

TBD-6000 Work Group Report on General Steel Industries Issues Matrix for Appendix BB

Presented at the ABRWH meeting

Kansas City MO

January 28, 2014

Work Group Members

- Paul Ziemer, Chair
- Josie Beach
- John Poston
- Wanda Munn

Activities Since the Last Board Meeting

- Work Group met by telephone conferences on December 19, 2013 and January 16, 2014.
- Issues considered at December 19 meeting:
 1. Skin dose calculations and SC&A review of MCNPX calculations for betatron exposures
 2. DCAS review of the resuspension factor for the residual period
 3. DCAS review of report AEC NYO 4699 (identified by the co-petitioner) for potential in selection of surrogate data
- Issues considered at January 16 meeting:
 1. MCNPX calculations for neutron and other external exposures
 2. Resolution of Appendix BB Matrix Issues
 3. Impact of missing radium source on external exposure models

Status of Appendix BB Issues Matrix

- All open Issues were closed or designated in abeyance.
- This includes several issues from the SEC Issues Matrix that were transferred to Appendix BB when the Work Group recommended that the SEC class be denied.
- With the resolution of the issues, revision of Appendix BB by NIOSH can get underway.

Summary of Appendix BB Issues Matrix

1. Data sources: In abeyance
2. Period of covered employment: Closed
3. Betatron beam intensity: Closed
4. Underestimate of stray betatron radiation (Includes Issues 2, 6, & 8 from SEC Issues Matrix): In abeyance
5. Other radiography sources (Includes Issue 3 from SEC Issues Matrix): Closed
6. Skin dose (Includes Issue 9 from SEC Issues Matrix): In abeyance

Summary of Appendix BB Issues Matrix (continued)

7. Residual radiation from betatron apparatus: Closed
8. Work hours: Closed
9. Work practices: In abeyance
10. Dose rates from uranium: In abeyance
11. Doses to other workers: In abeyance
12. Surface contamination and resuspension: In abeyance
13. Incorrect units: In abeyance

Lost Radium Source Issue

- Discussions of the possibility of a missing source go back several years including worker testimony in 2006 & 2007.
- Site Expert subsequently located newspapers articles confirming that one of the radium radiography sources (500 mCi) was missing for about one week in October 1953.
- News articles also indicated that there was an ongoing search for the source, and that it was eventually located off-site.
- Co-petitioner also indicates that one GSI clerk recalled that the person who removed (took) the source got sick, was hospitalized, and died as a result of radiation injury. This appears to conflict with testimony from GSI officials.
- One recently located news account was not available at the January 16 meeting, so a final decision on how NIOSH would evaluate this situation was deferred.