



MEMO

DATE: February 20, 2015
TO: Subcommittee on Procedures Review
FROM: Kathleen Behling, SC&A
SUBJECT: Program Evaluation Reports (PERs) Not Tasked for SC&A's Review

During the February 18, 2015, Procedures Review Subcommittee meeting, SC&A discussed two memos that were sent to the Subcommittee in December 2014 regarding (1) the issuance of new PERs since the August 28, 2014, meeting (issued December 10, 2014), and (2) status of PER findings in the Board Review System (BRS) (issued December 8, 2014). In the December 8, 2014, memo, SC&A identified 1 PER that has not been tasked for review and 2 PERs where the Subtask 4 case reviews have not been tasked. This memo consolidates the PER status information provided in the two December memos and presents a table listing the unassigned PER and Subtask 4 reviews for the Subcommittee's consideration. The table provides SC&A's recommendation regarding (1) whether a review of each PER is warranted, and (2) the number of cases that should be reviewed under Subtask 4.

PERs Not Assigned for SC&A's Review as of February 19, 2015

| PER Description | Doses Changes | Cases Impacted | SC&A's Recommendation |
|---|---|--|---|
| <p>DCAS-PER-055: "TBD-6000 Revision" Effective Date: 9/12/2014</p> <p>TBD-6000 provides internal and external doses for several tasks with uranium metal that are typical in the weapons program.</p> <p>TBD Appendices are applicable to a particular site and provide analysis of site-specific information supplemented by TBD-6000. For some sites, TBD-6000 is used without an appendix, resulting in a standalone dose reconstruction. The cases from these sites are the primary focus of this PER.</p> <p>(Sites that have an existing appendix or standalone TBD will first require a revision to those documents, followed by a PER to evaluate the effect of that revision.)</p> | <p><u>Uranium surface contamination conversion factors</u> to determine the beta and gamma dose rates changed. Photon value was recalculated in Revision 1 causing a slight decrease. A beta dose rate value was added that did not exist in Revision 0.</p> <p><u>External dose from surface contamination</u> was initially based on 365 days of settling and was reduced to 30 days. As a result, the photon values decreased for environmental doses in Revision 1. Beta dose was not accounted for in Revision 0, but is included in Revision 1 (increased).</p> <p><u>Photon dose from contamination in metal-working processes</u> increased since it was initially based on 7 days of settling; Revision 1 now bases it on 30 days. The beta dose is also higher because Revision 0 did not account for beta dose from contamination.</p> | <p>809 potential cases impacted.</p> <p>Due to numerous selection criteria, 30 cases were actually re-evaluated.</p> | <p>SC&A recommends that this PER be reviewed.</p> |
| <p>DCAS-PER-056: "BWXT Virginia" Effective Date: 9/12/2014</p> <p><u>No</u> TBD was written for the BWXT site. However, methods used in dose reconstruction employed the ORAUT-OTIB-0070 depletion factor.</p> | <p>The revision to OTIB-0070 changed depletion factor so that the contamination level is assumed to decrease more slowly. This results in an increase in the dose estimate for most years of the residual period.</p> | <p>82 potential cases impacted.</p> <p>Four cases removed because work not associated with residual period, leaving 78 cases that were re-evaluated.</p> | <p>Since SC&A has reviewed OTIB-0070 and selection criteria are clear (all BWXT VA workers), we do <u>not</u> recommend reviewing this PER.</p> |

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PERs Not Assigned for SC&A's Review as of February 19, 2015

