n-3He Work List

Seppo

Update Nov-12-14

DAQ:

* Trigger pulses from “Dirty” rack to “Clean” through optical isolator
  + - 1. - safety needs to be improved – and then approved by Paul

Preamp:

* Cooling for all 4 boxes
* Cooling monitoring – including interlock circuit
  + length of temp sensor wires
* Amps powering – test parallel powering
* Small isolation transformer issue
* Diagnostics of amps
  + Build a 36-ch current injection box – mountable to Preamps
  + How else we can do diagnostics of a channel

HV:

* Test ion chamber HV with 200 V
* M1 HV
* M4 HV

M4

* Run with DAQ to see noise

Spin flipper

* + Status
  + RF waveform status
  + needs trigger
  + Connect He supply and return lines to spin flipper
  + Test donate current reading with DAQ
  + Install BNC cable

Laser:

- alignment targets - status

Ion Chamber:

* Level
* Tie down - how

Beam scanners

* Status
* Mount the downstream one for IRR
* Do we have all cabling?
* Testing with M4 and amp
* Scanning plan -

Dirty DAC:

* status
* reads; M1, M4, SF current, ???

Slow Control

* + Pressure transducer for N2 cooling – analog signal
  + Flow indicator for N2 cooling – analog signal
  + Four temperature sensors on preamplifiers – communication via RS-232.
  + Pressure transducer for the SF He flow – analog
  + Flow indicator for SF He flow - analog.
  + Many of these signals need to be set to give an alert and alarm
  + Hardwired interlock circuit for amp cooling
  + Two Bartington MAG-03 DAM flux gates, communication via RS-232.
  + Fix the flux gate
  + Additional reading like; proton current reading, status

3He recovery:

* Contract with SRNL in place
* For IRR a draft of the procedure for operation of the 3He recovery manifold
* For IRR a draft of an overall Tritium safety plan with SRNL
* Design of tritium manifold – in process - consultation with SRNL
* Build tritium manifold – started

IRR

* + Nov-19 at 9am-🡪