



DOE Office of
Environmental
Policy and
Assistance (EH-41)

EH-41 Performance Report for Fiscal Year 1998



In Memory of

Raymond F. Pelletier

*Former Director of the
Office of Environmental Policy and Assistance
(EH-41)*

DOE Office of Environmental Policy and Assistance (EH-41)

EH-41 Performance Report for Fiscal Year 1998



U.S. Department of Energy
Office of Environment, Safety and Health
Office of the Deputy Assistant Secretary for Environment
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I. EH-41 Performance Report for Fiscal Year 1998

This report presents a brief overview of the fiscal year 1998 (FY 1998) activities and accomplishments of the U.S. Department of Energy's (DOE's) Office of Environmental Policy and Assistance (EH-41). EH-41 is within the Office of the Deputy Assistant Secretary for Environment (EH-4) under the Office of the Assistant Secretary for Environment, Safety and Health (EH). The following pages (a) describe the measures used to gauge EH-41's performance for the Department and its stakeholders and (b) demonstrate the office's effectiveness in meeting those measures during FY 1998. Performance measures for EH-41's activities are founded on the office's mission functions, which can be categorized into three interrelated areas:

Regulatory Interface. To monitor emerging regulatory requirements and issues and lead the Department in developing and advocating DOE's position on those requirements and issues to avert potential environmental protection and compliance problems.

Policy and Guidance. To develop Department-wide environmental policies, regulations, orders, technical standards, and guidance to protect workers, the public, and the environment and to comply with environmental requirements.

Management Support. To assist DOE program and field offices in interpreting and implementing environmental policies and requirements and developing strategies to resolve compliance issues.

These mission functions and performance measures are indicative of the wide diversity of skills and resources available from EH-41 to assist in the Department's dealings with environmental policy and regulatory issues.

The office has been led admirably by Raymond F. Pelletier, EH-41 Director for several years, including part of FY 1998. A tribute to Mr. Pelletier's leadership and management prowess is evidenced by the continued effectiveness of EH-41, following his departure, in areas critical to the Department's environmental program.

EH-41 coordinates and provides its services through the two following divisions:

- Air, Water, and Radiation Division, EH-412, Andrew Wallo, III, Director; and
- Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Division, EH-413, Thomas T. Traceski, Director.

A complete listing of EH-41 staff members, including their responsibilities, telephone numbers, and e-mail addresses, is outlined on the following page in **Table 1**.

PERFORMANCE MEASURES

EH-41's FY 1998 performance report reflects the organization's contributions in achieving:

- the goals in the **DOE Strategic Plan** related to improving worker safety, public health, and environmental protection;
- the commitments made in the **EH Performance Agreement with the Secretary** for improving the efficiency and effectiveness of DOE environmental, safety, and health activities; and
- the **EH Mission** of serving as "the Departmental advocate for excellence in programs to protect the environment."

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* on detail

II. Regulatory Interface

Federal Environmental Regulations—Responding Proactively for DOE

EH-41 serves as the corporate resource within DOE for developing positions on environment-related rulemakings proposed by other Federal agencies that may impact DOE programs or operations. The office monitors the development of significant rulemakings, solicits and considers the views of all of the Department's program offices and field organizations with regard to a proposed regulation, and develops a consolidated Departmental response. Direct coordination with affected DOE elements is conducted to ensure that comments and concerns submitted to the applicable regulatory agency reflect the needs and interests of the entire complex. Thereafter, the office is the lead advocate for DOE's position in any further communications or interactions with the regulatory agency.

EH-41 also (1) performs scientific and technical reviews of draft standards and documents prepared by other Federal agencies and national/international organizations, (2) determines the potential impacts of proposed environmental legislation on DOE, and (3) represents the Department in various interagency and international standard-setting efforts of relevance to DOE.

In FY 1998 the office monitored more than **300** regulations, standards, policy statements, and guidance documents that may affect DOE operations and programs. On their own initiative or in response to requests, EH-41 reviewed numerous draft/proposed rules and standards on the Department's behalf and submitted **15** sets of written comments to regulatory agencies.

Listed in **Table 2** (see pages 4-8) by environmental statute are several examples of regulatory initiatives and the actions EH-41 took in FY 1998 to positively influence them so as to benefit and/or minimize impacts to DOE's environmental compliance and protection activities.

Federal Technical, Legislative, and Executive Reviews

The office also reviews and comments, in response to both internal and external requests, on technical reports, draft legislation, and Presidential Executive Orders (EOs). EH-41 submitted comments on **16** such documents during FY 1998. Examples of EH-41's activities in these areas during the year are highlighted below.

Technical Reviews

- ❑ Submitted extensive comments to the Environmental Protection Agency (EPA) on its draft *Institutional Controls: A Reference Manual*. As DOE moves to remedy selection, design, and implementation at its cleanup sites, the consideration of various types of institutional controls will become an integral part of the remedial alternatives analysis for many DOE sites.
- ❑ Provided comments and recommendations to EPA on its draft Federal Guidance Report No. 13, *Health Risks from Low-level Environmental Exposure to Radionuclides, Part 1, Interim Version*, the availability of which was announced in the *Federal Register (FR)* of April 13, 1998 (63 FR 18008).
- ❑ Coordinated with the Office of Technical Services (EM-37) in providing DOE comments and suggestions to the staff of the Conference of Radiation Control Program Directors (CRCPD) regarding a possible task plan to provide technical input on DOE's Radiation Control Criteria Project.
- ❑ Along with the Office of the Deputy Assistant Secretary for Environmental Restoration (EM-40), represented DOE in an interagency review, with the Nuclear Regulatory Commission (NRC) and EPA, of a draft International Atomic Energy Agency (IAEA) safety guide titled *Strategies and Protocols for the Safe Management of Waste from the Mining and Milling of Uranium and Thorium Ores*. EH-41 submitted DOE and NRC comments to the IAEA on April 28, 1998.

