**May 2007 Electrical Safety Occurrences**

There were 11 electrical safety occurrences for May 2007:

- 1 resulted in shocks to a worker
- 1 involved lockout/tagout
- 7 involved electrical workers and 4 involved non-electrical workers.
- 3 involved subcontractors.

In compiling the monthly totals, the search initially looked for occurrence discovery dates in this month, and for the following ORPS "HQ keywords":

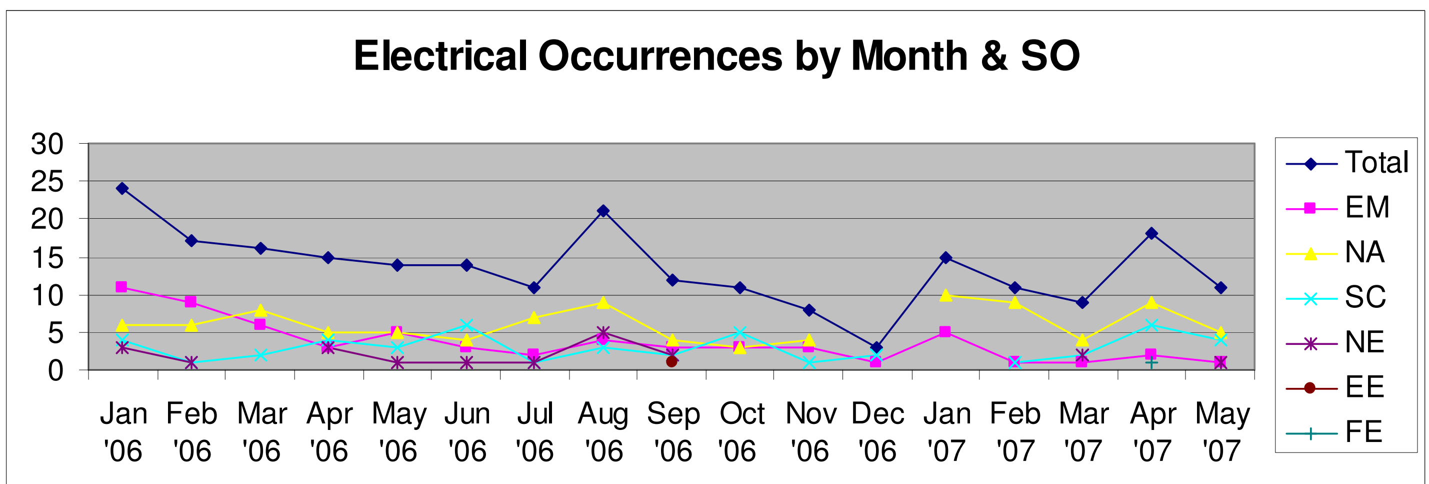
01K – Lockout/Tagout Electrical, 01M - Inadequate Job Planning (Electrical),
08A – Electrical Shock, 08J – Near Miss (Electrical), 12C – Electrical Safety

The initial search yielded 10 occurrences and a review of these determined none needed to be culled out.

The rolling summary of 2007 electrical safety occurrences is now:

| period | Elec. Safety Occurrences | Shocks | Burns | Fatalities |
|---|---|---|---|---|
| 1/07 | 15 | 1 | 0 | 0 |
| 2/07 | 11 | 3 | 0 | 0 |
| 3/07 | 9 | 1 | 0 | 0 |
| 4/07 | 18 | 3 | 1 | 0 |
| 5/07 | 11 | 1 | 0 | 0 |
| 2007 total | 64 | 9 | 1 | 0 |
| | | | | |
| 2006 total | 166 | 26 | 3 | 0 |
| 2005 total | 165 | 39 | 5 | 0 |
| 2004 total | 149 | 25 | 3 | 1 |
| | | | | |

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



## Electrical Safety Occurrences – May 2007 – as of 5/31 download

| No | Report Number | Subject / Title | ew | n-ew | sub | shock | burn | arcf | loto | excav | cut/d | veh |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EM-RP--BNRP-RPPWTP-2007-0010 | Articulating Boom Strikes Electrical Distribution Box | | x | | | | | | | | |
| 2 | NA--LASO-LANL-NUCSAFGRDS-2007-0001 | Potential Faulty Wiring Installation Results In LOTO Failure | x | | | | | | x | | | |
| 3 | NA--LSO-LLNL-LLNL-2007-0026 | Contact with 120VAC Electrical Source During Pump Start-up Activity | x | | | x | | | | | | |
| 4 | NA--PS-BWXP-PANTEX-2007-0065 | Wire Disconnected From Solder Joint | x | | | | | | | | | |
| 5 | NA--PS-BWXP-PANTEX-2007-0066 | Discovery of Electrical Wires in Building 16-12 Equipment Room Extending Past the Open End of Flexible Conduit | | x | x | | | | | | | |
| 6 | NA—PS-BWXP-PANTEX-2007-0069 | Control Panel Door Found Unsecured | x | | | | | | | | | |
| 7 | NE-ID--BEA-TSD-2007-0001 | Unguarded Open Control Panel Exposing Electrical Hazard | x | | | | | | | | | |
| 8 | SC--ASO-ANLE-ANLE-2007-0007 | Electrical Near Miss | | x | | | | | | | | |
| 9 | SC--ASO-ANLE-ANLEFMS-2007-0008 | Subcontractor Initiates Work Beyond Authorization | x | | x | | | | | | | |
| 10 | SC--ASO-GOCH-DOEARGONNE-2007-0001 | DOE-CH Electrical Near Miss | | x | | | | | | | | |
| 11 | SC--BHSO-BNL-BNL-2007-0008 | Ungrounded Neutral Discovered in wye connected output of 13.8kV/208V Dry Type Transformer | x | | x | | | | | | | |
| | Total | | 7 | 4 | 3 | 1 | | | 1 | | | |

Key

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

# ORPS Operating Experience Report

Production GUI - New ORPS

ORPS contains 53238 OR(s) with 56556 occurrences(s) as of 6/6/2007 3:36:53 PM
Query selected 11 OR(s) with 11 occurrences(s) as of 6/6/2007 4:00:00 PM

Download this report in Microsoft Word format.

