1.0 Description

The Technical Basis Document (TBD) for the Weldon Spring Plant (ORAUT-TKBS-0028) actually covers three facilities, the Weldon Springs Plant, the Weldon Spring Quarry and the Weldon Spring Raffinate Pits. For the purpose of this Program Evaluation Report (PER) all three are considered together and referred to as the Weldon Spring Plant (WSP).

Revision 4 of the Environmental section of the TBD was issued on 3/27/2020. All other revisions to the Environmental section or other sections of the TBD were evaluated in a previous PER (DCAS-PER-083). Therefore, this PER will evaluate only the changes made in revision 4 of the Environmental section of the TBD.

2.0 Issue Evaluation

Increases in dose due to revision 4 of the TBD include the following issues.

- Environmental intakes of Rn-220 and Ra-228 were added for 1963 through 1966.
- On-site ambient gamma doses from 1957 to 1966 were previously used as a constant value but revision 4 included GSD values and are used as a lognormal distribution.

3.0 Plan for Resolving Corrective Action

A search of the NIOSH Claims Tracking System (NOCTS) database was combined with a text search of the dose reconstruction reports of previously completed claims. The NOCTS search queried employment at any of the three Weldon Spring sites while the text search queried the keyword “Weldon Spring” so that mention of any of the three would be found. The combined search resulted in a total of 338 claims.

The population of claims was reduced by first removing 50 claims that had been pulled from dose reconstruction. Most of these were pulled because they had met the criteria for compensation under the SEC prior to a dose reconstruction being completed.

Next, 135 claims were removed because the original dose reconstructions resulted in a probability of causation greater than 50%. Therefore, no increase in dose would affect eligibility for compensation.

One claim was removed because it had been returned for other reasons. As an active claim, it would be completed using the revised TBD and no further evaluation under this TBD was necessary.

Seven claims were removed because they had no Weldon Spring employment or visits during the covered period. The claims were included in the original population because Weldon Spring was mentioned in the text of the dose reconstruction or the time frame they were present was not a covered period.

An additional 90 claims were removed because they were not affected by the changes in the revised TBD primarily, those were monitored individuals for which no environmental dose was assigned.

Lastly, one claim was removed because it met the requirements of an Special Exposure Cohort (SEC) so a revised dose reconstruction was not necessary for a compensation decision.

Dose for the remaining 54 claims was recalculated using revision 4 of the TBD as well as all other applicable procedures. The resulting probability of causation for all 54 claims
was less than 45%. Therefore, none required additional IREP runs per NIOSH procedures.

NIOSH will provide the Department of Labor with the list of all the claims evaluated under this PER. Since none of the claims resulted in a probability of causation greater than 50%, NIOSH will not request that the Department of Labor return any claims for a new dose reconstruction.