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

ORDER

Draft
DOE O 440.1A

Approved: 3-27-98
Review Date: 3-27-00
Chg 1: XX-XX-02

SUBJECT: WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES

1. OBJECTIVE. To establish the framework for an effective worker protection program that will reduce or prevent injuries, illnesses, and accidental losses by providing DOE Federal and contractor workers with a safe and healthful workplace.

2. CANCELLATION. Cancellation of an Order does not, by itself, modify or otherwise affect any contractual obligation to comply with such an Order. Canceled Orders that are incorporated by reference in a contract shall remain in effect until the contract is modified to delete the reference to the requirements in the canceled Orders. The following Order is canceled: DOE O 440.1, WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES, of 9-30-95.

3. APPLICABILITY.

   a. DOE Elements. Except for the exclusions in paragraph 3c, this Order applies to all DOE Elements listed in Attachment 3.

   b. Contractors. Except for the exclusions in paragraph 3c, Attachment 2, Contractor Requirements Document (CRD), sets forth requirements that shall be applied to all contractors awarded contracts and subcontracts for performing work for DOE on DOE-owned or -leased facilities. Contractor compliance with the CRD will be required to the extent set forth in a contract. Contractors shall be directed to continue to comply with the requirements of the Order canceled by this Order until their contracts are modified to delete the reference to the requirements of the canceled Order.

   c. Exclusions.

      (1) Activities conducted under the authority of the Director, Naval Nuclear Propulsion Program, (who is also the Deputy Administrator for Naval Reactors, NNSA) as described in Public Law 98-525.

      (2) Activities conducted under the Nuclear Explosives and Weapons Safety Program relating to the prevention of accidental or unauthorized nuclear detonations to the extent a requirement under this Order cannot be implemented for a particular facility in a manner that does not compromise the effectiveness of such activities.

Vertical Line Denotes Change.

DISTRIBUTION:
All Departmental Elements

INITIATED BY:
Office of Environment, Safety and Health

(3) Bonneville Power Administration.

(4) Southeastern Power Administration.

(5) Southwestern Power Administration.

(6) Western Power Administration.

Vertical Line Denotes Change.

l. Comply with the following worker protection requirements:

(1) American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" (most recent edition), when ACGIH Threshold Limit Values (TLVs) are lower (more protective) than Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits. (When ACGIH TLVs are used as exposure limits, DOE operations shall nonetheless comply with the other provisions of any applicable OSHA-expanded health standard.) The TLVs for exposures to laser emissions in the ACGIH Indices are excluded from this requirement.

(2) American National Standards Institute (ANSI) Z136.1, *Safe Use of Lasers*. (Only the exposure limits and technical requirements apply. Programmatic components of ANSI Z136.1 do not apply.)

(3) ANSI Z88.2, *Practices for Respiratory Protection*.

(4) ANSI Z49.1, *Safety in Welding, Cutting and Allied Processes,* Sections 4.3 and E4.3 (of the 1994 edition or equivalent sections of subsequent editions).

(5) National Fire Protection Association (NFPA) 70, *National Electrical Code.*

(6) NFPA 70E, *Electrical Safety Requirements for Employee Workplaces.*

(7) 42 CFR, Part 72, "Interstate Shipment of Etiologic Agents."

(8) Appropriate biological etiologic agents guidelines and best practices. [See most current edition of the U.S. Department of Health and Human Services Centers for Disease Control and Prevention (CDC) Publication 93-8395, *Biosafety in Microbiological and Biomedical Laboratories;* the National Institutes of Health (NIH) publication *Guidelines for Research Involving Recombinant DNA Molecules;* and the World Health Organization (WHO) publication *Guidelines for the Safe Transport of Infectious Substances and Diagnostic Specimens.*]

m. Additional requirements for specific functional areas are contained in Attachment 1, Functional Area Requirements for DOE Elements.

Vertical Line Denotes Change.

5. RESPONSIBILITIES.

a. Assistant Secretaries.

(1) Ensure that program-specific worker protection goals and objectives are developed and resources are provided.

(2) Ensure that worker protection policies and requirements are effectively implemented.

(3) Develop or participate in recognition programs that encourage the improvement of worker protection programs.

(7) Reporting S/CIs to the responsible program office and the IG shall be in accordance with DOE O 231.1, DOE O 232.1A, and DOE 2030.4B, REPORTING FRAUD, WASTE, AND ABUSE TO THE OFFICE OF INSPECTOR GENERAL.

(8) Conducting trend analysis and issuing lessons learned for use in improving all S/CI activities.

(9) Collecting and disseminating information on S/CIs to other Federal agencies and private industry.

9. BIOLOGICAL AGENTS.

a. Requirements.

(1) DOE activities involving biological etiologic agents must be performed in accordance with the regulatory requirements of 42 CFR, Part 72 and 29 CFR 1910.1030, "Occupational Exposures to Bloodborne Pathogens."