| | |
|---|---|
| **1)Report Number:** | EM-RP--BNRP-RPPWTP-2007-0010 **After 2003 Redesign** |
| **Secretarial Office:** | Environmental Management |
| **Lab/Site/Org:** | Hanford Site |
| **Facility Name:** | RPP Waste Treatment Plant |
| **Subject/Title:** | Articulating Boom Strikes Electrical Distribution Box |
| **Date/Time Discovered:** | 05/16/2007 14:45 (PTZ) |
| **Date/Time Categorized:** | 05/16/2007 15:50 (PTZ) |
| **Report Type:** | Notification |
| **Report Dates:** | Notification: 05/23/2007 16:54 (ETZ)<br>Initial Update:<br>Latest Update:<br>Final: |
| **Significance Category:** | 3 |
| **Reporting Criteria:** | 10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence) |
| **Cause Codes:** | |
| **ISM:** | 2) Analyze the Hazards<br>3) Develop and Implement Hazard Controls<br>4) Perform Work Within Controls |
| **Subcontractor Involved:** | No |
| **Occurrence Description:** | At 1435 hours on 16-May, 2007, and ironworker operating an articulating boom lift within the LAB Facility at the Waste Treatment Plant (WTP) struck an electrical distribution box while descending. The area was placed in a safe configuration and secured for investigation. The preliminary investigation determined that there were three individuals acting as spotters present, but as another lift was descending at the same time, the spotting for the lift that struck the box was not adequate.<br><br>The electrical distribution box suffered damage (a dent ~8" across) to the exterior surfaces, but there was no electrical sparking and the circuit breaker did not trip. |

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| **Cause Description:** | |
| **Operating Conditions:** | Construction |
| **Activity Category:** | Construction |
| **Immediate Action(s):** | - The area was placed in a safe configuration and secured for investigation.<br><br>- An investigation was initiated. |
| **FM Evaluation:** | |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: M. Hood<br>By When: |
| **Division or Project:** | Waste Treatment Plant |
| **Plant Area:** | 600 |
| **System/Building/Equipment:** | Balance of Facilities |
| **Facility Function:** | Nuclear Waste Operations/Disposal |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 07D--Electrical Systems - Electrical Wiring<br>08F--OSHA Reportable/Industrial Hygiene - Industrial Operations<br>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance<br>08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical)<br>08K--OSHA Reportable/Industrial Hygiene - Near Miss (Other)<br>12K--EH Categories - Near Miss (Could have been a serious injury or fatality)<br>13A--Management Concerns - HQ Significant (High-lighted for Management attention)<br>14E--Quality Assurance - Work Process |
| **HQ Summary:** | An ironworker operating an articulating boom lift within the Hanford LAB Facility at the Waste Treatment Plant struck an electrical distribution box with the boom as it was descending. The electrical distribution box suffered an 8-inch dent but there was no electrical sparking and the circuit breaker did not trip. Three spotters were present during this lift, however they were distracted by another lift at the same time. The area was placed in a safe configuration and secured for investigation |
| **Similar OR Report Number:** | |
| **Facility Manager:** | Name: EDENS, VICTOR G<br>Phone: (509) 371-2077<br>Title: Safety Operations Manager |
| **Originator:** | Name: EDENS, VICTOR G |

| | |
|---|---|
| | Title |

**HQ OC Notification:**

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| NA | NA | NA | NA |

**Other Notifications:**

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/16/2007 | 14:45 (PTZ) | M. Hood | BNI/Con |
| 05/16/2007 | 14:45 (PTZ) | G. Ceffalo | BNI/Saf |
| 05/16/2007 | 14:59 (PTZ) | J. Christ | DOE/FR |
| 05/16/2007 | 16:30 (PTZ) | V. Edens | BNI/Saf |
| 05/16/2007 | 17:28 (PTZ) | N. Crarry | ONC |

**Authorized Classifier(AC):**

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**2)Report Number:** NA--LASO-LANL-NUCSAFGRDS-2007-0001 **After 2003 Redesign**

**Secretarial Office:** National Nuclear Security Administration

**Lab/Site/Org:** Los Alamos National Laboratory

**Facility Name:** Nuclear Safeguards

**Subject/Title:** Potential Faulty Wiring Installation Results In LOTO Failure

**Date/Time Discovered:** 05/03/2007 11:55 (MTZ)

**Date/Time Categorized:** 05/03/2007 12:05 (MTZ)

**Report Type:** Notification

**Report Dates:**

| | | |
|---|---|---|
| Notification | 05/07/2007 | 19:21 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

**Significance Category:** 3

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

**Cause Codes:**

**ISM:**

**Subcontractor Involved:** No

**Occurrence Description:** Management Synopsis: On May 3, 2007, management identified a concern related to potentially faulty wiring at the Nonproliferation and International Security Center (NISC) which resulted in a failed Lock Out/Tag Out (LOTO). On May 1, 2007, a Prototype Fabrication (PF) electrician was performing a zero energy check on equipment he had locked and tagged out when he discovered the piece of equipment was still energized. The electrician found 120V on the neutral wire. The electrician obtained a second voltmeter and verified the equipment was still energized. He, along with a co-worker, identified a second

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| | piece of equipment that was on the same 208 volt bus. They performed LOTO on the bus for the second piece of equipment which successfully de-energized the breaker. At 1545 on May 1, the NISC Operations Manager submitted an engineering service request (ESR) for an electrical system evaluation in room 1828A.<br><br>On May 3, 2007, the facility electrical safety officer (ESO)/deployed electrical engineer determined the LOTO failed because the neutral was not grounded or bonded properly. This resulted in a floating (ungrounded) system instead of a grounded system as intended by facility design specifications. He also determined that the neutral wire was not the correct color (white) in accordance with National Electric Code (NEC) standards. Instead, the white wire was phased and the neutral wire had been taped blue. Additionally, the labeling on the machine, breaker, and transformers were not correct. The FOD ESO determined that equipment case grounds had been properly installed.<br><br>Background: The PF electrician followed LOTO procedures to include using proper personal protective equipment (PPE) (dielectric gloves rated from 0-1000 volts, flash hood and flash vest). He entered the work activity on the LOTO log and performed LOTO on the equipment. He checked all four wires including the three phased wires and the neutral wire. He discovered the unexpected voltage when he checked the neutral wire which led to the discovery of the faulty wiring. Notifications during this event were made promptly and appropriately. |
| **Cause Description:** | |
| **Operating Conditions:** | Normal |
| **Activity Category:** | Maintenance |
| **Immediate Action(s):** | 1) The breakers for both pieces of equipment were immediately locked out.<br>2) Management stopped work activities involving equipment on the 208 volt system in room 1828 until repairs could be made.<br>3) Management directed an independent electrical inspection for NISC facility.<br>4) Management directed a review of electrical system labels. |
| **FM Evaluation:** | |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: TRP and QA-OA<br>By When: 06/15/2007 |
| **Division or Project:** | Nuclear Nonproliferation (N) Division |
| **Plant Area:** | machine shop |
| **System/Building/Equipment:** | Bldg Electrical system/TA3-2322/machine shop |
| **Facility Function:** | Laboratory - Research & Development |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 01B--Conduct of Operations - Configuration Management/Control<br>07D--Electrical Systems - Electrical Wiring |

