1.0 Description

Dose reconstructions for the claims from the Aluminum Company of America – Pennsylvania (ALCOA-PN) are performed using Appendix R of Battelle-TBD-6000. The appendix was originally issued (revision 0) on 4/30/2007. Revision 1 was issued on 3/5/2014 to incorporate a revision to TBD-6000, as well as incorporating ORAUT-OTIB-0070 and other changes. This PER (DCAS-PER-063) evaluates the effect of revision 1 of Appendix R on all previously completed claims.

2.0 Issue Evaluation

Revision 1 to Appendix R results in an increase in assigned inhalation, ingestion and external photon dose during the operational period. In revision 0, internal and external doses did not change after 1955. The incorporation of OTIB-0070 in revision 1 causes these doses to decline in each year of the residual period. Because of this, revision 1 results in higher doses early in the residual period and lower doses in later years. Some doses are higher until 1970 while others are higher until 1980. One of the increases until 1980 is ingestion intakes which would affect all claims with employment in the time frame. A search of previously completed claims indicate all claims with employment after 1980 also had employment prior to 1980 so the dates of employment do not exclude any claims from further review. Therefore additional detail of changes in the residual period are not necessary for this evaluation.
3.0 Plan for Resolution or Corrective Action

In order to evaluate the effect of revision 1 of the appendix on previously completed claims, a search was conducted for all completed claims that had a probability of causation (POC) of less than 50%. This search identified 44 claims with employment at ALCOA-PN. Two claims were completed using revision 1 of Appendix R and were removed from further evaluation. Five claims were completed using a complex wide overestimating method (ORUAT-OTIB-0004) resulting in a higher dose estimate than Appendix R. Those five were therefore removed from further evaluation under this PER. Before the evaluation of the 37 remaining claims could be completed, two more claims were returned to NIOSH and reworked using revision 1 of the appendix.

A new dose estimate was performed for the remaining 35 claims using revision 1 of the appendix, as well as all applicable approved dose reconstruction methods. The resulting probability of causation (POC) was below 45% for 27 claims. The POC was greater than 50% for seven claim. The remaining claim resulted in a POC between 45% and 50%. For that claim, IREP was run 30 times at 10,000 iterations per NIOSH procedures. The resulting POC remained below 50%.

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 seven claims that would now result in a POC greater than 50%.