

## March 2008 Electrical Safety Occurrences

There were 5 electrical safety occurrences for March 2008:

- 1 resulted in an electrical shock
- 3 involved lockout/tagout
- 1 involved a vehicle intrusion of electrical equipment
- 4 involved electrical workers and 1 involved a non-electrical worker
- 0 occurrences involved 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),

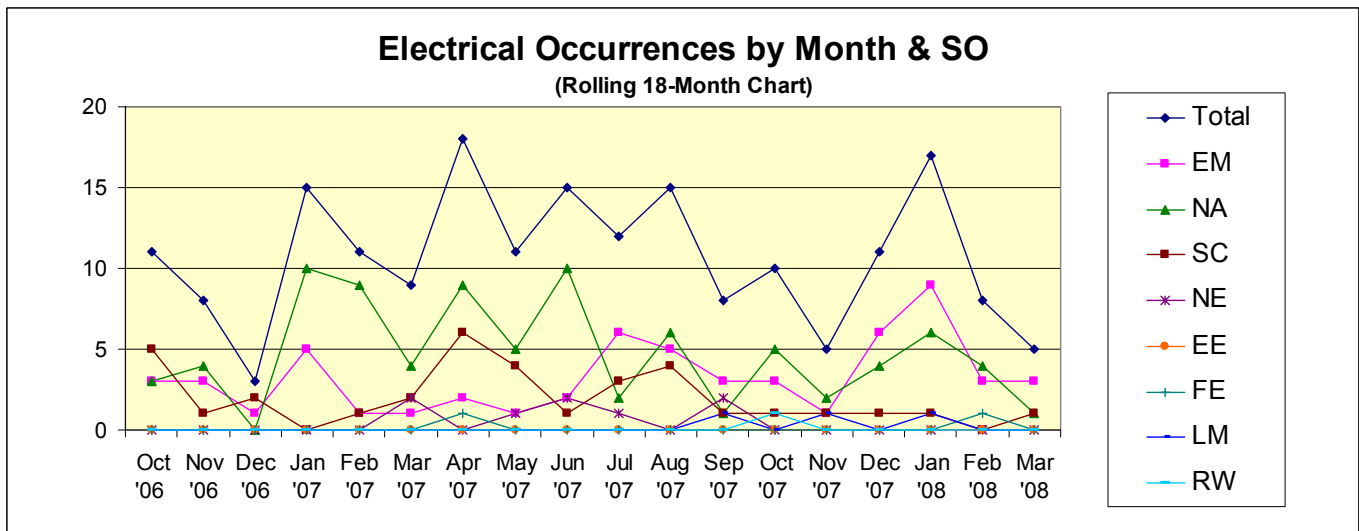
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

The initial search yielded 5 occurrences and a review of these determined that none needed to be culled out.

Below is the current summary of 2008 electrical safety occurrences:

Period	Electrical Safety Occurrences	Shocks	Burns	Fatalities
Jan-08	17	7	0	0
Feb-08	8	3	0	0
Mar-08	5	1	0	0
2008 total	30 (avg. 10/month)	11	0	0
2007 total	140 (avg. 11.7/month)	25	2	0
2006 total	166 (avg. 13.8/month)	26	3	0
2005 total	165 (avg. 13.8/month)	39	5	0
2004 total	149 (avg. 12.4/month)	25	3	1

The average rate of electrical safety occurrences in 2008 is now 10 per month, which is less than the average rate of 11.7 per month experienced in 2007.



## Electrical Safety Occurrences – March 2008

No	Report Number	Subject/Title	EW <sup>(1)</sup>	N-EW <sup>(2)</sup>	SUB <sup>(3)</sup>	SHOCK	BURN	ARCF <sup>(4)</sup>	LOTO <sup>(5)</sup>	EXCAV <sup>(6)</sup>	CUT/D <sup>(7)</sup>	VEH <sup>(8)</sup>
1	EM--PPPO-PRS-PGDPEENVRES-2008-0003	Unexpected Discovery of Energized 120V Heater Circuit during Installation of Temporary Power in Switchgear Cubicle	X						X			
2	EM-ID--CWI-BIC-2008-0002	Snow Removal Equipment Severs 240-Volt Temporary Power Cable		X								X
3	EM-RL--PHMC-FSS-2008-0002	LOTO Procedural Compliance Concern	X						X			
4	NA--YSO-BWXT-Y12SITE-2008-0011	Failure of LO/TO to Fully Isolate Power	X						X			
5	SC--BSO-LBL-ENG-2008-0001	Maintenance Technician Sustained Electric Shock at ALS	X			X						
	TOTAL		4	1		1			3			1

### Key

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

# ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 53660 OR(s) with 56978 occurrences(s) as of 4/2/2008 11:23:12 AM  
Query selected 5 OR(s) with 5 occurrences(s) as of 4/2/2008 2:36:00 PM

Download this report in Microsoft Word format. 