(text continues on page 9)

Table 2. Examples of Significant FY 1998 Regulatory Activities

Regulatory Initiative/Issue	Potential Impact	EH-41 Response
Atomic Energy Act (AEA)		
<p>The NRC's preliminary considerations for application of radiological dose models in the license termination process (i.e., decommissioning) for nuclear facilities. It seemed NRC favored the use of one particular code in assessing dose from residual radioactivity in soil or structures as part of compliance with standards in 10 <i>Code of Federal Regulations (CFR)</i> 20 on radiological criteria for license termination.</p>	<p>Though most DOE nuclear facilities are not currently licensed by NRC, they may come under NRC regulatory oversight in the near future as DOE moves from self-regulation to external regulation. Decommissioning activities are ongoing at DOE facilities and could be impacted by NRC's policies and regulations.</p>	<ul style="list-style-type: none"> • Submitted concerns to NRC regarding their apparent decision to rely on a relatively new and untested code to determine compliance with 10 CFR 20. • Recommended the DOE Residual Radioactive Materials code (RESRAD) and outlined its advantages, including the fact that it has been used for dose assessment at numerous DOE, NRC, Agreement State, and EPA-cleanup actions for more than a decade. [RESRAD was developed by EH-41 in conjunction with the Office of the Assistant Secretary for Environmental Management (EM) for use at DOE environmental restoration sites.]
Clean Air Act (CAA)		
<p>EPA's May 12, 1997, advance notice of proposed rulemaking (ANPRM) (62 <i>FR</i> 25877) on listing research and development (R&D) air sources, including the potential to list Federal agency R&D sources, on the National Emission Standards for Hazardous Air Pollutants (NESHAPs) source category list and develop associated control standards for HAPs.</p>	<p>Many DOE facilities are involved in numerous R&D activities. New standards may place an additional burden on DOE and other Federal R&D facilities without a corresponding benefit.</p>	<ul style="list-style-type: none"> • Represented DOE on EPA's Federal stakeholder group concerned with gathering information necessary for the potential development of a rulemaking. • Compiled and shared with EPA general data on HAP and volatile organic compound (VOC) emissions from the major DOE national laboratories. The data showed there are no major air sources of R&D HAP and VOC emissions at the facilities and that the numerous small HAP and VOC sources at DOE sites are, for the most part, already regulated by Federal CAA standards or Federally-approved local rules.
<p>EPA's June 11, 1998, proposed rule (63 <i>FR</i> 32044) to amend its refrigerant recycling regulations under Section 608 of the CAA, including a lowering of the annual permissible leak rates for commercial refrigeration, commercial and industrial process refrigeration, and chillers.</p>	<p>DOE facilities contain many commercial refrigeration and industrial process refrigeration units. The proposal could place a financial and operational burden on DOE and DOE contractors at Departmental facilities.</p>	<ul style="list-style-type: none"> • Submitted consolidated DOE comments recommending alternatives to the proposed permissible refrigerant leak rates, and brought attention to the unique circumstances at some DOE facilities that could prohibit operators from meeting the proposed leak rates.

Table 2. Examples of Significant FY 1998 Regulatory Activities (cont.)

Regulatory Initiative/Issue	Potential Impact	EH-41 Response
CAA (cont.)		
<p>EPA's April 1998 draft Residual Risk Report to Congress, announced April 22, 1998 (63 <i>FR</i> 19914), that presents EPA's strategy for assessing residual risk as a result of continued emissions of HAPs from any industry source subject to CAA Section 112(d) standards.</p>	<p>DOE and other facilities with HAP sources may be subjected to additional regulatory controls depending on the risk assessment methodology and resulting emission criteria selected. If risk assessments are not based on sound science and decision-making, sources may face increased costs for controls that provide minimal or no added benefit to public health and the environment.</p>	<ul style="list-style-type: none"> • Provided DOE comments and recommendations highlighting the fact that there currently is a lack of good scientific data and exposure models to support quality residual risk assessments in the time frame within which EPA is operating for issuing standards.
CERCLA		
<p>EPA's November 24, 1997, announcement (62 <i>FR</i> 62523) of an interim final revision to its policy for listing Federal facility sites on the National Priorities List (NPL). The policy revision focused on the deletion of Federal facility sites from the NPL that are engaged in the treatment, storage, and disposal (TSD) of hazardous wastes.</p>	<p>Any revision to the policy could impact DOE sites on the NPL or DOE sites being considered for addition/deletion to it, particularly those engaged in TSD of hazardous wastes. Implementation of the revised policy may allow more cost-effective and timely cleanup at DOE facilities.</p>	<ul style="list-style-type: none"> • Submitted DOE comments supporting EPA's revised policy.
<p>EPA's December 8, 1997, announcement (62 <i>FR</i> 64588) of its draft Interim Final Policy Directive 9200.4-17, "Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites."</p>	<p>There has been an increased interest, including that by DOE, in monitored natural attenuation as a component of remedies for contamination at CERCLA, RCRA Corrective Action, and Underground Storage Tank (UST) sites.</p>	<ul style="list-style-type: none"> • Submitted DOE comments to support the need for the directive and bring attention to several areas of concern specific to DOE. (EPA responded to EH-41 by indicating that it appreciated the input and would incorporate many of the changes recommended by DOE.) • EH-41 also attended an EPA two-day seminar on monitored natural attenuation to better understand the methodology and EPA's thinking on it; the office followed up with comments to EPA on the seminar document.

Table 2. Examples of Significant FY 1998 Regulatory Activities (cont.)

