



July 1, 2020

TO: Distribution

FROM: M. Quinn

SUBJECT: Radiation Safety Subcommittee Meeting of July 1, 2020

MEMBERS (P=Present, A=Absent):

S. Borton	A	D. Hahn	P	M. Quinn, Chair	P	P. Sedory	A
N. Chelidze	A	D. Hockin	A	D. Reitzner	P	K. Vaziri	A
J. Compton	P	R. Madiar	P	W. Schmitt	P	M. Zientarski	P
K. Gollwitzer	P	S. McGimpsey	P	M. Schoell, Deputy Chair	P		
K. Graden	P	D. Newhart	A	J. Scott	A		

Others Present: None

### New Business

- SSR1 Cryomodule** – M. Zientarski reported that SSR1 Cryomodule is requesting 6 additional FOXs, which RPCF doesn't have. Looking for better timeline of when HWR is done commissioning and SSR1 begins. S. McGimpsey reported that the tentative schedule has SSR1 cryomodule commissioning in ~2 weeks. May be able to use FOXs from other areas (CMTS, Linac, etc.). S. McGimpsey will work with Zientarski and PIP-II IT to coordinate, but thinks everything should be fine.
- DOE O 458.1 Proposed Change** – M. Quinn reported that a proposed change to 458.1 that will require use of DOE STD 1196 (which includes all of the DCSs). FRCM already requires use of 1196, so change should not impact FNAL.
- Stockroom Pocket Dosimeter Exchange** – D. Hahn gave kudos to the stockroom for making pocket dosimeter exchange easy.
- Radiography at HAB 7/11** – Radiography planned at HAB for Mu2e Saturday 7/11 with new vendor.

### Old Business Carried Forward

- IARC Proposes New RGD** – An electron accelerator is being planned for the HAB pit. It will need to be added to the list of RGDs (RP Form 108). Details will be forwarded to the SRSO for DOE O 420.2c determination. Shielding Assessment group has reviewed the proposed radiological protections. No updated at July meeting.
- Electronic RWPs** – M. Schoell reported website is live! ([esh-rwp.fnal.gov](http://esh-rwp.fnal.gov)) Announced at AD Ops 5/22/2020, have met with specific groups to discuss in more detail. Being used & working well. Beau Harrison added as super user too, to see if/where connections to other systems could be made.

7. **New Cameras for RPCF** – M. Zientarski reported that new cameras were installed and on-line. Old cameras are still in place until the old system has been disabled. M. Quinn will follow up with Laurie about how the system is working. No update at July meeting.
8. **Analyst** – M. Zientarski reported that new stickers have been made. A memo will be sent to people who have had Material Move Request and Bicron Analyst training to describe the updates. Will place labels as instruments are brought in for calibration.
9. **COVID-Safe Mode** – M. Schoell reported that the lab is currently in a COVID-safe state due to the COVID-19 pandemic, with limited operations on site.:
  - Accelerators have been locked off. Beam Permits & Running Conditions were rescinded by AD Division Head April 10, 2020.
  - RGDs starting back up as Divisions/Sections deem necessary, after RSO confirms interlock test and interlocked detector calibrations still valid.
  - Practical Factors training online requalification change made within TRAIN, email sent to rad workers 5/13. In-person classes resuming 6/4 with classes limited to 9 people (to keep group size at 10 including the instructor). Continuing to encourage people who can requalify online to do so to ensure space available for individuals who need to take the training in person.
  - Received a waiver to current MC&A plan for forgoing quarterly report (required internally, regulations require annually) and postponing annual physical inventory until MBA custodians are back on site (required annually internally, regulations require every 2 years). K. Graden also working on updating MC&A plan to make these changes permanent. Thanks FSO for moving that forward!
  - R. Madiar recommened (at the April meeting) working with FSO on if any exemptions are needed. J. Blakie available for consultation if needed.
  - Secretary of Energy did issue a memo allowing for some relief of some safety & health regulations. ES&H is reviewing that memo now to see what relief we will take advantage of.
    - MC&A plan waiver appears to be the only relief needed/asked for by RP.
  - Lab is working on return to on-site work plan
    - ESH reviewing D/S/P planned work to understand ESH/RP support. Will continue to monitor to coordinate/provide support as plans change.
    - As of 6/4 will be in Round 3 of return to onsite work plan
10. **JULIE Expiration Question** – W. Schmitt continuing to work the FESS on resolving questions about JULIE closure/extensions. There are some questions beyond RP concerns, so FESS and ESH Construction Group need to continue to discuss, unclear if this has happened. W. Schmitt will continue to follow-up on. No update at July meeting.
11. **NEXUS DD Neutron Generator** – In April, N. Chelidze reported that it's still in the Mu2e alcove 3 pit, off and in safe state (keys for the deuterium bottle and interlock reset are locked in RSO key cabinet). Still need to work with vendor to finalize acceptance testing. Work paused during COVID-safe state. Will need to confirm next steps when back to normal operations. D. Hahn reported that it's still there and still hasn't passed it's acceptance test. On hold while we're in COVID-safe mode.
12. **New OWL Instrument** – Working on OWL specifications. Will meet with "Future Radiological Instrument Needs" group soon. M. Zientarski reported that work is progressing. M. Zientarski

waiting to meet with A. Olson to discuss new OWL specifications. Will then need to bring up to “Future Radiological Instruments” subcommittee. No update.

