



## Department of Energy

Washington, DC 20585

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MEMORANDUM FOR INGRID KOLB

DIRECTOR  
OFFICE OF MANAGEMENT

THROUGH: BRIAN D. COSTLOW  
ACTING DIRECTOR  
OFFICE OF INFORMATION RESOURCES

FROM: GLENN S. PODONSKY  
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OFFICE OF HEALTH, SAFETY AND SECURITY

SUBJECT: Notice of Intent to Revise DOE Order 5400.5, *Radiation Protection of the Public and the Environment*

**PURPOSE:** The Atomic Energy Act of 1954, as amended, requires and authorizes the Department of Energy (DOE) to protect the health and safety of the public against radiation in conducting its programs. DOE Order 5400.5 establishes the regulatory framework used by DOE to protect the public and the environment from undue risk of radiation associated with its operations. Revising DOE Order 5400.5 would enhance awareness of this primary DOE radiation protection policy, reflect today's radiation protection concepts, technical standards and practices, assure consistency with the format and content requirements contained in DOE Order 251.1B, *Departmental Directives Program*, and include roles and responsibilities of the National Nuclear Security Administration (NNSA) and the Office of Health, Safety and Security (HSS).

**JUSTIFICATION:** While DOE Order 5400.5 remains effective and continues to be protective, the following information is provided in support of its revision at this time:

- DOE Order 5400.5 (the Order) was originally issued on February 8, 1990, and last changed on January 7, 1993. A November 24, 2006, memorandum from the Office of Management on review of directives stated that Orders and Manuals with a 4-digit numbering scheme must be revised to ensure compliance with the Departmental Directives Program.
- Given its age, the Order does not reflect DOE's current organizational structure, such as NNSA and HSS, and requires clarification and definition of the responsibilities and authorities within the new organizations. It also references Orders including old 4-digit Orders that have been replaced by new directives.



- The Order is not consistent with the format and content standards established by DOE M 251.1-1B. A revised Order would emphasize requirements and responsibilities, and delineate corresponding processes and procedures in accompanying manuals and/or guides, as appropriate.
- The radiation standards contained in the Order are based on radiation protection processes and practices developed through the 1980s. As such, the Order should be revised to be consistent with recent revision of DOE's Occupational Radiation Protection Rule (10 CFR Part 835).

The DOE Order for radiation protection of the public and environment is essential to the Department's continued efforts to protect the public health and the environment. The Order helps fulfill the Department's mission by supporting the Environmental Responsibility and Management Excellence Strategic Themes of the DOE Strategic Plan, as well as the Operating Principle of ensuring safe, secure, and environmentally responsible operations.

Once the first draft of the revised Order is posted into RevCom, a processing time of 120 calendar days is requested for the following reasons:

- The current Order is over 80 pages long and is expected to undergo extensive technical and editorial revisions and a significant portion of the Order will be moved to associated guidance.
- Since DOE Order 5400.5 contains requirements that apply to contractors, a Contractor Requirements Document (CRD) must be developed.
- DOE M 251.1-1B states that requirements that are added, deleted, or modified by a revised Order must be presented in the form of a crosswalk showing the disposition of existing requirements. This crosswalk must be submitted to the Office of Information Resources with the first draft and resubmitted with the final package. Given the expected extensive revisions to the content and formatting of this Order, tracking changes and developing a crosswalk for the first draft revised Order will be a time-intensive activity.
- It is expected that revision of DOE Order 5400.5 will generate much interest throughout the Department. The additional time would provide extended time for comment response and issue resolution from the interested organizations.

**IMPACT:** Revision of DOE Order 5400.5 will be a major initiative for HSS involving extensive revisions to format and content and consideration of complex technical topics related to radiation protection theory and practice and underlying health-effect principles. Revising this Order is anticipated to be a resource intensive effort. HSS plans to invite program and field elements and the central technical authorities to participate in a Work Group to assist in revising the directive. A high degree of interest in revising this primary radiation protection policy is anticipated; therefore program and field elements

participating in the Work Group and in the RevCom review and comment process also may be expected to expend resources related to the development of the revised Order.

DOE Order 5400.5 applies to a broad range of DOE operations nationwide. There may be increased costs initially associated with implementation of the revised Order as DOE and contractor personnel become familiar with the revised Order responsibilities and requirements. Associated training may be needed. It is anticipated that eventually the more concise format, the flexibility and more up-to-date approach to radiation protection provided by the Order should promote more efficient and cost effective implementation.

CONTACT: Thomas Traceski, Deputy Director, HS-21, 6-2481

DECISION:

Concur: \_\_\_\_\_

Non-concur: \_\_\_\_\_

Timeframe: \_\_\_ 30 days \_\_\_ 60 days \_\_\_ 90 days \_\_\_ 120 days

Date: \_\_\_\_\_

Attachment: Proposed Development Schedule

**Proposed Development Schedule  
for Revising DOE Order 5400.5**

<b>Milestone</b>	<b>Date</b>
Send Justification Memorandum to Office of Information Resource Management, MA-44	July 2007
Invite program and field offices to participate in a Work Group for revising the directive	August 2007
Begin developing draft revised directive	October 2007
Send draft directive to management for review	August 2008
Send draft directive and crosswalk to MA-44	October 2008
Post to RevCom	January 2009
Target approval date	May 2009