(2) DOE field elements must implement and manage a program that confirms handling, transfer, use, and receipt of biological etiologic agents are conducted by professionally and technically qualified individuals in a manner consistent with the potential hazard.

(3) DOE field elements must confirm that each DOE contractor performing work with biological etiologic agents establishes an Institutional Biosafety Committee (IBC) or equivalent, which will be responsible for recommending approval and reviewing proposals and programs for compliance with CDC, NIH, WHO, and other international, Federal, State, and local guidelines for work with biological etiologic agents. This review should include assessment of containment level, facilities, procedures, practices, and training and expertise of personnel. In addition, this committee should review the site's security, safeguards, and emergency management plans and procedures to ensure that they adequately address work with biological etiologic agents. DOE staff, with the requisite technical expertise and training, must participate on the facility IBC (or equivalent).

(4) As required by the Integration of Environment, Safety and Health Into Work Planning and Execution (June 1997) contract clause as provided for in 48 CFR 970.5223-1 and consistent with DOE P 450.4, SAFETY MANAGEMENT SYSTEM POLICY, contractors operating DOE

facilities must adequately address hazards. Particular emphasis should be placed on etiologic and biological select agents through review of appropriate plans, such as the site safeguards and security plans or facility or site security plans, and emergency management programs.

(5) As an addendum to the annual reporting requirement of the Federal Managers Financial Integrity Act (FMFIA), each DOE field element must provide an annual written statement, based on submittals by the contractors, that programs using biological etiologic agents are compliant with the requirements of the Biological Agents section of DOE O 440.1A, WORKER PROTECTION MANAGEMENT FOR DOE FEDERAL AND CONTRACTOR EMPLOYEES, including Attachments 1 and 2.

(6) DOE field elements must maintain a copy of each CDC registration certificate issued to a DOE facility registered and approved to transfer, receive, and handle biological select agents at Biosafety Level (BSL) 2, 3, or 4 under their cognizance and a copy of the CDC Form EA-101, Transfer of Select Agents, for each biological select agent received or transferred by a registered facility under their cognizance.

(7) Each DOE field element must maintain an automated inventory and record of the status of biological etiologic agents at facilities under their authority, based on annual reports from contractors.

(8) DOE field elements must work with the contractor to amend the contract or CRD language, when necessary, when contractor employees are represented for collective bargaining by a labor organization, consistent with Federal labor laws.

b. Responsibilities.

(1) Heads of Headquarters Departmental Elements. Confirm that DOE facilities are registered with the CDC for the transfer or receipt of the biological select agents pursuant to 42 CFR 72.6(a) before requesting or receiving such biological select agents.

(2) Contracting Officer. After being notified of the affected contracts, incorporates the CRD and any amendments to the CRD, as appropriate, into the affected major facilities management contracts.

e. Title 29 CFR, Part 1926, "Safety and Health Regulations for Construction."

f. Title 29 CFR, Part 1928, "Occupational Safety and Health Standards for Agriculture."

g. American Conference of Governmental Industrial Hygienists (ACGIH), "Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" (most recent edition, as specified in the contract), when ACGIH Threshold Limit Values (TLVs) are lower (more protective) than Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits. (When ACGIH TLVs are used as exposure limits, DOE operations shall nonetheless comply with the other provisions of any applicable OSHA-expanded health standard.) The TLVs for exposures to laser emissions in the ACGIH Indices are excluded from this requirement.

h. American National Standards Institute (ANSI) Z136.1, *Safe Use of Lasers.* (Only the exposure limits and technical requirements apply. Programmatic components of ANSI Z136.1 do not apply.)

i. ANSI Z88.2, *Practices for Respiratory Protection*.

j. ANSI Z49.1, *Safety in Welding, Cutting and Allied Processes,* Sections 4.3 and E4.3 (of the 1994 edition or equivalent sections of subsequent editions).

k. National Fire Protection Association (NFPA) 70, *National Electrical Code.*

l. NFPA 70E, *Electrical Safety Requirements for Employee Workplaces.*

m. 42 CFR, Part 72, "Interstate Shipment of Etiologic Agents."

n. Appropriate biological etiologic agents guidelines and best practices. [See most current edition of U.S. Department of Health and Human Services Centers for Disease Control and Prevention (CDC) Publication 93-8395, *Biosafety in Microbiological and Biomedical Laboratories;* National Institutes of Health (NIH) publication *Guidelines for Research Involving Recombinant DNA Molecules;* and World Health Organization (WHO) publication *Guidelines for the Safe Transport of Infectious Substances and Diagnostic Specimens.*

13. Ensure that subcontractors performing work on DOE-owned or -leased facilities comply with this Contractor Requirements Document (CRD) and the contractor's own site worker protection standards (where applicable).