Regulatory Initiative/Issue	Potential Impact	EH-41 Response
CERCLA (cont.)		
<p>EPA's final draft guidance, published September 9, 1997 (62 <i>FR</i> 47495), for developing Superfund Memoranda of Agreement (MOA) language concerning the development of state voluntary cleanup programs. The guidance encourages the development of MOAs between states and EPA regional offices for the cleanup of lower risk hazardous substance sites.</p>	<p>DOE could possibly take part in such a program to remediate low risk sites at its facilities in a shorter time period and at reduced costs.</p>	<ul style="list-style-type: none"> • Submitted extensive DOE comments to EPA, including statements to support the Agency's desire to increase state voluntary clean-up programs. • Outlined an alternative screening process for designating sites under state voluntary cleanup programs that would meet EPA's protectiveness criteria without discouraging private party participation.
<p>EPA's proposed 11th update to the CERCLA Federal Agency Hazardous Waste Compliance Docket. [EPA finalized the 11th update in the November 23, 1998 <i>FR</i> (63 <i>FR</i> 64806).]</p>	<p>Federal agencies with facilities newly listed on the Docket must complete a preliminary assessment and, if warranted, a site inspection of the affected facilities within 18 months after placement on the Docket.</p>	<ul style="list-style-type: none"> • At EPA's request, reviewed the proposed Docket update and provided comments and corrections specific to the DOE facilities listed.
<p>The Department of Defense's (DOD's) September 26, 1997, proposed rule (62 <i>FR</i> 50796) to establish a process for evaluating appropriate environment, safety, and health (ES&H) response actions on closed, transferred, and transferring military ranges.</p>	<p>The rule could affect DOE operations involving the research, development, and evaluation of military munitions on behalf of DOD. DOE may be responsible for environmental response actions, and associated costs, at its ranges that have been utilized to perform activities on DOD's behalf.</p>	<ul style="list-style-type: none"> • Forwarded consolidated DOE comments to DOD with the intent to obtain clarification on issues of jurisdictional responsibility for military munitions and the scope of response costs DOD would absorb. • The response also provided recommendations to address potential problems in implementing the rule.
Emergency Planning and Community Right-to-Know Act (EPCRA)		
<p>EPA's June 8, 1998, proposed rule (63 <i>FR</i> 31268) to revise 40 CFR 355 and 370, which contain requirements for emergency planning and release notification and hazardous chemical community right-to-know reporting under EPCRA. The proposal seeks to improve the efficiency of reporting requirements under EPCRA Sections 311-312.</p>	<p>May help ease the burden of these requirements on DOE facilities.</p>	<ul style="list-style-type: none"> • Submitted a consolidated DOE response supporting desired changes and voicing concerns with respect to the impact of the proposed changes on DOE operations. [EPA complemented DOE/EH-41 on the quality and utility of the comment package and initiated discussions with EH-41 to clarify and improve some of the reportable quantity (RQ) issues suggested by DOE.]

Table 2. Examples of Significant FY 1998 Regulatory Activities (cont.)

Regulatory Initiative/Issue	Potential Impact	EH-41 Response
EPCRA (cont.)		
<p>EPA's October 1, 1996, ANPRM (61 <i>FR</i> 51322) to expand the information required on the EPCRA Section 313 Toxic Chemical Release Inventory (TRI) to include additional chemical use data.</p>	<p>Including additional chemical use information may increase the reporting burden for DOE facilities and could misrepresent certain waste management activities.</p>	<ul style="list-style-type: none"> • Initiated a joint DOE/EPA chemical use reporting pilot to help EPA assess the problems that may originate from proposed additional chemical use reporting, specifically its impacts on Federal facilities. • Provided technical assistance in implementing the DOE pilot sites [Los Alamos National Laboratory (LANL), Oak Ridge Reservation (ORR), and the Kansas City Plant]. • During FY 1998 EH-41 prepared, and submitted to EPA, the <i>U.S. Department of Energy Report on a Pilot Program for Chemical Use Reporting Conducted at the Los Alamos National Laboratory and the U.S. Department of Energy Report on a Pilot Program for Chemical Use Reporting Conducted at the Kansas City Plant</i>. Each report included a discussion on the benefits and burdens of chemical use reporting.
<p>EPA's request for stakeholder input on ways to improve the EPCRA TRI reporting form, Form R; specifically, enhancing the type of right-to-know information available to communities and easing the paperwork burden on regulated entities.</p>	<p>EO 12856, <i>Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements</i>, requires DOE to comply with EPCRA and the Pollution Prevention Act of 1990 (PPA), including annual TRI reporting under these laws. The outcome could be beneficial (e.g., paperwork reduction) and/or adverse (e.g., waste management activities misrepresented) for DOE facilities.</p>	<ul style="list-style-type: none"> • Formed the DOE TRI Focus Group, consisting of DOE and contractor TRI pollution prevention contacts, which meets monthly to discuss and reach consensus on TRI issues specific to the Department that need to be brought to EPA's attention. • From the TRI Focus Group's discussions, a DOE comment letter was submitted to EPA outlining Departmental recommendations and concerns.

Table 2. Examples of Significant FY 1998 Regulatory Activities (cont.)

Regulatory Initiative/Issue	Potential Impact	EH-41 Response
RCRA		
<p>EPA's December 30, 1997, announcement (63 FR 67788) of two draft reports pertaining to the testing of total mercury (Hg) and particulate matter (PM) continuous emissions monitoring systems (CEMS). EPA had proposed that CEMS be used for compliance with the total Hg and PM standards in its April 19, 1996, proposed rule (61 FR 17358) on revised requirements for hazardous waste combustors under RCRA and the CAA. [EPA finalized certain of the proposed revised standards on June 19, 1998 (63 FR 33782).]</p>	<p>DOE has hazardous waste incinerators in operation at some of its sites, including those used for mixed wastes. Additional regulatory controls would likely increase operational costs for these incinerators.</p>	<ul style="list-style-type: none"> • Submitted DOE comments on the reports to reinforce previous concerns and data it provided EPA regarding the uniqueness of DOE incinerators and the sufficiency of existing standards in protecting human health and the environment. • Communicated with EPA on numerous occasions, via person-to-person meetings and conference calls involving potentially affected DOE sites, to: <ul style="list-style-type: none"> - discuss and respond to questions EPA had regarding specific DOE incinerators and associated technical data and - obtain updates of EPA's current views on the proposed emission standards.
Safe Drinking Water Act (SDWA)		
<p>EPA's plans, announced at a December 1997 meeting, for finalizing revisions proposed during 1991 to the national primary drinking water regulations for radionuclides.</p>	<p>EPA's planned approach may lead to increased costs for DOE's radioactive waste management and environmental restoration programs if the standards are used as ground water protection criteria. The benefit to public health and the environment may be significantly outweighed by such costs.</p>	<ul style="list-style-type: none"> • Submitted a letter to EPA recommending that they re-propose the revisions to allow additional DOE and public input. • Requested data from pertinent DOE staff in order to analyze the costs and benefits of the proposed standards and further develop a Departmental position.
Toxic Substances Control Act (TSCA)		
<p>EPA's November 25, 1997, internal working draft of its final regulations under TSCA on the disposal of polychlorinated biphenyls (PCBs). [EPA's final rule on the management and disposal of PCBs was issued on June 29, 1998 (63 FR 35384).]</p>	<p>Some DOE facilities must contend with the management and disposal of PCBs and/or PCB wastes in accordance with Federal requirements. Of particular concern to DOE is how the regulations address PCBs mixed with radioactive wastes.</p>	<ul style="list-style-type: none"> • Developed comments for EPA, incorporating viewpoints of both DOE program and field organizations, and addressed EPA's responses to previous DOE comments on EPA's May 30, 1997, draft. The comments included information requested by EPA on radioactive PCB materials and wastes within the DOE complex in support of developing protective but flexible, cost-effective regulations. • Thereafter, EH-41 had several meetings and conference calls with EPA headquarters, the Office of Management and Budget (OMB), and other Federal agencies to clarify and resolve outstanding issues before the PCB rule was finalized.

