

Photon Sciences Directorate, Brookhaven National Laboratory			
Doc No. <b>PS-C-ESH-PRC-002</b>	Author: <b>L. Hill</b>	Effective Date: <b>27Jun2014</b> Review Frequency: <b>3 yrs</b>	Version <b>4</b>
Title: <b>Unreviewed Safety Issue Determination Procedure</b>		<b>Administrative</b>	

**Attachment B**  
**USI Screening Checklist**

<p><b>A) USI Screening Purpose:</b></p> <p><input checked="" type="checkbox"/> <b>Proposed Activity</b></p> <p><input type="checkbox"/> <b>Existing Condition</b></p>	<p><b>B) Description of Proposed Activity/Discovered Condition and Sponsor/Condition Owner:</b></p> <p>8-ID ISS Beamline Installation and Operation / Dr. K. Attenkofer</p> <p>The ISS (Inner Shell Spectroscopy) beamline is an insertion device beamline, which will provide advanced hard x-ray spectroscopic tools for NSLS-II users. Sited in sector 8-ID, a high-beta, extended floor space sector, it employs a damping wiggler (DW 100) as its source with a period of 100 mm, and a total length of 7 m. The DW100 wiggler delivers beam to the primary optics in the First Optics Enclosure (FOE, Hutch 8-ID-A). Monochromatic beam exiting the FOE is brought to experimental apparatus located in Hutch 8-ID-B.</p> <p>The safe use of a DW100 damping wiggler has already been analyzed in Negative USI Evaluation No. NSLS-II-EVAL-2014-015, "Confirmation of Shielding Adequacy for EPU49, IVU21 and 22 Insertion Devices", where tables compare the radiological risks of devices installed versus those originally planned and used for radiological analysis. Furthermore, the DW100 has already been demonstrated as safe in Project Beamline 28-ID (XPD). In accordance with the NSLS-II SAD for Routine Operations, ODH monitors have been installed in consideration of the presence of Liquid Nitrogen piping within the hutches. The question of the use of hazardous gases/chemicals within the hutches has already been addressed and analyzed in the SAD in accordance with the Chemical Safety and Fire Protection subject areas of the SBMS and required no extraordinary additional Credited Controls affecting the Authorization Basis Documents.</p>
<p><b>C) USI Screening Outcome:</b></p> <p><input checked="" type="checkbox"/> <b>No potential USI</b></p> <p><input type="checkbox"/> <b>Potential USI</b></p>	<p><b>USI Screening Performed by/Date:</b></p> <p>Steve Moss / March 7, 2016</p> <p><i>Steve Moss</i>      <b>03/07/16</b></p>

Qualified Screener answers the following questions; if:

- Any question is answered yes (i.e., "Y"), check "Potential USI" box in Part C, above.
- If all questions are answered no (i.e., "N"), check "No potential USI" box in Part C, above.

Does the proposed change or discovered condition impact or potentially impact:

1) The personnel protection system (PPS)?

*Examples: Access doors, fencing, hutches, accelerator enclosures, software change, hardware modifications that are not, "replacement-in-kind."*

Y or  N

2) ODH Monitoring System?

*Examples: Hutch ODH monitors, filling station ODH monitors.*

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Y or N

3) Radiation Safety Component?

*Examples: Shielding, earthen berms, hutches, concrete walls, beam shutters, scatter shields, burn-through devices, exclusion zones, labyrinths, beam stops, beam masks, collimators, hutch guillotine and beam transport pipes.*

Y or N

4) Area radiation monitoring system or components?

*Examples: Changing instrument position or use of a new type of instrument used for area radiation monitoring, alarms and controls.*

Y or N

5) Radiological source terms identified in the SAD?

*Examples: New insertion devices, change to the maximum synchrotron energy or accelerated charge values, accelerator modifications that are not "replacement-in-kind."*

Y or N

6) Critical devices

*Examples: Safety shutters, dipole magnets, top-off apertures.*

Y or N

7) PS operating organization?

*Examples: Control room operators, support staff responsible for PPS, radiation monitoring or shielding configuration management.*

Y or N

8) Operational safety limits described in the Authorization Basis Documents?

*Examples: Maximum current, beam energy, pulse rate.*

Y or N

*Forward the completed form to the Authorization Basis Manager*