14. CONSTRUCTION SAFETY.

a. The following requirements and responsibilities apply for construction projects above the monetary threshold established by the Davis-Bacon Act (40 U.S.C.

Vertical Line Denotes Change.

276a) at Government-owned or -leased facilities where the contract clause "Safety and Health (Government-Owned or -Leased Facility)" applies.

(1) Hazard Analyses. For each construction operation presenting hazards not experienced in previous project operations or for work performed by a different subcontractor, the construction contractor shall prepare a hazard analysis and have it approved prior to commencement of affected work. These analyses shall identify foreseeable hazards and planned protective measures, provide drawings

g. Reporting S/CIs to the responsible program office and the IG shall be in accordance with DOE O 231.1, DOE O 232.1A, and DOE 2030.4B, REPORTING FRAUD, WASTE, AND ABUSE TO THE OFFICE OF INSPECTOR GENERAL.

h. Conducting trend analysis and issuing lessons learned for use in improving all S/CI activities.

| 23. BIOLOGICAL AGENTS.

| a. Comply with appropriate regulatory measures for the safe handling, transfer, use, or receipt of biological etiologic agents at DOE facilities (See Title 42 CFR, Part 72, "Interstate Shipment of Etiologic Agents" and 29 CFR 1910.1030, "Occupational Exposures to Bloodborne Pathogens").

| b. Establish an Institutional Biosafety Committee (IBC) or equivalent, which will be responsible for reviewing any work with biological etiologic agents for compliance with appropriate CDC, NIH, WHO, and other international, Federal, State and local guidelines and assessment of containment level, facilities, procedures, practices, and training and expertise of personnel. In addition, this committee should review for compliance the site security, safeguards, and emergency management plans and procedures as related to work with biological etiologic agents.

| c. Maintain a readily retrievable inventory and status of biological etiologic agents and confirm compliance with the requirements of this CRD in a written statement to the head of the DOE field element within 60 days of incorporation of this CRD into the contract. Provide to the responsible field and area office, through the laboratory IBC (or its equivalent), an annual status report describing the status and inventory of biological etiologic agents and program.

| d. Submit to the head of the appropriate DOE field element, for review and concurrence before transmittal to the CDC, each Laboratory Registration/Select Agent Program registration application package requesting registration of a laboratory facility at Biosafety Level 2, 3, or 4, for the purpose of transferring, receiving, or handling biological select agents.

| e. Submit to the head of the appropriate DOE field element a copy of each CDC Form EA-101, Transfer of Select Agents, upon initial submission of the Form EA-101 to a vendor or other supplier requesting or ordering a biological select agent for transfer, receipt, and handling in the registered facility. Submit the completed copy of the Form EA-101, documenting final disposition and/or destruction of the select agent, within 10 days of completion of the Form EA-101.

f. Confirm the site safeguards and security plans and emergency management programs address biological etiologic agents with particular emphasis on biological select agents.

g. Establish an immunization policy for personnel working with biological etiologic agents based on the recommendations contained in the U.S. Public Health Service Advisory Committee on Immunization Practices (ACIP) and as updated in the CDC *Morbidity and Mortality Weekly Report.* The ACIP provides basic guidance, but specific immunization actions should be based on the DOE facility evaluation of risk and benefit of immunization.

h. Give labor organizations timely notice of the development and implementation of procedures under this CRD and of any changes to those procedures, when contractor employees are represented for collective bargaining by a labor organization. The requirements of this CRD do not supersede the contractor's obligation to bargain with labor organizations consistent with Federal labor laws.

| Office of the Secretary
| Chief Information Officer
| Office of Civilian Radioactive Waste Management
| Office of Congressional and Intergovernmental Affairs
| Office of Counterintelligence
| Departmental Representative to the Defense Nuclear Facilities Safety Board
| Office of Economic Impact and Diversity
| Office of Energy Efficiency and Renewable Energy
| Energy Information Administration
| Office of Environment, Safety and Health
| Office of Environmental Management
| Office of Fossil Energy
| Office of General Counsel
| Office of Hearings and Appeals
| Office of Independent Oversight and Performance Assurance
| Office of the Inspector General
| Office of Intelligence
| Office of Management, Budget and Evaluation and Chief Financial Officer
| National Nuclear Security Administration
| Office of Nuclear Energy, Science and Technology
| Office of Policy and International Affairs
| Office of Public Affairs
| Office of Science
| Secretary of Energy Advisory Board
| Office of Security
| Office of Worker and Community Transition
| Albuquerque Operations Office
| Nevada Operations Office
| Chicago Operations Office
| Oakland Operations Office
| Oak Ridge Operations Office
| Richland Operations Office
| Savannah River Operations Office
| Idaho Operations Office
| Golden Field Office
| Rocky Flats Field Office
| Ohio Field Office

Vertical Line Denotes Change.