuit containing the outlet. The supervisor then called the division safety officer to report the incident.
FM Evaluation:	A task as simple as this can pose great risk. It is mandatory that employees must understand and limit their activities to those that they are qualified and trained to do.
DOE Facility Representative	

Input:	
DOE Program Manager Input:	
Further Evaluation is Required:	No
Division or Project:	Particle Physics Division
Plant Area:	Lab C-D Cross Conect
System/Building/Equipment:	Lab C-D Cross Connect
Facility Function:	Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category)
Corrective Action 01:	**Target Completion Date:**10/30/2010 **Actual Completion Date:**
	Develop procedures for safe removal of Electro-static discharge grounding wrist bracelets attached to outlet coverplate screw attachments.
Corrective Action 02:	**Target Completion Date:**11/15/2010 **Actual Completion Date:**
	Install permement grounding static grounding system replacing those that used manual connections to the electrical outlet boxes as grounding.
Lessons(s) Learned:	
HQ Keywords:	01G--Inadequate Conduct of Operations - Inadequate Procedure 01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 30, 2010, a Fermilab Particle Physics Division employee was completing work on a piece of sensitive electronic equipment, using a wrist grounding strap connected to an energized duplex electrical outlet attachment screw as the ground, when the cover of the outlet being used contacted the metal electrical plug blades in an energized 120-volt AC circuit. The work required the use of the wrist grounding strap to prevent equipment damage. The outlet was in use for other electrical equipment at the time. The work had been completed and the employee wanted to relocate the grounding strap. While the employee was removing the grounding strap from the cover of the duplex electrical outlet by unscrewing the outlet cover screw, the metal outlet cover loosened and slid down onto the metal blades of an electrical plug. The contact between the metal outlet and the metal blades of the electrical plug created a ground condition and caused the circuit breaker to trip de-energizing the 120-volt AC circuit. The supervisor was notified and the circuit locked and tagged out by the supervisor. The investigation will focus on why proper lock out/tag out procedures were not used. The division is reviewing safer grounding techniques when working on sensitive equipment. No injuries or equipment damage resulted from this event.

Similar OR Report Number:	1. None
Facility Manager:	Name: Bruce Chrisman Phone: (630) 840-2359 Title: Chief Operating Officer
Originator:	Name: JAMES, WILLIAM R Phone: (630) 840-8901 Title: ES&H EMERGENCY PLANNER
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	09/30/2010 15:55 (CTZ) B. Chrisman COO 09/30/2010 16:30 (CTZ) M Bollinger DOE FSO
Authorized Classifier(AC):	

15)Report Number:	SC--PNSO-PNNL-PNNLBOPER-2010-0019 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Pacific Northwest National Laboratory
Facility Name:	Energy Research Programs (PNNL)
Subject/Title:	Vendor Hazardous Energy Control Incident
Date/Time Discovered:	09/03/2010 12:30 (PTZ)
Date/Time Categorized:	09/03/2010 14:57 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 09/08/2010 13:43 (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:	3) Develop and Implement Hazard Controls 4) Perform Work Within Controls

Subcontractor Involved:	Yes FEI Company
Occurrence Description:	On Friday, September 03, 2010, a contractor/vendor was commissioning a Transmission Electron Microscope and removed a panel on the side of the control cabinet exposing 400 VAC energized electrical components. The Contractor/ Vendor did not have the PNNL required Diagnostic and Testing (D&T) or Energized Electrical Work Permit (EEWP) for this scope of work.
Cause Description:	
Operating Conditions:	N/A
Activity Category:	Research
Immediate Action(s):	The panel was replaced and the equipment was left in a safe configuration. A critique was held Tuesday, September 7, 2010.
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:	W.R. Wiley, Environmental Molecular Sciences Lab
Plant Area:	PNNL Site
System/Building/Equipment:	EMSL/1118
Facility Function:	Laboratory - Research & Development
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 3, 2010, a contractor/vendor was commissioning a Transmission Electron Microscope and removed a panel on the side of the control cabinet that exposed 400-volt AC energized electrical components. The Contractor/ Vendor did not have the PNNL required Diagnostic and Testing documentation or the Energized Electrical Work Permit for this scope of work. The panel was replaced and the equipment was left in a safe configuration. A critique was held.

