



Sites with Unreviewed DR Methodology Templates and Reports

Meeting of the Subcommittee for Procedure Reviews

January 28, 2026

The National Institute for Occupational Safety and Health’s (NIOSH’s) development of a dose reconstruction (DR) methodology for many smaller sites under the Energy Employees Occupational Illness Compensation Program Act did not consist of the standard technical basis document (TBD) or site profile approach. In lieu of a TBD, NIOSH has developed for these sites a DR methodology guideline document and a DR template that contain facility-specific data, assumptions, and list of documents that provide the basis for the facility-specific data and assumptions. The Subcommittee for Procedure Reviews (SPR) has been provided separately an example of these documents from the Peek Street Facility, which have been reviewed by SC&A.

At the request of the SPR, NIOSH provided SC&A on July 7, 2022, with the list of facilities where DRs are completed using the DR methodology guidance and template. Table 1 lists the sites, current and previous versions of the templates, and current review status.

Table 1. List of DR templates for sites with no TBD or site profile

Site	Latest version number: date	Previous version dates ^(a)	Comments
Albany Research Center	4: 10/3/19	5/21/18, 8/24/11, 11/16/10, 7/1/09	Not reviewed
Albuquerque Operations Office	5: 5/3/22	9/23/20, 5/21/18, 8/25/11, 11/16/10, 12/14/09	Review submitted to SPR 10/25/2023. Five additional cases provided by NIOSH for review 12/30/2024. SC&A has requested one additional replacement case.
Amchitka Island Nuclear Explosion Site	32: 11/18/21	10/13/21, 8/31/20, 10/3/19, 7/17/19, 6/24/16, 5/25/16, 2/11/15, 10/28/14, 8/11/14, 10/30/13, 10/29/13, 10/10/12, 5/26/11, 2/17/11, 11/2/10, 3/4/10, 8/17/09, 3/7/09, 2/25/09, 2/20/09	Review submitted to SPR 12/18/2023. Ten additional cases provided by NIOSH for review 12/30/2024. SC&A submitted review of 10 cases 9/10/2025. Case reviews not presented to SPR yet.

DISCLAIMER: This is a working document provided by the Centers for Disease Control and Prevention (CDC) technical support contractor, SC&A for use in discussions with the National Institute for Occupational Safety and Health (NIOSH) and the Advisory Board on Radiation and Worker Health (ABRWH), including its Working Groups or Subcommittees. Documents produced by SC&A, such as memorandum, white paper, draft or working documents are not final NIOSH or ABRWH products or positions, unless specifically marked as such. This document prepared by SC&A represents its preliminary evaluation on technical issues.

NOTICE: This document has been reviewed to identify and redact any information that is protected by the [Privacy Act 5 U.S.C. § 552a](#) and has been cleared for distribution.

