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 from

Nuclear Materials and Equipment Corporation (NUMEC)
Apollo, Pennsylvania

I. Designation

I, Michael O. Leavitt, 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.

NOV 2 9 2007

Date

Michael O. Leavitt

II. Employee Class Definition

Atomic Weapons Employer (AWE) employees who were monitored or should have been monitored for exposure to ionizing radiation while working at the Nuclear Materials and Equipment Corporation (NUMEC) in Apollo, Pennsylvania from January 1, 1957, through December 31, 1983, for a number of work days aggregating at least 250 work days 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 October 30, 2007.

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.

(1) Internal monitoring data could not be found prior to 1960, and NIOSH found that the bioassay data from 1976 through 1983 was not suitable for use. NIOSH determined that uranium exposure modeling using back extrapolation of coworker data would be inconclusive without detailed process information; therefore a maximum uranium dose could not be established to bound this class prior to 1960.

(2) There is neither information providing an adequate description of thorium and plutonium operations, nor any monitoring data, process description, or source term data for thorium and plutonium operations. Therefore, individual dose reconstructions can not be completed for these AWE employees, nor can a basis be provided for the work that was done to allow NIOSH to bound the maximum plausible dose.

(3) Potential elevated ambient radiation levels from stack releases at the plant are not well-documented, so the dose from those releases can not be established for the dose reconstruction.

(4) Because information is lacking to adequately characterize the radium-beryllium and polonium-beryllium neutron source fabrication operations, NIOSH has concluded that there is insufficient data to establish an accurate bounding estimate for dose resulting from these operations.

(5) Pursuant to 42 C.F.R. § 83.13(c)(1), NIOSH determined that there is insufficient information either 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, or to estimate the radiation doses of members of the class more precisely than a maximum dose estimate.

(6) All Atomic Weapons Employees who were employed at the Apollo NUMEC facility, regardless of job classification, shall be presumed to have been employed in a job which was or should have been monitored since all NUMEC workers had the potential to receive exposures to onsite releases of radioactive material.

(7) Because of concerns regarding data provided by the NUMEC Apollo contractor, Controls for Environmental Pollution (CEP), from 1976-1983, it is not appropriate in this specific instance for NIOSH to rely on that data in completing dose reconstructions or other EEOICPA related activities. If CEP provided information for any other covered facility or site, a case by case determination will be made based on available information about whether or not to utilize such data.

(8) The Board concurred with the NIOSH evaluation and recommended the proposed class for addition to the SEC.

(9) Although NIOSH found that it is not possible to completely reconstruct radiation doses for these employees, NIOSH determined that it is possible to reconstruct occupational medical dose and components of the internal dose (uranium doses starting from 1960). Therefore, individuals with non-presumptive cancers may be considered for partial dose reconstructions.

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-workday 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.