Division of Compensation Analysis and Support Program Evaluation Report	Document Number: DCAS-PER-037 Effective Date: 7/17/2012 Revision No. 0
Ames Laboratory TBD Revision	Page 1 of 3

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RECORD OF ISSUE/REVISIONS			
ISSUE AUTHORIZATION DATE	**EFFECTIVE DATE**	**REV. NO.**	**DESCRIPTION**
7/17/2012	7/17/2012	0	New document to determine which previously completed claims require evaluation for the affect of revising the Ames Laboratory TBD.

1.0 Description

Revision 3 of the Ames Laboratory Technical Basis Document (ORAU-TKBS-0055) was issued on 1/3/2012. The previous version (revision 2) was issued on 1/14/2011. Revision 1 was issued 12/18/2009 and revision 0 PC-1 was issued 8/20/2008. This PER considered the changes that were made between the current revision (revision 3) and all previous versions of the TBD.

2.0 Issue Evaluation

Several changes in these revisions resulted in either an increase or a decrease in assigned dose. Some doses decrease in one revision and then increase in a subsequent revision. In order to evaluate the effect on previous dose reconstruction if they were to be recalculated today, the changes that resulted in an increase in dose in any revision and would still be assigned in revision 3 are considered. Those changes are listed below.

Revision 1 of the TBD included an increase in the uranium intakes for researchers in the chemistry building from August 1942 through December of 1953. Revision 2 and 3 also included these intakes which are identical to revision 1.

Revision 2 of the TBD included an increase in uranium intakes for all employees in the chemistry building between January 1954 and May 1976. The higher intakes remain the same in revision 3.

External dose for unmonitored workers before 1946 increased in revision 1 for some job categories and locations. These values remained the same in revision 2 but then increase again in revision 3.

External dose for unmonitored workers between 1946 and 1953 decreased for all job categories and locations in revision 1. The values remained the same in revision 2 but increase in revision 3. The revision 3 increase was still below the revision 0 values with the exception of extremity dose in annex 2.

3.0 Plan for Resolution or Corrective Action

Based on the issues described above, two populations of claims potentially affected by these revisions were determined. The first population was based on the following criteria:

1. Probability of Causation (PC) less than 50%
2. Most recent version of the dose reconstruction approved by DCAS on or prior to January 3, 2012 (issue date of the current TBD revision).
3. Employed at the Ames Laboratory prior to 1954.

These criteria identified total of 19 claims. Two of these claims met the criteria for inclusion in the SEC and had no additional non-listed cancers. The assigned internal and external dose for the remaining 17 claims was reviewed and compared to the assigned doses in revision 3 of the TBD. Seven of those were assigned doses at least as high as revision 3. The remaining 10 were evaluated further as discussed below.

The second population of potentially affected claims was developed from the following criteria:

1. Probability of Causation (PC) less than 50%
2. Most recent version of the dose reconstruction approved by DCAS on or prior to January 3, 2012 (issue date of the current TBD revision).
3. Employed at the Ames Laboratory between January 1st 1954 and June 1976.

These criteria identified total of 61 claims. Sixteen of these claims met the criteria for inclusion in the SEC and had no additional non-listed cancers. The remaining claims were reviewed to determine if chemistry building intakes had been assigned in the previous dose reconstruction. That review determined that six claims were assigned chemistry building intakes based on a previous version of the TBD. Those six claims were evaluated further as discussed below.

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

For the sixteen claims requiring further evaluation, dose was recalculated using all current dose reconstruction methods including the current version of the TBD. From that

recalculated dose, a new probability of causation was determined. The probability of causation remained below 45% for 13 of the 16 claims. Two were just above 45% but below 50%, therefore, IREP was run 30 times using 10,000 iteration to determine the probability of causation more precisely. This resulted in little change with each resulting probability of causation between 45% and 46%. The final claim resulted in a probability of causation greater than 50%. NIOSH will notify DOL of these results and request a return of the one case that would now be greater than 50%.