

**Division of Compensation Analysis and  
Support  
Program Evaluation Report**

Document Number: DCAS-PER-080  
Effective Date: 8/30/2017  
Revision No. 0

**General Steel Industries**

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Supersedes: none

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RECORD OF ISSUE/REVISIONS

ISSUE AUTHORIZATION DATE	EFFECTIVE DATE	REV. NO.	DESCRIPTION
8/30/2017	8/30/2017	0	New document to determine the effect of revision 2 and 3 to Battelle-TBD-6000 Appendix BB (General Steel Industries) on previously completed claims.

**1.0 Description**

Revision 1 of Battelle-6000 Appendix BB (Appendix BB) was issued on 6/6/2014. A Program Evaluation Report (DCAS-PER-0057) was issued on 3/11/2015 evaluating the effect of this revision. Revision 2 of Appendix BB was issued on 5/26/2016 and revision 3 on 2/9/2017. The changes made in revision 2 and revision 3 are the subject of this PER.

**2.0 Issue Evaluation**

For the residual contamination period at GSI (7/1/1966 through 12/31/1993) the prescriptive external dose and inhalation intakes were identical in revisions 1, 2 and 3. The ingestion intake decreased from revision 1 to revision 2 and remained the same in revision 3.

During the operational period (10/1/1952 through 6/30/1966) inhalation intakes remained the same, except that inhalation intakes increased in revision 2 during the 1966 operational period (1/1/1966 through 6/30/1966). The inhalation intakes remained the same in revision 3. Ingestion intakes decreased from revision 1 to revision 2 and remained the same in revision 3.

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External dose for radiographers during the operational period is described in table 8 and table 9 of Appendix BB for each of the revisions. The tables provide the gamma, neutron and beta doses for most organs (Table 8) and for the skin of the hands and forearms (Table 9). While some of the prescribed doses decreased, at least one of the prescribed doses increased in each year after revision 1.

The overall effect is that at least one aspect of the dose estimate increased each year during the operational period. None of the prescribed doses or intakes increased during the residual period. Therefore, all previously completed claims with employment during the operational period will be reevaluated under this Program Evaluation Report (PER).

### **3.0 Plan for Resolving Corrective Action**

All GSI claims completed prior to 2/9/2017, with a probability of causation (POC) less than 50%, and employment at GSI during the operational period were included in the selected population of claims for this PER. This resulted in a total of 71 claims that required further evaluation. The dose for each of the 71 cases was recalculated using the methodology described in revision 3 of Appendix BB, as well as the current revision of any other applicable documents. Fifty-five of these reworked claims had a POC below 45% while 4 had a POC above 52%. For the remaining 12 claims with POC's greater than 45% but less than 52%, IREP was run 30 times at 10,000 iterations per NIOSH procedures. The resulting POC was greater than 50% for 2 claims and less than 50% for the other 10 claims.

NIOSH will provide the Department of Labor with the list of all the claims evaluated under this PER. Further, NIOSH will request the return of the 6 claims that would now result in a probability of causation greater than 50%.