

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

Document Number: DCAS-PER-071

Effective Date: 9/25/2018

OTIB-0079 Rev. 02, Offsite X-Ray Guidance Page 1 of 5

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RECORD OF ISSUE/REVISIONS

ISSUE AUTHORIZATION DATE	EFFECTIVE DATE	REV. NO.	DESCRIPTION
9/25/2018	9/25/2018	none	New document to determine the effect of revisions to ORAUT-OTIB-0079 (Guidance on Assigning Occupational X-Ray Dose under EEOICPA for X-rays Administered Off Site) on previously completed claims.

1.0 Description

A complex wide document (ORAUT-OTIB-0079) was issued on 1/3/2011 titled Guidance on Assigning Occupational X-Ray Dose under EEOICPA for X-rays Administered off Site. This document summarized information gathered about the location of medical x-rays associated with particular sites. On 3/18/2016 revision 1 of the document was issued. No PER was issued for that revision because an effort was underway to verify and summarize information about additional sites. That effort culminated in the issuance of revision 2 on 6/15/2017.

The effect of these revisions on previously completed claims is the subject of this PER.

2.0 Issue Evaluation

This OTIB lists sites and time frames for which information exists to indicate that routine x-rays were taken at off-site locations that are not covered by EEOICPA. The document also contains a list of sites where x-rays were taken on-site or that no location information exists.

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Not all sites are listed in the document. Revision 0 listed most major sites. Revision 1 included many more sites along with changes to information available on some sites that were included in revision 0.

Table 1 in revision 0 (Table 3-1 in revision 1 and 2) lists sites and time frames when routine x-rays were taken at off-site facilities not covered under EEOICPA. Table 2 in revision 0 (Table 3-2 in revision 1 and 2) lists sites where x-rays were taken on-site or for which no location information is available. Sites not listed in ORAUT-OTIB-0079 would follow site specific guidance or default to complex wide guidance that assumes standard x-rays were taken on-site.

In order to evaluate the effect of these revisions on previous dose reconstructions, the 2 lists and notes were compared in each revision. Changes that would not have the potential to increase dose were not considered in this PER. An example would be an addition to Table 1 indicating x-rays previously assigned would no longer be included. The review found 6 sites for which a change could potentially cause an increase in dose. Those 6 sites are discussed below.

Extrusion Plant

Prior to revision 1 of OTIB-79 being issued, x-rays at the Extrusion Plant were assumed to be taken on-site. Revision 0 of OTIB-79 indicated x-rays were taken off-site prior to 1977 and after 1996. Revision 1 indicated x-rays were taken off-site before 1981 and after 2006. Therefore, x-rays taken between 1996 and 2006 would now be covered when previously they were not. A revision to the Extrusion Plant TBD was issued on 3/7/2017 which is after revision 1 of OTIB-79. Instructions in that revision match those in OTIB-79 revision 1 (and revision 2). PER-78 is being issued to evaluate changes to Extrusion Plant claims including those associated with changes to assigned x-ray dose. Therefore, this PER will not consider this site.

Hanford

Prior to revision 0 of OTIB-79 being issued, x-rays at the Hanford site were assumed to be taken on-site. Revision 0 of OTIB-79 indicated x-rays were taken off-site at the Kadlec hospital from 1944 to 1955. Revision 1 included the new information that the Kadlec hospital was actually owned by the AEC in that time frame making those x-rays a covered exposure. Therefore, Hanford claims completed after the issuance of revision 0 and before revision 1 are reevaluated under this PER.

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Portsmouth

Prior to revision 0 of OTIB-79 being issued, x-rays at Portsmouth were assumed to be taken on-site. Revision 0 of OTIB-79 indicated x-rays were taken off-site from 1954 to 1981. Revision 1 of OTIB-79 removed that statement but indicated x-rays were taken off-site in 2010, 2011 and from April 2012 to May 4th 2014. The information that x-rays were taken on-site even prior to 1982 was known prior to the publication of OTIB-79 revision 1 and information about the location of the x-ray equipment was included in revision 3 of ORAUT-TKBS-0015-3 (Portsmouth TBD medical section) issued on 4/8/2013. Therefore, Portsmouth claims with employment prior to 1982 that were completed between the publication of OTIB-79 revision 0 and the publication of revision 3 of the ORAUT-TKBS-0015-3 will be included in this PER.

