



Summary of Five Approved Document Reviews by the Subcommittee for Procedure Reviews

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Health, Subcommittee for Procedure Reviews
December 8, 2021



SCP R-approved documents

- ◆ **ORAUT-PROC-0022**, rev. 00, “Supplemental Requests for DOE Information”
- ◆ **DCAS-PER-081**, rev. 0, “Hooker Electrochemical”
- ◆ **ORAUT-OTIB-0025**, rev. 00, “Estimation of Radium-226 Activity in the Body from Breath Radon-222 Measurements”
- ◆ **ORAUT-OTIB-0032**, rev. 00 PC-1, “External Coworker Dosimetry Data for the Savannah River Site”
- ◆ **ORAUT-OTIB-0033**, rev. 00, “Application of Internal Doses Based on Claimant-Favorable Assumptions for Processing as Best Estimates”

ORAUT-PROC-0022, rev. 00

- ◆ Title: “Supplemental Requests for DOE Information”
- ◆ Procedure outlines method for requesting supplemental information about an energy employee from U.S. Department of Energy (DOE) sites
- ◆ Revision 00 issued March 15, 2005
- ◆ Revision 01 issued August 24, 2017

Issue resolution for PROC-0022, rev. 00, finding 1

Finding date	Finding description	NIOSH response	Finding resolution
6/8/2006	Title and PROC number for Privacy Act procedure needs to be correct and consistent.	8/24/2007. Procedure being revised. In the revision, the Privacy Act reference (ORAUT-PROC-0079, “Protecting Personally Identifying Information (PII)”) will be fixed so that it is correct and consistent throughout the document. 10/31/2017. NIOSH published rev. 01 on 8/24/2017. References were corrected throughout the procedure.	11/20/2017. SCPR agreed to close finding.

Issue resolution for PROC-0022, rev. 00, finding 2

Finding date	Finding description	NIOSH response	Finding resolution
6/8/2006	Procedure states that information should be requested from task 2, task 4, and task 5 and assumes that the reader is familiar with each task without providing the task function or description.	8/24/2007. Procedure is being revised. In the revision, references to various ORAUT tasks will be removed. 10/31/2017. NIOSH published rev. 01 on 8/24/2017. All references to specific ORAUT tasks were removed, as NIOSH and ORAUT can identify claims that need additional information and ask for supplemental request letters.	11/20/2017. SCPR agreed to close finding.

DCAS-PER-081, rev. 0

- ◆ Title: “Hooker Electrochemical”
- ◆ Determines effect of rev. 03 to DCAS-TKBS-0009, the Hooker Electrochemical technical basis document (TBD)
 - Updated uranium production rate increased external dose during operational years
 - Updated production rate increased modeled residual contamination levels, resulting in increased internal and external during residual period
- ◆ Hooker Electrochemical TBD, rev. 03, reviewed separately
- ◆ This review performed under SC&A’s subtask 4 protocols (case reviews)

Issue resolution for PER-081, rev. 0, subtask 4 observation 1

Observation date	Observation description	NIOSH response	Observation resolution
10/9/2018	In the original and reworked DR, NIOSH used the exposure skin dose conversion factors (DCFs) from OCAS-IG-001, rev. 3, instead of the ORAUT-OTIB-0017 skin DCF of 1.000.	2/13/2019. During SCPR meeting, NIOSH explained that as Hooker external doses are based on MNCP modeled calculations, IG-001 DCFs are used. If doses were based on film badge data, it is unclear whether the dose is from beta or some low-energy photon. Therefore, the favorable approach is to apply OTIB-0017 DCFs.	02/13/2019. NIOSH's explanation clarified SC&A's concern, and the SCPR closed the observation.

Issue resolution for PER-081, rev. 0, subtask 4 observation 2

Observation date	Observation description	NIOSH response	Observation resolution
10/9/2018	Reworked internal dose assignment increased for the lymphatic tissue (as expected) but decreased slightly for the skin cancer sites.	2/13/2019. During SCPR meeting, NIOSH explained that the original DR was performed using overestimating assumptions and assessed lymphatic internal dose from type S solubility and skin dose using type M. The rework used best estimate protocols and used type S for all cancers.	2/13/2019. SC&A agreed with NIOSH's explanation, and the SCPR closed the observation.