Federal Technical, Legislative, and Executive Reviews (continued from page 3)

Technical Reviews (continued)

- ❑ Submitted comments to the IAEA on its discussion paper entitled *Radiation Protection Guidelines for the Environment: Concepts and Principles*.
- ❑ Responded to EPA's request for DOE review and comment on its draft report concerning the need for a rule requiring the certification of recycling and recovery equipment for halons, which are used throughout DOE for fire protection. EH-41's comments indicated that the report findings amply demonstrate that such a rule is not warranted.

Legislative Reviews

- ❑ Provided comments to the Office of the Assistant General Counsel for Legislation (GC-71) on a draft letter from the Departments of the Interior (DOI), Commerce, and Agriculture to the House Commerce Committee Chairman. The letter provided the Administration's position on a July 23, 1997, committee proposal to amend the Natural Resource Damages (NRD) title of CERCLA.
- ❑ Upon direct request from the Council on Environmental Quality (CEQ)/DOI workgroup leader on natural resource damage assessment (NRDA) issues, provided input on proposed CERCLA language for "protection of the environment."
- ❑ Upon request, provided GC-71 with extensive comments on a draft Senate bill to amend RCRA by adopting the Environmental Restoration, Improvement, and Cleanup Acceleration Act of 1998.
- ❑ Reviewed EPA's draft specifications for RCRA legislation and provided GC-71 with comments. OMB had asked DOE for its reaction to the draft.
- ❑ Provided the Office of the General Counsel (GC) with comments on an EPA letter to U.S. Senator Lieberman that presented the agency's position under CERCLA regarding the adequacy of NRC's standards on decommissioning in 10 CFR 20.

EO Reviews

- ❑ Reviewed, for EH-4, the proposed EO entitled *Deference to Indian Tribal Governments*. The Office of the Assistant General Counsel for General Law (GC-80) had solicited comments from program offices in order to respond to OMB's request for DOE's views on the proposed EO.
- ❑ Provided comments to the Office of Pollution Prevention (EM-77) and GC on proposed EO, *Recycling, Waste Prevention, and Environmentally Preferable Acquisition*, which would revise EO 12873, *Federal Acquisition, Recycling, and Waste Prevention*. The comments focused on several definitions that differ from regulatory definitions and could cause confusion among Federal facilities.
- ❑ Submitted DOE comments to EPA on proposed revisions to EO 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*.

Interagency and International Regulatory Standards Development

EH-41 actively engages in discussions and standard development initiatives with other Federal agencies on issues and challenges of importance to the Department's environmental program. The office's experience is also sought out by international organizations. Summarized in **Table 3** (see pages 10-12) are some of these activities, including their significance to DOE and EH-41's role in them.

Additional Interagency Regulatory Development Activities

Other significant interagency regulatory development activities that EH-41 played a part in during FY 1998 included:

- ❑ Representing DOE in an initiative to develop the Multi-Agency Radiation Laboratory Protocols (MARLAP) Manual. EH-41 is actively involved in preparation and review of the MARLAP manual.

(text continued on page 13)

Table 3. Interagency Regulatory Standards Development

Topic/Issue	Potential Impacts	EH-41 Role
<p align="center">Interagency Steering Committee on Radiation Standards (ISCORS)</p>		
<p>There has been inconsistency among Federal agencies in the types of radiation risk/protection standards that are applied in various projects and initiatives, both intra- and inter-agency. ISCORS affords the Department and other Federal agencies the opportunity to work together toward the establishment of consistent, cost-effective radiation risk and protection standards.</p>	<p>The use of different radiation standards and guidelines by Federal agencies makes collaboration on radiation-related projects difficult and inefficient. Duplicative efforts may occur in developing standards. Federal radiation standards may be developed using a different approach than DOE's internal standards causing implementation problems for the Department.</p>	<ul style="list-style-type: none"> • Led DOE's participation in ISCORS. During FY 1998 EH-41: <ul style="list-style-type: none"> - took over responsibilities as the DOE representative to ISCORS, due to the office's extensive involvement and participation in ISCORS and its sub-committees (Cleanup, Mixed Waste, Sewage Sludge/Ash, Recycle, Risk Harmonization, and Decontamination); - coordinated DOE's participation on ISCORS to ensure that all Departmental viewpoints were considered and agreed upon; - continued efforts towards finalizing a memorandum of understanding (MOU) between DOE, DOD, EPA, and NRC to establish a Center for Radiation Dosimetric Modeling and Computation at the Department's Oak Ridge National Laboratory (ORNL) (the Center is seeking to develop and improve dose factors for radiation assessments and establish a consistent Federal dose assessment approach for use in implementing Federal radiation guidance); and - helped promote the involvement of state regulatory liaisons in ISCORS activities in order to develop cooperative relationships with respect to the external regulation of DOE facilities.
<p align="center">Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)</p>		
<p>MARSSIM provides a consensus approach to obtaining data during radiological surveys; specifically, it provides guidance for conducting radiological survey measurements in support of regulations associated with environmental radiological cleanup efforts. Developed through a Federal interagency effort involving DOE, EPA, DOD, and NRC, this document was completed in FY 1998 and announced in the February 11, 1998, <i>FR</i> (63 FR 6915).</p>	<p>MARSSIM offers significant improvements over conventional approaches to radiation surveys in terms of cost, resources, and credibility.</p>	<ul style="list-style-type: none"> • Represented DOE in the interagency workgroup. • Participated in numerous meetings and reviews concerning the development of the document. • Ensured that needs of DOE cleanup sites were addressed by coordinating reviews within DOE and demonstrating benefits of MARSSIM to DOE and contractor staff. • Distributed final document to relevant DOE personnel for use in radiological surveys of soils and buildings at DOE cleanup sites.

