



System Acceptance Review meeting for BIFROST

BIFROST Vacuum System
=ESS.NSS.H01.BIFRO.G01.G01
=ESS.NSS.H01.BIFRO.G01.G02

PRESENTED BY LAURENCE PAGE

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Status Report

Vacuum BIFROST System

System scope:

- Provide a controlled vacuum system to meet specified requirements
- Provide standard Vacuum Control Racks

Status:

- Installed and commissioned
- Integrated and tested

Required SAR Documents:

ESS-1425752 Approved Vacuum Diagram

ESS-5548852 Verification and Validation Report for BIFROST Vacuum Control System

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

Status Report

Vacuum BIFROST System



BIFROST Vacuum Pressure Requirements			
	Required	Achieved	notes
In-Bunker High-Speed Chopper	<1E-3 mbar	<1E-4 mbar	
In-Bunker Guides, Low-Speed Choppers and BWI	<1E-1 mbar	<8E-3 mbar	
Out of Bunker Guides and Low-Speed Choppers	<1E-1 mbar	<6E-3 mbar	
Get Lost Tube	< 1 mbar	< 9E-3 mbar	
Detector Vessel Warm	<1E-1 mbar	<2E-2 mbar	
Detector Vessel Be Filters	<1E-3 mbar	<2E-4 mbar	



Hot commissioning

TBL 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

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 BIFROST EPICS CONTROL SCREEN

