SC&A Handout Sites with Unreviewed DR Methodology Templates and Reports Meeting of the Subcommittee for Procedure Reviews September 29, 2022

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, but rather what has been termed a "DR methodology template." At the request of the Subcommittee for Procedure Reviews (SCPR), NIOSH provided SC&A with this list on July 7, 2022. 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.

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. SCPR 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	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

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

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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. SCPR 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. SCPR 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
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

Site	Latest version number: date	Previous version dates ^(a)	Comments
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. SCPR 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.

Document number	Document title	Document summary	
ORAUT-RPRT-0071	External Dose Coworker Methodology	This document describes the multiple imputation for external coworker models. This method will replace the current practice of substituting <lod readings with LOD/2.</lod 	
ORAUT-RPRT-0084	Two-Count Filter Method for Measurement of Thoron Progeny in Air	New document describing the two- count filter method to be used for measuring thoron progeny in air.	
ORAUT-RPRT-0085	Probability of Causation Evaluation of ICRP 116 Anterior- Posterior, Isotropic, and Rotational Geometries	New document for evaluating probability of causation using ICRP 116 anterior-posterior, isotropic, and rotational geometries.	
ORAUT-RPRT-0087	Applications of Regression in External Dose Reconstruction	New document to introduce least squares regression and quantile regression as alternative methods for estimating beta dose based on gamma dose for workers whose dosimeters were relatively insensitive to beta radiation.	
ORAUT-RPRT-0089	Evaluation of Issues in the Use of General Area Air Sampling for Argonne National Laboratory- West Internal Dose Assessment	New document to evaluate issues raised about using general area air sampling for internal dose assessment at Argonne National Laboratory-West.	

Note: ICRP = International Commission on Radiological Protection; LOD = limit of detection.