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| | 12C--EH Categories - Electrical Safety<br>14D--Quality Assurance - Documents and Records |
| **HQ Summary:** | An electrician at the LANL Nonproliferation and International Security Center performed a zero energy check that measured 120 volts on the neutral wire for a piece of equipment he had locked and tagged out (LOTO). He and a co-worker identified a second piece of equipment that was on the same 208 volt bus. They locked out the circuit breaker for the second piece of equipment and this de-energized the neutral wire. An investigation by an electrical engineer determined the LOTO failed because the neutral wire was not grounded or bonded properly. Also, the color of the neutral wire and the labeling on the machine, breaker, and transformers were not correct. |
| **Similar OR Report Number:** | |
| **Facility Manager:** | Name: Gail Johnson<br>Phone: (505) 667-4362<br>Title: FOD |
| **Originator:** | Name: HAKONSON-HAYES, AUDREY C<br>Phone: (505) 667-9364<br>Title: OCCURRENCE INVESTIGATOR |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | see table below |
| **Authorized Classifier(AC):** | Antonia Tallarico      Date: 05/05/2007 |

Other Notifications:

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/03/2007 | 12:05 (MTZ) | Myra | NNSA |
| 05/04/2007 | 09:32 (MTZ) | Cordell Myer | PAAA |
| 05/04/2007 | 09:34 (MTZ) | Carl Geisik | IHS |

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| **3)Report Number:** | NA--LSO-LLNL-LLNL-2007-0026 **After 2003 Redesign** |
| **Secretarial Office:** | National Nuclear Security Administration |
| **Lab/Site/Org:** | Lawrence Livermore National Lab. |
| **Facility Name:** | Lawrence Livermore Nat. Lab. (BOP) |
| **Subject/Title:** | Contact with 120VAC Electrical Source During Pump Start-up Activity |
| **Date/Time Discovered:** | 05/04/2007 14:40 (PTZ) |
| **Date/Time Categorized:** | 05/07/2007 10:30 (PTZ) |
| **Report Type:** | Notification |
| **Report Dates:** | see table below |
| **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 |

Report Dates:

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|---|---|---|
| Notification | 05/08/2007 | 11:06 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

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| | 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 May 4, 2007 in Building 391 Room B350A, a worker contacted a 120VAC source while starting a new cooling system and received a minor shock on his left index finger.<br><br>As part of setting up a new cooling system, a worker removed the cover of a small motor and pump assembly. The worker then inadvertantly placed his left hand over both spade connectors of the electrical switch connecting to the motor as he energized the motor and pump with the rocker switch using his right hand. The worker immediately felt an electrical shock to his left index finger and therefore quickly removed his hand. The worker announced to fellow workers that he had received a shock. The co-workers immediately called 911. A Laboratory response team arrived within five minutes and transported the worker to the on-site medical facility. At the on-site medical facility, the worker was examined, was determined to have no injury, and was returned to work at approximately 1600 hours with no restrictions.<br><br>On May 7, 2006, the NIF Directorate Electrical Safety Officer and the Laboratory AHJ completed the calculations to determine reportability in accordance with EFCOG guidelines for "hazardous" energy, and determined that the event meets the "hazardous" threshold for reportability. |
| **Cause Description:** | |
| **Operating Conditions:** | na |
| **Activity Category:** | Normal Operations (other than Activities specifically listed in this Category) |
| **Immediate Action(s):** | Co-workers in the area called 911. The worker was trasported to the on-site medical facility for evaluation. NIF management stopped work, barricaded the area, and initiated an investigation. |
| **FM Evaluation:** | Final Report due June 20, 2007 |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: Rob Broderick<br>By When: 06/20/2007 |
| **Division or Project:** | NIF |
| **Plant Area:** | Site 200 |
| **System/Building/Equipment:** | 391 |
| **Facility Function:** | Laboratory - Research & Development |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |

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| **HQ Keywords:** | 01A--Conduct of Operations - Conduct of Operations (miscellaneous)<br>01Q--Conduct of Operations - Personnel error<br>08A--OSHA Reportable/Industrial Hygiene - Electrical Shock<br>12C--EH Categories - Electrical Safety<br>13A--Management Concerns - HQ Significant (High-lighted for Management attention)<br>14E--Quality Assurance - Work Process |
| **HQ Summary:** | While setting up a new cooling system in LLNL Building 391, a worker inadvertently placed his hand over both spade connectors of an electrical switch for a motor and received a 120 VAC electrical shock to his index finger. A response team transported the worker to the on-site medical facility, which found no injury and returned him to work with no restrictions. Management stopped work, barricaded the area, and initiated an investigation. |
| **Similar OR Report Number:** | 1. na |
| **Facility Manager:** | Name: Rob Broderick<br>Phone: (925) 423-7775<br>Title: NIF Directorate Deputy Associate Director for Oper |
| **Originator:** | Name: ECCHER, BARBARA A<br>Phone: (925) 422-9332<br>Title: OCCURRENCE REPORTING OFFICER |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | Date: 05/07/2007; Time: 13:00 (PTZ); Person Notified: David Corporandy; Organization: NNSA/LSO |
| **Authorized Classifier(AC):** | |

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| **4)Report Number:** | NA--PS-BWXP-PANTEX-2007-0065 **After 2003 Redesign** |
| **Secretarial Office:** | National Nuclear Security Administration |
| **Lab/Site/Org:** | Pantex Plant |
| **Facility Name:** | Pantex Plant |
| **Subject/Title:** | Wire Disconnected From Solder Joint |
| **Date/Time Discovered:** | 05/16/2007 14:30 (CTZ) |
| **Date/Time Categorized:** | 05/17/2007 09:30 (CTZ) |
| **Report Type:** | Notification |
| **Report Dates:** | Notification: 05/21/2007 12:02 (ETZ)<br>Initial Update:<br>Latest Update:<br>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 |