<b>1)Report Number:</b>	<a href="#">EM--PPPO-PRS-PGDPENVRES-2008-0003</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Environmental Management		
<b>Lab/Site/Org:</b>	Paducah Gaseous Diffusion Plant		
<b>Facility Name:</b>	Environmental Restoration		
<b>Subject/Title:</b>	Unexpected Discovery of Energized 120V Heater Circuit during Installation of Temporary Power in Switchgear Cubicle		
<b>Date/Time Discovered:</b>	03/25/2008 15:00 (ETZ)		
<b>Date/Time Categorized:</b>	03/25/2008 15:55 (ETZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	03/27/2008	18:32 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.		
<b>Cause Codes:</b>			
<b>ISM:</b>	2) Analyze the Hazards 4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	<p>On March 20, 2008, electricians were completing installation of a new 480V 200 amp breaker for a temporary power circuit in a outdoor main power panel at the C-410 facility. Work was being performed under an approved PRS work package and the main circuit breaker for the panel was locked and tagged open using the single source exception per the approved site Lock Out/Tag Out (LO/TO)procedure. A LO/TO permit was not required.</p> <p>It was a cold day (less than 33 degrees F) and one of the electricians felt heat being radiated from a heater located at the bottom of the switchgear cabinet.</p>		

Upon further investigation, the electrician concluded the heater was energized (120 VAC).

During previous work evolutions, the heater had not been energized because it was thermostatically controlled and the ambient temperature was higher than the thermostat set point when work was being performed. Therefore, previous zero energy checks on the heater terminals had indicated no voltage. No zero energy check was made on the heater terminals before the work was initiated on March 20, 2008.

The Front Line Manager (FLM) overheard an electrician discussing the discovery of the energized heater. The FLM temporarily suspended the work and gathered the electricians to discuss this changed condition. A switch (located on the switchgear panel) was identified that de-energized the heater and was turned off. Electricians performed a zero energy check on the heater and verified it was de-energized. The FLM and electricians discussed how to proceed and agreed to continue to finish the job, which consisted of connecting the wires to the new circuit breaker. A LO/TO permit was discussed but it was agreed that they had placed the equipment in a safe condition and could resume. Personnel were wearing cotton clothing, safety glasses, and leather gloves while working in the switchgear cubicle. The job was finished without further incident. None of the personnel involved came in contact with the 120v heater or terminals during the time it was energized.

On March 25, 2008, after a briefing for a revision to the site LO/TO procedure, the FLM decided to perform a thorough review of the procedure in relation to the work performed on March 20. During the review, the FLM determined the actions taken on March 20th may have resulted in a violation of the site LO/TO procedure.

The FLM immediately self-reported the event to the Superintendent, Operations Manager, and Facilities Disposition Director stating that the LO/TO procedure might have been violated. Upon conferring with the Quality Assurance, the Facilities Disposition Director determined that the event was a violation of the LO/TO procedure and ORPS reportable.

**Cause Description:**

**Operating Conditions:**

Does Not Apply

**Activity Category:**

Facility Decontamination/Decommissioning

**Immediate Action(s):**

A critique of the event was conducted by PRS Senior Management following the event.

An Extent of Condition review was initiated for all active lockout/tagout tasks by the Manager of Projects on March 26, 2008.

Workers were reassigned to other work where LO/TO was not required

	pending completion of the extent of condition review and evaluation by management.
<b>FM Evaluation:</b>	A safety pause, in which this event was discussed, was conducted for all site personnel on March 26 and 27, 2008. The extent of condition review of all active LO/TO permits is continuing. Work involving LO/TO will not be re-initiated until management has been assured that all the appropriate hazard controls are in place and the work involving LO/TO can be performed safely.
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? Yes By Whom: Pete Coutts By When: 05/05/2008
<b>Division or Project:</b>	Paducah Environmental Restoration Project
<b>Plant Area:</b>	C-410/C-420 Complex
<b>System/Building/Equipment:</b>	C-410/C-420 Complex
<b>Facility Function:</b>	Category "B" Reactors
<b>Corrective Action:</b>	
<b>Lessons(s) Learned:</b>	
<b>HQ Keywords:</b>	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 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency
<b>HQ Summary:</b>	On March 20, 2008, electricians were completing installation of a new 480V 200 amp breaker for a temporary power circuit in an outdoor main power panel at the C-410 facility. The main circuit breaker for the panel was locked and tagged open using the single source exception per the approved site Lock Out/Tag Out (LO/TO) procedure. During the work, an electrician felt heat radiating from a heater located at the bottom of the switchgear cabinet, and realized it was energized. No zero energy check was made on the heater terminals before the work was initiated. Work was suspended so the changed condition could be discussed. The heater was de-energized and the work was completed. A subsequent review of the site LO/TO procedure in relation to the work performed on March 20 determined the actions taken may have resulted in a violation of the site LO/TO procedure.
<b>Similar OR Report Number:</b>	