Table 3. Interagency Regulatory Standards Development (cont.)

Topic/Issue	Potential Impacts	EH-41 Role
Federal Natural Resource (NR) Trustee Coordination at CERCLA Sites		
<p>CEQ is leading an initiative between the Federal NR trustee agencies (including DOE) and EPA to develop an MOU to facilitate coordination of trustee involvement at CERCLA cleanup sites. Communication and coordination has been somewhat lacking between EPA and NR trustees at some sites.</p>	<p>A lack of coordination at CERCLA sites between EPA and the Federal NR trustees can lead to delays, less cooperative relationships between the potentially responsible parties and trustees, and lost opportunities for early resource restoration in lieu of litigation.</p>	<ul style="list-style-type: none"> • Represented DOE at meetings of the Federal NR Trustee Work Group, charged with drafting an MOU between EPA and Federal NR trustees. • Ensured that DOE concerns were addressed in, and provided input to, the draft MOU, including coordinating DOE comments on it. • EH-41's experience in developing the DOE policy (completed in September 1997) on integrating NR concerns into response actions at Departmental sites proved of value in this interagency initiative.
Ecological Soil-Screening Levels (E-SSLs)		
<p>EPA is leading a collaborative initiative between government and industry to develop E-SSLs, which would be an "ecological analog" to the Agency's previously issued soil-screening levels. E-SSLs are risk-based and would be used at soil remediation sites as benchmark levels to indicate if further evaluation of a soil for ecological risks is warranted.</p>	<p>Because DOE has sites with soils potentially requiring remediation, DOE would gain a significant program resource streamlining opportunity if reliable, ecologically based soil screening criteria were available for chemically contaminated soils.</p>	<ul style="list-style-type: none"> • Represented DOE on the EPA Ecological Soil-Screening Guidelines Steering Committee, consisting of members from industry and the Federal government, formed to develop E-SSLs. • Participated in several meetings of the committee, including a June 1998 workshop on developing E-SSLs. • Appointed by EPA as chair of the Task Group on Ecological Modeling.
Environmental Management Systems (EMSs)		
<p>An EMS is a systematic approach to ensuring that environmental activities are well managed in any organization. The most familiar form of an EMS is the 14001 Standard established by the International Organization for Standardization (ISO).</p>	<p>An EMS can provide Federal managers with a predictable structure for handling, assessing, and continuously improving the effectiveness and efficiency of the management of their environmental activities. Properly implemented, an EMS can reduce support costs and improve productivity while advancing environmental protection and performance.</p>	<ul style="list-style-type: none"> • Initiated a dialogue with EPA to clarify the agency's position on EMSs. • Continued a joint effort with EPA's Office of Federal Facilities Enforcement to complete the DOE/EPA <i>Primer on EMSs for Federal Facilities</i>. • Led DOE and Federal agency coordination and awareness of EMS concepts and implementation, including chairing meetings of the Interagency Work Group on EMSs, hosting a panel session at the Waste Management '98 Conference that included discussions on integrating EMS with the DOE Integrated Safety Management System (ISMS), and making several presentations on EMS to DOE organizations and other government organizations.

Table 3. Interagency Regulatory Standards Development (cont.)

Topic/Issue	Potential Impacts	EH-41 Role
Radiation Control Criteria Project		
<p>Mixed radioactive/hazardous wastes at DOE facilities present a unique challenge, both from an environmental protection and worker safety and health standpoint and a legal standpoint. The latter issue is complicated because mixed waste is regulated under two different laws: RCRA (for the hazardous component) and AEA (for the radioactive component). DOE facilities, therefore, are faced with a real dilemma in properly managing their mixed wastes. (Mixed wastes stored at DOE facilities are also subject to provisions of the Federal Facilities Compliance Act of 1992.)</p>	<p>Attempting to manage mixed wastes at DOE facilities to meet two different sets of requirements would place the safety/health of DOE and DOE-contractor workers handling the waste at unnecessary risk. TSD would be difficult and expensive, and environmental contamination could result. DOE could face penalties and fines for non-compliance with requirements.</p>	<ul style="list-style-type: none"> • Led a DOE project, in association with EPA and NRC, to determine if it is feasible to define control criteria (i.e., concentrations of residual radioactive material) in regulated hazardous, chemical wastes at which regulation of the waste for its chemical properties provides acceptable control of the radioactive portion of the waste (i.e., equivalent level of control to that provided by AEA and/or doses “as low as reasonably achievable” or ALARA). If the control criteria concept is feasible, DOE would be able to safely and less expensively dispose of its mixed wastes that meet the criteria. • Collected data from DOE field sites to characterize the mixed wastes that may be subject to the criteria and consulted with EPA and NRC on the project. • During FY 1998 sought the involvement of state governments by providing members of CRCPD with draft and final documents on DOE’s radiation control criteria feasibility study for their review and input. In a related effort, EH-41 led the way in promoting and working towards standards, with EPA and NRC, for the recycle and reuse of scrap metal with residual radioactivity.

Interagency and International Regulatory Standards Development (continued from page 9)

Additional Interagency Regulatory Development Activities (continued)

- Responded to two requests from EPA for information concerning data on non-liquid PCBs, which the agency needed to make a “no unreasonable risk” determination and complete the “Use Authorization” rule for non-liquid PCBs at 40 CFR 761.30(q). EH-41 conducted conference calls with EPA and Savannah River Site (SRS) representatives to clarify various issues associated with the request.
- Led the Department’s participation in the development of Vice President Gore’s Clean Water Action Plan (CWAP). Specifically, EH-41:
 - represented DOE on the Watershed Work Group, which was formed to address the management of watersheds on Federal lands;
 - assisted in reviewing and commenting on the Work Group’s action plan;
 - participated in interagency meetings to review drafts of the CWAP and discuss related activities; and
 - provided input to a multiagency agreement on offering Federal technical assistance to state/local agencies in performing source water assessments for public water systems.
- In response to an invitation from EPA’s Office of Solid Waste, participated in a July 1998 roundtable discussion concerning the land disposal restrictions (LDR) program under RCRA. The “LDR Roundtable II” was part of an EPA reinvention initiative and served as a forum for discussing concerns and suggestions relative to the implementation of the LDR requirements.

