

Subcommittee for Dose Reconstruction Reviews

Meeting of the Advisory Board on Radiation and Worker Health

December 9, 2021

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Subcommittee Meetings

- Despite setbacks and delays since the onset of the COVID pandemic (March 2020) and later the Cybersecurity Modernization Initiative (May 2021), this Subcommittee has continued to hold at least two regular meetings per year since 2018.
- During 2021, the Subcommittee met on February 25 and September 29.
- The first meeting of 2022 will be January 19.

Blind Case Reviews

- With the onset of the Cybersecurity Modernization Initiative in May 2021, SC&A paused blind reviews until access to DR Tools is available again.
- The last group of blind case reviews the Subcommittee completed was at our February 25, 2021, meeting (Set 28), for a total of 44 blind case reviews since these were first initiated before our 2019 Report to the Secretary.
- Members will recall the next three slides, presented at the April 14, 2021, Advisory Board meeting.

Profile of Facilities for Which These 44 Blind Cases Were Reviewed

Number of Blind Cases Reviewed for Facility	Facilities
7	Oak Ridge Y-12, Hanford
6	Rocky Flats
4	FMPC, SRS
3	Oak Ridge X-10, NTS, LANL
2	PNNL, Grand Junction, LLNL, Sandia, West Valley, Oak Ridge K25
1	14 others

Years Employed Among 44 Blind Cases

Years Employed	Number (Percent)
Less than 10 years	8 (18%)
10–19.9	11 (25%)
20–29	10 (23%)
30–39.9	11 (25%)
40–49.9	4 (9%)
Total	44 (100%)

Gender of the 44 Blind Cases

- Of 44 blind cases reviewed,
 - 11 cases (25%) were female.
 - 33 cases (75%) were male.
- As of our last Secretary's Report in 2019, 13.4% of claims involved a female energy employee.

Chronology of Our Blind Case Reviews

- Our previous Board Report to the Secretary of DHHS (12/2019) included an analysis of the first 32 blind cases reviewed and approved by the Subcommittee. These 32 cases were drawn from the original contract, Set 17, Set 20, and Sets 22–24.
- The next slides are the results for the next 12 blind cases: B33–B38 (Set 26) and B39–B44 (Set 28), completed by 2/25/2021, followed by an analysis of the results for all 44 cases, which had not been completed by the 4/14/2021 Board meeting.

Set 26 Blind Cases

Blind Case No.	POC by SC&A	POC by NIOSH/ORAU
B33	50.16%	51.35%
B34	49.43%	50.06%
B35	50.35%	48.65%
B36	45.67%	48.45%
B37	42.31%	46.46%
B38	47.95%	48.44%

Set 28 Blind Cases

Blind Case No.	POC by SC&A	POC by NIOSH/ORAU
B39	50.45%	50.34%
B40	51.32%	51.34%
B41	49.07%	48.81%
B42	49.34%	47.87%
B43	38.33%	49.40%
B44	30.26%	48.25%

Selection Criteria for the First 44 Blind Cases

- The selection criteria for the earliest 14 choices of cases for blind reviews included best estimate cases with NIOSH POCs between 41 and 52 percent. Within these choices, significant attention was paid to assuring a broad representation of types of covered facilities (Slide 4).
- Starting with cases from Sets 22 on (30 blind cases), these selection criteria were tightened to best estimate cases between 45 and 52 percent.

Number of Blind Cases for which Compensation Decisions Differed

- For the 32 blind cases reported to the Secretary in 2019, only one, reviewed and approved by the Subcommittee, had a different compensation decision.
- With tightened selection criteria for the 12 cases in Sets 26 and 28 (Slides 8 & 9), two more reviewed cases had different compensation decisions: B34 (NIOSH POC = 50.06%; SC&A POC = 49.43%) and B35 (NIOSH POC = 48.65%; SC&A POC = 50.35%).

Precision of Dose Reconstructions Based on Review of 44 Blind Cases

- Both of these cases in Set 26 had a NIOSH POC less than 1.5% from the compensation determinant percentage of POC = 50.0%.
- Thus, out of a total of 44 blind cases reviewed and approved by the Subcommittee, a total of three cases (6.8%) had different compensation decisions.
- This establishes and confirms a solid basis of confidence in the precision of the instructions and established protocols for dose reconstruction, based on this group of 44 blind cases reviewed.

An Issue Related to Blind Case B44

- **The calculated DRs by NIOSH and SC&A differed greatly.** In seeking to understand this difference, the Subcommittee learned that after NIOSH received follow-up information from DOL on the dates when the claimed cancers were discovered, the DRs for the reported cancers with their corrected dates were accidentally run by NIOSH **in addition to** those initially reported – that is, the numbers of cancers used in the NIOSH DR were twice as many as those for SC&A's. NIOSH's internal procedures have since been changed to prevent such an error in the future. **Since the compensation decisions were the same for both DRs,** and would be so even after the NIOSH correction, the Subcommittee closed the review.
- However, Subcommittee members are concerned that there should be a note in our records that the NIOSH POC here is elevated but was processed properly for blind review purposes. Grady Calhoun has agreed to suggest an appropriate site for placement of this note.

Questions?