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| | 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 May 16, 2007, at approximately 1430 hours, A BWXT Instrument Technician was performing an annual preventive maintenance (PM) activity on a steam oven in Building 12-19E. As part of the PM, the Instrument Technician is required to visually verify a setting on a timer located inside a control panel. As the technician opened the hinged control panel door to perform the visual observation, a small spark was noticed from inside the control panel. The spark was created when a 110-volt wire dislodged from a reset switch solder joint and made contact with the panel door. The panel door had moved less than two inches when the spark was observed. The technician immediately placed the system in a safe configuration by closing the door, de-energizing, and locking out the circuit. The technician then notified his supervisor and remained at the incident site to control the scene. BWXT Safety personnel and maintenance management were notified and responded to the scene to begin the investigation process.<br><br>There was no injury or equipment damage as a result of this event. The breaker feeding the circuit did not trip during the event. As specified in the work package, the technician was wearing the flame resistant coveralls, voltage rated gloves, safety shoes, and safety glasses when the panel door was opened. |
| **Cause Description:** | |
| **Operating Conditions:** | Operational |
| **Activity Category:** | Maintenance |
| **Immediate Action(s):** | Instrument Technician de-energized and locked out circuits feeding the steam oven control panel at Building 12-19E.<br><br>A critique was conducted on May 17, 2007, and the event was categorized as 2C(2) S/C 3, Personnel Safety and Health, Hazardous Energy Control, a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source. |
| **FM Evaluation:** | Corrective actions will be tracked through the Issues Management System on PER-2007-0554. |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: Plant Maintenance Dept.<br>By When: |
| **Division or Project:** | Maintenance Division |
| **Plant Area:** | Zone 12 North |

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|---|---|
| **System/Building/Equipment:** | 12-19E |
| **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<br>12C--EH Categories - Electrical Safety<br>14L--Quality Assurance - None |
| **HQ Summary:** | While performing annual preventive maintenance on a steam oven in Pantex Building 12-19E, an instrument technician opened a control panel door and noticed a spark inside the panel. The technician closed the door and de-energized and locked-out circuits to the panel. An investigation found that spark was created when a 110-volt wire dislodged from a reset switch solder joint and made contact with the panel door |
| **Similar OR Report Number:** | 1. None |
| **Facility Manager:** | Name: Dale Stapp<br>Phone: (806) 477-3247<br>Title: Plant Maintenance Department Manager |
| **Originator:** | Name: HALL, BEVERLY J<br>Phone: (806) 477-3222<br>Title: |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | 05/16/2007, 14:50 (CTZ), Scott Kennedy, BWXT<br>05/16/2007, 14:50 (CTZ), Noel Williams, PXSO |
| **Authorized Classifier(AC):** | Don Gerber Date: 05/21/2007 |

Facility Manager:

| Name | Dale Stapp |
|---|---|
| Phone | (806) 477-3247 |
| Title | Plant Maintenance Department Manager |

Originator:

| Name | HALL, BEVERLY J |
|---|---|
| Phone | (806) 477-3222 |
| Title | |

HQ OC Notification:

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| NA | NA | NA | NA |

Other Notifications:

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/16/2007 | 14:50 (CTZ) | Scott Kennedy | BWXT |
| 05/16/2007 | 14:50 (CTZ) | Noel Williams | PXSO |

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| **5)Report Number:** | NA--PS-BWXP-PANTEX-2007-0066 **After 2003 Redesign** |
| **Secretarial Office:** | National Nuclear Security Administration |
| **Lab/Site/Org:** | Pantex Plant |
| **Facility Name:** | Pantex Plant |
| **Subject/Title:** | Discovery of Electrical Wires in Building 16-12 Equipment Room Extending Past the Open End of Flexible Conduit |
| **Date/Time Discovered:** | 05/16/2007 20:30 (CTZ) |
| **Date/Time Categorized:** | 05/17/2007 16:30 (CTZ) |
| **Report Type:** | Notification |
| **Report Dates:** | |

| | | |
|---|---|---|
| Notification | 05/21/2007 | 12:04 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

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| **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 |
| **Subcontractor Involved:** | Yes<br>Noresco |
| **Occurrence Description:** | On May 16, 2007, at approximately 2030 hours, a Subcontractor employee was performing a work site survey when he noticed a flexible metal conduit with 3 wires extending past the open end of the conduit. Two of the three wires were covered on the ends with plastic wire nuts. The wire without the wire nut covering was a ground wire. All circuits in the area had been de-energized and locked out at the time of discovery. A BWXT Safety Representative and Plant Maintenance Department personnel responded to the area, developed an approved work order, and corrected the condition.<br><br>There was no injury to personnel, impact to the environment, or degradation of a safety system as a result of this event. |
| **Cause Description:** | |
| **Operating Conditions:** | Does Not Apply |
| **Activity Category:** | Maintenance |
| **Immediate Action(s):** | Plant Maintenance Department personnel developed an approved work package to remove the wiring and flexible conduit to correct the condition.<br><br>A critique was conducted on May 17, 2007, and the event was categorized as 2C(2) S/C 3, Personnel Safety and Health, Hazardous Energy Control, a site condition that results in the unexpected discovery of an uncontrolled hazardous energy source. |
| **FM Evaluation:** | Corrective actions will be tracked through the Issues Management System on PER-2007-0557. |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: Plant Maintenance Dept.<br>By When: |
| **Division or Project:** | Maintenance Division |
| **Plant Area:** | Zone 16 |
| **System/Building/Equipment:** | 16-12 Upstairs Equipment Room |
| **Facility Function:** | Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category) |

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| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 07D--Electrical Systems - Electrical Wiring<br>12C--EH Categories - Electrical Safety<br>14L--Quality Assurance - None |
| **HQ Summary:** | While performing a work site survey in Pantex Building 16-12, a worker discovered a flexible metal conduit with three wires extending past the open end of the conduit. All circuits in the area had been de-energized and locked-out at the time of discovery. Personnel from the plant maintenance department developed a work package to remove the wiring and flexible conduit. |
| **Similar OR Report Number:** | 1. None |
| **Facility Manager:** | Name: Dale Stapp<br>Phone: (806) 477-3247<br>Title: Plant Maintenance Department Manager |
| **Originator:** | Name: HALL, BEVERLY J<br>Phone: (806) 477-3222<br>Title: |

**HQ OC Notification:**

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| NA | NA | NA | NA |

**Other Notifications:**

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/16/2007 | 23:05 (CTZ) | Noel Williams | PXSO |
| 05/16/2007 | 23:05 (CTZ) | Scott Kennedy | BWXT |
| 05/16/2007 | 23:05 (CTZ) | Bill Mairson | BWXT |

**Authorized Classifier(AC):** Don Gerber Date: 05/21/2007

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|---|---|
| **6)Report Number:** | NA--PS-BWXP-PANTEX-2007-0069 **After 2003 Redesign** |
| **Secretarial Office:** | National Nuclear Security Administration |
| **Lab/Site/Org:** | Pantex Plant |
| **Facility Name:** | Pantex Plant |
| **Subject/Title:** | Control Panel Door Found Unsecured |
| **Date/Time Discovered:** | 05/29/2007 16:45 (CTZ) |
| **Date/Time Categorized:** | 05/30/2007 14:06 (CTZ) |
| **Report Type:** | Notification |

