

**ISSUES RESOLUTION MATRIX FOR ORAUT-OTIB-0020,
“USE OF COWORKER DOSIMETRY DATA FOR EXTERNAL DOSE ASSIGNMENT”**

Finding Number	Finding Description	NIOSH Response	Finding Resolution
1	The applicability of OTIB-0020 lacks clarity and prescriptive guidance.	<p>08/29/07: The context of OTIB-0020 must be taken into account as part of the overall procedures review process. This OTIB is a general use document describing the methodologies and technical considerations for subsequent OTIB documents addressing specific coworker data sets for a wide variety of DOE sites. Prescriptive guidance is found in the site-specific coworker OTIBs. Regarding clarity, the purpose of the OTIB is stated clearly in Section 1.0: <i>“This TIB is to be used in conjunction with separate TIBs or other approved documents that provide site-specific coworker data.”</i></p> <p>09/17/07: Each site-specific coworker TIB states the methods and results used to confirm that the coworker data (i.e., from a database) match the data found in hardcopy form (i.e., EEOICPA claimant records). Because of the wide variety of data formats and recordkeeping practices encountered from site to site, it would seem sensible to maintain the current approach of providing a description of data validation for each site TIB rather than formulating a general approach in OTIB-0020 that might prove unworkable for individual sites.</p>	10/02/07: SC&A and the SCPR found this explanation acceptable, and the SCPR closed the finding.

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2	Side-stepping the use of OTIB-0020 and coworker data requires the dose reconstructor to make a quantitative determination of what corresponds to “reasonable” upper exposures that the unmonitored person may have received.	08/29/07: Again, the context of the use of OTIB-0020 is critical. Use of coworker data is part of the hierarchy of data sources listed in IG-001 (Table 1.1) and PROC-0006 (Table 5.2). As a claim is processed using PROC-0006 (see Summary Figure 5.2), data other than coworker data may be needed to complete the claim. These types of data may be found in site profile documents or in documents available through the SRDB system. Use of these types of data to complete a claim with a POC <45% would entail a description in the DR report of the nature of the data with respect to the “reasonable upper limit” criteria.	10/02/07: SC&A and the SCPR concurred with NIOSH’s explanation, and the SCPR closed the finding.
3	The OTIB stipulates that site-specific coworker data may not be necessary for dose reconstruction and the dose reconstructor may select “ <i>reasonable upper limits, provided POC is less than 45%.</i> ” This places an unreasonable judgement decision on the dose reconstructor and may lead to inconsistencies.	08/29/07: NIOSH’s response was the same as for Finding 1, which, in summary, states that OTIB-0020 is a general use document and refers the dose reconstructor to prescriptive guidance found in the site-specific coworker OTIBs.	10/02/07: SC&A and the SCPR concurred with NIOSH’s explanation, and the SCPR closed the finding.

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4	The dose reconstructor is placed into a situation where “professional judgment” must be made, i.e., 50th or 90th percentile dose. It is SC&A’s opinion that data needed for these decisions are unlikely to be available to the dose reconstructor.	08/29/07: Again, the context of the dose reconstruction process must be considered. Dose reconstruction staffs do not work in a vacuum. First, the DR staff will use PROC-0006 to evaluate the claim. Professional judgment used during claim processing is supported by information from the site profile documents (and authors), the coworker OTIBs, the available records from the site, SRDB documents, discussions with site lead DR staff, and interaction with the project principal dosimetrists. In addition, assumptions made regarding the choice of 50th or 95th percentile values must be peer reviewed by other DR staff as well as staff from OCAS.	10/02/07: SC&A and the SCPR found this explanation acceptable, and the SCPR closed the finding.
5	SC&A considers the 50th percentile constant value as one that is without scientific basis and not claimant favorable.	08/29/07: The 50th percentile value is claimant favorable for certain types of energy employees as described in OTIB-0020. In addition to using the 50th percentile of measured dose, a claimant-favorable quantity of missed dose is also added to the 50th percentile dose (see Sections 6.0 and 7.0 of OTIB-0020). It should be noted that a comparison of 50th percentile values for a given site (K-25) was conducted against values calculated using a maximum likelihood method. The results, as seen in Table 7-1 of OTIB-0020, show that the 50th percentile values consistently exceeded the maximum likelihood geometric mean values and generally exceeded the maximum likelihood 95th percentile values as well.	10/02/07: SC&A and the SCPR found this explanation acceptable, and the SCPR closed the finding.

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6	There are multiple elements described in the guidance/use of this OTIB that require the dose reconstructor to make subjective decisions or require information that is not likely to be available.	08/29/07: The reviewer presupposes that information will not be available to make informed decisions. The variety of sources of information available to DR staff has been discussed in the previous responses. The assertion that DR staff cannot resolve complex issues in a consistent manner is not true. The project has additional staff resources, as described previously, to assist the DR staff with respect to judgments on individual DR claims.	10/02/07: SC&A and the SCPR concurred with NIOSH's explanation, and the SCPR closed the finding.
Pre-Review of OTIB-0020, Rev. 03	Because OTIB-0020 has been revised more than once since SC&A performed its original review, the Advisory Board at the July 31, 2012, meeting tasked SC&A to perform a pre-review to determine whether there were sufficient technical changes to OTIB-0020 to warrant a full review. On January 25, 2013, SC&A responded to the Subcommittee indicating that NIOSH has introduced two changes in the revisions to OTIB-0020: (1) the K-25 example coworker doses, which had been provided in Table 7-1, have been removed in response to a Quality of Science (10-year review) comment, and (2) the second paragraph of Section 3 was modified as agreed upon by the Subcommittee, NIOSH, and SC&A to address a finding made by SC&A's review of ORAUT-OTIB-0052, Revision 00 (i.e., Finding OTIB-0052-16). Neither of these changes are of a technical nature; thus, a full re-review is not required.	N/A	07/18/13: The SCPR agreed with SC&A's recommendation that a full review of OTIB-0020, Revision 03, was not warranted. The SCPR added a finding to the BRS indicating this decision and closed the finding.

BRS = Board Review System; DOE = U.S. Department of Energy; DR = dose reconstruction; EEOICPA = Energy Employees Occupational Illness Compensation Program Act; OTIB, TIB = technical information bulletin; POC = probability of causation; SCPR = Subcommittee for Procedure Reviews; SRDB = Site Research Database