

# C-AD

Issued: March 17, 2015

## Radiation

### Safety

Minutes of BLIP RSC Target Review Subcommittee March 13, 2015

### Committee

**Subject: Production of High Specific Activity  $^{186}\text{Re}$  using Tungsten Foils for Research and Clinical Applications**

**Present:** S. Smith, C. Cullen, E. Lessard, R. Karol, D. Beavis, P. Pile, and M. Gott

The committee discussed the planned irradiation discussed in canning record<sup>1</sup> tgt\_15\_03. The canning record was found complete and required no updates. **The irradiation was given approval during the meeting and it was hoped that the short exposure (15 minutes) would occur later in the day.**

#### Discussion

It is expected that several more of these tungsten foil irradiations will occur in the future. They are “piggy-backed” on RbCl target irradiations. It may be possible to improve the goals of these short foil irradiations by considering simple re-arrangements of the target assembly. The local melting of the RbCl targets varies throughout the target puck and so the resultant exit energies of the proton from the Sr-82 target can vary significantly. Because desired entry energy for the Re-186 is specific this variation can impact the results.

It was noted that a signed assembly drawing was not needed for this exposure. The procedure has personnel checking the order of materials loaded into target assembly box and a witness signing off as part of the QA process. A drawing will not improve the quality of the process. Items within the target assembly that do not impact the RbCl isotope production do not need to go through the level of quality assurance that is required for items that impact the  $^{82}\text{Sr}$  production.

Future W irradiations as part of this program will require review of target array only.

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<sup>1</sup> S. Smith and M. Gott, “[Production of High Specific Activity  \$^{186}\text{Re}\$  for Research and Clinical Applications](#)”, Canning record.