

# Notable Event Worksheet

(See [ES&H Manual Chapter 5200 Appendix T1 Event Investigation and Causal Analysis for Instructions](#))

Click  
For Word Doc

<b>Title of Event</b>			
<b>Event Title:</b>	Personnel Acid Exposure during Equipment Move		
<b>Date and Time of Occurrence:</b>	April 17 <sup>th</sup> , 2012 – 13:49	<b>Notable Event Number:</b>	FML-12-0417
<b>Event Location:</b>	Test Lab Annex – T-Trench Area	<b>Date Notable Event Report is Due*:</b>	May 17 <sup>th</sup> , 2012

\*The Notable Event Report is due to the ESH&Q Reporting Officer with 30 days of the Initial Fact Finding Meeting unless an extension is requested.

**Categorization and Reporting**  
 (To be completed by ESH&Q Reporting Officer within two hours – unless essential information is still pending)

<b>ORPS Determination:</b>	<b>Date:</b> 04/19/2012	<b>Time:</b>	0809 am
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From Tina Johnson ✉

Subject **CAIRS/ORPS Determination for FML-12-0417- Personnel Acid Exposure to Arm During Equipment Move** 4/19/2012 8:09 A

To Patty Hunt ✉, Rick Korynta ✉

Cc Ned Walker ✉, Jennifer Williams ✉, John Kelly ✉, kujawa ✉, Bert Manziak ✉, Dick Owen ✉, Tina Menefee ✉, Paul Colli Other Actions -

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Patty/Rick,

As you know from yesterday's fact-finding, there was an event on the 17th at the East Side of the Test Lab Addition. The subcontractor was moving the BCP cabinet from the Production Cleanroom in Test Lab to T-Trench in Test Lab Addition (TLA), when his arm was exposed to acid (BCP). The subcontractor was taken to the emergency room by ambulance where he was treated with topical calcium gluconate. The subcontractor returned to work the following day with no restrictions.

The following incident is not OSHA recordable.

See OSHA regulations below:

**Which work-related injuries and illnesses should you record?**

Record those work-related injuries and illnesses that result in:

- ▼ death,
- ▼ loss of consciousness,
- ▼ days away from work,
- ▼ restricted work activity or job transfer, or
- ▼ medical treatment beyond first aid.

This event does not meet ORPS or CAIRS reportable criteria, however, we will follow the Notable Event Process.

If you have any questions or concerns, feel free to contact me.

Tina

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Tina Johnson  
 Reporting Officer/  
 Administrative Assistant  
 JSA/Jefferson Lab  
 12050 Jefferson Ave  
 Suite 602  
 Newport News, VA 23606  
 757-269-7611

<b>10 CFR 851 Screen:</b>	<b>Date:</b> 04/19/2012	<b>Time:</b> 0809 am
This incident does not meet the NTS voluntary reporting criteria either as a discreet event or as a programmatic weakness.		

Unless otherwise specified the following is to be completed by the Lead Investigator.

Step 1 Initial Fact-Finding Meeting			
Date:	18Apr2012	Time:	09:00
Location:		TLA – Between PSB & DAC	
Required Attendees:		Optional Attendees:	√ if Present
<b>Lead Investigator:</b>		<b>Associate Director:</b>	
(Print Name): Harry Fanning		(Print Name): Andrew Hutton	
<b>Co-Lead Investigator:</b>		<b>Associate Director:</b>	
(Print Name): Richard Jacobsen		(Print Name): John (Rusty) Sprouse	
<b>ESH&amp;Q Representative:</b>		<b>TJSO Observer:</b>	√
(Print Name): Jennifer Williams		(Print Name): Patty Hunt,	
<b>Supervisor of involved persons(s):</b>		<b>Subject Matter Expert(s), Facility/Equipment Owner as applicable:</b>	
(Print Name): David Fazenbaker		(Print Name): Jennifer Williams	√
<b>Involved or impacted person(s):</b>		(Print Name): Philip Denny	√
(Print Name): MHW1		(Print Name): Derrick Dail	√
(Print Name):		(Print Name): AJ Jacobson	√
<b>Witness(es):</b>		(Print Name):	
(Print Name): JW1		(Print Name):	
(Print Name): (Foreman) MHW2			
(Print Name): MHW3			
(Print Name): MHW4			