| PER Description | Doses Changes | Cases Impacted | SC&A's Recommendation |
|---|---|---|---|
| <p>DCAS-PER-058: "Dow Chemical Co. (Madison Site)" Effective Date: 11/21/2014</p> <p>Battelle-TBD-6000, Appendix C, Dow Chemical Co. (Madison Site) was revised (4/3/2014) due to revision to Battelle-TBD-6000 and ORAUT-OTIB-0070.</p> | <p>One revision to TBD-6000 was the deposition time used to calculate external dose from contamination, which was changed from 7 days to 30 days, causing an increase in the photon dose. Another change was the inclusion of beta dose from contamination that was not included in the previous revision.</p> <p>ORAUT-OTIB-0070 provides a depletion rate for residual contamination. A revision to OTIB-0070 on 3/5/2012 reduced that depletion rate and thus increased doses in the residual period.</p> | <p>96 potential cases impacted.</p> <p>16 cases were returned for other reasons and will be assessed using the most current TBD revision, leaving 80 cases that were actually re-evaluated.</p> | <p>Since SC&A has reviewed TBD-6000 and OTIB-0070 and the selection criteria are clear (all Dow Chemical workers), we do <u>not</u> recommend reviewing this PER.</p> |
| <p>OCAS-PER-021: "Rocky Flats Plant Dose Reconstruction Method Modifications" Effective Date: 9/20/2007</p> <p>Several changes to dose reconstruction methods were introduced into the Rocky Flats Plant TBD as well as the incorporation of numerous Technical Information Bulletins. These changes affected the Occupational Medical Dose (ORAUT-TKBS-0011-3), Onsite Ambient Dose (ORAUT-TKBS-0011-4), Occupational Internal Dose (ORAUT-TKBS-0011-5), and Occupational External Dose TBDs (ORAUT-TKBS-0011-6).</p> | <p>Increases in doses associated with occupational medical, onsite ambient, internal and external doses not specified.</p> | <p>590 cases re-evaluated.</p> | <p>SC&A recommends that this PER be reviewed due to the numerous modifications that affected all exposure pathways and the number of cases impacted by these changes.</p> |

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| PER Subtask 4 Cases Not Assigned for SC&A's Review as of February 19, 2015 | | | |
|--|--------------------------------------|--|---|
| PER Description | Doses Changes | Cases Impacted | SC&A's Recommendation |
| <p>OCAS-PER-008: "Modification of NIOSH-IREP lung cancer risk model: effect of "combined" lung model on non-compensable lung cancer claims" Effective Date: 04/12/07</p> <p>The "combined" lung cancer risk model, which compares the NIOSH-IREP lung cancer risk model to the risk model created by the National Cancer Institute (NIH-IRE). For lung, trachea, or bronchus cancers, NIOSH-IREP now separately calculates the probability of causation (POC) produced by each of the two risk models and reports the higher POC at the upper 99th percentile credibility. NIOSH-IREP v5.5 and v5.5.1 also incorporate a bias correction factor for random errors in dosimetry for "never smokers" exposed to radon.</p> | Not applicable. | <p>920 potential cases.</p> <p>95 claims yielded higher POC values based on inclusion of NIH-IREP, and 4 cases benefiting from inclusion of the bias correction factor for "never smokers" exposed to radon.</p> <p>Of the 99 claims with higher POC values, 88 revised POC remained below the threshold value of 45%.</p> <p>11 claims re-evaluated as "best estimates."</p> | SC&A recommends reviewing 3 of the 11 cases with the highest re-evaluated POC, which include Claim #5 (49.15%), Claim #6 (48.93%), and Claim #8 (47.44%) from Table 2 of OCAS-PER-008. |
| <p>OCAS-PER-011: "K-25 TBD and TIB Revisions" Effective Date: 9/26/2007</p> <p>On 11/24/2004, the external section of the Oak Ridge Gaseous Diffusion Plant (K-25) TBD was issued (ORAUT-TKBS-0009-6). This TBD contained a tabulation of the dose received by K-25 monitored workers that was to be used as coworker dose for unmonitored workers. On 5/31/2005, ORAUT-OTIB-0026 was issued, which increased the external coworker values to account for missed dose. On 11/15/2006, the K-25 External Dose TBD was revised to incorporate provisions of ORAUT-OTIB-0052 for unmonitored construction trades workers (CTWs) potentially exposed to radiation.</p> | Increase in external coworker doses. | <p>432 potential cases.</p> <p>71 cases re-evaluated.</p> <p>(It should be noted that SC&A's review of PER-011 resulted in 5 findings. Two of these findings regarding appropriateness of case selection criteria are still in abeyance awaiting NIOSH's submission of a PER associated with OTIB-0052. This should, however, not impact our review of cases under Subtask 4.)</p> | SC&A recommends at least a <u>total of 4 cases</u> for review, with selection of (1) <u>at least 2 claims originally completed before May 31, 2005</u> , using an external coworker model and revised as a result of PER-011, and (2) <u>at least 2 CTW claims</u> that were originally completed between May 21, 2005, and August 31, 2006, using external coworker data and revised as a result of PER-011. |

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