

**U.S. Department of Energy**  
**Washington, D.C.**

**ORDER**

**DOE O 435.1**

Approved: 7-9-99

Chg 1 (Pg Chg): 8-28-01

Certified: 1-9-07

**SUBJECT: RADIOACTIVE WASTE MANAGEMENT**

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1. OBJECTIVE. The objective of this Order is to ensure that all Department of Energy (DOE) radioactive waste is managed in a manner that is protective of worker and public health and safety, and the environment.
2. CANCELLATION. This Order cancels DOE 5820.2A, RADIOACTIVE WASTE MANAGEMENT, dated 9-26-88. Cancellation of that Order does not, by itself, modify or otherwise affect any contractual obligation to comply with the Order. The provisions of this canceled Order which have been incorporated by reference in a contract shall remain in effect until the contract is modified.
3. APPLICABILITY.
  - a. DOE Elements. This Order applies to all DOE elements including the National Nuclear Security Administration (NNSA), except as stated in item "d."
  - b. Radioactive Waste. Except as stated in item "d," this Order applies to the management of:
    - (1) All high-level waste, transuranic waste, and low-level waste, including the radioactive component of mixed waste, for which DOE is responsible;
    - (2) DOE accelerator-produced radioactive waste; and
    - (3) If managed at DOE low-level waste facilities, byproduct materials as defined by section 11e.(2) of the *Atomic Energy Act of 1954*, as amended, or naturally occurring radioactive materials.
  - c. Contractors. The Contractor Requirements Document, Attachment 1, sets forth requirements to be applied to contractors performing work that involves management of DOE radioactive waste at DOE-owned or leased facilities. Contractor compliance with the Contractor Requirements Document will be required to the extent set forth in a contract.
  - d. Exemptions. This Order does not apply to certain DOE programs, facilities, or activities as described below.
    - (1) This Order does not apply to activities conducted under the authority of the Director, Naval Nuclear Propulsion Program, as described in

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Vertical line denotes change.

**Distribution:**  
All Departmental Elements

**Initiated By:**  
Office of Environmental Management

Department of Energy *National Security and Military Applications of Nuclear Energy Authorization Act of 1985*, Public Law 98-525.

- (2) Requirements in this Order that overlap or duplicate requirements of the Nuclear Regulatory Commission (NRC) related to radiation protection, nuclear safety (including quality assurance), and safeguards and security of nuclear material, do not apply to the design, construction, operation, and decommissioning of Office of Civilian Radioactive Waste Management facilities as defined in DOE O 250.1, *Civilian Radioactive Waste Management Facilities Exemptions from Departmental Orders*.
- (3) Requirements in this Order that duplicate or conflict with requirements of NRC or an Agreement State do not apply to facilities and activities licensed by the NRC or an Agreement State.
- (4) Requirements in this Order that duplicate or conflict with the *Waste Isolation Pilot Plant Land Withdrawal Act of 1992*, as amended, Public Law 102-579, including the U.S. EPA's Possessive Certification of the WIPP pursuant to this Act, do not apply to the operation of the Waste Isolation Pilot Plant or the disposal of waste therein.
- (5) Unless managed in a low-level waste facility, requirements in this Order do not apply to byproduct material as defined in section 11e.(2) of the *Atomic Energy Act of 1954*, as amended, or naturally occurring radioactive material.
- (6) This Order does not apply to either spent nuclear fuel or non-waste materials.
- (7) Upon request or on its own initiative, DOE may grant exemptions from the requirements of this Order in accordance with the process provided by DOE M 251.1-1A, *Directives System Manual*, as applicable.

#### 4. REQUIREMENTS.

- a. DOE radioactive waste management activities shall be systematically planned, documented, executed, and evaluated.
- b. Radioactive waste shall be managed to:
  - (1) Protect the public from exposure to radiation from radioactive materials. Requirements for public radiation protection are in DOE 5400.5, *Radiation Protection of the Public and the Environment*.
  - (2) Protect the environment. Requirements for environmental protection are in DOE 5400.1, *General Environmental Protection Program*, and DOE 5400.5, *Radiation Protection of the Public and the Environment*.

