



THREE-YEAR SECTOR SAFETY REVIEW REPORT

ICMS Document Number APS_2170654

Review Number	Review Title	Review Date
PSC-2020-TYSSR-S31	Three Year Sector Safety Review of LRL-CAT Sector 31	October 8, 2020
Scope / Agenda		Review Team
LRL-CAT	ES&H Plan Implementation Sector 31 Specific Safety Issues	John Connolly Nena Moonier Paul Rossi
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	Mike Fries Patti Pedergrana Liz Schmidt Steve Davey Ken Belcher Merrick Penicka Beth Heyeck
ES&H Walk-Through	LOM, office areas, laboratories Sector 31 beamlines, control areas, egress aisles	Jordi Benach Laura Morisco John Koss Anton Frommelt
Review Chair	ESH/QA Representative	Responsible Manager
Nena Moonier	Paul Rossi	John Connolly

Executive Summary:

The LRL-CAT Three-Year Sector Safety Review was held on October 8, 2020. The CAT runs a mail-in general user crystallography program.

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 26, 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.	Laura Morisco presented the LRL-CAT safety presentation.	Presentation will be uploaded into 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 LRL-CAT safety plan has been reviewed and approved by P. Rossi and N. Moonier. The Plan is in ICMS: APS_2170477	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	PDRC TN20-052: 31-ID-E UPS Platform Rooftop Installation	None
10.	Configuration control list	Current as of the beginning of the last run.	None

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Agenda Items / Review Criteria		Discussion / Objective Evidence	Action Required
11.	Administrative Restrictions	There are none at this time.	None
12.	RSS component survey and alignment worksheets	Sector 31 was last surveyed during the December 2019/January 2020 shutdown.	None
13.	RSS interface Document	31-ID ICMS Content ID APS_1218099	None
14.	PSS user requirements specification	31-ID ICMS Content ID APS_1130445	None
15.	Sector floor plan, including egress aisles and work areas	31-ID ICMS Content ID APS_1444736	None
16.	Beamline layouts showing major radiation safety shielding components	31-ID ICMS Content ID APS_1444736	None
17.	Synchrotron and Bremsstrahlung ray trace drawings for all operating modes	31-ID ICMS Content ID APS_1413726	None
18.	Design drawings of RSS components that show functionality, shielding and aperture dimensions, and shielding material	See the Beamline Component Reference Table APS_1425559.	None
19.	Thermal analysis for RSS components connected to PSS water flow	P4-51 WBS in P4-50 shutter: ICMS Content ID APS_1427413 No thermal analysis report located, but the L5-93 mask at 44.5 meters: analysis for L5-83 in TB-50 is applicable due to (i) L5-93 has larger aperture than L5-83 (6.75 x 4.5 mm vs. 4.5 x 4.5 mm) and (ii) L5-93 is farther from the source (44.5 m vs. 25 m).	None

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Agenda Items / Review Criteria		Discussion / Objective Evidence	Action Required
20.	Assembly drawings for x-ray shielded enclosures	31-ID-A: APS_TECKNIT4074, 4075, 4076, 4077 WB FOE APS_TECKNIT4036 WB Transport 31-ID-B (vacant): APS_TECKNIT4121, 4122, 4123 Mono Branch 31-ID-C: APS_TECKNIT4179, 4180, 4181, 4182 WB SOE 31-ID-D: APS_TECKNIT4255, 4256, 4257 Mono 31-ID-E (vacant): APS_TECKNIT4303, 4304, 4305 Mono Branch	None
21.	Date of last Health Physics routine survey	The last HP routine surveys were completed on: 31-ID-A,D 11/25/2019 31-ID-C 11/27/2019 There were no issues of note.	None
22.	ES&H coordinator provides recent ES&H inspection reports and identifies open safety issues, if any.	The last safety walk-through was completed on November 8, 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)

<u>File / Distribution:</u>	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:

LRL-CAT Sector 31 Three-Year Sector Safety Review Notification Letter (APS_2170650)

LRL-CAT Sector 31 Three-Year Sector Safety Review Agenda (APS_2170651)

LRL-CAT Sector 31 Three-Year Sector Safety Review Meeting Minutes (APS_2170652)

LRL-CAT Sector 31 Three-Year Sector Safety Review Presentation (APS_2170653)