Agenda (Ensure the pace of the meeting allows time for accurate note taking.)		√ if Complete
1. Introduction – Provide Event Title, Date and Time of Occurrence, and Location:		√
2. Attendance - Are Required Attendees present.		√
3. Purpose of Initial Fact-Finding meeting.		√
4. Event Reconstruction – Use information to complete Section 3. <u>Summary of Event and/or Injuries</u> below.		
a. Personnel and organizations involved in the event.		√
b. Conditions and actions preceding the event.		√
c. Chronology (timeline) of the event; and		√

d. Immediate actions taken in response to the event.	√
5. Clarify information – <u>Subject-Matter Expert</u> (SME) confirms work conditions.	√
6. <u>Stop Work</u> or the <u>Tag Out</u> Required? If “Yes” – establish the restart criteria and inform the affected Management chain.	√
7. Compensatory Actions Required? If “Yes” determine responsibility and include confirmation documentation.	
8. Records or documentation required to confirm, clarify, or complete information (i.e., work plans, work control documents, photos, etc).	√
9. Other Questions or Concerns: Ask attendees if there are any other questions, concerns, or information that they wish to provide.	√
10. Obtain TJSO Observer feedback on conduct of fact finding meeting and potential improvements.	√

<b>Step 2 Investigation Team:</b>		<b>Date Convened:</b> (Within 24 hours of Fact Finding Meeting.)	18-April-2012 – 13:30
Role	Name	Department/Group	Phone
Lead Investigator	Harry Fanning	ACCMGT	7619
Co-Lead Investigator	Richard Jacobsen	FM&L	5771
	Jennifer Williams	ESHDIV	7882
	David Fazenbaker	FM&L	5808
	Tina Johnson	ESHDIV	7611
<u>TJSO Observer</u>	Patty Hunt	TJSO	7039

**Step 3 Summary of Event and / or Injuries, including Initial Fact Finding Meeting information:** determine the chain of events and timeline. Use attachment as necessary.

**EVENT SUMMARY:**  
 While transporting the BCP Cabinet/Tool from the Test Lab into the Test Lab Annex’s T-Trench area, a subcontractor was exposed to some residual chemicals (a solution of Buffered Chemical Polish or BCP) when it leaked from a sample port (previously thought to be unused and the contents neutralized.) A Jefferson Lab chemistry technician who was observing the equipment move and who was also familiar with nature of this type of chemical exposure, promptly acted by seeking the assistance of another trained chemistry technician as well as calling 911 services for transport to an offsite emergency room for further treatment. Before the ambulance arrived, the trained chemistry technician treated the victim by flushing the exposed area with water followed by submerging the exposed area into BenzaRid (a hydrofluoric acid antidote). After the victim arrived at the local emergency room, they received further treatment with a topical application of calcium gluconate to the exposed area with continued medical monitoring before being medically discharged.

**TIMELINE:**  
**27-Feb-2012**  
 08:30 – BCP concentrated acid removed from BCP Cabinet/Tool  
**Between 27-Feb-2012 and 2-April-2012**  
 – BCP Cabinet/Tool is flushed and disconnected from house resources.  
 – BCP Cabinet/Tool interior is sequentially and in sections decontaminated and tested for pH over a period of time with no rush in schedule to do so.  
 – BCP Cabinet/Tool is deemed neutralized but no documentation exists on when.  
**17-Apr-2012**  
 11:00 to 12:00 – BCP Cabinet/Tool was moved from its home to the temporary location within Test Lab.  
 12:50 – JLab worker 1 (JW1, a trained chemistry technician) walks along with the tool as it is being moved.  
 13:49 – Material Handling Contractor (MHC) transitions the BCP Cabinet/Tool from the forklift to cribbing/carriage on T-Trench catwalk.

**Step 3 Summary of Event and / or Injuries, including Initial Fact Finding Meeting information:** determine the chain of events and timeline. Use attachment as necessary.

13:50 – BCP Cabinet/Tool makes it ¾ the way down the TLA T-Trench area with a little flexing in the flooring and slight rocking of the tool along the way.

13:51 – MHW1 encounters an unknown liquid dripping onto their left arm.

13:51 – MHW1 asks JW1 about the contents of the cabinet.

13:51 – JW1 responds that any liquid within the BCP Cabinet/Tool should be neutralized.

