



System Acceptance Review meeting for LOKI

LOKI Vacuum System

=ESS.NSS.H01.LOKI.G01.G01

=ESS.NSS.H01.LOKI.G01.G02

PRESENTED BY LAURENCE PAGE

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Status Report

Vacuum LOKI System

System scope:

- Provide a controlled vacuum system that meets specified requirements
- Provide standard Vacuum Control Racks and Most Vacuum Equipment

Status:

- Installed and commissioned
- Integrated and tested

Required SAR Documents:

ESS-1179105 Approved Vacuum Diagram

ESS-5726991 Verification and Validation Report for LOKI Vacuum Control System

- Verifies all vacuum level requirements are met
- Set-Points, Relays, Interlocks functions and control logic operational

Status Report

Vacuum LOKI System



LOKI Vacuum Pressure Requirements			
	Required	Achieved	notes
In-Bunker Low-Speed Chopper	<1E-1 mbar	<5E-3 mbar	
In-Bunker Guides and Heavy Shutter	<1E-1 mbar	<5E-3 mbar	
BWI, Collimator, Guide, Sample Snout	<1E-1 mbar	<8E-3 mbar	
Detector Vessel	<1E-1 mbar	<2E-2 mbar	
Detector Vessel Pump Down Time to 1E-1 mbar	< 1.25 hr	ca 50 min	



Hot commissioning

LOKI Vacuum System

• **System ready for hot-commissioning**

- No outstanding issues

Vacuum group planned activities for hot commissioning:

- Monitoring of Vacuum Systems
- Support instrument team with vacuum related issues
 - Venting Vessels and Pump Down when requested
- Technician support if requested (Vacuum on-call for Acc and Target)

Operation

The BIFROST Vacuum system is only operated by the Vacuum Group

Maintenance

ESS-0012895 ESS Vacuum Handbook Part 2

- TL;DR Replacement of Components on Failure



Status Report

Operating LOKI EPICS CONTROL SCREEN

