

**Division of Compensation Analysis and
Support
Program Evaluation Report**

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Weldon Spring Plant TBD Revision

Page 1 of 3

Author: Signature on file Date: 1/7/2019 Supersedes: none
Dave Allen, HP Team Leader

Approval: Signature on file Date: 1/7/2019
J. W. Neton, Associate Director for Science

RECORD OF ISSUE/REVISIONS

ISSUE AUTHORIZATION DATE	EFFECTIVE DATE	DESCRIPTION
1/7/2019	1/7/2019	New document to determine the effect of revising ORAUT-TKBS-0028-4 and ORAUT-TBKS-0028-5 (Weldon Spring Plant TBD) on previously completed claims.

1.0 Description

A six section Technical Basis Document (TBD) for the Weldon Spring Plant (ORAUT-TKBS-0028) is used for conducting dose reconstructions. Previous revisions to sections 3 through 6 of this TBD were evaluated in DCAS-PER-051 which was issued on March 4, 2015. Since that date, sections 4 and 5 were revised on 3/29/2017 and 3/14/2017, respectively. An additional revision to clarify language in both sections was issued on 9/8/2017 and 8/31/2017, respectively. This PER considers the effect of these changes on dose reconstructions that were completed using previous versions of the TBD.

2.0 Issue Evaluation

In the March 2017 revisions, two changes were made to two parameters that affect both sections 4 (Occupational Environmental Dose) and section 5 (Occupational Internal Dose) of the Weldon Spring Plant TBD. These two parameters are the contribution of recycled uranium contaminants to internal dose and the specific activity of 1% enriched uranium. In both cases, the Weldon Spring Plant TBD references the Feed Material Production Center (FMPC) TBD (ORAUT-TKBS-0017). The values for the two

Division of Compensation Analysis and Support Program Evaluation Report	Document Number: DCAS-PER-083
Effective Date: 1/7/2019	Page 2 of 3

parameters were revised in the FMPC TBD and, as a result, the Weldon Spring Plant TBD was revised.

The most recent revision to both sections of the TBD clarified that recycled uranium intakes are assumed to start in 1961. While it was clear in several places of the TBD, at least one place in each TBD indicated recycled uranium exposures starting “after 1961”. That language was changed in the last revisions to make it clear that intakes are assumed to start in 1961.

3.0 Plan for Resolving Corrective Action

In considering the last revisions, all Weldon Spring Plant claims completed between March and September of 2017 were reviewed. Only one had employment in 1961. The dose reconstruction for that claim was reviewed and found that recycled uranium intakes were assigned in 1961. Therefore, no further consideration for this issue was necessary.

To evaluate the remaining issues, a search was conducted for all claims with employment at any one of the three Weldon Spring facilities in the NIOSH claims tracking system (NOCTS). Additionally, a key word search was conducted on dose reconstruction reports for the word “Weldon”. These searches resulted in 330 unique claims being identified.

From the list of 330 claims, 3 claims were identified as being completed with the current TBD and an additional 126 claims were identified as having probability of causation (POC) greater than 50%. Also, 51 claims had been pulled from dose reconstruction (primarily due to inclusion in the Mallinckrodt SEC) and 7 claims were active at NIOSH at the time of the search and would be completed using the current TBDs. Lastly, 2 claims were determined not to have employment at Weldon Spring. They had been identified because the dose reconstruction report mentioned Weldon Spring but actually had no employment there and the Weldon Spring TBD was not used to estimate the dose.

This left 141 claims to be evaluated. One of those claims met the criteria for the Mallinckrodt SEC and the dose reconstruction was done prior to the designation of that SEC class. Therefore, it was removed from evaluation under this PER.

The remaining 140 claims were to be reevaluated under this PER, however, two of the claims were returned to NIOSH for a new dose reconstruction (for other reasons) before the evaluation occurred. A new dose reconstruction for these two claims would be completed using the current TBD, therefore those claims were removed from further consideration under this PER. Doses for the remaining 138 claims were recalculated using the current revisions of the TBD, as well as all other applicable procedures. The POC for 129 claims remained below 45%. Four claims resulted in a POC between 45% and 52%. For those claims IREP was run 30 times at 10,000 iterations per NIOSH

Division of Compensation Analysis and Support Program Evaluation Report	Document Number: DCAS-PER-083
Effective Date: 1/7/2019	Page 3 of 3

procedures. The resulting POC was less than 50% for all 4 claims. Five claims resulted in a POC greater than 50%.

NIOSH will provide the Department of Labor with the list of all the claims evaluated under this PER. Further, NIOSH will request DOL return the 5 claims that would now result in a POC greater than 50%.