



THREE-YEAR SECTOR SAFETY REVIEW REPORT

ICMS Document Number APS_2183013

Review Number	Review Title	Review Date
PSC-2021-TYSSR-S19	Three Year Sector Safety Review of XSD-SBC Sector 19	August 4, 2021
Scope / Agenda		Review Team
XSD-SBC ES&H Plan Implementation Sector 19 Specific Safety Issues PSC/AES Configuration Control Records RSS Component Survey & Alignment Update RSS Interface Identification PSS User Requirements Specification Ray Traces, Operational Envelope, Design Reviews Health Physics Survey Records ES&H Inspection Records ES&H Walk-Through LOM 435-D office areas, laboratories Sector 19 beamlines, control areas, egress aisles		John Connolly Nena Moonier Paul Rossi Mike Fries Patti Pedergrana Liz Schmidt Steve Davey Ken Belcher Beth Heyeck Keith Knight Andrzej Joachimiak Jerzy Osipiuk Alex Lavens
Review Chair	ESH/QA Representative	Responsible Manager
Nena Moonier	Mike Fries	John Connolly
Executive Summary:		
The XSD-SBC TYSSR was held on August 4, 2021.		

Section 1: TYSSR criteria are based upon APS User Safety Policies and Procedures, APS Procedure 3.1.102, Section Beamline Facilities Reviews (Formerly AP&P 3.1.18, APS document number APS_118581)

	Agenda Items / Review Criteria	Discussion / Objective Evidence	Action Required
1.	Date of last TYSSR	August 7, 2018	None
2.	Beamline management presents a summary of the ES&H program and notes changes, if any, since the last TYSSR.	Jurek Osipiuk presented the XSD-SBC Safety Presentation	Presentation will be uploaded to ICMS

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3.	Committee records concerns raised by Sector Personnel	None	None
4.	Committee reports outstanding action items, if any, from last TYSSR	None	None
5.	Each partner user group operating a beamline shall:	<i>See sub-items.</i>	
6.	Review beamline safety program and ES&H plan at least once every thirty-six months; revise them, as needed, and provide ES&H plan to APS User Safety Officer for approval.	The XSD Safety Plan is in ICMS, Content ID APS_1270900 and was last reviewed in September 2020. The Plan is valid until September 2023.	None
7.	Review beamline safety assignments annually and reassign responsibilities or create new roles, as needed; notify USO of changes in personnel assigned to ES&H roles.	Communicated through monthly data check of Beamline HR Admin application.	None
8.	The committee verifies that the following records are on file and consistent with the beamline:	<i>See sub-items.</i>	

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Agenda Items / Review Criteria		Discussion / Objective Evidence	Action Required
9.	Review/approval records for modifications to beamline safety systems since last TYSSR	<p>Review of InSitu NanoProbe Feature Beamline CDR by Conceptual Design Review Committee, May 2, 2019. Review Report ICMS Content ID APS_2032466</p> <p>PDRC TN20-027 APS-U ISN Concrete Enclosure Shielding Calculation Final Design</p> <p>PDRC TN20-101 APS-U KB Mirrors Procurement Readiness Review</p> <p>PDRC TN21-006 APS-U Horizontal Double Crystal Monochromators Procurement Readiness Review</p> <p>PDRC TN21-012 DALD Operations Authorization for Removal of Collimating Slits with RSS-related Work</p> <p>PDRC TN21-016: APS-U In Situ NanoProbe Instrument Final Design Review</p>	<p>It is unknown if formal responses were received on the CDR recommendations or if the recommendations are being tracked to closed in the APS-U Recommendations Database.</p> <p>Note: APS-U Review Recommendations are tracked to closed status in the APS-U Recommendations Database</p>
10.	Configuration control list	Current as of the beginning of the last run.	None
11.	Administrative Restrictions	19-BM and 19-ID do not have any Administrative Restrictions.	None
12.	RSS component survey and alignment worksheets	Sector 19 was last surveyed during the April/May 2021 shutdown.	None
13.	RSS interface document	<p>19-BM: ICMS Content ID APS_1218086</p> <p>19-ID: ICMS Content ID APS_1218087</p>	None
14.	PSS user requirements specification	<p>19-BM: ICMS Content ID APS_1181415</p> <p>19-ID: ICMS Content ID APS_1181419</p>	None
15.	Sector floor plan, including egress aisles and work areas	<p>19-BM: ICMS Content ID APS_1190476</p> <p>Current 19-ID: ICMS Content ID APS_1190484</p> <p>For APS-U's ISN Feature Beamline, see ISN CDR APS_2031848, pages 19-20</p>	CDR Review Recommendations include resolution of the long beamlines crossing the sector aisle, with details on egress, personnel access, and equipment transport.

