

Radiation Exposure Monitoring System (REMS) Data Elements

Data Element	Size	Instructions																														
Monitoring Year	4	Enter the year for which the monitoring results are being submitted. The monitoring year, as defined in 10 CFR 835.2 may differ slightly from the calendar year due to dosimetry processing schedules.																														
Organization Code	7	7-digit organization code, available from the repository. Whenever possible, the appropriate CAIRS organization code should be used. See Appendix E (2).																														
Facility Code	15	The code representing the facility where the dose was received for the personnel exposure records. Organizations may determine the Facility Code using printable ASCII characters of 15 characters or less. The Facility Code assigned should remain consistent from year to year.																														
Facility Type Code	2	<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Facility Type Description</th> </tr> </thead> <tbody> <tr><td>10</td><td>Accelerator</td></tr> <tr><td>21</td><td>Fuel/Uranium Enrichment</td></tr> <tr><td>22</td><td>Fuel Fabrication</td></tr> <tr><td>23</td><td>Fuel Processing</td></tr> <tr><td>40</td><td>Maintenance and Support (site-wide)</td></tr> <tr><td>50</td><td>Reactor</td></tr> <tr><td>61</td><td>Research, General</td></tr> <tr><td>62</td><td>Research, Fusion</td></tr> <tr><td>70</td><td>Waste Processing/Management</td></tr> <tr><td>80</td><td>Weapons Fabrication and Testing</td></tr> <tr><td>99</td><td>Other</td></tr> </tbody> </table>	Code	Facility Type Description	10	Accelerator	21	Fuel/Uranium Enrichment	22	Fuel Fabrication	23	Fuel Processing	40	Maintenance and Support (site-wide)	50	Reactor	61	Research, General	62	Research, Fusion	70	Waste Processing/Management	80	Weapons Fabrication and Testing	99	Other						
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First Name	30	Legal first name or initial																														
Middle Name	20	Middle name or initial																														
Last Name	30	Last name including title																														
Birth Date	8	Date of birth of individual (YYYYMMDD)																														
Sex	1	Sex of the monitored individuals																														
Occupation Code	3	See Occupation Codes, Tables G-7																														
Monitoring Status	1	E - General Employee, employee of the reporting organization, visiting researcher, or student P - Member of the Public, including visiting dignitaries G - Special Individuals as defined in Chapter III, paragraph 1b(1)																														
Exposure Type	1	R - Routine P - PSE, Planned Special Exposure																														

		E - Emergency, exposure that occurred during an emergency when emergency dose limits and procedures were in effect
Monitoring Start Date	8	Date monitoring began for the reporting year (YYYYMMDD)
Monitoring End Date	8	Date monitoring ended for the reporting year (YYYYMMDD)
Deep Dose Equivalent (DDE)	7	The effective dose equivalent to the whole body, nominally at 1.0 cm depth from external radiation sources, including neutron radiation in millirem. DDE monitoring should be conducted in accordance with the guidance provided in DOE G 441.1-4, External Dosimetry Program Guide for Use with Title 10, CFR, Part 835, Occupational Radiation Protection, dated 3-17-99. If monitoring is not provided, the field should be blank (padded with spaces). Enter NM as associated measurement code.
DDE Measurement Code	2	Measurement code for the DDE value. See Measurement Codes. Code Meaning MV Measured Value PV Preliminary Value CV Calculated Value NM Not Monitored ND Not Detectable
Deep Dose Equivalent from Neutron (DDE-neutron)	7	The effective dose equivalent to the whole body, nominally at 1.0 cm depth from neutron radiation in millirem. DDE-neutron monitoring should be conducted in accordance with the guidance provided in DOE G 441.1-4. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
DDE Neutron Measurement Code	2	Measurement code for the DDE neutron value. See Measurement Codes.
Dose to the Lens of the Eye (LDE)	7	Dose equivalent to the lens of the eye at a tissue depth of 0.3 cm in millirem, including the deep dose from neutron radiation in millirem. LDE monitoring should be conducted in accordance with the guidance provided in DOE G441.1-4. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
LDE Measurement Code	2	Measurement code for the LDE value. See Measurement Codes.
Shallow Dose Equivalent to the skin of the Whole Body (SDE-WB)	7	Dose equivalent from external radiation at a depth of 0.007 cm to the skin of the whole body, including the deep dose from neutron radiation in millirem. SDE-WB monitoring should be conducted in accordance with the guidance provided in DOE G 441.1-4. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
SDE-WB Measurement Code	2	Measurement code for the SDE-WB value. See Measurement Codes.
Shallow Dose Equivalent, Upper Right Extremity (SDE-UR)	7	Dose equivalent from external radiation at a depth of 0.007 cm to the upper right extremity (e.g., right hand), including the deep dose from neutron radiation in millirem. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
SDE-UR Measurement Code	2	Measurement code for the SDE-UR value. See Measurement Codes.
Shallow Dose Equivalent, Upper Left Extremity (SDE-UL)	7	Dose equivalent from external radiation at a depth of 0.007 cm to the upper left extremity (e.g., left hand), including the deep dose from neutron radiation in millirem. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
SDE-UL Measurement Code	2	Measurement code for the SDE-UL value. See Measurement Codes.
Shallow Dose Equivalent, Lower Right Extremity (SDE-LR)	7	Dose equivalent from external radiation at a depth of 0.007 cm to the lower right extremity (i.e., right foot, ankle, or lower leg), including the deep dose from neutron radiation in millirem. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
SDE-LR Measurement Code	2	Measurement code for the SDE-LR value. See Measurement Codes.

