



THREE-YEAR SECTOR SAFETY REVIEW REPORT

ICMS Document Number APS_2186411

Review Number	Review Title	Review Date
PSC-2021-TYSSR-SER-CAT	Three Year Sector Safety Review of SER-CAT Sector 22	November 4, 2021
Scope / Agenda		Review Team
SER-CAT ES&H Plan Implementation Sector 22 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 436-B office areas, laboratories Sector 22 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 Bi-Cheng Wang John Chrzas Norma Duke Rod Salazar
Review Chair	ESH/QA Representative	Responsible Manager
Nena Moonier	Paul Rossi	John Connolly
Executive Summary:		
The last SER-CAT TYSSR was held on November 13, 2018.		

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	November 13, 2018	None
2.	Beamline management presents a summary of the ES&H program and notes changes, if any, since the last TYSSR.	John Chrzas presented the SER-CAT Safety Presentation.	Presentation will be uploaded to ICMS.

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Agenda Items / Review Criteria		Discussion / Objective Evidence	Action Required
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 SER-CAT safety plan has been reviewed and approved by P. Rossi and N. Moonier. The plan is in ICMS: APS_2185648	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 the Beamline HR 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	PDRC TN20-022: SER-CAT Control Room	None
10.	Configuration control list	Current as of the beginning of the last run.	None
11.	Administrative Restrictions	22-BM and 22-ID do not have any administrative restrictions.	None
12.	RSS component survey and alignment worksheets	22-BM and 22-ID were last surveyed during the April/May 2018 shutdown.	None

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Agenda Items / Review Criteria		Discussion / Objective Evidence	Action Required
13.	RSS interface document	22-BM: ICMS Content ID APS_1218091 22-ID: ICMS Content ID APS_1218092	None
14.	PSS user requirements specification	22-BM: ICMS Content ID APS_1181418 22-ID: ICMS Content ID APS_1128823	None
15.	Sector floor plan, including egress aisles and work areas	22-BM and 22-ID: ICMS Content ID APS_1432660	Pedergrana to link Sidarous' Sector Floor Plan with new control rooms to design reference webpage
16.	Beamline layouts showing major radiation safety shielding components	22-BM: ICMS Content ID APS_1190153 22-ID: ICMS Content ID APS_1190201	None
17.	Synchrotron and Bremsstrahlung ray trace drawings for all operating modes	22-BM: ICMS Content ID APS_1413708 22-ID: ICMS Content ID APS_1407868	None

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18.	Design drawings of RSS components that show functionality, shielding and aperture dimensions, and shielding material	<p>22-BM: See RSS CRT ICMS Content ID APS_1432666</p> <p>22-BM-A-K-01 Collimator 1.1.2.4.2.9-101-DC-0A</p> <p>22-BM-A-K-02 Collimator 1.1.2.4.2.9-100-DC-0A</p> <p>22-BM-C-K-01 Collimator 1.1.2.3.5.2-104-DC-0B</p> <p>22-BM-C-P-01 Photon Stop 1.1.2.3.5-058-DE-0B</p> <p>22-BM-C-K-02 Safety Stop 1.1.2.3.5.2-104-DC-0B</p> <p>22-ID: See RSS CRT ICMS Content ID APS_1429981</p> <p>22-ID-A-K-01 Collimator</p> <p>Not tagged Mask 1.1.2.3.3.1.1-100-DD</p> <p>ICMS Content ID APS_1429353</p> <p>22-ID-C-K-01 Collimator 1.1.2.2.2.6-052-DD-1C</p> <p>ICMS Content ID APS_125417; p. 16</p> <p>22-ID-C-P-01 Photon Stop 1.1.2.3.5-058-DD-1B</p> <p>ICMS Content ID APS_1429351 & 52</p> <p>22-ID-C-K-02 Collimator 1.1.2.3.5.2-104-DC-0B</p> <p>ICMS Content ID APS_125417; p. 17</p>	None
19.	Thermal analysis for RSS components connected to PSS water flow	<p>22-BM: ICMS Content ID APS_1256118</p> <p>22-ID: ICMS Content ID APS_1430562</p>	None
20.	Assembly drawings for x-ray shielded enclosures	<p>22-BM-A: ICMS Content ID APS_1432774</p> <p>22-BM-C: APS_TECKNIT5428</p> <p>22-BM-D: APS_TECKNIT3692</p> <p>22-ID-A: APS_TECKNIT5034 (plan)</p> <p>22-ID-A: APS_TECKNIT3801 (elevation)</p> <p>22-ID-C: APS_TECKNIT3845</p> <p>22-ID-D: APS_TECKNIT3942</p>	None
21.	Date of last Health Physics routine survey	The last routine HP survey of 22-BM and 22-ID was conducted on 3/3/2021. No mitigation required.	None

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22.	ES&H coordinator provides recent ES&H inspection reports and identifies open safety issues, if any.	The last safety walk through of Sector 22 was conducted on 06/07/2021. Issues noted were minor and are expected to be mitigated in a timely manner.	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:

- SER-CAT Sector 22 Three-Year Sector Safety Review Notification Letter (APS_2186407)
- SER-CAT Sector 22 Three-Year Sector Safety Review Agenda (APS_2186408)
- SER-CAT Sector 22 Three-Year Sector Safety Review Meeting Minutes (APS_2186409)
- SER-CAT Sector 22 Three-Year Sector Safety Review Presentation (APS_2186410)