**Report Dates:**

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|---|---|---|
| Notification | 05/31/2007 | 15:36 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

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| **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 |

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| | line, pressurized gas). This criterion does not include discoveries made by zero-energy checks and other precautionary investigations made before work is authorized to begin. |
| **Cause Codes:** | |
| **ISM:** | 6) N/A (Not applicable to ISM Core Functions as determined by management review.) |
| **Subcontractor Involved:** | No |
| **Occurrence Description:** | On May 29, 2007, at approximately 1645 hours, Swing Shift Material Access Area (MAA) Electronic Technicians entered the facility and noticed a 480-volt control cabinet to a sand blast booth had been left unsecured. The disconnect was in the "OFF" position. The control panel was energized on the line side of a fuse block, which was shielded. There were no exposed bare conductors. The primary concern was the door being left unsecured. The design of the cabinet requires the door to be latched shut to provide protection for personnel if there is a catastrophic failure of electrical components mounted inside the cabinet.<br><br>There was no injury to personnel, or damage to the equipment or environment as a result of this event. |
| **Cause Description:** | |
| **Operating Conditions:** | Operational with no special nuclear material or high explosives in the area. |
| **Activity Category:** | Normal Operations (other than Activities specifically listed in this Category) |
| **Immediate Action(s):** | Swing Shift MAA Crafts personnel tested the control panel for voltage.<br><br>Swing Shift MAA Craft Supervisor secured the control cabinet.<br><br>A critique was conducted on May 30, 2007, and the event was categorized as 2C(2) S/C 3, Personnel Safety and Health, Hazardous Energy Control, Failure to follow a prescribed hazardous energy control process. |
| **FM Evaluation:** | Corrective actions will be tracked through the Issues Management System on PER-2007-0582. |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? Yes<br>By Whom: Plant Maintenance<br>By When: 07/13/2007 |
| **Division or Project:** | Maintenance Division |
| **Plant Area:** | Zone 12 South MAA |
| **System/Building/Equipment:** | Zone 12 South MAA Facility |
| **Facility Function:** | Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category) |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 08H--OSHA Reportable/Industrial Hygiene - Safety Compliance |

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| | 12C--EH Categories - Electrical Safety<br>14E--Quality Assurance - Work Process |
| **HQ Summary:** | Electronic technicians entering the Material Access Area noticed a 480-volt control cabinet for a sand blast booth had been left unsecured. The cabinet was secured and a critique was held. |
| **Similar OR Report Number:** | |
| **Facility Manager:** | Name: Dale Stapp<br>Phone: (806) 477-3247<br>Title: Plant Maintenance Department Manager |
| **Originator:** | Name: HALL, BEVERLY J<br>Phone: (806) 477-3222<br>Title: |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | see table below |
| **Authorized Classifier(AC):** | Don Gerber Date: 05/31/2007 |

Other Notifications:

| Date | Time | Person Notified | Organization |
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| 05/29/2007 | 17:11 (CTZ) | John Thurston | PXSO |
| 05/29/2007 | 17:11 (CTZ) | Jeff Yarbrough | BWXT |

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| **7)Report Number:** | NE-ID--BEA-TSD-2007-0001 **After 2003 Redesign** |
| **Secretarial Office:** | Nuclear Energy, Science and Technology |
| **Lab/Site/Org:** | Idaho National Laboratory |
| **Facility Name:** | Treatment Storage and Disposal |
| **Subject/Title:** | Unguarded Open Control Panel Exposing Electrical Hazard |
| **Date/Time Discovered:** | 05/23/2007 14:15 (MTZ) |
| **Date/Time Categorized:** | 05/23/2007 17:45 (MTZ) |
| **Report Type:** | Update |
| **Report Dates:** | see table below |
| **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 |

Report Dates:

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| Notification | 05/29/2007 | 13:02 (ETZ) |
| Initial Update | 05/29/2007 | 14:18 (ETZ) |
| Latest Update | 05/29/2007 | 14:18 (ETZ) |
| Final | | |

| | 4) Perform Work Within Controls |
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| **Subcontractor Involved:** | No |
| **Occurrence Description:** | On May 23, 2007, the DOE-ID facility representatives for MFC identified an unguarded open control panel containing <120V energized electrical circuits. Maintenance was performing calibrations on Sodium Components Maintenance Shop (SCMS) alcohol level systems. The facility representatives approached the open control panel and found no one was in attendance and no barrier was in place. Shortly thereafter, maintenance personnel returned to the open control panel and closed the panel doors, eliminating the exposed energized electrical hazards. DOE-ID personnel questioned maintenance personnel about voltages present in the control panel. Maintenance workers indicated that 110-120 volts was present in the panel. Workers had been trained on the electrical hazards and were wearing the appropriate PPE for 120 volt circuits while working in the cabinet. The maintenance worker had left the work site to obtain assistance from a Health Physics Technician and failed to close the control panel doors. |
| **Cause Description:** | |
| **Operating Conditions:** | Shutdown |
| **Activity Category:** | Maintenance |
| **Immediate Action(s):** | 1) Control panel doors were shut, calibration work was stopped and appropriate levels of BEA management were notified.<br>2) Area was secured and barriers installed across the control panel doors to prevent access to the area and control panel<br>3)A critique was held on May 23, 2007. |
| **FM Evaluation:** | 5/29/07 Updated correct notification time for BEA management, wrong notification time submitted in error. |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | No |
| **Division or Project:** | Nuclear Experimenter Facilites |
| **Plant Area:** | SCMS |
| **System/Building/Equipment:** | BLDG. 793 |
| **Facility Function:** | Irradiated Fissile Material Storage |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 01O--Conduct of Operations - Maintenance<br>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance<br>12C--EH Categories - Electrical Safety<br>14E--Quality Assurance - Work Process |
| **HQ Summary:** | While maintenance personnel were calibrating alcohol level systems at the INL Sodium Components Maintenance Shop, facility representatives found an open control panel with 110-120 volt energized circuits and no one in attendance, and no barrier in place. When the maintenance workers returned, the control panel doors were shut and calibration work was stopped. The area was secured and barriers were installed across the control panel doors to prevent access. |

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| **Similar OR Report Number:** | 1. NE-ID--BEA-FCF-2006-0002 |
| | 2. NE-ID--BEA-MFC-2006-0006 |
| **Facility Manager:** | Name: FLATTEN, LOREN R<br>Phone: (208) 533-7680<br>Title: OPERATIONS STAFF SPECIALIST - TSD FA |
| **Originator:** | Name: FLATTEN, LOREN R<br>Phone: (208) 533-7680<br>Title: OPERATIONS STAFF SPECIALIST - TSD FA |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | 05/23/2007, 17:45 (MTZ), R. Chase, MFC<br>05/23/2007, 18:15 (MTZ), J. Martin, DOE-ID |
| **Authorized Classifier(AC):** | |