Site	Latest version number: date	Previous version dates (a)	Comments
BWX Technologies (b)	16: 8/31/2020	11/21/19, 6/18/19, 1/23/18, 8/3/17, 5/27/16, 7/21/14, 5/20/14, 7/19/12, 5/17/12, 5/4/12, 9/1/11, 4/14/11, 2/1/11, 1/21/11, 1/19/11, 1/5/11	Not reviewed Modified under DCAS-PER-056, September 12, 2014. SPR determined PER review not necessary.
Clinton Engineer Works	8: 7/29/21	7/2/21, 8/31/20, 10/23/19, 10/3/19, 11/16/18, 11/22/17, 12/13/12, 4/17/12	Not reviewed
General Electric Ohio (b)	7: 10/2/19	8/5/19, 11/22/17, 7/11/16, 11/5/13, 3/2/12, 2/21/12, 9/5/11, 8/4/11, 7/28/11, 7/26/11, 7/25/11	Not reviewed
General Electric Vallecitos	9: 8/28/20	6/30/20, 10/3/19, 5/21/18, 7/25/17, 1/9/14, 9/28/11, 9/6/11, 10/16/10, 2/2/10	Tasked for review 7/28/2025. Requested templates and 8 cases from NIOSH 8/26/2025.
Horizon	2: 11/2/2010	4/29/09	Not reviewed
International Rare Metals	3: 5/21/18	11/8/11, 11/16/10, 4/29/09	Not reviewed
Kirtland Operations Office	4: 10/3/19	5/21/18, 11/14/11, 11/16/10, 1/4/10	Not reviewed
Lake Ontario Ordnance Works	5: 10/3/19	5/21/18, 8/21/12, 8/30/11, 11/16/10, 11/6/09	Not reviewed
Latty Ave. Properties	3: 5/21/18	11/13/11, 11/16/10, 4/29/09	Not reviewed
Lovelace Respiratory Research Institute	5: 8/28/20	10/3/19, 5/21/18, 11/13/11, 11/16/10, 2/17/10	Not reviewed
Medina Modification Center	2: 10/1/19	10/12/18	Not reviewed Modified under OCAS-PER-027, October 30, 2007. SPR determined PER review not necessary
Metallurgical Lab	4: 10/4/2019	5/21/18, 8/30/11, 11/16/10, 12/14/09, 7/20/09	Not reviewed Modified under DCAS-PER-044, May 16, 2013. SPR determined PER review not necessary
Metals & Controls (b)	19: 10/2/19	7/17/18, 7/13/17, 7/19/16, 7/21/15, 2/18/15, 10/28/14, 9/8/14, 8/5/14, 5/20/14, 9/5/13, 2/21/12, 6/3/11, 5/10/11, 4/27/11, 4/19/11, 4/12/11, 4/11/11, 4/7/11, 4/4/11	SC&A has reviewed the SEC ER.
Middlesex	3: 5/21/18	11/13/11, 11/16/10, 4/29/09	Not reviewed
New Brunswick	4: 11/4/20	5/21/18, 2/21/12, 11/13/11, 11/16/10, 4/29/09	Not reviewed

Site	Latest version number: date	Previous version dates ^(a)	Comments
Norton	11: 8/31/20	12/2/19, 11/6/19, 10/4/19, 5/21/18, 11/14/11, 10/18/11, 5/12/11, 11/23/10, 11/19/10, 11/7/10, 11/16/10, 10/7/10, 11/13/09	Reviewed under DCAS-PER-059
Office of Scientific and Technical Information	4: 5/5/22	5/21/18, 8/25/11, 11/16/10, 11/19/09	Not reviewed
Peek Street Facility	4: 12/7/20	5/21/18, 11/16/11, 11/16/10, 6/28/10, 2/2/10	Reviewed. Findings in progress.
Salmon Nuclear	NA (just notes)	NA	Not reviewed
South Albuquerque Works	1: 5/5/22	NA	Not reviewed
Spencer Chemical	7: 8/26/20	10/4/19, 5/21/18, 1/16/12, 8/12/11, 11/16/10, 3/4/10, 3/7/09, 2/20/09	Not reviewed
Vitro NJ	4: 10/4/19	5/21/18, 11/16/11, 11/16/10, 4/29/09	Not reviewed
Vitro PA	4: 8/31/20	10/4/19, 5/21/18, 1/16/12, 5/13/11	Not reviewed
Vitro TN	3: 5/21/18	1/16/21, 11/16/10, 4/29/09	Not reviewed
W.R. Grace-MD	4: 10/4/19	5/21/18, 8/7/14, 2/22/12, 10/10/11	Not reviewed
Wah Chang ^(b)	11: 10/4/19	4/16/18, 7/17/17, 7/19/12, 5/7/12, 1/16/12, 10/25/11, 10/14/11, 10/7/11, 11/16/10, 2/17/10	Not reviewed Modified under DCAS-PER-048, September 27, 2013. SPR determined PER review not necessary.
Westinghouse Atomic Power Development Plant	7:10/4/19	12/18/18, 5/21/18, 2/23/12, 8/16/11, 11/16/10, 3/4/10, 2/11/10, 11/19/09	Not reviewed
Westinghouse Electric Corp-NJ	4: 10/4/19	4/7/17, 9/25/12	Not reviewed
Westinghouse Nuclear Fuels Division	13: 8/31/20	10/4/19, 5/21/18, 10/25/16, 4/29/15, 5/20/14, 2/21/14, 1/21/14, 2/19/13, 11/1/12, 8/31/11, 11/16/10, 7/6/10, 10/19/09, 10/15/09, 9/21/09, 8/25/09	Reviewed under DCAS-PER-052
Winchester	4: 10/4/19	5/21/18, 1/16/12, 11/16/10, 4/29/09	Not reviewed

(a) The number of revisions to the DR Template over the years is not an indication that there were revisions to the DR methodology. Revisions to templates are common to update tool integration and references.

