MINUTES OF MEETING 19-07-10
November 16, 2020

SBNSS Committee Members Present
A. Ackerman
M. Benmerrouche
N. Bernholc
R. Costa
R. Fliller
M. Gaffney
L. Hammons
S. Harling
R. Lee
D. Mallon ¹
S. Moss
C. Schaefer

SBNSS Committee Members Absent
P. Cirnigliaro
R. Colichio

¹ Non-voting

C-AD RSC Members Present
A. Drees (left at 3:30 pm)
N. Kling
R. Michnoff
C. Naylor
G. Robert-Demolaize
K. Yip

Guests:
C. Cutler
M. Davis
G. Goode

Agenda: Review BLIP/TPL SAD and ASE

____________________________________ 11/24/2020
R. Lee Date
Acting LESHC Chairperson
Acting Chair R. Lee called the meeting of the Laboratory Environment, Safety and Health Committee (LESHC) to order on November 16, 2020 at 3:05 pm. The C-AD Radiation Safety Committee also attended the meeting.

1. The meeting was held to review the revised MIRP SAD and ASE.
   1.1. The revised documents were discussed. L. Hammons explained changes were based on suggestions from the ARR and BHSO. There were major changes to Sections 3 and 4 of the SAD which explain and justify the facilities and safety analyses.
   1.2. L. Hammons reviewed the changes to the ASE.
       1.2.1. One of the major changes is the ASE now specifies the limits on the inventory and eliminated the specific beam energies contained in the prior version.
       1.2.2. The limits on energy and duration are 10% higher so there is a safety margin so the ASE shouldn’t be violated.
       1.2.3. There was an analysis for all energies for all targets up to 220 MeV.
       1.2.4. The control now also includes a 10% margin on irradiation duration.
       1.2.5. There was discussion on whether it was possible to exceed the maximum hours listed. L. Hammons stated it was not – there are controls to ensure duration is not exceeded.
       1.2.6. A member questioned whether there were controls in place to ensure future changes to targets would be appropriately handled. L. Hammons stated any changes will go through the USI process.
       1.2.7. It was questioned why there are less targets listed for BLIP than RRPL. L. Hammons explained not all targets are processed at the RRPL facility.
   1.3. L. Hammons reviewed the changes to the SAD.
       1.3.1. Section 3.2 details target preparation.
       1.3.2. Section 3.4.6 is a new section on the BLIP Facility Holdup.
       1.3.3. It was suggested that language for radiation dose units be consistent throughout the document (curies versus millicuries).
       1.3.4. It was noted that the units in Figure 3.8 have a lot of decimal places and are very specific – what happens if they are off? There is a degree of uncertainty, but a small deviation will not change the irradiation energy. L. Hammons agreed that significant digits will be more carefully considered in future documents.
       1.3.5. It was noted the Table numbers may be incorrect (Table 3.4 should be Table 3.5) – they should all be reviewed and corrected if necessary.
       1.3.6. Table 3.7 demonstrates that the BLIP Operators stop the irradiation at the appropriate time. It was questioned how that time was determined. L. Hammons explained that the times are selected based on past results and tracked using logging that tracks the BLIP current transformer system.
       1.3.7. It was questioned what happens if there is a problem with the irradiation. It was explained that the BLIP Operators record start and stop times and would provide corrections if there were problems with the logging.
       1.3.8. Section 3.5.9 describes the BLIP Facility Holdup.
       1.3.9. There were minor revisions to Section 3.6.
       1.3.10. Section 3.7.1 lists the target inventory at BLIP.
       1.3.11. Section 3.9 was revised to remove the references to the Strategic Fire Safety Plan and add compensatory measures.
       1.3.12. Chapter 4 provides analyses.
       1.3.13. Table 4.1 discusses transportation and Table 4.2 was revised to include thresholds for event consequences.
       1.3.14. Section 4.5.3.1 provides an analysis of safety margins.
1.3.15. It was suggested that the use of Rem versus Rad be consistent throughout the documents.
1.3.16. A suggestion was made to check the latest Fluka run data for Table 4.6.
1.3.17. A member questioned where the calculations for the inhalation doses were explained.
   L. Hammons stated they are in the C. Schaefer report (Memo re: Analysis of Maximum Credible Incident Scenario for the BLIP and TPL Facilities, August 2020) that has been independently verified.
1.3.18. Section 4.5.3.4 discusses BLIP hot cell shielding.
1.3.19. Section 4.5.3.12 clarifies how hazards from research materials were calculated.
1.3.20. Section 4.5.3.13 discusses the risks from dropping the targets during transfer.
1.3.21. Section 4.6.8 now shows the radiation material release consequences are bounded.
1.3.22. It was noted some of the footnote numbering is incorrect and should be revised.

2. A motion was made by R. Fliller to recommend the revised ASE for the BLIP/TPL and supporting documents be submitted to the ESH ALD for submittal to BHSO for approval pending resolution of the suggestions discussed at today’s meeting. The motion was seconded by S. Harling. It was approved by a vote of 10 yes, 0 no, 1 recusal (L. Hammons due to project involvement).

3. The C-AD Radiation Safety Committee also approved the revised ASE and supporting documents.

4. The meeting adjourned at 4:30 pm.