Sandia National Lab at Livermore (SNL-L)

The TBD for SNL-L indicates that worker x-rays ceased in the 1980s and the x-ray equipment was removed from the site in 1990. OTIB-79 (all revisions) indicates that after 1989, x-rays were taken at Lawrence Livermore National Lab (LLNL) which is a covered facility so the x-rays should be accounted for. Due to the inconsistency, x-ray records began to be routinely requested from LLNL for SNL-L employees. This process started sometime after revision 0 of OTIB-79 was issued but before revision 1. Therefore, claims completed prior to revision 1 of OTIB-79 will be included in this PER.

Also, a note existed in revision 0 of OTIB-79 indicating in the 1950s, pre-employment x-rays may have been taken off-site. That note was removed in revision 1 and any potentially affected claims are already part of the population to be reviewed.

Additional Sites

Each site added to revision 1 that was not mentioned in revision 0 were reviewed to determine if site documentation was consistent with revision 1 of OTIB-79. For most sites, the documentation was consistent. Eight sites were added to Table 1 resulting in a reduction in x-ray examinations assigned. For three sites (discussed below), the consistency was unclear so those three sites were added to the population of claims to review for this PER.

Albuquerque Operations Office (AOO)

AOO was included in Table 3-2 of revision 1 to OTIB-79. This indicates x-rays should be assigned in all years. It was not clear if x-rays were consistently applied for AOO

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employment prior to revision 1. Therefore, all claims completed prior to revision 1 are included in this PER.

Amchitka

Prior to revision 0 of OTIB-79, x-rays were assigned for Amchitka employment as a default. Revision 0 did not mention Amchitka but it was decided on 3/20/2013 that there was no indication of any x-ray equipment at Amchitka so x-ray doses were excluded after that date. After that time, information was found indicating there was x-ray equipment at Amchitka and that information was included in revision 1 of OTIB. Therefore, Amchitka claims completed between 3/19/2013 and revision 1 of OTIB-79 will be included in this PER.

Clinton engineering Works (CEW)

CEW was added to revision 1 of OTIB-79 indicating x-rays should be assigned every year. Prior to that, assignment of x-rays may have been inconsistently applied as being from any one of the Oak Ridge sites. Therefore, all CEW claims completed prior to revision 1 of OTIB-79 will be reviewed as part of this PER.

3.0 Plan for Resolving Corrective Action

A search of the NIOSH Claims Tracking System (NOCTS) database identified 915 claims meeting one of the criteria above. Of those, 255 had a probability of causation (POC) of greater than 50% and were removed from further evaluation. An additional 34 claims were removed because they had a status of “pulled” in NOCTS, meaning they have been pulled from the dose reconstruction process (primarily due to inclusion in a special exposure cohort (SEC)). Lastly, 63 claims were removed from consideration due to being eligible for an SEC without any additional medical benefits.

Of the remaining 563 claims, 11 were returned to NIOSH from the Department of Labor for a rework before they could be evaluated under this PER. For those claims, a new dose reconstruction would be completed using all current methods so no evaluation under this PER was necessary. Those claims were therefore removed from further evaluation.

The remaining 552 claims were evaluated to determine if any change to the estimated dose was necessary based on the revisions to OTIB-79 as well as all other applicable procedures. 542 resulted in either no change or a new POC below 45%. Two claims resulted in a new POC that was greater than 52% while eight claims resulted in a new POC that fell between 45% and 52%. For those eight claims, IREP was run 30 times at

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10,000 iterations per NIOSH procedures. The resulting POC remained below 50% for seven of the claims while one resulted in a POC greater than 50%.

NIOSH will provide the Department of Labor with the list of all the claims evaluated under this PER. Further, NIOSH will request the return of the 3 claims that would now result in a probability of causation greater than 50%.