



THREE-YEAR SECTOR SAFETY REVIEW REPORT

ICMS Document Number APS_2171246

Review Number	Review Title	Review Date
PSC-2020-TYSSR-XSD-SRS	Three Year Sector Safety Review of XSD-SRS Sector 11-BM-B: 11-ID-B,C; 17-BM-B	October 23, 2020
Scope / Agenda		Review Team
XSD-SRS ES&H Plan Implementation XSD-SRS 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 433-D office areas, laboratories Sector 11-BM, 11-ID-B,C, 17-BM-B beamlines, control areas, egress aisles		John Connolly Nena Moonier Paul Rossi Mike Fries Patti Pedergrana Liz Schmidt Steve Davey Ken Belcher Merrick Penicka Beth Heyeck Uta Ruett Kevin Beyer Kamila Wiaderek Wenqian Xu Lynn Ribaud
Review Chair	ESH/QA Representative	Responsible Manager
Nena Moonier	Paul Rossi	John Connolly

Executive Summary:

The XSD-SRS now consists of the following beamlines: 11-BM-B; 11-ID-B,C; 17-BM-B. The Three-Year Sector Safety Review for XSD-SRS was held on October 23, 2020.

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	September 13, 2017	None

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Agenda Items / Review Criteria		Discussion / Objective Evidence	Action Required
2.	Beamline management presents a summary of the ES&H program and notes changes, if any, since the last TYSSR.	Kevin Beyer from the group presented the XSD-SRS Safety Presentation.	Presentation will be uploaded to ICMS
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 Beamline 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>	
9.	Review/approval records for modifications to beamline safety systems since last TYSSR	There have been no modifications to the 11-BM, 11-ID or 17-BM beamlines since the previous TYSSR.	None
10.	Configuration control list	Current as of the beginning of the last run.	None

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11.	Administrative Restrictions	<p>11-BM-B does not have any administrative restrictions.</p> <p>11ID: Reason for Restriction: To regularly inspect the white beam stop in 11-ID-A for the presence of fatigue cracking. Component or Condition being Restricted: 11-IDA-P-01 is to undergo an annual visual inspection and approval for operation. The first inspection shall be conducted prior to the 2010-2 run and shall be conducted annually thereafter until the beam stop is replaced or this restriction is lifted. (The annual inspection for 11-ID-A-P-01 was last performed during the Dec 2019/Jan 2020 shutdown and will be performed again during the Dec 2020/Jan 2021 shutdown.) The beamline shall not operate unless this inspection is performed. The beamline shall not be operated for scheduled beam currents greater than 100 mA. Resolution Required: The above restrictions may only be changed or lifted by the AES Division Director or the AES-ADD for Mechanical & Interlock Systems. Reference (ICMS documents): APS_1274870, APS_1402349, and APS_1402350</p> <p>17-BM-B does not have any administrative restrictions.</p>	None
12.	RSS component survey and alignment worksheets	Sector 11 was last surveyed during the April/May 2020 shutdown. Sector 17 was last surveyed during the August/September 2018 shutdown.	None
13.	RSS interface Document	<p>11-BM: ICMS Content ID APS_1218067</p> <p>11-ID-B,C: ICMS Content ID APS_1218068</p> <p>17-BM: ICMS Content ID APS_1218082</p>	None
14.	PSS user requirements specification	<p>11-BM: ICMS Content ID APS_1124397</p> <p>11-ID-B,C: ICMS Content ID APS_1001281</p> <p>17-BM: ICMS Content ID APS_1001285</p>	None
15.	Sector floor plan, including egress aisles and work areas	<p>11-BM: ICMS Content ID APS_1444596</p> <p>11-ID-B,C: ICMS Content ID APS_1219012</p> <p>17-BM: ICMS Content ID APS_1190088</p>	None

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16.	Beamline layouts showing major radiation safety shielding components	11-BM FDR: ICMS Content ID APS_1181477 11-ID FDR: ICMS Content ID APS_1219012 17-BM: ICMS Content ID APS_1190088	None
17.	Synchrotron and Bremsstrahlung ray trace drawings for all operating modes	11-BM: ICMS Content ID APS_1413684 11-ID-B,C: APS_1413685 17-BM: ICMS Content ID APS_1413696	None
18.	Design drawings of RSS components that show functionality, shielding and aperture dimensions, and shielding material	11-BM: ICMS Content ID APS_1426499 11-ID-B,C: ICMS Content ID APS_1270991 17-BM: ICMS Content ID APS_1438057 (Note that this CRT is in draft form and lacking some component drawing numbers and critical dimensions. See 17-BM's FDR for these details (APS_125163).	None
19.	Thermal analysis for RSS components connected to PSS water flow	11-BM and 17-BM: see Thermal Analysis of Bending Magnet Beamline Components, ICMS Content ID APS_1256118 11-ID-B,C: see Addendum to Upgrade Final Design Report – Undulator Upgrade of 11-ID; BSDRSC Docket TN07-013, ICMS Content ID APS_1209563	None
20.	Assembly drawings for x-ray shielded enclosures	11-BM-A: ICMS Content ID APS_1444597 11-BM-B: ICMS Content ID APS_1445924 11-ID-A: ICMS Content ID APS_1445927 11-ID-A-MH-1: ICMS Content ID APS_1445928 11-ID-B: ICMS Content ID APS_1445929 11-ID-C: ICMS Content ID APS_1445930 17-BM-A: APS_TECKNIT2957, 2958, 2959 17-BM-B: APS_TECKNIT2975, 2976, 2977	None

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21.	Date of last Health Physics routine survey	The last HP routine surveys were conducted on: 11-BM-B March 19, 2020 11-ID-B May 26, 2020 11-ID-C June 10, 2020 17-BM-B June 19, 2020 There were no issues of note in any of the surveys.	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 11 was completed on February 24, 2020. There were no issues of note. The last safety walk-through for 17-BM-B was completed on September 24, 2019. There were no issues of note.	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 Pedernana (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-SRS Three-Year Sector Safety Review Notification Letter (APS_2171242)

XSD-SRS Three-Year Sector Safety Review Agenda (APS_2171243)

XSD-SRS Three-Year Sector Safety Review Meeting Minutes (APS_2171244)

XSD-SRS Three-Year Sector Safety Review Presentation (APS_2171245)