

FY 2005 Safety Improvement Plan

This safety improvement plan is established to define the principal Safety Program objectives and targets that will be addressed during FY 2005 to achieve compliance with newly established DOE or BNL requirements, to address identified deficiencies, or to address issues which will reduce the risk of accidental injury to NSLS employees. The following eight high priority items have been selected for FY 2005.

1. Continue review and improvement within the NSLS operational work planning program

Background: Operational work planning remains a key element within the NSLS ESH program for ensuring that hazards are properly identified and controlled during routine work within the facility. During this year, we will place major emphasis on work planning to ensure that all staff are qualified to perform work safely and adhere to work planning requirements. The number of work control coordinators (WCC) will be expanded and training will be provided to ensure that all WCCs know their role and duties.

Targets:

- During NSLS Safety Stand-down, provide major emphasis on role of work planning at all stand-down meetings

Responsibility: R. Casey
Due date: 12/17/05
Status: Closed

- The number of work control coordinators (WCC) will be expanded and training will be provided to ensure that all WCCs know their role and duties.

Responsibility: A. Boerner
Due date: 3/15/05
Status: Closed

- Prepare procedure for development of worker qualification matrix for NSLS scientific, engineering and technical staff

Responsibility: M. Buckley
Due date: 3/4/05
Status: Closed

- Implement worker qualification matrices

Responsibility: NSLS Supervisors
Due date: 9/30/05
Status: Open

Progress: Meetings have been held with all groups within the Accelerator Division, Operations and Engineering Division, ESH Division, and User Science Division. The Work activities sheet has been completed for all divisions and qualification matrices have been drafted for all groups and finalized for many.

2. Ensure department and beam line staff awareness of equipment requiring lockout procedures prior to servicing or maintenance.

Background: The electric shock incident occurring in August 2004 resulted in great emphasis on ensuring that equipment requiring lockout tag-out for maintenance is identified and that a knowledgeable person is available to advise on safeguards for the equipment. Reviews will be conducted throughout the department and beam lines to identify and ensure responsibility for this equipment.

- Develop a list of hazardous equipment within department which requires LOTO implementation and ensure a knowledgeable person is designated for each piece of equipment.

Responsibility: NSLS Supervisors and beam line local contacts
Due date: 2/4/05
Status: Closed

- Label all equipment which requires implementation of LOTO procedure for maintenance

Responsibility: NSLS Supervisors and beam line local contacts
Due date: 5/31/05
Status: Closed

3. Ensure awareness and implementation of electrical safety practices consistent with NFPA 70E requirements

Background: NFPA 70E establishes a number of safety requirements related to electrical work practices, and in particular, requirements related to the use of protective equipment (e.g. safety glasses) and protective clothing. The failure to acquire proper permits and to wear proper protective equipment and clothing was a major factor in the serious accident that occurred at SLAC in October 2004. Through a series of meetings and through enhanced training, we will take steps to ensure that these requirements are properly understood and applied at the NSLS.

- Meet with NSLS staff and with users to explain 70E requirements and the lessons learned from the SLAC incident

Responsibility: R. Casey
Due date: 2/21/05
Status: Closed

- Identify personnel requiring personal protective equipment, acquire necessary supplies and provide instruction in its use

Responsibility: R. Casey, J. Aloï, A. Boerner
Due date: 3/4/05
Status: Closed

- Review and re-issue generic energized work permits for voltage measurements on potentially energized conductors to ensure compliance with 70E and BNL requirements

Responsibility: R. Casey, J. Aloï
Due date: 2/11/05
Status: Closed

- Provide proper labels warning of arc flash hazards to circuit breaker panels and switch disconnect boxes

Responsibility: A. Boerner
Due date: 3/31/05
Status: Closed

- Review and update the department ESH PRM 1.5.0 and facility specific training to ensure agreement with NFPA 70E requirements

Responsibility: J. Aloï, E. Rothman
Due date: 3/4/05
Status: Closed

- Define process and schedule for evaluating peak short circuit current loads in NSLS electrical distribution systems

Responsibility: R. Casey
Due date: 5/1/05
Status: Closed

Progress: The following plan has been established. Al Boerner is coordinating the review of NSLS electrical distribution systems from substations through transformers to circuit breaker panels. NSLS electricians are being used to conduct this review. One line drawing is prepared based on the review and submitted to PE for calculations. Resources are limited for this project and it is difficult to be sure when the review will be completed. We are estimating 10/1/05.

4. Implement BNL requirements for NRTL listed equipment in procurement, construction and use of electrical equipment at the NSLS

Background: The Laboratory assembles and procures highly specialized equipment that has not been evaluated by a nationally recognized test laboratory (NRTL). During the OSHA reviews conducted in FY 2004, the inspection team cited the use of unlabelled equipment. The Laboratory has prepared a corrective action plan which requires use of NRTL equipment where possible or a determination that the equipment is safe when such ratings are not possible. In addition, all existing equipment will need to be evaluated within the next five years.