<b>Facility Manager:</b>	Name	Pete Coutts		
	Phone	(270) 441-5035		
	Title	Manager of Projects		
<b>Originator:</b>	Name	VALENTINE, LENIS C		
	Phone	(270) 441-5161		
	Title	SENIOR QA ENGINEER		
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	03/25/2008	15:00 (ETZ)	Don Ulrich	PRS PM
	03/25/2008	15:00 (ETZ)	Len Valentine	PRS QA
	03/25/2008	15:00 (ETZ)	Greg Bazzell	DOE FR
	03/25/2008	15:55 (ETZ)	Mike Evans	PRS S&H
	03/25/2008	17:30 (ETZ)	John Martin	PRS S&H
	03/25/2008	18:10 (ETZ)	Bob Goldsmith	DOE EM
<b>Authorized Classifier(AC):</b>	Montgomery Breneman		Date: 03/27/2008	

<b>2)Report Number:</b>	<a href="#">EM-ID--CWI-BIC-2008-0002</a> After 2003 Redesign		
<b>Secretarial Office:</b>	Environmental Management		
<b>Lab/Site/Org:</b>	Idaho National Laboratory		
<b>Facility Name:</b>	Demolition and Decommissioning Activities		
<b>Subject/Title:</b>	Snow Removal Equipment Severs 240-Volt Temporary Power Cable		
<b>Date/Time Discovered:</b>	03/04/2008 13:50 (MTZ)		
<b>Date/Time Categorized:</b>	03/04/2008 15:35 (MTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	03/06/2008	15:31 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary		

	investigations made before work is authorized to begin.
<b>Cause Codes:</b>	
<b>ISM:</b>	2) Analyze the Hazards 4) Perform Work Within Controls
<b>Subcontractor Involved:</b>	No
<b>Occurrence Description:</b>	<p>At about 1350 hours on Tuesday, March 4, 2008 a CH2M-WG Idaho (CWI) Voluntary Consent Order (VCO)/Deactivation and Demolition (D&amp;D) front end loader was being operated by a heavy equipment operator (HEO). During use of this equipment in a snow removal activity, it struck and damaged a live 240-volt temporary electrical supply cable. The HEO was using the front end loader in an attempt to clear a space for relocation of a VCO storage / cargo container. The approved snow removal map that identifies interferences was not being used, nor were the requirements in the snow removal plan (MCP-6103, Appendix D) being followed. The damage from the front end loader to the cable caused the power supply breaker in the Irradiated Fuel Storage Facility, CPP-603, to trip.</p> <p>No personnel injuries, no visible electrical arcing and no burn marks on the loader bucket were noted.</p> <p>VCO and D&amp;D personnel performed a step-back, contacted maintenance electricians to ensure the circuit was no longer energized and placed a lock out tag out (LO/TO) on the breaker. While notifications were being made and the LO/TO was being prepared, personnel were assigned to guard the area to prevent any contact with the cable. The area of cable damage was roped off and posted to limit access.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	Normal Voluntary Consent Order activities
<b>Activity Category:</b>	Facility Decontamination/Decommissioning
<b>Immediate Action(s):</b>	<ol style="list-style-type: none"> <li>1. Stopped the snow removal activity.</li> <li>2. Placed a LO/TO on the circuit and completed a zero energy verification.</li> <li>3. Roped off the area and limited area access.</li> <li>4. Placed a hold on all INTEC area snow removal in non-designated areas.</li> </ol>
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	<p>Yes. Before Further Operation? No By Whom: T. Reynolds By When: 04/17/2008</p>
<b>Division or Project:</b>	Balance of Plant

