Naval Postgraduate School
Fourth Quarter RSC Meeting Minutes

13 December 2012

Attendance:

Jeff Paduan  Dean of Research
Terry Wichert  Interim Research Safety Dept. Head/ LSSO
Ryan Greve  Radiation Safety Officer
Ron James  Assistant Radiological Safety Officer
Rich Swent  Professor/Research Associate
Luke Brewer  Associate Professor
Andres Larraza  Physics Department Chairman
Andrew Parker  Research Associate
Candace Van Assche  Recorder

Jeff Paduan
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Ryan Greve
Radiation Safety Officer
Naval Postgraduate School  
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1. Meeting was called to order at 1004.

2. BEAM PHYSICS GROUP

   a. Began <1 MeV operations in September.

   b. There have been two operations this quarter and it was able to make beam.

   c. There still needs to be some construction to complete the 100% Design Review and an SEOP needs to be made before operations can go >1 MeV.

3. LINAC

   a. The LINAC used to operate at around 130 MeV. The Beam Dump target room has residual activation products. Will need to wait until after the Historical Survey to decide on a course of action.

   b. We have been authorized by RASO to combine LINAC assessment, survey, and remediation with the Type B, Broad Scope decommissioning which will save a lot of money.

   c. The LINAC decommissioning and the Broad Scope decommissioning will require separate reports to be written. The Broad Scope
permit will need to be sent to the Nuclear Regulatory Commission and the LINAC permit goes to NAVSEA 04.

4. TYPE B, BROAD SCOPE

a. An instruction has been written (NAVPGSCOL INST 6470.13) for storage and decommissioning for the Navy Radioactive Materials Permit (NRMP), and sent it to RASO. They have received it and sent out an acknowledgement, but it has not yet been approved.

b. RASO was at NPS on November 27-29 to conduct an inspection. They looked at the broad scope license, the accelerator usage code, and analytical measurement instruments. Their preliminary report is satisfactory with no findings.

5. HISTORICAL RADIOLOGICAL SITE ASSESSMENT

a. NPS has received $1.5 million from the Navy to conduct a Historical Radiological Site Assessment. That money would then go to the environmental division of RASO; they then send it to the US Army Joint Munitions Command who then hires a contractor that specializes in conducting these surveys.

b. We have a general idea of what the findings will be from the Survey and what remediation will need to be done.

c. Three areas that we believe will need action are the LINAC Beam Dump room, the Spanagal Hall radio-chemistry tanks, and three rooms in Hallagan that were used as radium storage.

6. RADIOLOGICAL DEFICIENCY REPORT PROGRAM

a. There were 5 RDRs generated in the 4th Quarter.
   o Monthly Operational Surveillances were not performed on time. At the time, the instrument was shut down for maintenance and the surveillance could not be completed.
   o There was an issue with shipping out the TLDs too late. TLDs are supposed to be shipped off in five days’ time after pulling them, and it took four days just to get the FedEx labels ready.
   o There were a couple of log errors on the XRD that have been addressed.
The Survey reports did not include an area to record the time. It has been added to all of the forms now.

A Cs-137 source has been discovered in a RADIAC. Surveys concluded that the source is not leaking and it is currently in storage in the radioactive materials storage are and RASO was contacted.

A Ra-226 Source has also been discovered in a RADIAC and the same actions have been taken as with the Cs-137 source and it is in storage. Both sources will ship out when the next low leveled radioactive waste shipment is sent out.

7. TRAINING

a. The ARSO and RSO have been completely trained up.

b. There are currently ~35 non-radiation workers.

c. The Monterey Fire Department has completed their Emergency Responder training.

d. There are now 4 Radiation Workers to help support the MK1 operations.

e. ENS Bennett will be going to the Oak Ridge National Lab and do neutron diffraction. He likely won’t be operating any of the equipment; however we are anticipating a need to make him a radiation worker so he has received the training. There does not yet appear to be a need to get him a baseline medical exam.

8. RADIATION HEALTH PROGRAM

a. Dr. Johnson from POMAHC has now received his training for Naval Undersea Medical Institution’s Radiation Health Indoctrination and will now be able to provide exams for rad workers when MK1 goes >1 MeV operations.

   o His training was funded by NPS and is a one-time requirement and will not need to become recertified ever.

b. There have been issues with figuring out the MOA or ISSA requirements needed to document the arrangement. We are being told that any transfer of resources between Government Agencies would need an ISSA.
We have requested comments from POMAHC regarding proper documentation.

c. If there are issues and cannot use Dr. Johnson to do the exams, then Rad Workers will need to be sent to San Diego to get the exams done.

d. RASO is aware of the issue with the agreement. If need be, they have offered to open dialog with POMAHC on a senior level to help facilitate an agreement.

9. RADIAC

a. We have more RADIACs then are necessary for NPS. We are putting in an allowance change request to reduce the number of RADIACs. This will help to reduce the costs involved in keeping RADIACs calibrated.

b. Have developed an ESAMS tracking system to track the calibration cycles in response to a couple of unused RADIACs going out of calibration. The calibration cycles have also been staggered.

10. FLASH X-RAY

a. The SEOP is partially complete and it has been reviewed by Dr. Goyer.

b. Dr. Goyer created an analysis with calculations of the output levels, however RASO will be expecting to see the math behind the figures.

c. RAD10 REV2 is probably coming out in January, and it is supposed to include a Flash X-Ray portion.

d. Once the SOEP is complete, it will go to RASO for review; then NPS will “Commence Initial Operations.”

e. The First Phase of Initial Operations will likely be to disconnect and test the entire control cabinet from the Flash X-Ray to do an electronics test and to make sure the buttons work correctly.

f. The Second Phase of the Initial Operations will likely be to turn on the equipment and do a test cycle and send the
results to RASO to verify the radiation doses for the public.

g. There are general decay issues with B216. Mike Berry conducted an inspection that reviled bat guano on the floor and holes in the ceiling. NAVFAC will do an evaluation and review of the building.

11. AUDITS AND SURVEILLANCES

a. Surveillances have been performed by PIs and Supervisors on each machine. They are completed with no significant findings.

b. Audits are being performed by the RSO and ARSO and they are about 90% complete with no significant findings.

c. Terry Wichert suggested possibly including individuals from RSC to help with surveillances to help foster a safety culture at NPS.

12. SAFETY AT NPS & MOVING FORWARD

a. Terry Wichert believes that there is a real need to develop a better safety culture at NPS.

b. A barrier to developing that safety culture is that safety requirements and training are not clearly communicated. NPS does not have a centralized method for tracking training.

c. It also appears that it isn’t entirely clear to NPS students where the Safety Offices are or what their individual duties and functions are.

d. Chemical Safety is an area of great concern which is also reflected by IG Report findings. Any information about Chemical safety requirements or a POC are hard to find.

13. NPS HOURS OF OPERATION

a. There is currently a requirement that the RSO or ARSO must be within a 2 hour normal commute time during RASP Operations.
b. With the help of Dr. Brewer and Dr. Haegel, a request has been sent to RASO to modify the electron microscope requirements to make it so that the RSO or ARSO must be notified within 2 hours of an event.

c. The initial response from Kevin Huhn from RASO has been positive. They seem to acknowledge that the commute time requirement is not commensurate with the risk associated with EM operation.

d. If the request is approved, then we are anticipating making a similar request for XRD operations.

e. The requirements for MKI, FXR or NRMP operations will not change.

14. Meeting was adjourned at 1112.