13:51 – MHW1 informs JW1 that the liquid on their arm which came from within the shrink-wrap surrounding the cabinet is hurting like an insect sting.

13:51 – JW1 moves from front of tool to the rear of tool where MHW1 is located.

13:52 – JW1 inspects MHW1's arm (there was discoloration of the affected skin.)

13:52 – JW1 inspects the back of the tool and locates the origin of the unknown liquid dripping within the shrink-wrap (a small ¼ inch tube protruding from the back of the backside of the cabinet labeled "Chemical Sample Port.") The unknown liquid was coming from the port, traveling down the inside of the shrink-wrap and down to the lower back left corner of the tool.

13:53 – JW1 calls JLab worker 2 (JW2, another trained chemistry technician) to acquire pH strips to test the unknown liquid.

13:53 – MHW1 walks to nearby Porta-John and rinses their arm on own accord.

13:54 – JW1 and JW2 meet/walk the job.

13:54 – JW2 tests unknown liquid on side of cabinet/tool with pH strip (pH test = "0")

13:54 – JW1 and JW2 discuss situation.

13:54 – MHW1 returns from Porta-John

13:54 – JW1 inspects MHW1's arm (area has a clear red discoloration to complexion of skin and slight swelling at contact location.)

13:54 – JW1 calls a suspension to work.

13:55 – JW2 escorts MHW1 to PSB facility to initiate First Aid treatment.

13:55 – JW2 has MHW1 submerge their arm under a continuous flow of tap water.

13:55 – JW1 contacts supervisor1 and supervisor2 to inform them of situation.

13:55 – JW1 contact IH1 to inform them of situation.

13:55 – IH1 instructs JW1 to hang up and contact 911 services for immediate transport to emergency facilities.

14:03 – JW2 discontinues tap water rinsing of MHW1's arm and initiates phase 2 of First Aid (application of BenzaRid® to affected area.)

14:05 – IH1 arrives on scene.

14:05 – IH1 takes over administration of First Aid from JW2.

14:06 – Supervisor1 contacts guard-shack to help with ambulance delivery coordination and information dissemination.

14:10 – IH1 contacts onsite Occupational Medicine (OccMed) personnel to inform them of situation.

14:10 – JW1 secures scene of acid exposure with boundary tape to limit access to area. Caution tape was also utilized at entrance to the T-Trench where the tool was located.

14:10 – Ambulance arrives on scene. IH1 provides briefing of the acid exposure (including type of acid) to medics and provides 6 tubes of calcium gluconate with instructions to use the calcium gluconate on the affected area.

14:11 – Onsite Doctor and Nurse arrive on scene.

14:11 – Onsite Doctor enters ambulance with MHW1 along with Benzarid to continue first aid.

14:13 – Guard-shack personnel send out information page to key personnel about ambulance arrival for work related illness.

14:15 – Onsite Doctor sends Onsite Nurse to retrieve MSDS information from personnel within PSB facility.

14:20 – IH1 gathers and distributes MSDS information from PSB facility to go with MHW1 to hospital.

14:31 – Ambulance leaves site with patient.

14:31 – Onsite Doctor contacts local hospital to inform and provide instruction to staff on what to expect.

14:33 – Guard-shack personnel send out information page to key personnel about ambulance leaving site with patient.

15:07 – Clean-up of BCP cabinet/Tool commences with periodic pH testing of affected areas.

**18-Apr-2012**

07:30 – Additional pH testing of BCP Cabinet/Tool reveals additional source of acid/acid wastewater (Threads on exit port test ph = 3)

07:35 – New area is neutralized and cleaned using detergent, water and absorbent pads.

~10am – IH1 provides safety briefing to 4 MHC (same 4 involved in move on 17-Apr-2012) with SOTR, JW2, JW3 in attendance. Subject of acid hazards along with instructions on how to don and take off PPE were discussed. PPE items were distributed. JW2 or JW3 (trained chemistry technician) will be in attendance during move in case any additional safety /concerns arise. Instructed to keep DAC or PSB door open to provide access to safety shower/eyewash.