Information Sharing and Strategizing

EH-41 routinely interacts with representatives of other Federal agencies (e.g., EPA, NRC, DOD) to remain updated and “brainstorm” on the latest developments and ideas for environmental compli-

ance and protection. Examples of EH-41’s activities in this area during FY 1998 are provided below.

- *Pollution Prevention (P2)* – Along with EM-77 met with EPA’s Office of Federal Facilities Enforcement to discuss each agency’s P2 initiatives, including EPA’s plans for P2 goals after the year 2000 and their emphasis on attaining environmental compliance with P2 activities.
- *EPA Federal Environmental Roundtable* – Participated in several of EPA’s monthly Federal Agency Environmental Roundtable meetings during the year. The meetings allow Federal agency representatives to hear presentations and receive up-to-date information from EPA offices on a wide range of issues related to environmental compliance at Federal facilities. Materials from these meetings are regularly distributed by EH-41 to DOE program and operations offices for their use and information.
- *Defense CAA Issues* – Attended the July and September 1998 meetings of DOD’s CAA Services Steering Committee where discussion focused on current regulatory, legal, compliance, and implementation issues, most of which are relevant to DOE operations.
- *Environmental Program Reinvention* – Met with staff of DOD’s Office of Environmental Security to discuss how DOD services were implementing the Reinventing Environmental Program. The purpose of the meeting was to evaluate the DOD program to determine potential opportunities for DOE programs.
- *DOE NR and CERCLA Policy* – At the September 1998 DOD Tri-Services Meeting on Ecological Risk Assessment, shared DOE’s experiences with CERCLA NR trustees and the DOE policy on integrating NR concerns into environmental restoration response actions.
- *DOE/EPA Interface – External Regulation of DOE Nuclear Safety* – Met with EPA staff to discuss potential environmental issues related to the pilot study for the external regulation of nuclear safety at DOE facilities. The discussions focused on the DOE/EPA interface that may need consideration as part of the external regulation study.

International Representation – Radioactive Waste Management and Safety Standards

EH-41's expertise in matters related to radioactive waste management and radiation protection are of use not only to DOE and other Federal agencies but to international organizations as well. During FY 1998, EH-41 represented the United States:

- ❑ at the IAEA Radioactive Waste Advisory Committee meeting in Vienna, Austria, during the week of December 1, 1997. The meeting covered the status of future guidance documents and focused primarily on completing a requirements document and associated guidance document on performance assessments (PAs) for surface disposal.
- ❑ in meetings of the IAEA's Radioactive Waste Safety Standards Advisory Committee in Vienna, Austria, June 15-19, 1998. The meeting focused on the review of several documents pertaining to radioactive waste management and protection. Many of the documents were forwarded to NRC and EPA to allow them to provide input for EH-41's consideration before the meeting. One of the documents to be reviewed concerned a draft safety requirement on predisposal radioactive waste management, for which EH-41 provided extensive input for earlier versions of the document.

Regulatory Alerts

Daily tracking of pertinent regulatory actions allows EH-41 to remain current on, and notify DOE personnel of, the latest environmental rule-makings and related notices having significance to Departmental operations. During FY 1998 the office announced more than **70** rules and notices to DOE staff. Many of the announcements were made available on the EH-41 Web site as well. (See page 19 for additional information on the EH-41 Web site.) **Table 4** (see pages 15 and 16) provides a sample of the rules and notices, published in the FR, that EH-41 alerted DOE program and/or field offices of during FY 1998 via memorandum or electronic mail (e-mail).

In addition, EH-41's *Weekly Federal Register Digest* continues to provide DOE personnel with

detailed but concise coverage of the latest ES&H-related rules and notices published in the FR. Departmental staff and the general public are able to view the Digest, including issues dating back several years, on the EH-41 Web site.

Table 4. Regulatory Alerts

FR Publication Date	FR Citation	Action
July 21, 1997	62 <i>FR</i> 39058	NRC issued a final rule that amended its regulations concerning the decommissioning of licensed facilities to provide specific radiological criteria for the decommissioning of lands and structures.
August 25, 1997	62 <i>FR</i> 44900	EPA issued a final rule revising the definition of VOCs in 40 CFR 51 by excluding 16 compounds from the definition. Note: This final rule may be of interest to DOE operations because the excluded compounds have potential use as substitutes for ozone-depleting substances (ODSs).
October 3, 1997	62 <i>FR</i> 51854	EPA announced that it will select five existing human health and environmental protection standards for review to determine if they sufficiently protect children's health.
October 6, 1997	62 <i>FR</i> 52194	EPA announced a draft candidate list of constituents that may be considered for regulation as drinking water contaminants under the SDWA.
October 30, 1997	62 <i>FR</i> 58792	EPA published a proposed rule to certify that DOE's Waste Isolation Pilot Plant (WIPP) will comply with the radioactive waste disposal regulations in 40 CFR 191.
November 7, 1997	62 <i>FR</i> 60448	EPA and the U.S. Department of Agriculture issued a notice announcing the U.S. Vice President's memorandum to the heads of Federal agencies concerning the development of a comprehensive plan to improve and strengthen water pollution control efforts across the country.
November 13, 1997	62 <i>FR</i> 60962 and 60976	EPA issued a final rule adding 12 new items to the Comprehensive Procurement Guideline (CPG), which designates items that are or can be produced with recovered materials.
December 30, 1997	62 <i>FR</i> 68026	EPA issued a final rule under Section 609 of the CAA establishing requirements for the servicing of motor vehicle air conditioners (MVACs) that use any refrigerant other than chlorofluorocarbons. Note: This final rule is applicable to DOE motor vehicle repair shops, service stations, and any other DOE facilities that service or dispose of MVACs.
January 6, 1998	63 <i>FR</i> 640	EPA issued a final rule to modify the list of regulated substances subject to accident prevention regulations under CAA Section 112(r)(7).
February 12, 1998	63 <i>FR</i> 7155	EPA published a notice of the latest revisions that have been made or proposed to the CAA Section 112 list of source categories of HAPs and the corresponding schedule for issuing applicable emission standards.
April 17, 1998	63 <i>FR</i> 19216	EPA published a proposed rule to amend the risk management program regulations that were issued under the accidental release prevention provisions of the CAA.

