Division of Compensation Analysis and Support Program Evaluation Report	Document Number: DCAS-PER-035 Effective Date: 10/31/2013 Revision No. 0

Lawrence Livermore National Lab TBD Revisions

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RECORD OF ISSUE/REVISIONS			
ISSUE AUTHORIZATION DATE	**EFFECTIVE DATE**	**REV. NO.**	**DESCRIPTION**
10/31/2013	10/31/2013	0	New document to determine the effect of revising the Lawrence Livermore National Lab TBD on previously completed claims.

1.0 Description

The Lawrence Livermore National Lab (LLNL) Technical Basis Document (ORAUT-TKBS-0035) is written in six separate sections. Sections one and two (Introduction and Site Description) do not provide any assignment of dose. The current versions of the remaining sections are:

Section 3 – Medical – revision 1 – issued 8/27/2010
Section 4 – Environmental – revision 1 – issued 3/16/2010
Section 5 – Internal Dose – revision 2 – issued 12/13/2010
Section 6 – External Dose – revision 2 – issued 2/26/2010

This PER considered the effect of these revisions on claims that were completed using all previous versions of the TBD.

2.0 Issue Evaluation

A few changes were made to the medical section of the TBD, including an increase in the assigned dose for some organs in some years. There was also the discovery that not all x-rays records were being sent to NIOSH from the site. That situation was corrected, but could result in additional assignment of x-ray dose to some employees. The situation was corrected prior to the release of the last revision of the medical section of the TBD.

The environmental section of the TBD was revised to change the dose assigned for various years from various sources. Both internal and external dose assignments were affected.

A variety of changes occurred in the internal dose section of the TBD. These changes include providing co-worker intakes for some isotopes previously not assigned. The revision also includes a change to the minimum detectable activity for some bioassay analyses.

External dose assignments based on the external dose section of the TBD are subject to a variety of changes. These changes include the methods associated with assigning neutron dose as well as new information about assigning film badges that affect missed dose calculations. Also the detection limit associated with film badges was changed.

As a result of numerous changes (not all outlined in section 2) it is not possible to exclude any category of claims from further evaluation based on the changes that were made to the TBD alone. Therefore, it is assumed that the TBD revisions could affect any previously completed claim and no more detailed evaluation of the changes is necessary for this evaluation. It is, however, possible to determine that some claims would not benefit from the changes based on criteria other than the dose assigned (such as already compensated via an SEC).

3.0 Plan for Resolution or Corrective Action

A text search of previously completed dose reconstructions was performed that searched for "LLNL" or "Lawrence Livermore". From the list generated:

- A search was conducted for reference to the current revision of TBD sections 3 through 6 (Medical, environmental, internal and external). If references to all current sections were found, the inclusion of these references was verified and the claim was eliminated from further review because it was completed using the current version of the TBD.

- Next, any claims with a status of "pulled" were removed from the list. These claims were removed (pulled) from the dose reconstruction process for various reasons (e.g., such as meeting the criteria for a SEC). It should be noted that claims compensated under an SEC could be returned for a dose reconstruction to determine medical benefits for a non-SEC cancer. Those claims would not have a status of "pulled".

- Next all claims with a probability of causation greater than 50% were removed from the list.
- Claims completed after the last TBD section revision and referenced some but not all of the current TBD sections mentioned above were reviewed to determine if there was a valid reason for the missing reference. An example of a valid reason would be a case assigned only environmental dose would not need to reference the internal or external sections of the TBD. Claims found to have been completed using only the current TBD sections were eliminated.
- Next, all claims for which the Lawrence Livermore TBD was not actually used were removed. An example would be a dose reconstruction report that only mentions a test conducted on behalf of Lawrence Livermore but does not use the Lawrence Livermore TBD.
- Lastly, those claims that qualified for compensation under the LLNL SEC were eliminated unless there was a potential a dose reconstruction was necessary for medical benefits.

This process resulted in a total of 373 claims to be further evaluated under this PER.

3.1 Determination of claims which will not change due to TBD revision.

No further evaluation was performed on two of the 373 claims identified above because the Department of Labor returned the claim to NIOSH prior to any further evaluation. A new Dose Reconstruction was to be performed on those claims using all current methods.

Additionally, seven claims were found to be unaffected by any of the changes in the TBD. This is due to the fact that most changes did not affect all claims but most claims were affected by one or more changes. In the case of these seven, none of the TBD changes affected the original dose reconstruction. No new dose was recalculated for these claims.

Dose for the remaining 364 claims was recalculated using all current dose reconstruction methods including those in the current version of the TBD. From the recalculated dose, a new probability of causation (POC) was determined. The POC remained below 45% for 344 claims. The POC fell between 45% and 50% for 6 claims. For those claims, IREP was run 30 times with 10,000 iterations for each run in accordance with NIOSH procedures. As a result, all 6 claims remained below 50%. The remaining 14 claims produced a POC greater than 50%. NIOSH will notify DOL of all the results and request a return of the 14 claims that would now result in a POC greater than 50%.