- (3) Protect workers. Requirements for radiation protection of workers are in 10 CFR Part 835, *Occupational Radiation Protection*; requirements for industrial safety are in DOE O 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*.
- (4) Comply with applicable Federal, State, and local laws and regulations. These activities shall also comply with applicable Executive Orders and other DOE directives.
- c. All radioactive waste shall be managed in accordance with the requirements in DOE M 435.1-1, *Radioactive Waste Management Manual*.
- d. DOE, within its authority, may impose such requirements, in addition to those established in this Order, as it deems appropriate and necessary to protect the public, workers, and the environment, or to minimize threats to property.
- 5. RESPONSIBILITIES. All DOE elements as specified in 3.a are responsible for implementing the requirements of this Order. See DOE M 435.1-1, *Radioactive Waste Management Manual*, for specific responsibilities.
- 6. REFERENCES. DOE M 435.1-1, *Radioactive Waste Management Manual* of 7-09-99 and DOE G 435.1-1, *Implementation Guide for DOE M 435.1-1*.
- 7. CONTACT. Questions concerning this Order should be addressed to the Office of Waste Management at (202) 586-0370.

BY ORDER OF THE SECRETARY OF ENERGY:



THOMAS T. TAMURA  
Acting Director of  
Management and Administration

## CONTRACTOR REQUIREMENTS DOCUMENT

1. In the performance of this contract, the contractor is required to:
  - A. Systematically plan, document, execute, and evaluate the management of DOE radioactive waste and assist the government in planning, executing and evaluating the management of DOE radioactive waste in accordance with the requirements of DOE O 435.1, *Radioactive Waste Management*.
  - B. Assist the government in managing DOE radioactive waste so as to:
    - (1) Protect the public from exposure to radiation from radioactive materials.
    - (2) Protect the environment.
    - (3) Protect workers including following requirements for radiation protection.
  - C. Assist DOE in meeting its obligations and responsibilities under Executive Order 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*, and Executive Order 13101, *Greening the Government through Waste Prevention, Recycling, and Federal Acquisition*, and *The Pollution Prevention Act of 1990*.
  - D. Comply with the requirements in DOE M 435.1-1, *Radioactive Waste Management Manual*, unless such activities are specifically exempted by DOE O 435.1, Section 3.d., as described below.
    - (1) Activities conducted under the authority of the Director, Naval Nuclear Propulsion Program, as described in Department of Energy *National Security and Military Applications of Nuclear Energy Authorization Act of 1985*, Public Law 98-525.
    - (2) Requirements that overlap or duplicate requirements of the Nuclear Regulatory Commission (NRC) related to radiation protection, nuclear safety (including quality assurance), and safeguards and security of nuclear material, do not apply to the design, construction, operation, and decommissioning of Office of Civilian Radioactive Waste Management facilities as defined in DOE O 250.1, *Civilian Radioactive Waste Management Facilities Exemptions from Departmental Orders*.
    - (3) Requirements that duplicate or conflict with requirements of NRC or an Agreement State do not apply to facilities and activities licensed by the NRC or an Agreement State.
    - (4) Requirements that duplicate or conflict with the *Waste Isolation Pilot Plant Land Withdrawal Act of 1992*, as amended, Public Law 102-579, do not apply to the operation of the Waste Isolation Pilot Plant or the disposal of waste therein.

- (5) Unless managed in a low-level waste facility, requirements in DOE O 435.1 do not apply to byproduct material as defined in section 11e.(2) of the *Atomic Energy Act of 1954*, as amended, or naturally occurring radioactive material.
  - (6) Spent nuclear fuel or non-waste materials.
  - (7) Upon request or on its own initiative, DOE may grant exemptions from the requirements of DOE O 435.1 in accordance with the process provided by DOE M 251.1-1A, *Directives System Manual*.
- E. Incorporate these requirements into the contracts of all sub-contractors which are involved in the management of DOE radioactive waste.