Table 4. Regulatory Alerts (cont.)

FR Date	FR Citation	Action
April 28, 1998	63 <i>FR</i> 20496	The National Park Service published final revisions to the <i>Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to Section 110 of the National Historic Preservation Act</i> .
July 7, 1998	63 <i>FR</i> 36742	EPA published an ANPRM on revisions to the Water Quality Standards regulation at 40 CFR 131.
July 29, 1998	63 <i>FR</i> 40585	EPA proposed to establish new requirements for certain types of Class V underground injection wells regulated under the SDWA.
August 26, 1998	63 <i>FR</i> 45558	EPA published a proposed rule to amend the CPG for Federal agency procurement of products containing recovered materials.

III. Environmental Policy and Guidance

EH-41 benefits DOE environmental policy and standard development activities, both as a competent lead office and a knowledgeable source of assistance on various Departmental initiatives and directives. The office also prepares guidance for DOE and contractor staff on new or changing environmental requirements. In FY 1998 EH-41 provided more than 40 environmental guidance documents, including manuals, regulatory bulletins, information briefs, memoranda, and electronic guidance materials. Additionally, EH-41 continued to offer relevant environmental workshops to DOE and DOE contractor personnel and give presentations on important environmental issues. Information on the office's activities in these areas are presented below.

DOE Policy and Standard Development

10 CFR 834

Title 10 CFR 834, *Radiation Protection of the Public and the Environment*, is being developed by EH-41 to provide protection for the public and the environment from exposure to radiation from DOE operations. It is intended to codify and/or update provisions in Order DOE 5400.5, *Radiation Protection of the Public and Environment*, and Order DOE 5400.1, *General Environmental Protection Program*.

[Proposed 10 CFR 834 was published for public review on March 25, 1993 (58 FR 16268), with a supplemental notice issued on February 22, 1996 (61 FR 6799). Associated implementation guides are also being developed.]

During FY 1998 EH-41 continued working towards resolution of intra- and interagency comments regarding the draft final Part 834. Specifically, the office:

- provided a written response to EPA comments on the draft final standards;

- worked on refining the draft implementation guide, *Evaluating Radiation Doses to Aquatic and Terrestrial Biota for Compliance with 10 CFR 834*;
- actively participated in the DOE Environmental Radiation Control Coordinating Committee (ERCCC) to keep DOE personnel updated and in agreement regarding the standards and associated implementation guides; and
- met with representatives of the Defense Nuclear Facility Safety Board (DNFSB), the Federal oversight body for DOE nuclear facilities, to discuss the status and content of Part 834 and progress in resolving EPA's comments.

Order DOE 450.1

Proposed Order DOE 450.1, *Environmental Protection Management Program*, is intended to replace Order DOE 5400.1. Among other things, the purpose of this Order is to establish environmental protection requirements to ensure that all Department elements manage DOE property and conduct DOE activities in a manner that is protective of public health and the environment. A primary component of the proposed Order is the requirement to develop an Environmental Protection Management Program (EPMP) to address potential hazards to the public and environment. The EPMP is to be incorporated into DOE's missions and ISMS.

EH-41 is preparing the Order for DOE, including drafting DOE M 450.1, *Environmental Management Protection Program Manual*, and DOE G 450.1, *Implementation Guide for Use with Order DOE 450.1*. The office worked on the development of the Order during FY 1998, including the solicitation and review of comments on drafts of the Order.

DOE Guide 450.4

EH-41 is serving on the writing team for the revision of DOE G 450.4, *ISMS Guide*, to clarify its intent and improve implementation of the DOE ISMS by appropriate personnel.

(ISMS is in response to DNFSB Recommendation 95-2, concerning the safety management of DOE facilities and activities. The focus of ISMS is not solely on incorporating safety objectives

into DOE operations management; equal emphasis is placed on health and environmental protection objectives as well.)

During FY 1998 EH-41 submitted extensive comments on the guide, including those focusing on the integration and visibility of environmental protection, P2, environmental performance indicators, and EMSs within the ISM concept.

Order DOE 435.1

Proposed Order DOE 435.1, *Radioactive Waste Management*, is being developed to update Departmental requirements on the proper management of radioactive wastes. [The draft Order was published for public review in the *FR* on August 6, 1998 (63 *FR* 42012).]

EH-41 continued as a solid contributor to the development and review of the draft Order during FY 1998. The office conducted reviews of several versions of the draft Order and participated in several comment resolution meetings.

Radiological Control Position

EH-41 prepared Radiological Control Technical Position 97-E01 (RCTP 97-E01), the DOE/EH technical position on the appropriate descriptors of property containing residual radioactive materials that is released from DOE radiological control under the requirements of Order DOE 5400.5.

The position was prepared in response to requests from a number of field and program offices for the appropriate description or label for property containing residual radioactive material that meets DOE authorized limits for release. The position was coordinated with GC and is consistent with proposed 10 CFR 834.

ES&H and Facility Disposition

The office assisted the Office of the Deputy Assistant Secretary for Nuclear and Facility Safety (EH-3) and the Office of the Deputy Assistant Secretary for Worker Health and Safety (EH-5) in developing DOE-STD-1120-98, *Integration of Environment, Safety and Health into Facility Disposition Activities*. EH-41 reviewed and commented on drafts of the standard and also developed an appendix for it on the identification

of applicable or relevant and appropriate requirements (ARARs) for CERCLA non-time critical removal actions.

P2 Policy

EH-41 provided input to the development of the DOE P2 Policy Statement as part of its role on the Waste Reduction Steering Committee.

The statement was released by the Secretary of Energy (S-1) on Earth Day in FY 1998. It confirms to DOE managers and employees the Department's commitment to P2 and specifically calls for P2 to become an essential part of DOE's ISMS.

ES&H Policy

The Secretarial policy statement on ES&H was issued on April 14, 1998. EH-41 provided assistance with respect to preparing the "environment" portion of the statement and gave extensive input to EH-5 in developing the definition of "Serious Accident/Major Environmental Contamination" within the policy statement.

Biota Dose Assessment

In late FY 1998 EH-41 established the Biota Dose Assessment Committee (BDAC), a technical standards topical committee under the DOE Technical Standards Program. BDAC assists in developing and promoting technical standards and associated guidance for DOE-wide application in assessing radiation doses to aquatic and terrestrial biota. It serves as a forum within DOE for obtaining technical assistance, discussing technical issues, and sharing lessons learned regarding biota dose standards and assessment methods.

