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SSR1 Interface Control Document

Status as of Jan 26

Curt Baffes for Don Mitchell, Jesse Batko

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PIP-II document

SSR1 ICD – What is this Document?

- All of the systems for the SSR1 cryomodule need to be integrated together.
- This Interface Control Document identifies all of the systems related to the SSR1 cryomodule so that nothing is overlooked during the final design phase, fabrication, installation, and operation.
- All items will be identified – ask, “what is required?”
- Jesse Batko, an AD engineer, has been asked to coordinate the authoring of this document – but he needs your assistance.

Document Status – ED0004129 Table of Contents

1.0 Purpose-SSR1 Cryomodule

2.0 Beam Line Connections

3.0 Alignment and Stand Interface

4.0 Handling, Transportation, Structural Interface to Facility

5.0 Facility Utilities

6.0 Magnet Leads- Current Lead Port (CLP)

7.0 Coupler Port (CP) & RF Connections

8.0 Tuner Access Ports (TAP)

9.0 Cryogenic Connections

10.0 Magnet Power Supply

11.0 Cryomodule Vacuum Systems

12.0 Tuner Control

13.0 Interlocks

(XX.X) Micophonics?

Green = Ready for review

Yellow = some input, many TBDs

Red = significant missing input

Interface Responsibilities

- RF Power: Ralph P.
- LLRF: Brian C.
- Instrumentation: Vic S. / Meiyu Chen / Fred Lewis / Darryl Orris
- Magnet Power: Bruce H.
- Magnet Leads: Tom Nicol / Meiyu Chen
- Interlocks: Peter P.
- Controls: Jim P.
- Microphonics: Jeremiah Holzbauer / Yuriy P.
- Vacuum: Orlov / Nicol / Ristori / C. Baffes / Alex Chen
- Cryogenics: Orlov / Nicol / Ristori / Arkadiy K. / Mike White
- Alignment: Orlov / Nicol / Ristori / Virgil Bocean
- Cavity Tuning: Timergali K.
- BPM: Vic S. / Iouri Terechkine
- PXIE Facility: C. Baffes / J. Leibfritz
- PIP-II facility: S. Dixon / C. Baffes
- Couplers: S. Kazakov / Ristori
- Cavity Tuners: Ristori / Passarelli / Timergali / Yuriy P.
- Stand Interface: B. Hartsell

Path Forward

- Meetings to be scheduled next week to focus on areas lacking input
- Goal is to have document ready for initial review week of Feb. 8
- Document will be released with some TBDs that can only be addressed through further design. A future revision will be necessary