

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

Document Number: OCAS-PER-031

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Revision No. 0

**Y-12 TBD Revisions**

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RECORD OF ISSUE/REVISIONS

ISSUE AUTHORIZATION DATE	EFFECTIVE DATE	REV. NO.	DESCRIPTION
12/18/2007	12/18/2007	0	New document to determine which previously completed claims require evaluation for the effect of revising the Y-12 Plant TBD.

**1.0 Description**

The Y-12 National Security Complex Technical Basis Document (ORAUT-TKBS-0014) has been revised several times. The TBD contains six separate sections each pertaining to a specific part of dose reconstruction. Technical Information Bulletins (TIB) are also utilized in dose reconstruction. Many of the revisions only corrected typographical errors or clarified language. Some revisions were made as the result of a Special Exposure Cohort (SEC) designation for specific classes of employees at the site. Methods outlined in the latest revision of these documents were reviewed against previous methods to determine if any previously completed dose reconstruction would result in an increased dose using current methods. The review was limited to any increase rather than an overall increase. Therefore, since changes that would cause dose to decrease were not reviewed, it is possible a new dose reconstruction would result in an overall decrease in dose even if it is determined that a new dose reconstruction is warranted.

**2.0 Issue Evaluation**

Several changes to Y-12 documentation can be classified as “phased implementation”. This is an approach of issuing a TBD with some sections marked “reserved” or specific issues not covered in order to allow the completion of claims unaffected by that aspect of dose reconstruction. Internal and external co-worker TIBs are examples of these. Claim for which a co-worker model was necessary could not be completed until these models were available. As such, issuing these documents does not represent an increase in dose for any previously completed claims.

After evaluating the Y-12 documentation, one issue did arise that could increase the dose estimate for some claims. The equilibrium ratio for Th-228/Th-232 was changed from assuming 100% equilibrium to assuming 80% equilibrium. Incorporating this change

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would increase the dose estimate for claims containing a thorium intake determined from chest count data. This change was included in revision 1 page change 2 (Rev. 1 PC-2) of the internal dose section of the Y-12 TBD (ORAUT-TKBS-0014-5). This change was issued on 1/12/2006.

### **3.0 Plan for Resolution or Corrective Action**

There were 693 Y-12 claims completed prior to 1/12/2006 with a probability of causation below 50%. The dose reconstruction methodology of each will be reviewed to determine if a new dose reconstruction is necessary to determine if the revisions increase the dose estimate. The criteria for making this determination are:

1. Any of the claims assigned a thorium intake based on chest count data will require a new dose estimate.

NIOSH will review these dose reconstructions to determine if they meet the criterion listed above. NIOSH will provide DOL with the list of 693 claims as well as a determination on each claim as to whether a new dose estimate is required. Documentation for each claim not requiring a new dose reconstruction will provide the basis for that determination.