



Sites with Unreviewed DR Methodology Templates and Reports

Meeting of the Subcommittee for Procedure Reviews

February 16, 2023

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. To date, SC&A has not been tasked with reviewing this DR methodology for the majority of these sites. 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
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	Not reviewed
Albuquerque Operations Office	5: 5/3/22	9/23/20, 5/21/18, 8/25/11, 11/16/10, 12/14/09	Not reviewed
Albany Research Center	4: 10/3/19	5/21/18, 8/24/11, 11/16/10, 7/1/09	Not reviewed
BWX Technologies	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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Site	Latest version number: date	Previous version dates ^(a)	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	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
Latty Ave. Properties	3: 5/21/18	11/13/11, 11/16/10, 4/29/09	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
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	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 ^(a)	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
Wah Chang	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 Electric Corp-NJ	4: 10/4/19	4/7/17, 9/25/12	Not reviewed
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
Winchester	4: 10/4/19	5/21/18, 1/16/12, 11/16/10, 4/29/09	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
W.R. Grace-MD	4: 10/4/19	5/21/18, 8/7/14, 2/22/12, 10/10/11	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.

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

Document number	Document title	Document summary
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 review of the Mallinckrodt TBD has been limited to revision 01 in 2005.
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.
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.
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-070, rev. 0 4/5/2016	Nuclear Metals Inc.	PER evaluates the impact of a new TBD issued 4/25/2015 for adjudicated DRs, which were previously performed using the SEC ER. SC&A has not evaluated DR guidance for this site.
DCAS-PER-072, rev. 0 7/11/2016	Seymour Specialty Wiring Company	PER assesses the impact of revision 01 to the Seymour Specialty Wiring TBD (Appendix DC of Battelle-TBD-6000). Changes increased ingestion dose in the residual period. SC&A has not reviewed the DR guidance for this site.
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.
ORAUT-RPRT-0060, rev. 00 3/28/2019	Neutron Dose from Highly Enriched Uranium	Report assesses neutron dose from highly enriched uranium at the gaseous diffusion plants and Y-12.

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