<b>Plant Area:</b>	INTEC								
<b>System/Building/Equipment:</b>	Temporary power /Temporary building/Snow removal								
<b>Facility Function:</b>	Balance-of-Plant - Site/outside utilities								
<b>Corrective Action:</b>									
<b>Lessons(s) Learned:</b>									
<b>HQ Keywords:</b>	01N--Inadequate Conduct of Operations - Inadequate Job Planning (Other) 07D--Electrical Systems - Electrical Wiring 08F--OSHA Reportable/Industrial Hygiene - Industrial Operations Issues 12C--EH Categories - Electrical Safety 14E--Quality Assurance - Work Process Deficiency								
<b>HQ Summary:</b>	During snow removal, a front end loader struck and damaged an energized 240-volt temporary electrical supply cable and tripped a power supply breaker in the Irradiated Fuel Storage Facility, CPP-603. No personnel injuries, no visible electrical arcing and no burn marks on the loader bucket were noted. The circuit breaker was locked and tagged out and snow removal was suspended.								
<b>Similar OR Report Number:</b>									
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>T. Reynolds</td> </tr> <tr> <td>Phone</td> <td>(208) 526-8005</td> </tr> <tr> <td>Title</td> <td>INTEC Operations Manager</td> </tr> </table>	Name	T. Reynolds	Phone	(208) 526-8005	Title	INTEC Operations Manager		
Name	T. Reynolds								
Phone	(208) 526-8005								
Title	INTEC Operations Manager								
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td>GERDES, ANNETTE W</td> </tr> <tr> <td>Phone</td> <td>(208) 526-3100</td> </tr> <tr> <td>Title</td> <td>PLANT SHIFT SUPERVISOR</td> </tr> </table>	Name	GERDES, ANNETTE W	Phone	(208) 526-3100	Title	PLANT SHIFT SUPERVISOR		
Name	GERDES, ANNETTE W								
Phone	(208) 526-3100								
Title	PLANT SHIFT SUPERVISOR								
<b>HQ OC Notification:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	NA	NA	NA	NA
Date	Time	Person Notified	Organization						
NA	NA	NA	NA						
<b>Other Notifications:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>03/04/2008</td> <td>15:35 (MTZ)</td> <td>Rodger Claycomb</td> <td>DOE-ID</td> </tr> </tbody> </table>	Date	Time	Person Notified	Organization	03/04/2008	15:35 (MTZ)	Rodger Claycomb	DOE-ID
Date	Time	Person Notified	Organization						
03/04/2008	15:35 (MTZ)	Rodger Claycomb	DOE-ID						
<b>Authorized Classifier(AC):</b>	Annette W. Gerdes    Date: 03/06/2008								

---

<b>3)Report Number:</b>	<a href="#">EM-RL--PHMC-FSS-2008-0002</a> After 2003 Redesign
<b>Secretarial Office:</b>	Environmental Management
<b>Lab/Site/Org:</b>	Hanford Site
<b>Facility Name:</b>	Facility & Site Services
<b>Subject/Title:</b>	LOTO Procedural Compliance Concern
<b>Date/Time Discovered:</b>	03/14/2008 09:45 (PTZ)
<b>Date/Time Categorized:</b>	03/14/2008 10:20 (PTZ)
<b>Report Type:</b>	Notification



<b>Report Dates:</b>	Notification	03/18/2008	16:33 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence)		
<b>Cause Codes:</b>			
<b>ISM:</b>			
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	<p>On 03/12/2008 at approximately 1600 hours, craft personnel reported a concern to management relative to compliance with hazardous energy control procedure HNF-PRO-081. a review of the activity was performed. It was determined that inconsistencies existed in compliance with prescribed procedures for the isolation of the utilities for a modular office. The inconsistencies were both technical and administrative in nature. At no time during the performance of this work were any workers exposed to hazardous energy.</p> <p>The task at hand was to remove all utilities from MO-251 to prepare the modular for relocation to another location on the Hanford Site. On-Site Fluor Hanford Construction Services (FHCS) were tasked with the work scope and started the dismantling process on 03/12/2008 beginning with the removal of modular skirting followed by isolation of the water and sewer utilities.</p> <p>On the morning of 03/12/2008, FH Electrical Utilities (EU) received written authorization from FH Facilities &amp; Land Management (F&amp;LM) to remove electrical service to MO-251. The authorization was granted for the period of 03/12/2008 through 03/20/2008, at which time the electrical power was to be restored to provide electrical service to two remaining modular offices and parking lot lighting. This effort required the opening of switches on the utility pole which in turn removed electrical power to a pedestal mounted transformer. Since electrical power was to be restored, EU was also requested to lift all electrical cables from the transformer that fed the MO-251 local disconnect.</p> <p>Per procedure, EU installed their required EU Hold-Off tag. FHCS electrical</p>		