ORAUT-OTIB-0025, rev. 00

- ◆ Title: “Estimation of Radium-226 Activity in the Body from Breath Radon Measurements”
- ◆ Provides technical basis for converting radon breath analysis results to radium whole body activity
- ◆ Ra-226 body content estimated using following relationship:
 - Breathing rate of subject multiplied by concentration of radon in breath sample
 - Divided by release fraction for radon multiplied by decay constant for radon

Issue resolution for OTIB-0025, rev. 00, finding 1

Finding date	Finding description	NIOSH response	Finding resolution
6/8/2006	The higher the breathing rate, the lower the radon concentration in exhaled air. If breathing rate is unknown, it is favorable to assume a lower breathing rate, which will result in higher Ra-226 body burden.	The default ICRP 66 breathing rate of 20 liters/min is used for all intake assessments. NIOSH explained that this represents a resting breathing rate, which is appropriate for measuring workers in a laboratory setting. This rate is also considered claimant favorable (pp. 109–121 of 12/11/2007 meeting transcript).	12/11/2007. Finding was closed by SCPR unless SC&A provided additional comments by next SCPR meeting. At the 1/7/2008 SCPR, SC&A stated they had no additional comments.

ORAUT-OTIB-0032, rev. 00 PC-1

- ◆ Title: “External Coworker Dosimetry Data for the Savannah River Site”
- ◆ Provides guidance for assigning doses to SRS workers who have no or limited monitored data.
- ◆ Assigned doses are based on co-exposure data.

Issue resolution for OTIB-0032, rev. 00, finding 1

Finding date	Finding description	NIOSH response	Finding resolution
10/29/2007	Document lacks clarity and often refers to methods described in other documents (e.g., OTIB-0020; OTIB-0052). Also, NIOSH does not address how they meet SC&A's procedure review objective 1.3 in Table 3.11-1.	1/20/2009. OTIB was written to complement other documents. OTIB-0020 and many other OTIBs are referenced because they describe various aspects of the DR process. DR staff is trained to make use of this hierarchy of documents to complete DR claims.	6/9/2009. SCPR meeting discussed these issues at length (pp. 126–163 of transcript). SCPR closed finding on the condition that SC&A would review their procedure review protocol and change review objective 1.3.

Issue resolution for OTIB-0032, rev. 00, finding 2

Finding date	Finding description	NIOSH response	Finding resolution
10/29/2007	Document does not give specific guidance on how to use coworker external dosimetry data, so unclear if document is favorable or unfavorable to claimant. NIOSH also does not address how they meet SC&A's procedure review objective 1.5 in Table 3.11-1.	Response to OTIB-0032 finding 1 would also apply here. OTIB-0020 would be a prime reference when considering the proper application of coworker dose. In addition, OCAS-IG-001 and PROC-0006 give direction on this topic.	6/9/2009. Discussed at 6/9/2009 SCPR meeting (pp. 164–196 of transcript). Finding status “In Progress” until SC&A reviews their procedure review protocol.

Issue resolution for OTIB-0032, rev. 00, findings 1 & 2 followup

- ◆ **5/16/2016.** At this meeting, SC&A indicated:
 - Protocols initially given in SC&A's procedures review guidance document are outdated. SC&A no longer performs reviews based on review objectives.
 - SC&A now evaluates all elements of NIOSH's guidance documents.
- ◆ SCPR closed finding 2 based on explanation. Finding 1 had been closed during the 6/9/2009 SCPR meeting.

ORAUT-OTIB-0033, rev. 00

- ◆ Title: “Application of Internal Doses Based on Claimant-Favorable Assumptions for Processing as Best Estimates”
- ◆ Purpose: “to provide instructions on the application of overestimated internal doses for processing as best estimates” (2005)
- ◆ OTIB is coupled with ORAUT-OTIB-0018, “Internal Dose Overestimates for Facilities with Air Sampling Programs”
- ◆ NIOSH is using OTIB-0033, but not for best estimate DRs

Issue resolution for OTIB-0033, rev. 00, finding 1

Finding date	Finding description	NIOSH response	Finding resolution
6/8/2006	Considerable judgement is required to (1) assign workers to a given exposure category and (2) determine how best to go about using coworker data and performing missed dose calculations.	This is correct. The OTIB was developed to give some guidance in this judgement; the DRs must document their rationale for the selection of categories based on information in the worker's file.	10/31/2018. After lengthy discussions (pp. 40–50 of transcript), SCPR closed finding. Closed because OTIB-0033 is no longer used for compensating, and the OTIB is not extensively used. OTIB title should be changed in future revision.

References

Advisory Board on Radiation and Worker Health. (2007). *Working Group Advisory Board on Radiation and Worker Health Procedures Review* [Transcript of meeting December 11, 2007].

<https://www.cdc.gov/niosh/ocas/pdfs/abrwh/wgtr121107.pdf>

Advisory Board on Radiation and Worker Health. (2009). *Subcommittee on Procedures Review Tuesday, June 9, 2009* [Transcript].

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Advisory Board on Radiation and Worker Health. (2018). *Subcommittee for Procedure Review Wednesday, October 31, 2018* [Transcript of teleconference meeting].

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Questions?