

ORC and Preparations

Howard Budd, University of Rochester

ArgonCube 2x2 Meeting

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pORC for MINERvA Electronics and LI Racks



- Use previous information from previous ORCs
- Probably start with Document from 2014 test beam ORC document, 2 problems
 - Jamieson Power Document not up to date after Network Fuse Panel
 - The documentation for the DC power in Docdb is not completely correct for Argon 2x2. Although Jamieson wrote an ORC for the Network Fuse Panel, his power document has the Fuse Panel (no Network) and he didn't write it.
 - In addition there are things in the power document we don't use, but I would like to know his views on it.
 - I was hoping that Jameson would update his power document. He understands it better than I do.
 - I cannot find any documentation on the MINERvA MTM
 - The MTM generates “start gate” clock command in the clock from a TTL AD signal
 - It also has the 215 μ s delay for LI trigger.
 - Although built by the Fermilab EE department ~ 2008 , there is no documentation I could find. EE should have documented it.
 - I would like PPD EE to come up with documentation.



RPS & 48 volts supply



- Right now we are planning on using the ND RPS which only trips on smoke
- For MINERvA we used the BIRA RPS which also only tripped on smoke
- However, Jamieson sent the BIRA a bunch of errors
 - Fan failure in the 48 volt supply
 - DC voltage out of range
- These errors did not trip the supply but were meant to inform us of the problems, as we probably would not know otherwise.
- However, we did not network the BIRA RPS, so we would not know.
- The ND RPS cannot be networked.
- Also in Jamieson's document he states that the NorthWestern box gives detailed power supply information, but in MINERvA nobody looked at this.
 - I looked at in the beginning, but stopped and nobody else did.
- So I would like to know from Jamieson when we should implement these features or whether we should go with the default plan.



Hardware



- We have almost all the hardware for the installation in MINOS, except for the PMTs and FEBs, which we plan on getting when the assembly starts
- The 1st MS to be installed will be a HCAL MS.
 - The optical cabling for a HCAL MS and Tracker MS are not the same
 - For that reason we will be using HCAL optical cables.
 - In MINERvA water was falling on these cables and some of cables are pretty dirty.
 - We plan on cleaning the cables with alcohol, probably isopropanol and Kemwipes.
 - Probably most of the optical cables are clean.
- We plan on cleaning the optical ends with either no fluid or using Sticklers MCC-POC10M Fiber Optic Cleaner Fluid. It is less toxic and flammable than alcohol.
- By the end of this week we should have all the components to test cleaning of the LI fibers and optical cables fibers.



Other



- I looked at the Job Hazard Form and it looks like it needs changes
 - Covid part needs changing
 - For instance, it says we need fall protection, but we don't need it. We are using a scissors lift and Genie which don't need a fall protection.
 - I think people should take the fall protection class as those issues will come up, but not for standard assembly.
 - There are a couple of things to put in the form.
 - Maybe Steve Hahn and I can work on it.
- We are ready to print out labels, but we have not done it yet.