	<p>personnel then applied Authorized Worker (AW) danger tags over the EU Hold-Off tag and EU proceeded to perform their authorized tasks. Following completion of the EU work tasks (opening of switches and lifting of MO-251 feeder cabling), FHCS electrical personnel performed the required zero energy check and performed the dismantling and removal of the electrical service at the MO-251 local disconnect.</p> <p>A review of the process identified that FHCS electrical personnel and the work task Field Work Supervisor (FWS) failed to gain preliminary review of the work task by the Controlling Organization. It was also determined that the FHCS electrical personnel erred by over-tagging the EU Hold-Off tag when using an AW tag. In this process, a Danger Do Not Operate (DDNO) should have been used.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	The facility was in a transitional mode and to be relocated.
<b>Activity Category:</b>	Construction
<b>Immediate Action(s):</b>	<ol style="list-style-type: none"> <li>1. All work activity was immediately stopped on 03/12/2008.</li> <li>2. Critique meeting was held on 03/14/2008 to determine facts.</li> <li>3. Maintenance Services performed CO review and all pertinent tagging was performed on 03/17/2008.</li> </ol>
<b>FM Evaluation:</b>	<p>FH Facilities &amp; Land Management (F&amp;LM) manages both FH general purpose facilities and on-Site FHCS on the Hanford Site. In adherence to Site labor contracts and for ease of operations, F&amp;LM delegates Controlling Organization (CO) responsibilities to multiple support organizations. During the review of this incident, it was determined that confusion existed in the initial review of the work task by the CO. The job site FHCS FWS did not contact the FHCS delegated CO as required. The FHCS CO is required to perform the initial review of the work task and determine criteria to perform the utility removal in compliance with Hanford Site energy control procedures.</p> <p>It was also determined in the critique review of this incident that the Controlling Organization (F&amp;LM) delegations to supporting organizations was confusing and may need some refinement and/or rewrite.</p>
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	No
<b>Division or Project:</b>	Fluor Hanford Closure Services & Infrastructure

<b>Plant Area:</b>	200 East Area																			
<b>System/Building/Equipment:</b>	Modular Office Building																			
<b>Facility Function:</b>	Balance-of-Plant - Offices																			
<b>Corrective Action:</b>																				
<b>Lessons(s) Learned:</b>																				
<b>HQ Keywords:</b>	01A--Inadequate Conduct of Operations - Inadequate Conduct of Operations (miscellaneous) 01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 01P--Inadequate Conduct of Operations - Inadequate Oral Communication 01R--Inadequate Conduct of Operations - Management issues 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14E--Quality Assurance - Work Process Deficiency																			
<b>HQ Summary:</b>	<p>Craft personnel reported a concern to management relative to compliance with a hazardous energy control procedure during relocation of a modular office building. A review of the activity determined that inconsistencies existed in compliance with prescribed procedures, namely, that a required approval was not obtained, and that an Authorized Worker danger tag was placed over a Hold-Off tag rather than the required Danger Do Not Operate tag. At no time during the performance of this work were any workers exposed to hazardous energy. Work was stopped, a critique was held and tagging was corrected.</p>																			
<b>Similar OR Report Number:</b>																				
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">C. W. Stolle</td> </tr> <tr> <td>Phone</td> <td colspan="3">(509) 376-9080</td> </tr> <tr> <td>Title</td> <td colspan="3">Manager, Facilities &amp; Land Management</td> </tr> </table>				Name	C. W. Stolle			Phone	(509) 376-9080			Title	Manager, Facilities & Land Management						
Name	C. W. Stolle																			
Phone	(509) 376-9080																			
Title	Manager, Facilities & Land Management																			
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">BOYCE, MICHAEL L</td> </tr> <tr> <td>Phone</td> <td colspan="3">(509) 376-3030</td> </tr> <tr> <td>Title</td> <td colspan="3">OCCURRENCE REPORTING SPEC.</td> </tr> </table>				Name	BOYCE, MICHAEL L			Phone	(509) 376-3030			Title	OCCURRENCE REPORTING SPEC.						
Name	BOYCE, MICHAEL L																			
Phone	(509) 376-3030																			
Title	OCCURRENCE REPORTING SPEC.																			
<b>HQ OC Notification:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	NA	NA	NA	NA								
Date	Time	Person Notified	Organization																	
NA	NA	NA	NA																	
<b>Other Notifications:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>03/14/2008</td> <td>10:20 (PTZ)</td> <td>R. Gentry</td> <td>FH CS&amp;I</td> </tr> <tr> <td>03/14/2008</td> <td>10:22 (PTZ)</td> <td>C. W. Stolle</td> <td>FH CS&amp;I</td> </tr> <tr> <td>03/14/2008</td> <td>10:25 (PTZ)</td> <td>D. C. Humphreys</td> <td>DOE/RL</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	03/14/2008	10:20 (PTZ)	R. Gentry	FH CS&I	03/14/2008	10:22 (PTZ)	C. W. Stolle	FH CS&I	03/14/2008	10:25 (PTZ)	D. C. Humphreys	DOE/RL
Date	Time	Person Notified	Organization																	
03/14/2008	10:20 (PTZ)	R. Gentry	FH CS&I																	
03/14/2008	10:22 (PTZ)	C. W. Stolle	FH CS&I																	
03/14/2008	10:25 (PTZ)	D. C. Humphreys	DOE/RL																	
<b>Authorized Classifier(AC):</b>																				