(b) Technical basis document/site profile is being developed.

Note: ER is evaluation report; NA is not applicable; PER is program evaluation report; SEC is Special Exposure Cohort.

The SPR will determine which sites will be reviewed by SC&A. SC&A's review will include:

- Assess the DR methodology guidance for completeness of data sources, consistency between DR guidance and data sources, technical accuracy of the guidance, and the scientific basis and adequacy of the data.
- Compare the DR methodology document to the DR template for consistency.
- Review representative number of cases adjudicated using the DR methodology guidance and template. The primary focus is to determine (1) if the DR template accurately follows information in the DR methodology document, and (2) if the guidance was accurately applied for these DRs.
- The case reviews will also attempt to evaluate professional judgements used in the DR process and make a summary comparison of those judgements. The professional judgement assessment will be a joint effort of the Dose Reconstruction Review Methods Work Group and the SPR. This collaborative effort and approach to assessing professional judgements was approved by the Advisory Board on Radiation and Worker Health at its December 7, 2023, meeting.

In addition to the DR methodology templates listed in table 1, SC&A has identified several NIOSH-issued reports that have not been tasked for review. Table 2 lists those reports along with a brief summary of the document content.

Table 2. NIOSH-issued reports not tasked for review

Document number	Document title	Document summary
DCAS-PER-082, rev. 0	United Nuclear Corporation	Assesses the effect of revisions to the United Nuclear Corporation TBD (DCAS-TKBS-0008). SC&A has reviewed SEC ER but has not reviewed TBD.
ORAUT-OTIB-0065, rev. 00	Internal Dosimetry Coworker Data for Lawrence Livermore National Laboratory	Describes assignment of LLNL internal doses based on co-exposure bioassay data. SC&A performed focused review of occupational internal dose TBD in 2017. No indication of WG meetings.
ORAUT-OTIB-0072, rev. 00	External Coworker Dosimetry Data for the Sandia National Laboratory [sic] in Albuquerque, New Mexico	Describes assignment of SNL external doses based on co-exposure data. SNL WG met last met in 2022. Previous WG discussions focused on SEC.
ORAUT-TKBS-0033, rev. 02	Chapman Valve Manufacturing Company, Indian Orchard, Massachusetts	Revision 02 includes significant updates and constitutes a total rewrite. SC&A reviewed initial exposure matrix and SEC in 2007. WG last met in 2011.
ORAUT-TKBS-0057, rev. 01	Site Profile for the West Valley Demonstration Project	Revision 01 incorporated SEC-00252 and updated limitations on internal dose reconstruction. SC&A has not reviewed TBD or SEC ER.
ORAUT-PROC-0061, rev. 04	Occupational Medical X-Ray Dose Reconstruction	Provides guidance on assigning organ dose from occupational medical exams based on TBD information. SC&A reviewed rev. 00. Revision 04 constitutes a total rewrite of the document.
ORAUT-RPRT-0087, rev. 01	Applications of Regression in Dose Reconstruction	Initial report introduced least square regression and quantile regression as alternative methods for estimating beta dose. (SC&A reviewed rev. 00 in 2024.) Rev. 01 removes ratio-related content to be consistent with ORAUT-RPRT-0106 and incorporates application of quantile regression in IREP.

Note: ER is evaluation report; IREP is Interactive RadioEpidemiological Program; LLNL is Lawrence Livermore National Laboratory; SEC is Special Exposure Cohort; SNL is Sandia National Laboratories; WG is work group.