

U.S. Department of Health and Human Services Designation
of Additional Members of the Special Exposure Cohort
under the
Energy Employees Occupational Illness Compensation Program Act of 2000

Designating a Class of Employees

Grand Junction Facilities Site

Grand Junction, Colorado



I. Designation

I, Sylvia M. Burwell, Secretary of the U.S. Department of Health and Human Services (HHS), designate the class of employees defined in Section II of this report for addition to the Special Exposure Cohort (SEC), as authorized under the Energy Employees Occupational Illness Compensation Program Act of 2000 (EEOICPA), 42 U.S.C. § 7384q.

May 20, 2015
Date

[Signature on File]
Sylvia M. Burwell

II. Employee Class Definition

All employees of the Department of Energy, its predecessor agencies, and its contractors and subcontractors who worked at the Grand Junction Facilities site in Grand Junction, Colorado, during the period from February 1, 1975, through December 31, 1985, for a number of work days aggregating at least 250 work days, occurring either solely under this employment or in combination with work days within the parameters established for one or more other classes of employees in the Special Exposure Cohort.

III. Designation Criteria and Recommendations

Pursuant to 42 U.S.C. § 7384q, for the class defined in Section II of this report, the Secretary has determined, and the Advisory Board on Radiation and Worker Health (Board) has recommended, that

- (1) it is not feasible to estimate with sufficient accuracy the radiation dose that the class received; and
- (2) there is a reasonable likelihood that such radiation dose may have endangered the health of members of the class.

The SEC final rule states in 42 C.F.R. § 83.13(c)(1) that it is feasible in two situations to estimate the radiation dose that the class received with sufficient accuracy. First, the rule states that radiation doses may be estimated with sufficient accuracy if the National Institute for Occupational Safety and Health (NIOSH) has established that it has access to sufficient information to estimate the maximum radiation dose, for every type of cancer for which radiation doses are reconstructed, that could have been incurred under plausible circumstances by any member of the class. Alternatively, radiation doses may be estimated with sufficient accuracy if NIOSH has established that it has access to sufficient information to estimate the radiation doses of members of the class more precisely than a maximum dose estimate.

NIOSH determined that there is insufficient information to estimate the radiation dose of individual members of the class with sufficient accuracy under the two abovementioned

situations. The Board, pursuant to 42 U.S.C. § 7384q, advised the Secretary to designate the class as an addition to the SEC in a letter received by the Secretary on April 24, 2015.

IV. Designation Findings

Infeasibility of Estimating Radiation Doses with Sufficient Accuracy

The Secretary designates the class of employees covered by this report based upon the findings summarized below.

- The principal sources of internal radiation exposures after January 31, 1975, included potential inhalation and ingestion of natural uranium and thorium and their associated progeny, resulting from ore crushing, grinding, and handling operations in the Sample Preparation Laboratory.
- NIOSH has concluded that there are insufficient internal dosimetry data or air monitoring data available to estimate uranium or thorium intakes prior to 1986. Beginning in the first quarter of 1986, air monitoring data are available, which are sufficient to bound intakes of uranium and thorium until the site internal dosimetry program was fully implemented by 1991.
- Based on the lack of internal dose monitoring data or air monitoring data for Grand Junction Facilities workers during the period from February 1, 1975, through December 31, 1985, NIOSH has determined that reconstruction of internal dose with sufficient accuracy is not feasible. However, NIOSH has identified sufficient information and data to support bounding internal dose estimates for the period from January 1, 1986, through July 31, 2010, using available air monitoring and bioassay data.
- NIOSH finds that it is likely feasible to reconstruct internal dose from radon gas and its progeny for the Grand Junction Facilities workers with sufficient accuracy from February 1, 1975, through July 31, 2010.
- Using a combination of the worker exposures that were reported to the Atomic Energy Commission and the U.S. Department of Energy in the form of annual reports, and the more than 15,000 external dosimetry monitoring results that were located after the original SEC-00175 evaluation report was issued, NIOSH has sufficient information to reconstruct external dose with sufficient accuracy for the period from February 1, 1975, through July 31, 2010.
- NIOSH finds that it is likely feasible to reconstruct occupational medical dose for Grand Junction Facilities workers with sufficient accuracy from February 1, 1975, through July 31, 2010, by using the *Technical Information Bulletin, Dose Reconstruction from Occupational Medical X-Ray Procedures* (ORAUT-OTIB-0006).
- Although NIOSH found that it is not possible to reconstruct internal radiation doses for the proposed class, NIOSH intends to use any monitoring data that may become available

for an individual claim (and that can be interpreted using existing NIOSH dose reconstruction processes or procedures). Therefore, dose reconstructions for individuals employed at Grand Junction Facilities from February 1, 1975, through December 31, 1985, but who do not qualify for inclusion in the SEC, may be performed using these data as appropriate.

- Therefore, pursuant to 42 C.F.R. § 83.13(c)(1), NIOSH has concluded that there is insufficient information to either: (1) estimate the maximum radiation dose, for every type of cancer for which radiation doses are reconstructed, that could have been incurred under plausible circumstances by any member of the class; or (2) estimate the radiation doses of members of the class more precisely than a maximum dose estimate for the period at Grand Junction Facilities from February 1, 1975 through December 31, 1985.
- The Board concurred with NIOSH's recommendation to add the proposed class of workers to the SEC.

Health Endangerment

The Secretary established the health endangerment determination for the class of employees covered by this report based upon the findings summarized below.

- (1) Pursuant to 42 C.F.R. § 83.13(c)(3), NIOSH established that there is a reasonable likelihood that such radiation doses may have endangered the health of members of the class. Pursuant to 42 C.F.R. § 83.13(c)(3)(ii), NIOSH specified a minimum duration of employment to satisfy this health endangerment criterion as "having been employed for a number of work days aggregating at least 250 work days within the parameters established for this class or in combination with work days within the parameters established for one or more other classes of employees in the Cohort."
- (2) NIOSH did not identify any evidence from the petitioners or from other resources that would establish that the class was exposed to radiation during a discrete incident likely to have involved exceptionally high-level exposures, such as a nuclear criticality incident, as defined under 42 C.F.R. § 83.13(c)(3)(i).
- (3) The Board concurred with NIOSH's finding that the health of the class may have been endangered and defined the class according to the 250-work day requirement specified under 42 C.F.R. § 83.13(c)(3)(ii).

V. Effect and Effective Date of Designation

The Secretary submits this report on the designation of one additional class to the SEC for review by Congress, pursuant to 42 U.S.C. §§ 7384l(14)(C)(ii) and 7384q(c)(2)(A), as amended by the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Pub. L. No. 108-375 (codified as amended in scattered sections of 42 U.S.C.). Pursuant to 42 U.S.C. § 7384l(14)(C)(ii), as amended by the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, Pub. L. No. 108-375 (codified as amended

in scattered sections of 42 U.S.C.), the designation in this report will become effective 30 days after the date of this report's submission to Congress "unless Congress otherwise provides."

VI. Administrative Review of Designation

The health endangerment determination of the designation provided in this report may be subject to an administrative review within HHS, pursuant to 42 C.F.R. § 83.18(a). On the basis of such a review, if the Secretary decides to expand the class of employees covered by this designation, the Secretary would transmit a supplementary report to Congress providing the expanded employee class definition and the criteria and findings on which the decision was based.