



## Sites with Unreviewed DR Methodology Templates and Reports

### Meeting of the Subcommittee for Procedure Reviews

November 16, 2023

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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 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 Subcommittee for Procedure Reviews (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 <sup>(a)</sup>	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 tasked February 16, 2023
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 tasked February 16, 2023
BWX Technologies <sup>(b)</sup>	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.

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**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 <sup>(a)</sup>	Comments
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 <sup>(b)</sup>	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	Not reviewed
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 <sup>(b)</sup>	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
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

Site	Latest version number: date	Previous version dates <sup>(a)</sup>	Comments
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 <sup>(b)</sup>	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 = evaluation report; NA = not applicable; PER = program evaluation report; SEC = Special Exposure Cohort.

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**

<b>Document number</b>	<b>Document title</b>	<b>Document summary</b>
DCAS-PER-040, rev. 0 9/10/2013	Mallinckrodt TBD Revisions	PER assesses the effect of issuing TBD revision 03, which may result in increases in internal and external doses at Mallinckrodt and the St. Louis Airport Site. SC&A needs to perform Subtask 4 case reviews.
DCAS-PER-051, rev. 0 3/4/2015	Weldon Spring Plant	PER evaluates the effect of revisions introduced in sections 3 through 6 of the Weldon Spring Plant TBD. These changes increased internal and external doses. SC&A needs to perform Subtask 4 case reviews.
DCAS-PER-067, rev. 0 3/11/2016	Allegheny Ludlum Appendix Q Revision	PER evaluated the effect of revision 01 issued 10/24/2014. Changes increased internal and external doses. SC&A has not reviewed DR guidance for this site. SC&A needs to perform Subtask 4 case reviews.
DCAS-PER-068, rev. 0 4/5/2016	Electro Metallurgical Company	PER assesses the impact of changes introduced in revision 01 to the TBD. External dose estimates for all years increased. WG on Uranium Refining AWEs has not met or discussed this site since 2012.
DCAS-PER-075, rev. 0 12/8/2017	Battelle Memorial Institute TBD Revision	PER issued due to inclusion of environmental internal and external doses, added recycled uranium components, added multiplication factors to assess beta dose, and added reference to OTIB-0076 for assessing thorium intakes.
DCAS-PER-083, rev. 0 1/7/2019	Weldon Spring Plant TBD Revision	PER evaluates the effect of revisions introduced in sections 4 and 5 of the Weldon Spring Plant TBD. These changes increased internal and environmental doses. SC&A needs to perform Subtask 4 case reviews.
ORAUT-OTIB-0036, rev. 00 7/29/2005	Internal Dosimetry Coworker Data for Portsmouth Gaseous Diffusion Plant	Provides guidance for assigning Portsmouth Gaseous Diffusion Plant internal dose based on co-exposure bioassay data.
ORAUT-OTIB-0040, rev. 00 PC-1 11/7/2006	External Coworker Dosimetry Data for the Portsmouth Gaseous Diffusion Plant	Provides guidance for assigning doses to Portsmouth Gaseous Diffusion Plant workers who have no or limited monitoring data based on site co-exposure data.

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Document number	Document title	Document summary
ORAUT-OTIB-0093, rev. 00 10/16/2023	Conversion of Committed Effective Dose to Annual Organ Dose	New document to convert committed effective dose to annual organ dose. This review would require access to the supporting calculations also.

Note: AWE = Atomic Weapons Employer; ER = petition evaluation report; PER = program evaluation report;  
SEC = Special Exposure Cohort; TBD = technical basis document; WG = work group.