- Arrange meetings for NSLS staff to discuss NRTL procurement requirements and to discuss implementation issues.

Responsibility: R. Casey
Due date: 3/4/05
Status: Closed

- Determine NSLS personnel who will act as “Authority Having Jurisdiction” for conducting equivalent NRTL inspections for equipment used at the NSLS by staff and users.

Responsibility: R. Casey
Due date: 3/31/05
Status: Closed

- Establish a program for inspection and approval of new non- NRTL rated equipment within the NSLS.

Responsibility: E. Johnson
Due date: 6/30/05
Status: Open

- Establish a program to inspect all legacy non-NRTL labeled equipment in use at the NSLS in accordance with the schedule established by BNL

Responsibility: E. Johnson
Due date: 6/30/05
Status: Open

5. Develop and implement a OSHAS 18001 program in accordance with the schedule established by BNL

Background: BNL has committed to the development of a program consistent with the criteria within OHSAS 18001. These criteria will require modifications of the current program to include job and facility risk. In addition, an OHSAS manual and web pages will also be prepared to document program implementation. Additional training will also be provided.

- Develop overall plan and schedule for OHSAS 18001 implementation

Responsibility: A. Ackerman
 Due date: 4/1/05
 Status: closed

- Prepare OHSAS Manual and publish on NSLS web pages

Responsibility: N. Gmur
 Due date: 5/1/05
 Status: Open

Progress: The manual has been drafted and reviewed. It will be published on the web in by June 15, 2005.

6. Implement OSHA fall protection requirements within NSLS work practices

Background: OSHA regulations establish fall protection requirements for all work on elevated surfaces which have a height differential of four feet or greater from adjacent surfaces. A positive means is expected to protect the worker from accidentally falling off the elevated surface. The NSLS has many occasional work locations (e.g. hutch tops, shield blocks, ledges) where equipment has been positioned that intermittently requires service. These work locations must be evaluated and an appropriate means of providing fall protection established.

- Identify locations requiring fall protection and establish a plan for implementing appropriate administrative/engineering controls

Responsibility: J. Aloï
 Due date: 5/1/05
 Status: closed

- Incorporate OSHA fall protection requirements in NSLS PRM

Responsibility: J. Aloï
 Due date: 5/1/05
 Status: Open

Progress: Draft PRM has been prepared and is undergoing final review. The PRM will be finalized and published by 7/1/05.

7. Complete implementation of hoist and crane program requirements for all NSLS lifting device

Background: A series of hoisting or rigging incidents at BNL resulted in a significant increase in safety requirements for use of hoists or other lifting devices. The following requirements were established in late FY 2004:

- All cranes will be locked and controlled by a responsible person. Keys to the padlocks will be issued to the persons designated by you who will ensure that work is properly planned and conducted by trained and qualified personnel.
- All persons designated by you as the responsible person for a crane must complete the BNL 8 hour training course “Basic Rigging for Crane Operators (HP-GST-155)” and maintain this qualification while serving as the responsible person.
- A checklist will be developed for use with manual chain-falls and powered cranes which must be completed by a responsible person prior to use of the device.
- All operators of overhead lifting devices must have successfully passed the BNL training course “Overhead Crane Operator (HP-Q-010-W)” within the past 36 months. Operators performing non-supervised lifts must have passed the practical field evaluation conducted by Bob Kiss, an NSLS staff member.
- All lifts performed by a qualified operator must be reviewed and approved using the checklist described above by a responsible person for the lifting device.
- Use of all overhead lifting devices for other than routine, ordinary lifts is subject to formal work planning defined in the [Lifting Safety Subject Area](#) and must be reviewed with the appropriate Work Control Coordinator.
- Because of the importance of this issue, completion of this initiative is continued in the FY 05 improvement plan and will be tracked until closure.

Responsibility: R. Kiss
Due Date 11/1/05
Status: Closed

8. Conduct a department wide safety stand-down to review important elements of the NSLS safety program in order to improve safety awareness and strengthen the safety culture.

Background: Doing the work of the NSLS safely has become an issue of the highest priority for all staff members and users. It is important that

periodically everyone take time to review safety issues and to discuss practices that are important in providing a safe work place. As a major initiative for FY 2005, the NSLS will conduct a series of safety stand-downs with all members of the department and beam line staff to discuss safety matters. A recurring message in the meetings will be to build a culture where everyone:

- plans and executes their work properly and safely
 - doesn't take short cuts
 - calls attention to things that are wrong or not as planned
 - watches out for one another.
- Schedule and conduct meetings with all department staff and PRT beam line staff.

Responsibility: NSLS Senior managers

Due Date 12/17/2004

Status: Closed

- Collect and publicize suggestions made at the safety stand-down and track resolution of the comments until all have been addressed.

Responsibility: Nick Gmur

Due Date 9/30/05

Status: Open

Progress: The suggestions and comments made during the safety stand-down have been collected and are available on the NSLS web pages.