Other Notifications:

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/23/2007 | 17:45 (MTZ) | R. Chase | MFC |
| 05/23/2007 | 18:15 (MTZ) | J. Martin | DOE-ID |

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| **8)Report Number:** | SC--ASO-ANLE-ANLE-2007-0007 **After 2003 Redesign** |
| **Secretarial Office:** | Science |
| **Lab/Site/Org:** | Argonne National Laboratory East |
| **Facility Name:** | Argonne National Lab. - East (BOP) |
| **Subject/Title:** | Electrical Near Miss |
| **Date/Time Discovered:** | 05/02/2007 11:11 (CTZ) |
| **Date/Time Categorized:** | 05/02/2007 13:31 (CTZ) |
| **Report Type:** | Notification |
| **Report Dates:** | |

| Report Dates | | |
|---|---|---|
| Notification | 05/04/2007 | 17:46 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

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| **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:** | 3) Develop and Implement Hazard Controls |
| **Subcontractor Involved:** | No |
| **Occurrence Description:** | On May 2, 2007, a child at the ANL Daycare Center holding a metal cymbal by a wooden handle contacted the interface between a plug and a GFCI outlet for an adjacent fish tank. The teacher heard a pop and observed resulting sparks from where the metal cymbal contacted a blade and the ground on the plug. The outlet short-circuited causing the circuit breaker to trip. A 9-1-1 call was |

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| | initiated and the child was evaluated by the Argonne Fire Department paramedics and was determined to be unaffected; the child did not receive an electrical shock as a result of this incident.<br><br>An outlet box cover has been installed on this outlet and the facility is being inspected to identify additional installation opportunities for outlet box covers on any outlets that are within reach of children and that are regularly used (i.e., something plugged into them instead of only an outlet cover).<br><br>The Site Office staff visited the Daycare Center to verify the installation of the tamper-resistant covers on all accessible receptacles. The ANL Daycare Center is accredited by the National Association for the Education of Young Children (NAEYC). A letter was sent out to all the parents, and the Laboratory will provide a presentation to the children of the daycare on electrical safety similar to what is provided to the children on fire protection. |
| **Cause Description:** | |
| **Operating Conditions:** | Normal Operations |
| **Activity Category:** | Normal Operations (other than Activities specifically listed in this Category) |
| **Immediate Action(s):** | A 9-1-1 call was initiated and the child was evaluated by the Argonne Fire Department paramedics and was determined to be unaffected; the child did not receive an electrical shock as a result of this incident.<br>An outlet box cover has been installed on this outlet and the facility is being inspected to identify additional installation opportunities for outlet box covers on any outlets that are within reach of children and that are regularly used (i.e., something plugged into them instead of only an outlet cover). |
| **FM Evaluation:** | |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: D. Whitaker-Sheppard<br>By When: |
| **Division or Project:** | NA |
| **Plant Area:** | 900 Area |
| **System/Building/Equipment:** | 952 Daycare Center |
| **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<br>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance<br>08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical)<br>12K--EH Categories - Near Miss (Could have been a serious injury or fatality)<br>13A--Management Concerns - HQ Significant (High-lighted for Management attention)<br>14E--Quality Assurance - Work Process |

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| **HQ Summary:** | A child at the ANL Daycare Center held a metal cymbal by a wooden handle and contacted the interface between a plug and a GFCI outlet for a fish tank. This caused a pop and sparks where the metal cymbal contacted a blade and the ground on the plug, and the circuit breaker tripped. Argonne Fire Department paramedics were summoned and determined that the child did not receive an electrical shock. An outlet box cover has been installed on this outlet and the facility is being inspected to identify additional outlets that are within the reach of children. |
| **Similar OR Report Number:** | |
| **Facility Manager:** | Name: WHITAKER-SHEPPARD, DANNY<br>Phone: (630) 252-1581<br>Title: ENVIR, SFTY, HEALTH & QUALITY ASSUR |
| **Originator:** | Name: COLGLAZIER, ROBIN ALAN<br>Phone: (630) 252-8747<br>Title: SR REGULATORY COMPLIANCE SPECIALIST |

**HQ OC Notification:**

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| NA | NA | NA | NA |

**Other Notifications:**

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/02/2007 | 12:54 (CTZ) | S. Meredith | EQO |
| 05/02/2007 | 12:58 (CTZ) | R. Colglazier | EQO |
| 05/02/2007 | 14:10 (CTZ) | C. Zook | DOE-ASO |

**Authorized Classifier(AC):**

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| **9)Report Number:** | SC--ASO-ANLE-ANLEFMS-2007-0008 **After 2003 Redesign** |
| **Secretarial Office:** | Science |
| **Lab/Site/Org:** | Argonne National Laboratory East |
| **Facility Name:** | Facility Management Services |
| **Subject/Title:** | Subcontractor Initiates Work Beyond Authorization |
| **Date/Time Discovered:** | 05/10/2007 12:30 (CTZ) |
| **Date/Time Categorized:** | 05/10/2007 14:25 (CTZ) |
| **Report Type:** | Notification |

**Report Dates:**

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|---|---|---|
| Notification | 05/14/2007 | 17:51 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

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| **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 |

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| | authorized to begin.<br><br>10(2) - An event, condition, or series of events that does not meet any of the other reporting criteria, but is determined by the Facility Manager or line management to be of safety significance or of concern to other facilities or activities in the DOE complex. One of the four significance categories should be assigned to the occurrence, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence) |
| **Cause Codes:** | |
| **ISM:** | 1) Define the Scope of Work<br>2) Analyze the Hazards<br>3) Develop and Implement Hazard Controls<br>4) Perform Work Within Controls |
| **Subcontractor Involved:** | Yes<br>BBM Engineering |
| **Occurrence Description:** | At approximately noon on May 9, 2007, a subcontractor was observed by a Facilities Management & Services (FMS) construction field representative (CFR) standing in front of a control panel for a large air handling unit (AHU) that was undergoing commissioning to supply conditioned air for a large high bay building, Building 366. An FMS engineer had arranged access to the site for the individual for the purpose of attending a coordination meeting to address the operating issues that arose with the AHU during the commissioning phase. When the engineer inquired about the status of the subcontractor, he was informed the individual had been granted access about 40 minutes earlier. The engineer met up with the individual at Building 366 where the issues were discussed. At this time, it was determined that the individual had reprogrammed the AHU at the control panel to operate on the economizer cycle only (cooling with outside air). The individual stated that he would bring in a factory-authorized representative early next week to complete the commissioning effort. The engineer left, assuming the individual would also.<br><br>Shortly thereafter, the CFR observed the individual at the control panel mounted on the AHU located at ground level exterior to Building 366. The CFR inquired as to the on-going work as he had no knowledge that the individual would be performing work tasks. It was determined that a 24 volt touch key control pad mounted on the inner door of the enclosure had been replaced after the meeting concluded. The work was performed with a potential exposure to an energized 110 volt terminal strip about 24 to 30 inches away mounted in the rear of the enclosure behind numerous ribbon wire connectors. Further inquiry determined that the individual was working without having a current certication for attendance at the Contractor Safety Orientation training, without having a Work Entry Clearance form processed, without having properly controlled and designated the work area, without having proper Personal Protective Equipment, without having certification of qualification for NFPA 70E training, and without having pursued a Lockout/Tagout (LO/TO) in coordination with FMS Maintenance for the replacement of the touch key pad. |
| **Cause Description:** | |
| **Operating Conditions:** | Outdoors, dry, gravel covered ground, air handling unit functioning improperly |
| **Activity Category:** | Startup |

