Physics Department Incidents Log

Incident No.	2009 - 01	**Date of Report:** 2/26/09
Reportable/Classification:	OSHA Recordable – No DART	**Date of Incident:** 2/5/09
Status	Final report by ESSH Committee	
Groups Involved:	Electronic Detectors	
Lead Group Investigator:	S. Kettell	
ESSH/Department Investigator:	M. Zarcone, Mgr. of ESH&T Programs, trained Accident investigator	
Causal Analysis Method used:	Brainstorming	

Description:
A BNL employee and a Guest Collaborator from Osaka University were preparing to ship components of the E949 detector to Japan by packing cardboard boxes of equipment (PMTs, mu-metal shields, bases, light guides, etc) into larger wooden shipping crates (40"x48"x48"), each placed on a wooden pallet. This work was being done on the AGS floor (EEBA, 912, near the E949 detector) and had been ongoing during the period 2/3 – 2/5. At approximately 14:15 on Thursday 2/5/09, after the last shipping crate had been loaded and while the lid was being sealed, the employee stumbled. In the process of bracing his fall his arm hit the top of the shipping crate. A metal tab for sealing the crate closed was still in the vertical (unsealed) position and his arm was lacerated by this tab. Alerted by the presence of blood he noticed his injury and went to the clinic, where he was sent home to his private physician for stitches.

An accident investigation team consisting of Asher Etkin (C-AD), Pat Sullivan (DOE - BHSO), Mike Zarcone (Physics) and Steve Kettell (Physics) met with the employee at the site at 13:00 on 2/6/09. The work site where the accident occurred had been changed somewhat (the metal tab on the crate had been hammered down and the crate moved from the position it had been in) not allowing the investigation team from making a unaltered observation of the work area set up.

The work area was apparently clear of obstructions. While space was not infinitely available, was sufficient for performing the required work. While there was some time pressure to get all work done before Guest Collaborator left on Friday morning, the job was wrapping up with sufficient time on Thursday afternoon. The employee's PPE consisted of tear-resistant gloves that covered his hands and wrists, but the laceration was an inch or so higher up his arm.

Had he not braced himself and fallen to the ground it is quite possible that his injury would have been more severe.

The work was performed under work permit SS2008-228 and was within the scope of the permit.

Root Cause:
The root cause of the accident was a stumble, most likely caused by contact between the employee's shoe and the base of the pallet the crate was on.

Contributing Causes:
The exposed metal tabs that are part of the shipping crate's design were a contributing factor. Lighting in the area is provided by large lamps 40 feet above the work area while adequate is not optimal and may also have been a contributing factor..

Corrective Actions (Group):
This incident provides a cautionary reminder to take ones time and to pay attention to all possible hazards at all times. The incident will be discussed at a Group meeting to increase awareness for all.

Corrective Actions (Department):
1. The Physics Department will discuss the incident at the next "all hands" meeting to increase awareness for all its members.
2. The incident will be discussed at a Group Safety Coordinators meeting.
3. The Physics Department will remind its members at the next "all hands" meeting the importance of preserving the work area to facilitate a more effective investigation.

Lessons Learned:
Personnel have been trained and are aware of hazards in the workplace through their training, work planning, and awareness efforts of the Laboratory, Department, and their working groups. Often, while sharing their attention between the work at hand and the major hazards associated with the task, they lose focus on the lesser hazards, in this case, on the upright in the center of the pallet.

The above incident has been investigated and no further action is required. Corrective Actions will be entered into the Physics Department's Assessment Tracking System and tracked to completion.

T. Ludlam, Department Chair — Date: 4/23/09

B. Johnson, ESSH Committee Chair — Date: 4/23/2009