

Trip Summary

Dinner Meeting, Thursday, January 18, 2001

A dinner meeting was arranged at Los Alamos. The purpose of the dinner meeting was to introduce Pilar Marroquin (LANL – responsible for SNS DTL & CCL vacuum controls), Keith Kishiyama (LLNL – responsible for SNS DTL & CCL vacuum instrumentation and PLC programming) and Johnny Tang (BNL – responsible for SNS ring vacuum control and PLC programming) and discuss the possibility of a common control system for SNS LINAC and Ring Vacuum system. The following areas are agreed to have a common control system approach between LANL and BNL :

- Ladder Logic Programming Standard for valve control
Keith will review RHIC and LEDA's ladder logic code for valve control and come up a proposal for SNS vacuum controls
- Possibility of using Fermi ion pump controllers for pumps and ccg from the LINAC to the RTBT, suggested by Bob Delasio
A meeting has been arranged by Loralie Smart to meet at JLAB on February 13, room 428, ARC building to have a detailed look at Fermi controllers and SNS turbo station design
- SNS vacuum control OPI standard
Pilar and Johnny will come up a common OPI for SNS vacuum control operator interface

SNS CTL & CCL vacuum system FDR, Friday, January 19, 2001

Only the areas related with DTL & CCL vacuum instrumentation and controls are covered in this report. (Keith's and Pilar's talk slides have been attached) The differences between LANL's and proposed BNL design for vacuum controls are summarized in following:

1. RS-485 vs direct IO for Ion Pump and Gauge controllers
LANL chooses direct IO from the controllers to PLC with the following reasons:
 - Less programming work on PLC or IOC
 - Faster analog inputs from gauge controllers
 - Isolate local control (PLC) from global control (IOC)Drawbacks:
 - More PLC I/O modules and wiring work
 - Lose remote diagnostics capability for gauge and ion pump controlsBNL suggests:
 - Use RS 485 for gauge and ion pump controllers to gain the remote diagnostics capability and save wiring and extra PLC I/O module costs.
 - Use direct wire from gauge controller to beam permit or low level RF system for vacuum interlocks
2. Panelview for local control monitor

LANL chooses PanelView for its local control with the following reasons:

- Less dependant on EPICS software
- Simple touch screen operations

Drawbacks:

- Extra cost on PanelView software and hardware
- Extra bus for PanelView (Ethernet interfaced PanelView not available)

BNL suggests:

- Use RSView for local OPI with PC via Ethernet or
- MEDM on PC to save extra development of LOCAL OPI

Appendix:



"SNS DTL_CCL
FDR 1-19-01-Instr



"SNS DTL_CCL
Vac FDR GC prese