## Notable Event Report

Emergency Notifications Made (Subsequent to the Event):	Date	Time
Fire, Rescue & Emergency Medical: (9-911)	17-Apr-2012	13:55
Guard Post: x4444; 269-5822		
Occupational Medicine 269-7539	17-Apr-2012	14:10
ESH&Q Reporting Officer: 876-1750	17-Apr-2012	~14:15
Crew Chief 630-7050		
Industrial Hygiene: 269-7863:	17-Apr-2012	13:55
Other:		

**Witness Accounts:** (Use attachments as necessary. Box will expand as necessary)

**JW1 Account via e-mail** (Tue, 17Apr2012 – 16:16:37)

I've participated in the moving of the Chemical type machines into the TLA as the work center lead for the Production Chemistry Department (Electropolish Cabinet and BCP Cabinet).

This process serves two purposes:

1. I'm there to visually document any possible flexing or bowing of the tool as a tip for leak detection later.
2. To be a first responder in case its necessary.

I accompanied Lockwood on the BCP Cabinet/Tool relocation from Production Cleanroom in Test Lab to T-Trench in TLA. The following is an attempt to chronologically capture the Possible BCP exposure to a Lockwood employee named Donnie.

12:50 – MH Contractor began moving the BCP Cabinet via forklift from the Test Lab roll up doors to the TLA roll up doors.

13:49 - Lockwood had just moved the tool from the forklift tines to the cribbing/carriage on the catwalk. (see attached Photo "MHW1 with cabinet") I was on the interior side of the T-Trench with MHW2, while MHW1, MHW3, and MHW4 were on the exterior side pushing the tool. There was a little flexing in the floor and slight rocking of the tool as it transitioned from one set of plywood sheets to the next. MHW1 inquired about the contents of the cabinet 3/4 of the way down the catwalk and sometime after the photo was taken. MH Contractor continued moving the tool down the catwalk during this interaction. I responded that any liquid inside the tool should have already been neutralized. He commented that this could not be the case because he was experiencing some bee sting type pain. I relocated to the rear of the tool to inspect the situation. There was an unknown liquid dripping from the "Chemical Sample Port" (see photo) and collecting on the shrink wrap (see photo) and trickling down to the lower back left corner of the tool (see photos).

13:53 - I contacted JW2 to acquire some pH strips. I met with JW2 to get possession of the strips, in the meanwhile MHW1 had gone to a port-a-john to rinse his arm of his own accord. The liquid pH'ed at a "0". I discussed the situation with JW2. I inspected MHW1's arm as he was returning from his trip to the port-a-john. There was a clear red discoloration to his complexion where the liquid had contacted his skin. I then did a suspend work order on Lockwood and informed MHW1 he had to accompany me to the PSB for First Aid treatment. JW2 had MHW1 place his arm under continuous running tap water to flush the area.

13:55 - I contacted JS1 and JS2 to inform them of the situation. I spoke with IH1 to inform her of the situation. I

**Witness Accounts:** (Use attachments as necessary. Box will expand as necessary)

called 911 to request Medical Transport for MHW1 to the Emergency Room.

14:03 – JW2 had MHW1 discontinue the water rinsing of the exposure site in lieu of beginning the next step of First Aid. He had the victim submerge his exposed area in BenzaRid.

I don't have a time reference for the remainder of the situation because I did not make any calls. Key individuals began arriving on scene at this point. I had JS1 contact The Guard Shack/J-Lab Security to met the Ambulance for access and direction to the accident scene. IH1 took over the First Aid administration of the victim. Onsite Nurse and Onsite Doctor arrived on scene at some point immediately prior to the arrival of the EMTs. Onsite Doctor entered the Ambulance with MHW1 and the EMTs. I am unaware of any information exchanged between the victim and Onsite Doctor. IH1 procured copies of the MSDS from JW2 in the PSB to send along with MHW1 to the Emergency Room. I would say from the point of exposure to the individual being transported off-site to the hospital via ambulance was less than 45 minutes.

**IH1 additional notes via e-mail to above statement (18-Apr-2012, 13:17)**

Here are some times for the BCP incident.

At 2pm I was contacted by JW1 reporting the exposure. I told him to hang up with me and call 911.

At ~2:10pm I called OccMed to report the incident to them, as I was talking with Onsite Nurse the ambulance was arriving onsite. First aid was already being conducted on the victim.

Cleanup began on the BCP cabinet at approximately 3:15pm according to the time stamp on pictures I took with my cellphone.

**IH1 additional notes via e-mail regarding training of personnel (18-Apr-2012, 12:31)**

I provided MH Contractor staff a briefing this morning on BCP hazards and discussed remaining steps to place the cabinet.

