BROOKHAVEN NATIONAL LABORATORY PHYSICS DEPARTMENT	Number: PO-ESH-12	Revision: 1.0
	Effective: 10/02/2012	Page: 1 of 4
Subject: The Unreviewed Safety Issue (USI) Process at the Physics Department's Accelerator Test Facility (ATF)		
Prepared by: Michael Zarcone	**Reviewed by:** ESSH Committee	**Approved by:** Department Chair

Official copies of these procedures are maintained at the following website; http://www.bnl.gov/physics/safety/policies.asp. Before using a printed copy, verify that it is the most current version by checking the document issue date on the website. Signed copies of these official procedures are maintained at the Training Office.

Scope

No activity or facility modification may compromise the credited controls defined in the ATF's Safety Analysis Document (SAD) or the ATF's Accelerator Safety Envelope (ASE). Proposed changes are screened for hazards that lie outside the bounds of those established in the SAD and in the development of the ASE, or would compromise the credited controls, by implementing this procedure.

The Unreviewed Safety Issue (USI) process may result in rewriting portions of the SAD and modifying the ASE. Such revisions require review and approval in accordance with the processes prescribed in the Accelerator Safety Subject Area. Reportable events, proposed changes, proposed work, occurrences, discoveries, and lessons learned may also cause the USI process to be initiated. The relevant causes for initiation of the USI process may come from ATF internal or external (other accelerators, other sites, other agencies) stimuli.

Compliance

This document describes the Physics Department's USI Process for the ATF. The process described complies with: the steps in the BNL Standards-Based Management System under **Management System: Facility Safety, Subject Area: Accelerator Safety.**

I. CONFIGURATION MANAGEMENT

Define and document the internal change control/configuration management processes to ensure proposed changes, proposed work, occurrences, reportable events, Lessons Learned, and discoveries are reviewed for impact to the credited controls of the SAD and ASE, and for new Maximum Credible Incidents (MCIs) or changes to existing MCIs evaluated in the SAD.

Change control at the Physics Department for the ATF is defined in Section IV of the Physics Department's Policy PO-ESH-03, ESH&T Policy Responsibilities and Authorities.

II. USI APPLICABILITY

Use the Unreviewed Safety Issue (USI) process to evaluate proposed changes to the facility, work planning and control, or operational event review processes to determine if the planned work or discovery impacts the credited controls in the SAD and/or ASE, and to determine if new credited controls are required.

1.0 The USI Process at the ATF is based on the credited controls in the SAD and ASE. In the ATF's SAD these are: ***Radiation Shielding, Radiation Interlocks and Laser Interlocks.***

2.0 In accordance with the Physics Department's change control/configuration management processes, proposed changes, proposed work, occurrences, reportable events, Lessons Learned, and discoveries are reviewed for impact to the credited controls of the SAD and ASE, and for new MCIs or changes to existing MCIs evaluated in the SAD.

3.0 This USI process is used to evaluate proposed changes to the facility, work planning and control, or operational event review processes to determine if the planned work or discovery impacts the credited controls in the SAD and/or ASE, and to determine if new credited controls are required. If the hazards identified are addressed within the existing SAD and ASE, the evaluation is documented and posted on the ATF web pages.

III. USI PROCEDURE

1.0 Any proposed changes, proposed work, occurrences, reportable events, and discoveries at the ATF that may impact the credited controls of the SAD and ASE are brought to the attention of the Manager of the Physics Department's Safety & Training Office by the ATF Head, ATF Safety Officer, or other Physics Department Personnel. Additionally, the Manager reviews BNL distributed reportable events and Lessons Learned, including external (other accelerators, other sites, other agencies) issues, for any information that may have an impact on the credited controls of the SAD and ASE.

2.0 The Manager of the Physics Department's Safety & Training Office makes the initial determination of the impact on the credited controls of the SAD and, if needed, consults the Physics Department Environment Safety Security and Health (ESSH) Committee.

2.1 *If the hazards identified are addressed within the existing SAD and ASE, document the evaluation, and file it with the department.* When there is no impact on the credited controls, no USI is written; specifically:

2.1.1 A movement of the primary shielding for work on the beam line or components where the shielding is replaced in the same configuration after the work is completed and before resuming operations has no impact on credited controls. This work is documented using the ATF's *Authorization for Work on ATF Accelerator Safety Systems, "ATF Shielding Permit"* from Appendix VII of the SAD.

2.1.2 A change in the laser or radiation interlock test procedures has no impact on credited controls. These changes are reviewed by the Collider-Accelerator Department (C-AD) Interlock Group following

C-AD procedures. These changes are noted and reviewed and are inserted into the procedure using the C-AD configuration management systems.

2.1.3 Other issues that are reviewed as part of an Experimental Safety Review (ESR) or Work Permit (WP) that do not affect primary shielding or interlocks and are documented on the ESR or WP have no impact on credited controls.

2.2 *If the hazards identified are not already addressed in the SAD and/or ASE, document the USI analysis and determine whether the hazards impact the ASE. If the hazards change the SAD in ways other than editorial, but do not impact the ASE, the analysis is forwarded to the Laboratory Environment, Safety and Health Committee (LESHC) for review and approval. After approval is received, the USI analysis is appended to the SAD, and work can proceed. If the hazards change the ASE, a revised ASE is prepared and submitted to the LESHC along with the USI analysis.*

Notes:

- *All comments or recommendations from the LESHC must be resolved before the LESHC will approve the USI and associated revisions.*
- *An activity expected to exceed the bounding conditions of the ASE requires DOE approval.*
- *Proposed changes or work are not performed or put into operation until DOE approval of a revised ASE is obtained.*
- *Any activity violating the ASE must be terminated immediately and be put in a safe and stable configuration.*

2.3 The Physics Department incorporates the appended USIs into the SAD when the SAD is updated following the Accelerator Safety Subject Area. USIs and updated SADs are stored in the Physics Department's Safety and Training Office and are posted on the ATF web pages.

2.4 *The Physics Department updates the USI process to assess the changes or additions to the credited controls of the updated ASE, as appropriate.*

IV. USI FORM

The USI used in the Physics Department will have the following cover page with the details of the issue, analysis, conclusions, supporting documents, and any recommendations from the ESSH Committee.

Unreviewed Safety Issue # (Unique identifier)

Title:

Date:

This Unreviewed Safety Issue (USI) is written in conjunction with the current Accelerator Test Facility Safety Assessment Document (SAD) and Accelerator Safety Envelope (ASE) dated MMMM DD, YYYY.

Conclusions:

It has been determined that this change in policy does (does not) substantially alter the safety basis of ATF operations as presented in the SAD and requires (does not require) a modification of the ATF Accelerator Safety Envelope.

Signature of Preparer	**Date**
Signature of Other Reviewer(s)	**Date**
Signature of Manager of ESH&T Programs	**Date**
Signature of ESSH Committee Chair	**Date**
Signature of Head of ATF	**Date**

Signature on this cover sheet indicates agreement that the shielding has been evaluated as an Unreviewed Safety Issue (USI), the analysis is complete, and the conclusions are accurate.