---

<b>4)Report Number:</b>	<a href="#">NA--YSO-BWXT-Y12SITE-2008-0011</a> After 2003 Redesign		
<b>Secretarial Office:</b>	National Nuclear Security Administration		
<b>Lab/Site/Org:</b>	Y12 National Security Complex		
<b>Facility Name:</b>	Y-12 Site		
<b>Subject/Title:</b>	Failure of LO/TO to Fully Isolate Power		
<b>Date/Time Discovered:</b>	03/15/2008 10:20 (ETZ)		
<b>Date/Time Categorized:</b>	03/15/2008 12:37 (ETZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	03/18/2008	16:42 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.		
<b>Cause Codes:</b>			
<b>ISM:</b>	1) Define the Scope of Work		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	<p>On March 15, 2008, a work activity had been planned and scheduled to perform a preventive maintenance (PM) activity on a motor control center (MCC) in a process area. The PM involved removing electrical power from the breaker that was feeding the MCC using a single source lockout/tagout (LO/TO) isolation. The isolation breaker was identified in the approved outage plan. Once the breaker was turned off and locked-out, the absence of voltage was verified using a contact voltage meter on the input terminals of the MCC. As the PM work began, the electricians performing the work heard a clicking noise that sounded like an electric relay activating in an adjacent section of the MCC which had not yet been opened. The electricians stopped work, opened the adjacent panel and identified the presence of voltage using a proximity meter. They immediately closed the panel and contacted their supervisor to report conditions were not as expected and the LO/TO did not fully isolate the MCC as expected. The supervisor suspended the job and contacted the LO/TO Issuing Authority (IA) to determine the origin of second power source. After initial discussion with the IA, the supervisor contacted the maintenance Section Manager who came to the work site and evaluated the situation with the supervisor and IA. The area was flagged off and the Maintenance Execution Director was</p>		

	<p>notified of the discovery. When the Y-12 Electrical Authority Having Jurisdiction (AHJ) was notified of the discovery, it was confirmed to be a reportable occurrence event under criteria 2_C2 because the LO/TO did not isolate all power to the MCC and there was an unexpected discovery of an uncontrolled hazardous energy source (second voltage source).</p> <p>A preliminary investigation has identified a 110-volt control relay for another piece of process support equipment was located in the second compartment of the MCC and it was fed power from a source outside of the MCC.</p> <p>A critique was held on the same day as the event to collect the event facts. The PM activity was cancelled and the system returned to pre-PM status. The PM will not resume until effective energy isolation can be performed.</p>
<b>Cause Description:</b>	
<b>Operating Conditions:</b>	The process had been taken out of service for the PM activity
<b>Activity Category:</b>	Maintenance
<b>Immediate Action(s):</b>	<ul style="list-style-type: none"> <li>- Electrical personnel were briefed before the PM job began</li> <li>- A LO/TO was performed per the approved outage plan</li> <li>- Absence of voltage was verified at the MCC main power terminals</li> <li>- The electricians heard what appeared to be electrical relay activity in an adjacent MCC compartment</li> <li>- The electricians stopped work and opened the adjacent panel</li> <li>- When the presence of electrical potential was identified, the panel was closed and supervision notified</li> <li>- Supervision contacted the LO/TO IA</li> <li>- Supervision contacted the maintenance Section Manager who contacted the Maintenance Execution Division Manager</li> <li>- The Electrical AHJ was contacted and a CAT 3 Occurrence event was declared</li> <li>- The area was controlled with flagging and a critique was held</li> <li>- The MCC was returned to pre-PM status and turned over to operations personnel</li> </ul>
<b>FM Evaluation:</b>	
<b>DOE Facility Representative Input:</b>	
<b>DOE Program Manager Input:</b>	
<b>Further Evaluation is Required:</b>	<p>Yes.          Before Further Operation? No          By Whom:          By When:</p>
<b>Division or Project:</b>	FI&S
<b>Plant Area:</b>	Protected Area