Attendees: myself, FML1, JW2, JW3, and 4 Lockwood riggers (same involved with move on 4/17/2012).

When MH Contractor physically handles the cabinet they will wear Tychem SL coveralls, neoprene gloves, and safety glasses. I instructed them how to don and doff the suits and gloves. They suits have a hood attached. The hood only needs to be worn if they are bending up to the base of the cabinet where they may have head contact.

JW2 and/or JW3 will be alongside MH Contractor during the move. All have been instructed to stay alert for any liquids. If liquid is observed work is to be suspended and have JW2 or JW3 assess and conduct mitigation as needed.

If MH Contractor comes in contact with liquid they are to rinse, removed contaminated PPE, and re-don new PPE.

Environmental Aspects	
Type of Material Released:	Quantity:
N/A	
Source:	Time Flow was Halted or Controlled:
<b>For Investigation Team (√ All That Apply):</b>	

## Environmental Aspects

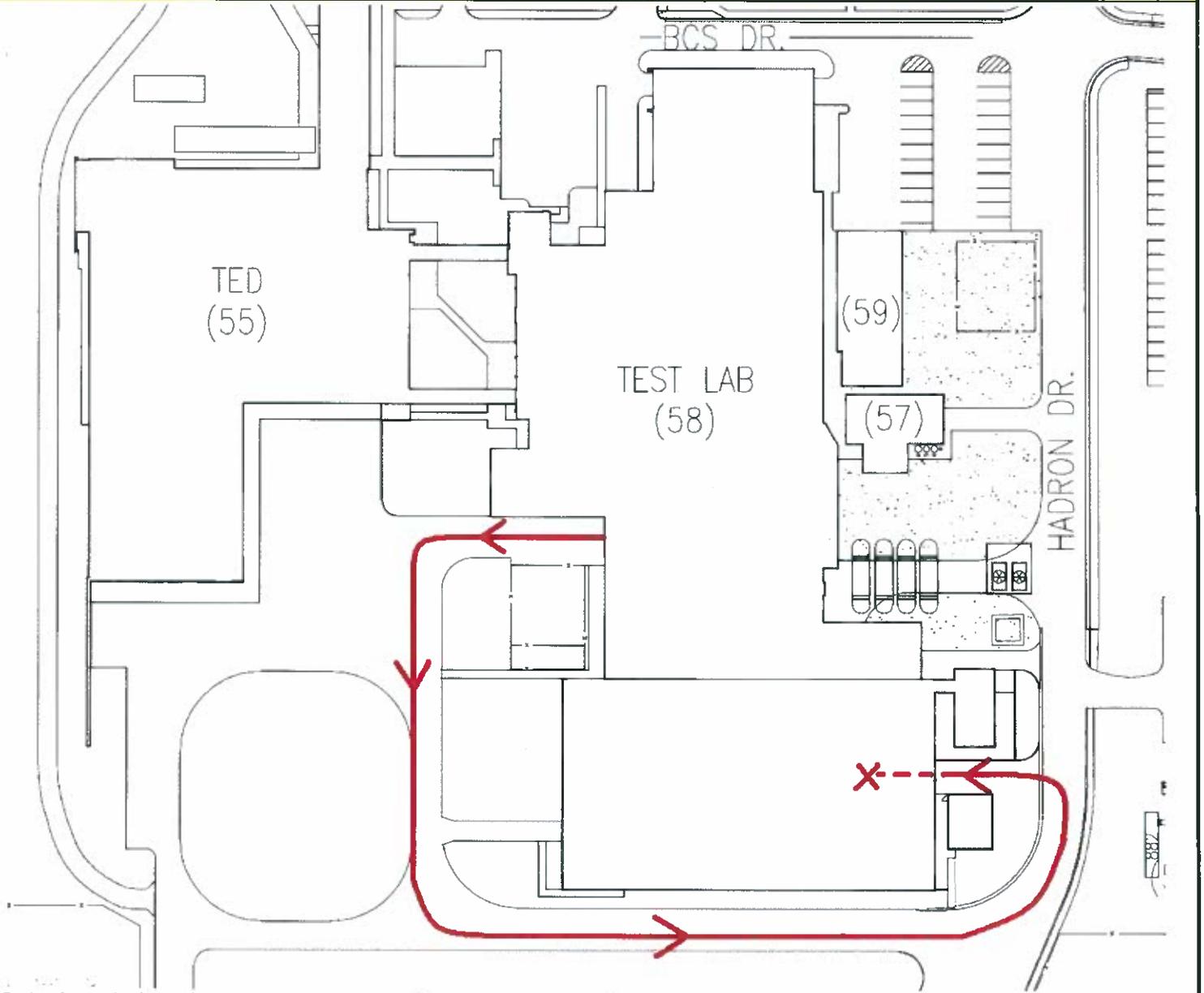
Reportable Quantity

Impact Ground/Soil

Storm Water Channel/Drain

Sanitary Sewer

## Records, Documents, Pictures, and Other References: (Copy and paste, use attachments or document links as necessary)



Path of travel of tool from South-Western TL High Bay area to East High Bay of TLA.

**Records, Documents, Pictures, and Other References: (Copy and paste, use attachments or document links as necessary)**



Decontamination and Disassembly of "Sample Port" from BCP Tool following acid exposure

**Causal Analysis: (Use attachment as necessary)**

<p><b>Root Cause:</b></p>	<p>Quality Control Needs Improvement – "Sample Port" on acid flush line was not flushed nor adequately verified to be free of acidic content before tool was released to outside party for relocation.</p>
<p><b>Contributing Causes:</b> (List as many as apply.)</p>	<p>1.) No Communication – There was a communication failure between the System Owner and the SOTR on key issues:</p> <ul style="list-style-type: none"> <li>a. The system owner did not effectively communicate to a different organization the severity of the hazards within the tool to be relocated in order for that organization to plan or implement mitigation before the tool was handled.</li> <li>b. The Moving Organization did not effectively or in a timely fashion communicate their move plan or the Area Hazard Analysis (AHA) to the System Owner so that the System Owner could assist with deficiencies in the mitigation plan of the Moving Organization.</li> </ul>

