1.0 Description

Revision 2 of the Technical Basis Document (TBD) for the Bridgeport Brass Company (ORAUT-TKBS-0030) was issued on 8/9/2013. This TBD covers operations at the Adrian Facility in Adrian, Michigan, as well as operations at the Bridgeport Brass Havens Laboratory in Bridgeport, Connecticut. The original version (revision 0) was issued on 9/15/2005. Revision 1 was issued on 1/24/2013. Revision 2 was issued due to a change in the facility designation for the Adrian Facility by the Department of Labor (DOL). This PER (DCAS-PER-061) evaluates the effect of revision 2 of the TBD on all previously completed claims, which will also include those changes first made in revision 1.

2.0 Issue Evaluation

The primary change in revision 2 (and revision 1) was that the external dose was analyzed differently than in revision 0. A Monte Carlo approach was utilized in revision 0, while revision 1 used a method consistent with ORAUT-OTIB-0020. This caused an increase in external dose during the operational period at both facilities.

An additional change was made pertaining to thorium intakes. In revision 0, the thorium intakes were assigned as a fraction of the uranium intakes. Since the uranium intakes were based on urinalysis, this produced a different thorium intake value depending if type M or type S uranium was assumed. In revision 1, the thorium intakes were assigned based on air samples resulting in the same value independent of the uranium intake.
assumptions. This resulted in a higher intake for those cases that had been performed using uranium type M.

These changes affect all years of the operational period at both sites. A search of previously completed claims indicate all claims had employment during the operational period so no further itemizing of any changes is necessary.

3.0 Plan for Resolution or Corrective Action

In order to evaluate the effect of revision 2 of the TBD on previously completed claims, a search was conducted for all completed claims that had a probability of causation (POC) of less than 50% and employment during the operational period at either site. This search identified 14 claims with employment at the Haven’s Lab and 36 claims with employment at the Adrian Facility. All 50 claims had employment during the operational period for the particular site.

A new dose estimate was performed for all 50 claims using revision 2 of the TBD as well as all applicable approved dose reconstruction methods. The resulting probability of causation (POC) was below 45% for 47 claims. The POC was greater than 50% for one claim. The remaining 2 claims resulted in a POC between 45% and 50%. For those two claims, IREP was run 30 times at 10,000 iterations per NIOSH procedures. The resulting POC was less than 50% for both claims.

NIOSH will provide the Department of Labor with the list of all claims evaluated under this PER. Further, NIOSH will request the return of the one claim that would now result in a POC greater than 50%.