Shallow Dose Equivalent, Lower Left Extremity (SDE-LL)	7	Dose equivalent from external radiation at a depth of 0.007 cm to the lower left extremity (i.e., left foot, ankle, or lower leg), including the deep dose from neutron radiation in millirem. If monitoring is not provided, the field should be blank (padded with spaces) and 'NM' should be entered as the associated measurement code.
SDE-LL Measurement Code	2	Measurement code for the SDE-LL value. See Measurement Codes.
Committed Effective Dose Equivalent (CEDE)	7	The 50-year CEDE from intakes during the monitoring period in millirem.
CEDE Measurement Code	2	Measurement code for the CEDE value. See Measurement Codes
Radionuclide 1	7	The scientific abbreviation of the radionuclide taken into the body that contributed to the internal dose. Use the standard scientific format of "Xx999x", where "X" represents an alphanumeric and "9" represents a numeric character. List only the six highest contributors among the following fields. Enter only one radionuclide per field. Do not include daughter products. When possible, list the radionuclides in descending order of their contribution to the internal dose.
Radionuclide 2	7	The scientific abbreviation of the second radionuclide taken into the body.
Radionuclide 3	7	The scientific abbreviation of the third radionuclide taken into the body.
Radionuclide 4	7	The scientific abbreviation of the fourth radionuclide taken into the body.
Radionuclide 5	7	The scientific abbreviation of the fifth radionuclide taken into the body.
Radionuclide 6	7	The scientific abbreviation of the sixth radionuclide taken into the body.
Committed Dose Equivalent (CDE) to the gonads	7	The 50-year Committed Dose Equivalent to the gonads from the intake of the radionuclides for this monitoring period, in millirem.
Committed Dose Equivalent (CDE) to the breasts	7	The 50-year Committed Dose Equivalent to the breasts from the intake of the radionuclides for this monitoring period, in millirem.
Committed Dose Equivalent (CDE) to the red bone marrow	7	The 50-year Committed Dose Equivalent to the red bone marrow from the intake of the radionuclides for this monitoring period, in millirem.
Committed Dose Equivalent (CDE) to the lungs	7	The 50-year Committed Dose Equivalent to the lungs from the intake of the radionuclides for this monitoring period, in millirem.
Committed Dose Equivalent (CDE) to the thyroid	7	The 50-year Committed Dose Equivalent to the thyroid from the intake of the radionuclides for this monitoring period, in millirem.
Committed Dose Equivalent (CDE) to the bone surface	7	The 50-year Committed Dose Equivalent to the bone surface from the intake of the radionuclides for this monitoring period, in millirem.
Committed Dose Equivalent (CDE) to the remainder	7	The 50-year Committed Dose Equivalent to the remainder from the intake of the radionuclides for this monitoring period, in millirem.
Total Effective Dose Equivalent, (TEDE)	7	The sum of the Deep Dose Equivalent (DDE) and the Committed Effective Dose Equivalent (CEDE) in millirem.
Dose Equivalent to the Embryo/Fetus	7	Dose Equivalent to the embryo/ fetus during the pregnancy from conception to the end of the pregnancy, in millirem. Dose determination should be made in accordance with DOE G 441.1-6, Evaluation and Control of Radiation Dose to the Embryo/Fetus Guide for Use with Title 10, Code of Federal Regulations, Part 835, Occupational Radiation Protection, dated 4-29-99.
Comment Text	150	Text of the comment applicable to the dose record in the data file. Comments should be limited to information needed to assess the record, such as references to additional documentation concerning the record. If no comments are necessary, the record may be terminated with a carriage return and line feed at column 346 with one space entered for the comment.
BIOASSAY SUMMARY		
Total	5	Total number of individuals monitored in the bioassay program or in vivo monitoring during the year.
Routine	5	Number of routine bioassay performed during the year.
Special	5	Number of special bioassay or in vivo measurements

		performed during the year.
Urinalysis	5	Number of urine samples analyzed during the year.
Fecal	5	Number of fecal samples analyzed during the year.
In Vivo	5	Number of in vivo measurements performed excluding wound counts during the year.
Wound	5	Number of in vivo measurements performed on wounds during the year.
Other	5	Number of other measurements performed in order to determine internal dose for an individual during the year (e.g., air sampling or other method).
INTAKE SUMMARY		
Radionuclide	7	The scientific abbreviation of the radionuclide taken into the body. Use the standard scientific format of "Xx999x", where "X" represents an alphanumeric and "9" represents a numeric character. Enter only one radionuclide per record. Do not include daughter products or radionuclides that did not result in internal doses during the monitoring year.
Mode	1	Mode of the intake. H = Inhalation (record tritiated water intakes as inhalations.) G = Ingestion A = Absorption W = Wound, cut, puncture, injection or any other intake through broken skin. A separate record for each mode and radionuclide should be reported.
Collective CEDE	7	The collective 50-years CEDE from intakes of this radionuclide and intake mode during the monitoring year, in millirem.