**Causal Analysis: (Use attachment as necessary)**

- 2.) Work Direction: Preparation – There was a lack of preparation by the system owner on several levels with regards to planning for the handling of a contaminated tool. A proper risk assessment was not issued by the system owner to the organization moving the tool.
- a. Work Package Needs Improvement
    - i. Safety precautions and warnings were omitted from the work package by the system owner describing the severity of the hazard within the tool being relocated so proper mitigation could not be implemented.
    - ii. Emergency response procedures were omitted from the work package by the system owner leaving the organization responsible for moving the tool uninformed and unprepared to respond in the event of an acid exposure.
    - iii. Because there was a lack of hazard related information given by the system owner in the work package, there was an absence of information in the pre-job briefing which encouraged omission of proper Personal Protection Equipment (PPE) by the organization moving the contaminated tool.

Extent of Condition Check	Responsible Person(s)	JLab CATS Number	Target Date
E1.) Check all tools/cabinets which are to be relocated which contain or have contained acid to verify that acid has been neutralized. If acid is present, neutralize with appropriate measures. E2.) Make sure outside contractor responsible for relocating tools has proper training. E3.) Make sure outside contractor responsible for relocating tools has proper PPE.	E1.) Phil Denny E2.) Jennifer Williams E3.) Jennifer Williams	n/a	18-April-2012 and before proceeding with BCP tool move or any other acid related tool.

Corrective Action(s)	JLab CATS Number	Target Date
Procedures regarding decontamination of equipment which contain or used to contain hazardous material shall be specific in how decontamination and separate verification is handled to avoid exposure with the hazardous material. Checklists are strongly advised for consistency as well as communication. Reilly	NE-2012-12-01-01	09/01/2012
It is the custodian's responsibility to identify potential hazards associated with equipment that will be relocated, disposed of, or worked on. An activity hazard analysis (AHA) should be prepared by the entity performing the work. Industrial Hygiene shall review the AHAs (that have identified hazards or hazardous materials). Once IH has	NE-2012-12-01-02	07/01/2012