Similar OR Report Number:	1. SC--PNSO-PNNL-PNNLBOPER-2009-0016
Facility Manager:	Name: Lea, A. S. Phone: (509) 371-6233 Title: Manager, Microscopy
Originator:	Name: SMITH, KARLA J Phone: (509) 373-6481 Title: TECH. OPS AND ASSURANCE OFFICE, SPEC
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/03/2010; Time: 15:20 (PTZ); Person Notified: Davies, T.; Organization: PNSO
Authorized Classifier(AC):	Pollari, R. A. Date: 09/08/2010

16)Report Number:	SC--PNSO-PNNL-PNNLBOPER-2010-0020 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Pacific Northwest National Laboratory
Facility Name:	Energy Research Programs (PNNL)
Subject/Title:	Contractor Hazardous Energy Control Incident
Date/Time Discovered:	09/09/2010 11:20 (PTZ)
Date/Time Categorized:	09/09/2010 11:46 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 09/13/2010 14:57 (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 Total Site Services, LLC

Occurrence Description:	On Thursday, September 9, 2010, at approximately 1120 hours, a contractor severed a conduit containing energized 120 VAC conductors with a reciprocating saw while performing roof repairs of the Atmospheric Measurements Laboratory (AML). The breaker tripped but there was no observable sparking. The worker was not injured and did not receive a shock.
Cause Description:	
Operating Conditions:	N/A
Activity Category:	Construction
Immediate Action(s):	Work was immediately stopped and the area secured. The affected breaker was locked and tagged out. The AML roofing activities requiring penetration of the roof surface have been suspended until further investigation is complete. A critique was held Friday, September 10, 2010.
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:	Operational Systems / Facilities and Operations
Plant Area:	RCHN Area
System/Building/Equipment:	Atmospheric Measurements Laboratory (AML)
Facility Function:	Laboratory - Research & Development
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01N--Inadequate Conduct of Operations - Inadequate Job Planning (Other) 07D--Electrical Systems - Electrical Wiring 11G--Other - Subcontractor 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency 14G--Quality Assurance - Procurement Deficiency
HQ Summary:	On September 9, 2010, a contractor using a reciprocating saw severed a conduit containing energized 120-VAC conductors while repairing the roof of the Atmospheric Measurements Laboratory (AML). The circuit breaker tripped but there was no observable sparking. The contractor was not injured and did not receive an electrical shock. Work was immediately stopped and the area was secured. The affected circuit breaker was locked and tagged out. The AML roofing activities that require penetration of the

	roof surface have been suspended until further investigation is complete. A critique was held.
Similar OR Report Number:	
Facility Manager:	Name: Sadesky, R. Phone: (509) 371-7934 Title: Manager, Project Support Office
Originator:	Name: SMITH, KARLA J Phone: (509) 373-6481 Title: TECH. OPS AND ASSURANCE OFFICE, SPEC
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/09/2010; Time: 11:48 (PTZ); Person Notified: Carlson, J. L.; Organization: PNSO
Authorized Classifier(AC):	Sutherland, M. R. Date: 09/13/2010

17)Report Number:	SC--PNSO-PNNL-PNNLBOPER-2010-0021 **After 2003 Redesign**
Secretarial Office:	Science
Lab/Site/Org:	Pacific Northwest National Laboratory
Facility Name:	Energy Research Programs (PNNL)
Subject/Title:	Discovery of Uncontrolled Hazardous Energy
Date/Time Discovered:	09/23/2010 10:46 (PTZ)
Date/Time Categorized:	09/23/2010 11:56 (PTZ)
Report Type:	Notification
Report Dates:	Notification: 09/27/2010 12:30 (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:	

Subcontractor Involved:	No
Occurrence Description:	On Thursday, September 23, 2010, at 1046 hours, PNNL staff performing a lab self assessment discovered a piece of research equipment with exposed energized (120V) electrical conductors, in the Biological Sciences Facility (BSF), Room 2217. There was no contact with the hazardous energy as a result of this discovery.
Cause Description:	
Operating Conditions:	N/A
Activity Category:	Research
Immediate Action(s):	The equipment was unplugged and taken out of service. A critique was conducted Friday, September 24, 2010.
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:	Biological Sciences / Fundamental & Comp Sciences
Plant Area:	RCHN
System/Building/Equipment:	BSF / Lab 2217
Facility Function:	Laboratory - Research & Development
Corrective Action:	
Lessons(s) Learned:	
HQ Keywords:	07D--Electrical Systems - Electrical Wiring 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency
HQ Summary:	On September 23, 2010, PNNL staff performing a lab self assessment discovered a piece of research equipment with exposed energized (120-Volt) electrical conductors in the Biological Sciences Facility, Room 2217. There was no contact with hazardous energy as a result of this discovery. The equipment was unplugged and taken out of service. A critique was conducted on September 24.
Similar OR Report Number:	
Facility Manager:	Name: Koppenaal, D. W. Phone: (509) 371-6549 Title: Manager, Bio Separations & Mass Spect

Originator:	Name: POLLARI, ROGER A Phone: (509) 371-7700 Title:
HQ OC Notification:	Date: NA; Time: NA; Person Notified: NA; Organization: NA
Other Notifications:	Date: 09/23/2010; Time: 12:16 (PTZ); Person Notified: Christ, Josef; Organization: PNSO
Authorized Classifier(AC):	Pollari, R. A. Date: 09/27/2010