<b>System/Building/Equipment:</b>	MCC																			
<b>Facility Function:</b>	Balance-of-Plant - Site/outside utilities																			
<b>Corrective Action:</b>																				
<b>Lessons(s) Learned:</b>																				
<b>HQ Keywords:</b>	01B--Inadequate Conduct of Operations - Loss of Configuration Management/Control 01K--Inadequate Conduct of Operations - Lockout/Tagout Noncompliance (Electrical) 01M--Inadequate Conduct of Operations - Inadequate Job Planning (Electrical) 12I--EH Categories - Lockout/Tagout (Electrical or Mechanical) 14D--Quality Assurance - Documents and Records Deficiency 14E--Quality Assurance - Work Process Deficiency																			
<b>HQ Summary:</b>	While performing preventive maintenance (PM) on a motor control center (MCC) that was isolated by a single source lockout/tagout (LO/TO), electricians heard a clicking noise that sounded like an electric relay activating in an adjacent section of the MCC. The electricians stopped work, opened the adjacent panel and found voltage using a proximity meter. They immediately closed the panel and contacted their supervisor to report that the LO/TO did not fully isolate the MCC. A preliminary investigation identified a 110-volt control relay in the second compartment of the MCC that received power from a source outside of the MCC. A critique was held and the PM was cancelled until effective energy isolation can be performed.																			
<b>Similar OR Report Number:</b>																				
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">Ray, Floyd</td> </tr> <tr> <td>Phone</td> <td colspan="3">(865) 576-8287</td> </tr> <tr> <td>Title</td> <td colspan="3">Maintenance Section Manager</td> </tr> </table>				Name	Ray, Floyd			Phone	(865) 576-8287			Title	Maintenance Section Manager						
Name	Ray, Floyd																			
Phone	(865) 576-8287																			
Title	Maintenance Section Manager																			
<b>Originator:</b>	<table border="1"> <tr> <td>Name</td> <td colspan="3">JONES, CARLA M</td> </tr> <tr> <td>Phone</td> <td colspan="3">(865) 576-3949</td> </tr> <tr> <td>Title</td> <td colspan="3"></td> </tr> </table>				Name	JONES, CARLA M			Phone	(865) 576-3949			Title							
Name	JONES, CARLA M																			
Phone	(865) 576-3949																			
Title																				
<b>HQ OC Notification:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	NA	NA	NA	NA								
Date	Time	Person Notified	Organization																	
NA	NA	NA	NA																	
<b>Other Notifications:</b>	<table border="1"> <thead> <tr> <th>Date</th> <th>Time</th> <th>Person Notified</th> <th>Organization</th> </tr> </thead> <tbody> <tr> <td>03/15/2008</td> <td>12:37 (ETZ)</td> <td>Hughes, Robert</td> <td>PSS</td> </tr> <tr> <td>03/15/2008</td> <td>12:53 (ETZ)</td> <td>Klemm, William</td> <td>B&amp;W</td> </tr> <tr> <td>03/15/2008</td> <td>13:00 (ETZ)</td> <td>Lipsky, Jerold</td> <td>NNSA</td> </tr> </tbody> </table>				Date	Time	Person Notified	Organization	03/15/2008	12:37 (ETZ)	Hughes, Robert	PSS	03/15/2008	12:53 (ETZ)	Klemm, William	B&W	03/15/2008	13:00 (ETZ)	Lipsky, Jerold	NNSA
Date	Time	Person Notified	Organization																	
03/15/2008	12:37 (ETZ)	Hughes, Robert	PSS																	
03/15/2008	12:53 (ETZ)	Klemm, William	B&W																	
03/15/2008	13:00 (ETZ)	Lipsky, Jerold	NNSA																	
<b>Authorized Classifier(AC):</b>	Schermerhorn, C    Date: 03/18/2008																			