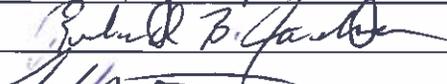
Corrective Action(s)	JLab CATS Number	Target Date
completed their review, the SOTR will approve the AHA before work commences. Sprouse		
An overarching OSP must be written to encompass all the areas and tasks related to Acid work within the Test Lab and Test Lab Annex. This document should point to area specific OSPs and TOSPs and require TOSPs to be required for all moves that involve units that contain, or used to contain, hazardous materials with sign off by IH. Reilly	NE-2012-12-01-03	09/01/2012
Equipment containing or used to contain hazardous materials which are to be relocated shall have proper labeling to properly communicate the hazards associated with the hazardous material. Denny	NE-2012-12-01-04	09/01/2012
Equipment containing or used to contain hazardous material shall be properly identified and associated hazards communicated when outside organizations are to utilize, transport or take possession of those objects. This identification shall also include the identification of proper PPE to be utilized sufficient for the level of danger. Denny	NE-2012-12-01-05	09/01/2012
Develop an Emergency response procedure to encompass the handling of equipment which contain or used to contain hazardous material to address the issue of exposure by any party (internal to or outside the organization.) Williams	NE-2012-12-01-06	09/01/2012

Lessons Learned (Confer with Division/Department Lessons-Learned Coordinator) (Use attachment as necessary)	JLab COE Number
After decontamination of an acid processing tool, applying a more thorough inspection could have caught decontamination deficiencies and either alerting the decontamination team to correct the deficiencies before handing off to the outside party to move the tool or alerting the outside party of the hazards associated with the decontamination deficiencies.	-
When moving a high risk tool (a tool that contains or used to contain a hazardous material) which cannot be guaranteed 100% decontaminated, hazards associated with the material must be communicated to the individuals who are moving the equipment for proper mitigation.	-

Lessons Learned (Confer with Division/Department Lessons-Learned Coordinator) (Use attachment as necessary)	<u>JLab COE Number</u>

### Investigation Team Confirmation:

The below signees, confirm to the best of their knowledge, that the information presented in this document is accurate and complete.

Role	Print	Signature	Date
Lead Investigator	Harry Fanning		30-MAY-2012
	Richard Jacobsen		3/30/12
	Jennifer Williams		5/30/12
	David Fazenbaker		5/30/12
	Tina Johnson		5/30/12

Upon confirmation submit document to the ES&H Reporting Officer for completion and distribution.

### Documentation of Findings: (To be Completed by ESH&Q Reporting Officer)

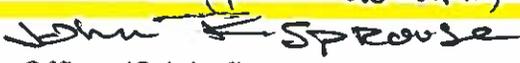
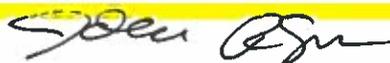
<b>Notable Event Number:</b>	FML-12-0417
<b>CATS Number:</b>	NE-2012-12
<b>JLab COE Number:</b>	-
<b>ORPS Number:</b>	-
<b>NTS Number:</b>	-
<b>CAIRS Entry:</b>	-
<b>DOE Cause Code:</b>	A3 Human Perf. LTA, B1 Skill Based Error, C01 Check of work was LTA; A4 Mgmt Prob., B3 Work Org. and Planning LTA, C11 Inadequate work package prep
<b>ISM Code:</b>	Analyze the Hazards, Develop and Implement Hazard Controls.

### Acceptance/Acknowledgement of Facts

	Print	Signature	Date:
Associate Director/ Department Manger	FULVIA PILAT (for Andrew Hutton)		5/31/2012

### Distribution:

- ES&H Reporting Officer (Original)
- Associate Director/Department Manager
- Division Safety Officer
- Investigation Team Members

 SPROUSE  STEVE 5/31/12

### Form Revision Summary

- Revision 1.3 – 01/31/12** – Updated ESH&Q Reporting Officer assignment from SSmith to CJohnson per MLogue Edited to clarify process steps.
- Revision 1.2 – 10/20/11** – Updated ESH&Q Reporting Officer assignment from JKelly to SSmith per MLogue.
- Revision 1.1 – 05/24/11** - Edited to clarify process steps.
- Revision 1 – 11/23/10** – Updated to reflect current laboratory operations.

ISSUING AUTHORITY	FORM TECHNICAL POINT-OF-CONTACT	APPROVAL DATE	EXPIRATION DATE	REV.

ISSUING AUTHORITY	FORM TECHNICAL POINT-OF-CONTACT	APPROVAL DATE	EXPIRATION DATE	REV.
ESH&Q Division	<a href="#">Tina Johnson</a>	10/19/09	10/09/12	1.3

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