

U.S. Department of Energy
Plan for Meeting Toxic Chemical Reduction Provisions of Executive Order 13423,
Strengthening Federal Environmental, Energy, and Transportation Management

I. Introduction

Section VIII, Pollution Prevention and Management of Toxic and Hazardous Materials, of the Instructions for Implementing Executive Order (EO) 13423, *Strengthening Federal Environmental, Energy and Transportation Management*, requires each Federal agency to develop written goals and support actions to identify and reduce the release and use of toxic and hazardous chemicals and materials, including toxic chemicals, hazardous substances, ozone-depleting substances, and other pollutants that may result in significant harm to human health or the environment. To document toxic reduction efforts, EO 13423 and its Implementing Instructions require agencies to develop, by January 2008, a plan for identifying and reducing the release and use of these chemicals and materials.

The Department of Energy's (DOE) *Chemical Safety Topical Committee (CSTC)*, which is co-sponsored by the Office of Health, Safety and Security (HSS) and the Energy Facility Contractors Group (EFCOG), formed a Task Team to evaluate how the Department should comply with the toxic chemical reduction provisions of EO 13423. This plan, which is based on the Task Team's recommendations, provides details of the Department's toxic chemical reduction actions and requirements that will ensure compliance with EO 13423.

II. DOE Implementation Plan: Site-Specific, Environmental Management System-Based

An Environmental Management System (EMS) is a systematic and structured approach for addressing environmental consequences of an organization's activities, products, and services. DOE Order (O) 450.1, *Environmental Protection Program*, requires DOE sites to establish, document, implement, maintain and continually improve their EMSs, based upon requirements originally promulgated in EO 13148. EO 13423 builds upon the EMS framework currently embodied in DOE O 450.1, requiring that DOE sites identify toxic chemical reduction goals through their EMS.

Pursuant to that requirement, the Department is taking an EMS-focused approach to addressing the toxic reduction requirements of EO 13423. HSS is revising DOE O 450.1 (now referred to as 450.1A) to include a requirement that each DOE site establish performance-based goal for toxic chemical reduction or elimination efforts within the framework of their individual, site-specific EMS and Integrated Safety Management System. Sites shall determine specific chemicals, reduction goals, and actions, considering the operating conditions, costs, mission requirements, and environment, safety, and health features of the site. Goals and actions to identify and reduce the use and release of toxic and hazardous chemicals and materials are to be established as specific objectives and targets in the site EMS. DOE is intentionally not establishing a "one size fits all" requirement for specific quantitative reductions or developing a corporate list of toxic and hazardous chemicals and materials for its diverse sites to target.

To ensure the incorporation of the EO toxicity reduction goal into EMSs throughout DOE, the Department is updating the EMS requirements in DOE O 450.1 to require DOE sites to do the following:

- Identify the use of toxic and hazardous chemicals and materials as a significant environmental aspect at the site (or document why this is not appropriate for the site)
- Identify objectives and measurable targets to address reduction or elimination in the acquisition, use, and disposal of toxic and hazardous chemicals and materials
- Identify and implement projects designed to eliminate or reduce the acquisition, use, release, and disposal of toxic and hazardous chemicals and materials
- Ensure that site budgetary and planning processes support achieving the objectives and targets.

DOE recognizes that reducing the acquisition, use, and release of toxic and hazardous chemicals and materials supports worker safety, cost-reduction, and environmental protection objectives. DOE sites already consider environmental and workplace hazards associated with toxic and hazardous chemicals and materials, using an EMS-based approach consistent with meeting this EO goal. The EMS framework, which is embedded into each site's Integrated Safety Management System, is the most suitable vehicle for determining specific toxic reduction priorities and opportunities. Sites will continue to use their EMSs to determine and implement the actions that will drive the most substantial overall risk reduction at the site.

III. Path Forward: Order Revision and Site Tracking and Reporting

Orders: As mentioned, the Department is preparing to update its EMS expectations through DOE O 450.1A to more closely align with the requirements of EO 13423. DOE O 450.1A will serve as the primary driving mechanism for tracking and ensuring that DOE reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or released. DOE O 450.1A entered the Department's Review and Comment (REVCOM) system on December 3, 2007, with the final version to be effective by March 2008.

Reporting and Tracking: DOE sites are already required to report annually their performance in meeting the Department's pollution prevention and sustainable environmental stewardship goals, pursuant to the current DOE O 450.1. HS-20 will modify its existing environmental reporting system to include data elements to monitor sites' progress in identifying and implementing toxic reduction opportunities, and also to gather best practices to be shared throughout the DOE complex. HS-20 will modify the reporting system during FY 2008 to enable DOE sites to report FY 2008 data in accordance with the new sustainable environmental stewardship goals and practices under the revised DOE O 450.1A.

Knowledge Tools: DOE is committed to developing and sharing information to promote continuous improvement. The Department and EFCOG will jointly develop a guide on toxic and hazardous chemical reduction for the DOE complex. This guide, to be completed within the next year, will identify best practices, lessons learned, and other available tools and resources that are transferable throughout the DOE complex. Through this guide, DOE and EFCOG will promote continuous improvement in toxicity reduction at all sites.

Questions regarding this plan, or DOE's sustainable environmental stewardship goals and practices, may be directed to Josh Silverman, Office of Environmental Policy and Assistance within the Office of Health, Safety and Security, at 202-586-6535 or josh.silverman@hq.doe.gov.