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| **Immediate Action(s):** | The CFR had the individual halt his work. The control panel door was closed. The CFR contacted his line management and the individual was placed under the contract discipline procedure resulting in a suspension from performing work tasks at the site for a period of 6 months.<br><br>Notifications were made to the FMS division office and to Procurement with regards to the contract. The individual suspended is self-employed as BBM Engineering.<br><br>The ORPS designee was notified verbally late in the afternoon of May 9 and made arrangements to view the AHU and control panel during the late morning of May 10. Pictures and a description of the incident were provided to EQO following notification to FMS division management of the potential Occurrence Report. |
| **FM Evaluation:** | The subcontractor proceeded to conduct work tasks beyond his authorization. A questioning attitude by an observant FMS CFR disclosed the event. Even though the impact of of not getting the unit functional for the FMS customers in Building 366 looms in the future as the weather continues to warm up, the correct action was taken in this instance. |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: FMS-Engineering<br>By When: |
| **Division or Project:** | Facilities Management & Services Division |
| **Plant Area:** | 360 Area |
| **System/Building/Equipment:** | Air Conditioning/366/Air Handling Unit |
| **Facility Function:** | Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category) |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 01A--Conduct of Operations - Conduct of Operations (miscellaneous)<br>01E--Conduct of Operations - Operations Procedures<br>01M--Conduct of Operations - Inadequate Job Planning (Electrical)<br>01Q--Conduct of Operations - Personnel error<br>01R--Conduct of Operations - Management issues<br>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance<br>11G--Other - Subcontractor<br>12C--EH Categories - Electrical Safety<br>13A--Management Concerns - HQ Significant (High-lighted for Management attention)<br>14E--Quality Assurance - Work Process |
| **HQ Summary:** | A subcontractor had been granted site access to attend a meeting to address the operating issues that arose with the air handling units (AHU) during the commissioning phase. While on site, the subcontractor performed unauthorized work on two AHUs, and did not follow the required work controls. Upon |

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| | discovery, the construction field representative halted the work and his line management took disciplinary action. |
| **Similar OR Report Number:** | |
| **Facility Manager:** | Name: Stine, Gail Y.<br>Phone: (630) 252-8930<br>Title: Director, Facilities Management & Services Div. |
| **Originator:** | Name: Ridenour, Mary J<br>Phone: (630) 252-6786<br>Title: ORPS COORDINATOR |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | see table below |
| **Authorized Classifier(AC):** | |

Other Notifications:

| Date | Time | Person Notified | Organization |
|---|---|---|---|
| 05/10/2007 | 12:44 (CTZ) | G. Y. Stine | ANL-FMS |
| 05/10/2007 | 14:20 (CTZ) | M. J. Ridenour | ANL-EQO |
| 05/10/2007 | 14:45 (CTZ) | Eric Turnquest | ASO-DOE |

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| **10)Report Number:** | SC--ASO-GOCH-DOEARGONNE-2007-0001 **After 2003 Redesign** |
| **Secretarial Office:** | Science |
| **Lab/Site/Org:** | Argonne National Laboratory East |
| **Facility Name:** | DOE Argonne |
| **Subject/Title:** | DOE-CH Electrical Near Miss |
| **Date/Time Discovered:** | 05/17/2007 10:00 (CTZ) |
| **Date/Time Categorized:** | 05/17/2007 11:45 (CTZ) |
| **Report Type:** | Notification |
| **Report Dates:** | see table below |
| **Significance Category:** | 3 |
| **Reporting Criteria:** | 10(3) - A near miss, where no barrier or only one barrier prevented an event from having a reportable consequence. One of the four significance categories should be assigned to the near miss, based on an evaluation of the potential risks and the corrective actions taken. (1 of 4 criteria - This is a SC 3 occurrence) |
| **Cause Codes:** | |
| **ISM:** | |
| **Subcontractor Involved:** | No |
| **Occurrence Description:** | On May 16, 2007, at approximately 4:30 pm, a CH employee was taking measurements, in Cubicle 370 in ANL Building 201, using a metal cased 1 inch wide 25 foot long tape measure. The CH employee reported releasing the slide |

Report Dates:

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| Notification | 05/21/2007 | 23:24 (ETZ) |
| Initial Update | | |
| Latest Update | | |
| Final | | |

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| | lock which caused the measuring tape to recoil, at which time the lip on the end of the measuring tape snagged on the edge of the surface mounted receptacle box closest to the southeast corner of the cubicle. Soon thereafter sparking was noticed at the receptacle. This 110 volt 20 amp duplex outlet was being used to power a laser printer and a facsimile machine.<br><br>The CH employee notified CH Safety and Technical Services the next day and was sent to ANL Medical Department for a precautionary examination and released. |
| **Cause Description:** | |
| **Operating Conditions:** | normal |
| **Activity Category:** | Normal Operations (other than Activities specifically listed in this Category) |
| **Immediate Action(s):** | The employee was sent to the ANL Medical Department for examination ANL Maintenance was called to reset the breaker and arrange for replacement of the damaged duplex receptacle; ANL Maintenance posted an out-of-service tag over the duplex receptacle; and the CH Cyber Helpdesk replaced the damaged power cord for the laser printer. |
| **FM Evaluation:** | |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | Yes.<br>Before Further Operation? No<br>By Whom: Karl Moro<br>By When: |
| **Division or Project:** | SC-CH Office of Management Analytical and Administ |
| **Plant Area:** | 200 |
| **System/Building/Equipment:** | Bldg. 201/Cubicle 370 |
| **Facility Function:** | Balance of Plant - Infrastructure (Other Functions not specifically listed in this Category) |
| **Corrective Action:** | |
| **Lessons(s) Learned:** | |
| **HQ Keywords:** | 01A--Conduct of Operations - Conduct of Operations (miscellaneous)<br>01Q--Conduct of Operations - Personnel error<br>07D--Electrical Systems - Electrical Wiring<br>08J--OSHA Reportable/Industrial Hygiene - Near Miss (Electrical)<br>12K--EH Categories - Near Miss (Could have been a serious injury or fatality)<br>13A--Management Concerns - HQ Significant (High-lighted for Management attention)<br>14E--Quality Assurance - Work Process |
| **HQ Summary:** | While an employee was taking measurements in ANL Building 201, the tip of a metal-cased tape measure snagged a surface-mounted 110 volt receptacle box and this caused sparking. The employee notified Safety and Technical Services the next day and was sent to ANL Medical Department for a precautionary examination and released. ANL maintenance personnel posted an out-of-service tag over the damaged receptacle, arranged for its replacement, and reset the |