**5)Report Number:** [SC--BSO-LBL-ENG-2008-0001](#) After 2003 Redesign

<b>Secretarial Office:</b>	Science		
<b>Lab/Site/Org:</b>	Lawrence Berkeley Laboratory		
<b>Facility Name:</b>	Engineering Division		
<b>Subject/Title:</b>	Maintenance Technician Sustained Electric Shock at ALS		
<b>Date/Time Discovered:</b>	03/10/2008 10:00 (PTZ)		
<b>Date/Time Categorized:</b>	03/10/2008 12:00 (PTZ)		
<b>Report Type:</b>	Notification		
<b>Report Dates:</b>	Notification	03/12/2008	20:13 (ETZ)
	Initial Update		
	Latest Update		
	Final		
<b>Significance Category:</b>	3		
<b>Reporting Criteria:</b>	2C(2) - Failure to follow a prescribed hazardous energy control process (e.g., lockout/tagout) or a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source (e.g., live electrical power circuit, steam line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin.		
<b>Cause Codes:</b>			
<b>ISM:</b>	3) Develop and Implement Hazard Controls 4) Perform Work Within Controls		
<b>Subcontractor Involved:</b>	No		
<b>Occurrence Description:</b>	On 03/08/2008 at about 1030, an Engineering Division electronics maintenance technician received an electric shock while troubleshooting an opened chassis of a Granville-Phillips model 303 Vacuum Process Controller at Advanced Light Source (ALS). He had been de-energizing and re-energizing the unit for testing by unplugging and plugging it into the bench power strip. After several iterations of this process, the technician grasped the then inadvertently re-energized chassis with both hands to pivot it from being flat on the workbench to standing on its right edge to expose the top and bottom of the chassis for further diagnostics. While lifting the chassis, the technician felt a shock sensation when the pad of his left middle finger came in contact with the solder points on a printed circuit board on the power supply side of the controller.		
<b>Cause Description:</b>			
<b>Operating Conditions:</b>	Indoors, well lit, dry, dedicated testing bench		
<b>Activity Category:</b>	Normal Operations (other than Activities specifically listed in this Category)		
<b>Immediate Action(s):</b>	The technician shut off the controller and then unplugged it from the power strip. He then informed a fellow technician of the electric shock. Together,		

	they informed the ALS control room operator in charge. The operator summoned the LBNL's Alameda County Fire Department (ACFD). Upon arrival, the ACFD paramedic evaluated the condition of the technician and released him to regular duties. The technician called and left messages for his direct supervisor as well as the ALS Safety Coordinator. He also contacted a backup supervisor who asked him to preserve the workbench/scene for further investigation.				
<b>FM Evaluation:</b>	The electronic maintenance technician is qualified and authorized to perform the task.				
<b>DOE Facility Representative Input:</b>					
<b>DOE Program Manager Input:</b>					
<b>Further Evaluation is Required:</b>	Yes. Before Further Operation? No By Whom: Engineering, ALS, and EH&S By When:				
<b>Division or Project:</b>	Engineering				
<b>Plant Area:</b>	Bldg 80 Rm 137				
<b>System/Building/Equipment:</b>	ALS Electronics Maintenance Shop				
<b>Facility Function:</b>	Accelerators				
<b>Corrective Action:</b>					
<b>Lessons(s) Learned:</b>					
<b>HQ Keywords:</b>	01O--Inadequate Conduct of Operations - Inadequate Maintenance 08A--OSHA Reportable/Industrial Hygiene - Electrical Shock 08H--OSHA Reportable/Industrial Hygiene - Safety Noncompliance 12C--EH Categories - Electrical Safety 13E--Management Concerns - Facility Call Sheet 14E--Quality Assurance - Work Process Deficiency				
<b>HQ Summary:</b>	An electronics maintenance technician received an electric shock while troubleshooting an opened chassis of a Granville-Phillips model 303 Vacuum Process Controller at Advanced Light Source (ALS). He had been de-energizing and re-energizing the unit for testing by unplugging and plugging it into the bench power strip. While the chassis was still energized, the technician grasped it with both hands to pivot it to a standing position on its right edge to expose the top and bottom for further diagnostics. While lifting it, the technician felt a shock sensation when the pad of his left middle finger came in contact with the solder points on a printed circuit board on the power supply side of the controller.				
<b>Similar OR Report Number:</b>					
<b>Facility Manager:</b>	<table border="1"> <tr> <td>Name</td> <td>Kem Robinson</td> </tr> <tr> <td>Phone</td> <td>(510) 486-6327</td> </tr> </table>	Name	Kem Robinson	Phone	(510) 486-6327
Name	Kem Robinson				
Phone	(510) 486-6327				



	Title	Division Director - Engineering		
<b>Originator:</b>	Name	MOU, FLORENCE P.		
	Phone	(510) 486-7872		
	Title	SENIOR ADMINISTRATOR		
<b>HQ OC Notification:</b>	Date	Time	Person Notified	Organization
	NA	NA	NA	NA
<b>Other Notifications:</b>	Date	Time	Person Notified	Organization
	03/10/2008	13:05 (PTZ)	Mary Gross	BSO
<b>Authorized Classifier(AC):</b>				

---

[| ORPS HOME](#) | [Search & Reports](#) | [Authorities](#) | [Help](#) | [Security/Privacy Notice](#) |  
 Please send comments or questions to [orpssupport@hq.doe.gov](mailto:orpssupport@hq.doe.gov) or call the Helpline  
 at (800) 473-4375. Hours: 7:30 a.m. - 5:00 p.m., Mon - Fri (ETZ).  
 Please include [detailed information](#) when reporting problems.