HHS 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

Los Alamos National Laboratory
Los Alamos, New Mexico

I. Designation

I, Kathleen Sebelius, Secretary of Health and Human Services (Secretary), 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.

December 7, 2012	[Signature on File]
Date	Kathleen Sebelius

II. Employee Class Definition

All employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors who worked at the Los Alamos National Laboratory (LANL) in Los Alamos, New Mexico from January 1, 1976, through December 31, 1995, 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 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.

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 November 7, 2012.

IV. Designation Findings

Feasibility of Estimating Radiation Doses with Sufficient Accuracy

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

- NIOSH determined that principal sources of internal radiation for members of the proposed class included exposures to plutonium, uranium, tritium, fission and activation products, transuranic radionuclides, nuclear reactors, linear accelerators, radiography equipment, and a wide variety of other radioactive materials.

- NIOSH previously determined in its evaluations of petitions SEC-00051 and SEC-00170 that LANL workers could have received intakes of radioactive materials that went unmonitored during the period from March 15, 1943, through December 31, 1975, and that limitations in the available data did not allow NIOSH to estimate such radiation doses with sufficient accuracy. As a result, in 2010, the Secretary of HHS designated the following class for inclusion in the SEC:

  > *All employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors who worked at the Los Alamos National Laboratory in Los Alamos, New Mexico from March 15, 1943, through December 31, 1975, 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.*

- Through the course of on-going research, NIOSH has been unable to demonstrate that the limitations identified in its SEC-00051 and SEC-00170 evaluations did not persist beyond December 31, 1975. Specifically, NIOSH could not locate sufficient documentation to demonstrate that some radionuclides (e.g., certain alpha-emitters and fission and activation products) were monitored in a manner equivalent to the monitoring programs established for other well-monitored nuclides (e.g., plutonium and uranium).

- The Board concurred with NIOSH's finding that it was not feasible to reconstruct with sufficient accuracy internal doses for the years 1976–1995 based on NIOSH's inability to bound unmonitored exposures to exotic alpha emitters, fission products, and activation products. The Board has not yet reached a conclusion about the feasibility of dose reconstruction for the post-1995 period.

- NIOSH determined that the principal sources of external radiation for members of the proposed class included exposures to beta, photon (X-ray and gamma), and neutron radiation associated with: nuclear weapon development; reactor and accelerator activities; radiation-producing devices; or radioactive waste facilities or handling operations. For some workers, neutron radiation accounted for a large fraction of the occupational external radiation dose. The principal sources

of neutron dose over the time period under evaluation were accelerator and plutonium-handling operations.

- During the evaluated period, NIOSH determined that the majority of LANL workers were monitored for external exposures. Information describing workplace radiation fields at LANL, performance of personnel dosimetry systems in those fields, and the monitoring data produced by LANL's personnel dosimetry program have been reviewed as they pertain to bounding of radiation dose from external sources of photon, beta, and neutron radiation for members of the proposed class. Information describing doses from ambient sources of radiation and from occupational medical X-ray have also been reviewed. NIOSH has determined that the available information is adequate to allow bounding of external radiation doses with sufficient accuracy for the proposed class of LANL workers.

- NIOSH has determined that reconstruction of medical dose is feasible by using claimant-favorable assumptions and the Technical Information Bulletin Dose Reconstruction from Occupational Medical X-Ray Procedures (ORAUT-OTIB-0006).

- Although NIOSH found that it is not possible to completely reconstruct radiation doses for the proposed class, NIOSH intends to use any internal and external 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 LANL during the period from January 1, 1976, through December 31, 1995, but who do not qualify for inclusion in the SEC, may be performed using these data as appropriate.

- Pursuant to 42 C.F.R. § 83.13(c)(1), NIOSH determined 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.

- 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 (excluding aggregate work day requirements) 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. §§ 7384*l*(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. § 7384*l*(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.