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| | breaker. |
| **Similar OR Report Number:** | 1. SC--ASO-ANLE-ANLE-2007-0007 |
| **Facility Manager:** | Name: MORO, KARL G<br>Phone: (630) 252-2065<br>Title: PERSONNEL PROTECTION TEAM LDR |
| **Originator:** | Name: MEREDITH, STUART G<br>Phone: (630) 252-6312<br>Title: PAAA COORDINATOR |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | Date: 05/17/2007; Time: 12:40 (CTZ); Person Notified: Creig Zook; Organization: ASO-DOE |
| **Authorized Classifier(AC):** | |

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| **11)Report Number:** | SC--BHSO-BNL-BNL-2007-0008 **After 2003 Redesign** |
| **Secretarial Office:** | Science |
| **Lab/Site/Org:** | Brookhaven National Laboratory |
| **Facility Name:** | Brookhaven National Laboratory (BOP) |
| **Subject/Title:** | Ungrounded Neutral Discovered in wye connected output of 13.8kV/208V Dry Type Transformer |
| **Date/Time Discovered:** | 05/15/2007 13:00 (ETZ) |
| **Date/Time Categorized:** | 05/15/2007 13:30 (ETZ) |
| **Report Type:** | Notification/Final |
| **Report Dates:** | Notification: 05/17/2007 17:13 (ETZ)<br>Initial Update: 05/17/2007 17:13 (ETZ)<br>Latest Update: 05/17/2007 17:13 (ETZ)<br>Final: 05/17/2007 17:13 (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:** | A1B4C02 - Design/Engineering Problem; Design Verification / Installation Verification LTA; Testing of design/installation LTA |
| **ISM:** | 3) Develop and Implement Hazard Controls<br>5) Provide Feedback and Continuous Improvement |
| **Subcontractor Involved:** | Yes<br>Roppelt Electric |

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| **Occurrence Description:** | On April 17, 2007, at Brookhaven National Laboratory (BNL), electricians discovered an abnormal electrical condition while installing receptacles and associated wiring in Building 703 West Wing, Lab W6. Further investigation by an electrical engineer concluded that a laboratory furnace ac power supply circuit was grounded on "A" phase. In addition, the supply circuit had an ungrounded neutral. There was no electrical shock or injury to personnel. Plant Engineering safety personnel were notified, and the BNL Electrical Safety Officer performed an Electrical Severity review of the site condition. The review conclusion was calculated utilizing the Energy Facilities Contractors Group (EFCOG) Electrical Severity Measurement tool that determined the potential severity of the issue. The result was presented to Plant Engineering on May 15, 2007. The conditions have been corrected.<br><br>The Electrical Severity Measurement tool indicated that this condition should be reported to the Occurrence Reporting and Processing system under the above reporting criteria. |
| **Cause Description:** | A field verification of the bonding of the transformer did not occur after installation.<br><br>The furnace ac power wiring was probably damaged during the transportation process from the researchers' Michigan Laboratory to Brookhaven National Laboratory. |
| **Operating Conditions:** | Normal |
| **Activity Category:** | Maintenance |
| **Immediate Action(s):** | The fault conditions were corrected immediately. The phase to ground fault in the furnace supply was cleared and the wye connected transformer output neutral was bonded at the secondary side of the transformer. |
| **FM Evaluation:** | |
| **DOE Facility Representative Input:** | |
| **DOE Program Manager Input:** | |
| **Further Evaluation is Required:** | No |
| **Division or Project:** | Plant Engineering and Engineering and Construction |
| **Plant Area:** | B-703 West Wing Labs |
| **System/Building/Equipment:** | 13.8kV/208V Dry type transformer for Building 703 West Wing |
| **Facility Function:** | Balance-of-Plant - Site/outside utilities |
| **Corrective Action 01:** | **Target Completion Date:** 08/03/2007 **Actual Completion Date:** |
| | Revise E&CS-303 "Construction Inspector" procedure to require inspection and testing of transformers and to record the test results in the construction job file. |
| **Lessons(s) Learned:** | In WYE secondary electrical distribution schemes a grounded neutral is required to provide an appropriate ground path for personnel and over-current protection. Workers involved in transformer and distribution panel installations must ensure that the system is configured as designed. |
| **HQ Keywords:** | 07D--Electrical Systems - Electrical Wiring<br>08H--OSHA Reportable/Industrial Hygiene - Safety Compliance |

| | |
|---|---|
| | 11G--Other - Subcontractor<br>12C--EH Categories - Electrical Safety<br>14E--Quality Assurance - Work Process<br>14H--Quality Assurance - Inspection and Acceptance Testing |
| **HQ Summary:** | Electricians discovered an abnormal electrical condition while installing receptacles and associated wiring in Building 703 West Wing, Lab W6. Further investigation by an electrical engineer concluded that a laboratory furnace ac power supply circuit was grounded on "A" phase. In addition, the supply circuit had an ungrounded neutral. There was no electrical shock or injury to personnel. The conditions have been corrected. |
| **Similar OR Report Number:** | |
| **Facility Manager:** | Name: MURPHY, EDWARD T<br>Phone: (631) 344-3466<br>Title: DIVISION MANAGER |
| **Originator:** | Name: SIERRA, EDWARD A<br>Phone: (631) 344-4080<br>Title: LLL/ORPS COORDINATOR |
| **HQ OC Notification:** | Date: NA; Time: NA; Person Notified: NA; Organization: NA |
| **Other Notifications:** | Date: 05/15/2007; Time: 13:30 (ETZ); Person Notified: J. Durnan; Organization: BNL LESC |
| **Authorized Classifier(AC):** | |




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*Please include detailed information when reporting problems.*