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 copetitioner) 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
- 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.