

Division of Compensation Analysis and Support Program Evaluation Report	Document Number: DCAS-PER-049 Effective Date: 8/5/2016 Revision No. 0
Paducah Gaseous Diffusion Plant	
Page 1 of 2	
Author: <u>Signature on file</u> Dave Allen, HP Team Leader	Date: <u>8/5/2016</u> Supersedes: None
Approval: <u>Signature on file</u> J.W. Neton, Associate Director for Science	Date: <u>8/5/2016</u>

RECORD OF ISSUE/REVISIONS			
ISSUE AUTHORIZATION DATE	EFFECTIVE DATE	REV. NO.	DESCRIPTION
8/5/2016	8/5/2016	0	New document to determine the effect of revision to the Paducah Site TBD on previously completed claims.

1.0 Description

A six section Technical Basis Document (TBD) for the Paducah Gaseous Diffusion Plant (ORAUT-TKBS-0019) is used for conducting dose reconstructions. Since their original issuance, each section of the TBD has been revised on several occasions with the last revision taking place on 8/24/2012. This PER considers the changes that were made between the current version and all previous versions of the TBD.

2.0 Issue Evaluation

The revisions to the Paducah TBD included several changes that would cause an increase in calculated doses.

Revision 3 of the medical x-ray section (Section 3) was issued on 8/23/2012. This revision included an increase in the default x-ray examination frequency for some employees. For most dose reconstructions, however, the actual medical records are available and no default frequency is used. Because the increased frequency would result in an increased dose in some dose reconstructions, it was necessary to examine each case individually to determine if this change is applicable.

The Paducah TBD environmental section (Section 4) was revised to increase the external doses that is assigned for some years.

The Paducah TBD external section (Section 6) was last revised on 8/24/2012. Increases in assigned dose from neutrons and from Tc-99 were included.

Division of Compensation Analysis and Support Program Evaluation Plan	Document Number: DCAS-PER-049
Effective Date: 8/5/2016 Revision No. 0	Page 2 of 2

None of the increases in dose affected all claims, however, most of the changes require a review of the individual claim to determine if it is affected.

3.0 Plan for Resolution or Corrective Action

A search of the claims tracking database, as well as a text search of all dose reconstructions, was conducted to develop a list of claims with any mention of the word Paducah. This search identified 2099 claims.

From that list, those identified as having a Probability of Causation (POC) greater than 50% were removed, as well as those identified as meeting the conditions for compensation under the SEC. Also, one claim was returned by DOL prior to evaluating the claim so it was removed from further consideration. This left 1604 claims.

At that point, the most recent version of a dose reconstruction for each claim was reviewed manually to determine if any of the changes to the TBDs affected the particular claim. This step removed 634 claims from further evaluation leaving 970 claims. Dose for the 970 claims was to be recalculated using the current TBD and any other applicable procedures. During this step, 51 of the claims were returned by DOL to NIOSH for a new Dose Reconstruction for other reasons. These 51 claims were removed from further evaluation.

Doses for the remaining 919 claims were recalculated using the current revisions of the TBD, as well as any other applicable documents. The resulting POC for 899 of the claims was below 45%. Eleven of the claims resulted in a POC greater than 52%. The remaining eight claims had a POC between 45% and 52%. For those claims, IREP was run 30 times at 10,000 iterations per NIOSH procedures. The resulting POC was less than 50% for six of the claims and greater than 50% for the remaining two.

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