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## Memo

*Date:* May 4, 2017  
*To:* Paul Zschack, Photon Science Division Director  
*From:* Steve Hulbert, NEXT Project Manager  
*Subject:* Acceptance of SIX Beamline by NSLS-II Facility Operations

Construction of the SIX beamline at 2-ID, one of five insertion device beamlines delivered by the NEXT Project, is complete and light has been delivered to its endstation. The milestones achieved during the transition from construction to operation for this beamline are provided below. Successful achievement of these milestones is evidence that the SIX beamline is ready for operational status in the NSLS-II Facility:

- SIX Photon Delivery System complete and SIX IRR complete (15-Feb-2017)
- Authorization from the NSLS-II Director to Start SIX Commissioning (17-Feb-2017)
- SIX First Light (21-Feb-2017)
- SIX Flux verified (26-Feb-2017)
- SIX Endstation construction complete (4-May-2017)

The endstation for SIX features a sample chamber with static and scanning sample capabilities as well as temperature control, sample preparation, and characterization tools. Detection of the inelastically scattered photons is provided by a custom high resolution spectrometer with soft X-ray CCD detector.

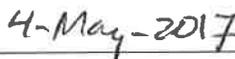
The multi-port fixed-angle vacuum connection between the sample chamber and spectrometer provides capability for commissioning of the combined beamline and spectrometer during the initial period of SIX operations. When ready, this vacuum connection will be replaced by the triple-rotating-flange version which provides continuous angle selection capability under ultra-high vacuum conditions.

SIX beamline scope was verified at the NEXT Scope Verification Review held 27-28 February 2017 and completion has been documented via WBS Closeout Acknowledgments.

The purpose of this memo is to report this status and request your acknowledgment that the NSLS-II Facility has accepted the SIX photon delivery system and endstation into its operating portfolio.



Steve Hulbert, NEXT Project Manager



Date

Cc: E. Johnson, J. Hill