**13. LBNF**

- a. Berm excavation has begun with RCT coverage.
- b. Sue working on soil management plan/Technical Basis Documentation. Has determined that 10,000 cpm is the threshold for activated soil, based on background measurements and soil content. Flowchart in near-final state and is in use for LBNF site prep. Has been presented to RPO for use for other excavations.
  - i. At the end of LBNF site prep work, plan to gather all sample results and analyze and put any additional useful information into the flowchart.
  - ii. R. Madiar suggested including some information from this into the WPC Chapter/PEMP/etc.
- c. Soil samples are being taken for confirmatory purposes.
- d. Signs for “no excavation” line put in place.
- e. New job-specific training generated for workers within the “no excavation” line, and S. McGimpsey has started providing training to subcontractors.
- f. LBNF plans to take soil off site for soil density testing. Will have more rigorous surveys prior to releasing the soil. Soil that is required shielding will be returned to the site.
- g. BNB well sump temporary discharge piping was damaged due to too much pressure from soil. Most of the water remained in piping, but an estimated 1/3 of the water volume leaked out into the worksite. This water included water from Sump 4 (typically over administrative limit of 100 pCi/mL tritium), among other samples. Preliminary RAF results showed below 100 pCi/mL (~50 pCi/mL). Still waiting for final results. Results came right 48, two were 9 and one was < 1 pCi/mL tritium. Provided job-specific training and used RWP/PPE/RCT coverage for repair work. Repairs went well.
  - i. R. Madiar wondering if there is a review or assessment planned for the event. Will have to check with E. Schlatter and M. Andrews to see what is being done on the Project side. J. Scott is already working with the Project for follow-up.

**14. Safety Assessment Document reviews – MTA SAD waiting for SA to be approved.**

**15. IERC – N.** Chelidze reported that we’re still waiting for IERC alignment to mark the “no excavation line” and has pinged them again today May need to bring this up the chain of command to ensure reponse. M. Quinn will follow up. Not able to put stakes/signs at exact line for the “no excavation line” due to routing vehicle traffic in that area. Worked with J. Kenney to implement drive-over stakes to mark line and information on what the stakes mean included in construction site entry training/documentation.

**16. Contamination in Enclosures – S.** McGimpsey reported that the multi-cell wipe counter is still being worked on to bring online. Check sources were counted but have not been able to get it adjusted to field contamination levels. S. McGimpsey and M. Quinn will look at it in more detail next week. MI-30 & 8 GeV collimator regions decontamination was successful. Contamination Area postings are still across the aisle, but have plans to purchase new stanchions & signs to put permanent postings across the beamline components, and have the aisle postings be temporary as needed. We have some amount of build-up study data, but may need additional review by subset of this group to determine if this data is sufficient or more data is needed once beam resumes. No update on procedure. Stanchions/signs order to post beamline elements in the enclosures has been sent to vendor, should be arriving soon.

- 17. **SARP** – W. Schmitt reported SARP is still working on the MTA assessment, working through smaller items for the author to tidy up. Updated revision uploaded to the SARP sharepoint. K. Gollwitzer will ask the committee to review to finish up.
- 18. **MTA** – Work on the planned MTA (400 MeV Test Area)/ITA (Irradiation Test Area) is progressing. The facility will need a new shielding assessment, SAD and ASE update. SARP currently reviewing shielding assessment. SAD being worked on. Activity of equipment is being calculated and analyzed to better understand requirements/process for sample retrieval, storage, shipment, etc. S. McGimpsey working on procedures for handling equipment, etc. for work once the facility is approved to start. On hold during COVID-safe. AD & PPD management interested in having MTA turn on as soon as possible after Linac resumes beam, and would like to have an ARR the week of August 24<sup>th</sup>. Still waiting on SA and SAD updates, among other readiness items.

**ALARA Topics**

- 19. Summer shutdown planning continues. Still need job plans for RSO review. Schedules being re-worked due to work group availability. Job plans being re-worked including COVID-19 restrictions.
  - NuMI target module job being planned for shutdown. Anticipated to be a higher dose job. The crew is thinking about doing mock-ups.
  - NuMI may have additional horn & target change outs planned for shutdown.
  - MI collimator work being planned for shutdown.
  - NuMI TA-03 Target move requested for Sunday July 12<sup>th</sup>.
  - NTSB crane work complete. Ready for NuMI module parts if/when needed.

**Operations**

J. Compton reported that people are respecting new restrictions for MCR access and utilizing the electronic RWPs, which helps reduce congestion. Haven’t noticed any issues so far.

**PLACE AND DATE FOR THE NEXT MEETING: THE NEXT MEETING WILL BE ON AUGUST 5, 2020 AT 2:00 PM VIA ZOOM (MEETING INFORMATION WITHIN OUTLOOK CALENDAR EVENT).**

**FY2020 Minutes: ESH DocDB 5337**

**Distribution via E-Mail–**

Amber Kenney – Chief Safety Officer	Subcommittee Members
Eric McHugh	Bridget Iverson
Raymond Lewis	Nicole Gee
Others Present	