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16.	Beamline layouts showing major radiation safety shielding components	19-BM: ICMS Content ID APS_1190476 Current 19-ID: ICMS Content ID APS_1190484 For APS-U's ISN Feature Beamline, see ISN CDR APS_2031848, pages 19-20	None
17.	Synchrotron and Bremsstrahlung ray trace drawings for all operating modes	19-BM: ICMS Content ID APS_1413700 Current 19-ID: ICMS Content ID APS_1413703 For APS-U's ISN Feature Beamline, see ISN CDR APS_2031848, pages 21-22, for conceptual level ray traces	None
18.	Design drawings of RSS components that show functionality, shielding and aperture dimensions, and shielding material	19-BM: ICMS Content ID APS_1438059 19-ID: ICMS Content ID APS_1430778	None
19.	Thermal analysis for RSS components connected to PSS water flow	19-BM: ICMS Content ID APS_1256118 19-ID: thermal analysis for similar stop at 18-ID ICMS Content ID APS_1423125. Current limit for stop is 100mA.	None

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20.	Assembly drawings for x-ray shielded enclosures	<p>19-BM-A Assembly no detailed drawing. This is a standard length H1 type ID FOE, similar to 18-ID-A.</p> <p>19-BM-C Assembly WBES APS_TECKNIT3230</p> <p>19-BM-D Assembly WBES APS_TECKNIT3259</p> <p>19-ID-A Assembly Unlocatable</p> <p>19-ID-C Assembly WBES APS_TECKNIT3325</p> <p>19-ID-D Assembly MBES APS_TECKNIT3328</p> <p>Note from 2015 TYSSR Report: 19-ID-A and 19-ID-B ANL Contract #94-244201, Supplemental Agreement #6 (PR D31808-0)</p> <p>19-ID-C and 19-BM-C ANL Contract #94-244201, Supplemental Agreement #9 (PR D32253-0)</p> <p>19-ID-D and 19-BM-D ANL Contract #95-0092404, Supplemental Agreement #2 (PR D32274-0)</p> <p>Location of as-built drawings that were required for contract closeouts is unknown.</p>	<p>Pedergrana to search hard-copy records for 19-BM-A and 19-ID-A Assembly Drawings in the future.</p>
21.	Date of last Health Physics routine survey	The last HP routine survey was for 19-BM and 19-ID was conducted on 10/29/2020. No mitigation was required.	None
22.	ES&H coordinator provides recent ES&H inspection reports and identifies open safety issues, if any.	The last safety walk through for Sector 19 was completed on March 22, 2021. Items needing attention included removing combustibles in 19-ID-C and improving housekeeping in 435 D020.	None
23.	Committee and beamline personnel discuss opportunities for improving the process	None	None

Section 2: Safety walk through was not held on the day of the review. Review held virtually due to the Lab operating in Limited Operations

ICMS Workflow Approvals Required

Nena Moonier (Assessment Team Leader)
Paul Rossi (Assessment Team Member)
Mike Fries (Assessment Team Member)
Patti Pederghana (Assessment Team Member)
Elizabeth Schmidt (Assessment Team Member)
John Connolly (Responsible Manager)

File / Distribution: PSC Deputy Assoc. Lab Director - Operations (Approver)
CAT or XSD Division Director
Sector Personnel and Safety Coordinator
User Safety Officer
PSC ESH/QA Representative
User Experiment Oversight
APS User Technical Interface
AES-EFO Group

Supporting Documents:

XSD-SBC Sector 19 Three-Year Sector Safety Review Notification Letter (APS_2183009)
XSD-SBC Sector 19 Three-Year Sector Safety Review Agenda (APS_2183010)
XSD-SBC Sector 19 Three-Year Sector Safety Review Meeting Minutes (APS_2183011)
XSD-SBC Sector 19 Three-Year Sector Safety Review Presentation (APS_2183012)