

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

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Effective Date: 7/17/2019

**Grand Junction Operations Office**

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Author: Signature on file Date: 7/17/2019  
Dave Allen, HP Team Leader

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Approval: Signature on file Date: 7/17/2019  
T. Taulbee, Associate Director for Science

RECORD OF ISSUE/REVISIONS

ISSUE AUTHORIZATION DATE	EFFECTIVE DATE	DESCRIPTION
7/17/2019	7/17/2019	New document to determine the effect of issuing ORAUT-TKBS-0060 (Grand Junction Operations Office) on previously completed claims.

**1.0 Description**

A Site Profile for Grand Junction Operations Office (GJOO) was issued on 5/18/2018. Prior to that, dose reconstructions utilized a template that provided relevant information about the site. The template was revised after additional information was discovered and a Program Evaluation Report (DCAS-PER-047) was issued on 3/26/2014 evaluating the effect of the revision.

On 5/18/2018 a Site Profile was issued containing the information in the template along with some modifications. Modifications were the result of a review by the Advisory Board on Radiation Worker Health. The effect of issuing this site profile on previously completed claims is the subject of this PER.

**2.0 Issue Evaluation**

The issuing of the site profile modified some of the methods used to reconstruct dose at GJOO. Modifications that occurred include:

- The photon dose conversion factors to be used was changed from deep dose equivalent to exposure for the years 1981-1985.

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- Applicable film badge LOD and unmonitored dose changed in 1981.
- Previously, unmonitored beta dose was not assigned after 1980. The site profile describes this dose beyond 1980 through present.
- The specified Neutron LOD increased from 1960 through 1981.
- The assumed fraction of uranium radioactive constituents changed after 1985.
- Exposure to thorium was added for 1986-1988 and 2001.
- Uranium intake rates were changed after 1985

The plan for addressing the population of claims affected by these changes is discussed below.

### **3.0 Plan for Resolving Corrective Action**

A search of the NIOSH Claims Tracking System (NOCTS) database plus a text search of dose reconstruction reports created an initial population of 125 claims. Of these, 28 had a dose reconstruction with a probability of causation (POC) greater than 50% and were removed from the list. An additional 18 claims had been pulled from dose reconstruction (primarily due to inclusion in the SEC) and 4 claims had been returned to NIOSH from the Department of Labor (DOL) for other reasons. Those four claims will require a new dose reconstruction using the site profile so no further evaluation under this PER is necessary.

That leaves 75 claims. The employees for 5 of these claims were never at the GJOO site. For some, the initial verified employment was later changed and for others, the GJOO site was mentioned in the DR report but not to indicate presence at the site. Eleven more claims were removed because they only had employment between 1947 and 1959. Due to the SEC, only monitored dose can be assigned in that era and no changes were made in the site profile that would affect the monitored dose (in that era).

Of the 59 remaining claims, 4 were removed because they were visitors to GJOO and had no monitoring data there. The original DR did not assign GJOO dose because assuming exposure at the home site was favorable to unmonitored visitor dose at GJOO. Ten more claims were deemed eligible for the SEC and removed from further consideration. This leaves 45 claims to be evaluated.

Doses for these 45 claims were recalculated using the site profile as well as all other applicable procedures. The POC for 38 claims resulted in a new POC below 45%. The POC fell between 45% and 50% for 3 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 3 claims remained below 50%. The remaining 4 claims resulted in a new POC greater

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than 52%. NIOSH will provide the Department of Labor with the list of all the claims evaluated under this PER. Furthermore, NIOSH will request the return of the 4 claims that would now result in a POC greater than 50%.