Guidance Documents

EH-41 ensures that DOE and contractor staff are aware of the latest developments in environmental protection, cleanup, and management through the preparation of a variety of informative and helpful guidance materials. A **guidance manual** is a published document providing a comprehensive overview of environmental regulatory issues and the means of complying with them. A **regulatory bulletin** is a paper that provides an overview, including impacts to DOE, of a recent

environmental rule. A **Technical Assistance Project (TAP)** report provides guidance or compliance assistance on a specific topic or issue, including actual or hypothetical compliance scenarios. An **information brief** is a two-to-four page document that discusses and provides answers to an environmental regulatory or compliance issue. A **guidance memorandum** contains or introduces attached guidance or compliance information in the environmental regulatory arena. Most EH-41 guidance documents are posted on the office's Web site to ensure wide access to the information. Please see **Table 5** (pages 20–23) for a listing of FY 1998 guidance documents. Unless marked with an asterisk, all of these guidance documents are available on the EH-41 Web site.

EH-41's Web Site

Visitors to EH-41's Web site at

<http://tis.eh.doe.gov/oepa>

have at their disposal a well-organized and user-friendly system for accessing a wealth of environmental information and services.

Since opening in **1994**, the Web site has been visited by nearly **90,000** users. Besides the ability to view more than **1,400** environmental guidance documents and *FR* notices in portable document format (PDF), users are able to quickly find:

- general information about EH-41 and its staff, including the **mission of the office** and its divisions and **staff members'** telephone numbers, e-mail addresses, and areas of technical expertise;
- **DOE consolidated comments**, prepared and/or submitted by EH-41, on other Federal agencies' rulemakings and **regulations currently under review** by the office;
- **updated regulatory information** pertaining to ES&H issues, such as (1) the **Weekly Federal Register Digest**, a summary report of ES&H rules and notices published each week in the *FR* and (2) the **upcoming actions search option**, an interactive reference guide for tracking recent and upcoming regulatory actions of environmental interest for DOE;
- summaries of the major Federal **environmental laws that affect DOE** facilities and programs;
- **environmental workshops** developed or sponsored by EH-41, including on-line access to materials (e.g., slides, viewgraphs) from these workshops;
- **environmental compliance data and reports on DOE facilities**, both complex-wide and site-specific, compiled by EH-41;
- a forum Web page providing **the opportunity to informally participate in open discussions on various environmental topics** such as dose and risk assessments at DOE facilities and ARARs under CERCLA; and
- a "focus area" page with links to separate parts of the Web site providing detailed information on topics such as ODSs and DOE cultural resources management. During FY 1998 a focus area page called "**Envirosearch**" was added. It offers **on-line retrieval of key environmental standards and requirements** for: ecological benchmarks, PCBs, RCRA toxicity characteristic leaching procedures and LDRs, air emissions, and drinking water contaminants.

Additional Environmental Guidance on the EH-41 Web Site

Besides placing traditional written guidance documents on its site, EH-41 also develops and makes available other materials providing updated information on various environmental regulatory issues. Below are some of the materials EH-41 added to the site during FY 1998 for the use and benefit of DOE environmental personnel.

- **Air Quality Designations and Classifications for DOE Facilities** (posted October 1997) – A current, comprehensive listing of air quality attainment/nonattainment designations and classifications for geographic areas in which there is a DOE facility, office, laboratory, or site.

(text continues on page 24)

Table 5. Guidance Documents

Title and Date	Description
Guidance Manuals, Regulatory Bulletins, and TAP Reports	
<i>Cross-Cut Guidance on Environmental Requirements for DOE Real Property Transfers</i> (guidance manual), October 1, 1997	Provides specific direction for DOE field elements in complying with the various environmental requirements associated with the transfer of DOE real property.
<i>RCRA Permitting Guide for Hazardous & Radioactive Mixed Waste Management Facilities; Military Munitions Rule Supplement</i> (guidance manual), October 1, 1997	Addresses the permitting aspects of EPA's February 12, 1997, rule (62 <i>FR</i> 6622) that identifies when conventional and chemical military munitions become hazardous waste under RCRA and the requirements for the safe storage and transport of such waste. Comprehensive coverage of the rule and implications for RCRA permitting, including the issues of Federal/state authority and implementation, are provided in the manual.
<i>Excluded PCB Products</i> (TAP report), November 1, 1997	Responds to a series of inquiries throughout the DOE complex in recent years concerning the applicability of the <i>Excluded PCB Product Rule</i> [40 CFR 761.1(f)(4)] to DOE activities involving the handling of PCB-contaminated materials and equipment. The applicability of this rule has far-reaching consequences for the continued use, demolition and disposal, sale, salvage, and transfer of property across the DOE complex.
<i>Addition of Facilities in Certain Industry Sectors; Revised Interpretation of Otherwise Use; Toxic Release Inventory Reporting; Community Right-to-Know</i> (regulatory bulletin), December 1, 1997	Provides a comprehensive overview, including applicability to DOE and government-owned, contractor-operated facilities, of EPA's May 1, 1997, rule (62 <i>FR</i> 23834) that added several industry groups to the list of facilities subject to the reporting requirements of Section 313 of EPCRA and Section 6607 of the PPA.
<i>Standards for Non-municipal, Non-hazardous Waste Disposal Units Receiving Hazardous Wastes from Conditionally Exempt Small Quantity Generators (CESQGs)</i> (regulatory bulletin), January 1, 1998	Provides an overview of the provisions (e.g., implementation, enforcement) of EPA's July 1, 1996, regulations, effective January 1, 1998, which established national disposal standards applicable to non-municipal, non-hazardous waste disposal units that receive hazardous waste from CESQGs.
<i>Second Comprehensive Guideline for Procurement of Products Containing Recovered Materials</i> (regulatory bulletin), March 1, 1998	Provides an overview, including a discussion on the impacts to DOE operations, of EPA's November 13, 1997, rule (62 <i>FR</i> 60962) adding 12 new items to the CPG. The CPG designates items that are or can be produced with recovered materials and must be purchased with the highest percentage of recovered materials practicable by procuring agencies using appropriated Federal funds.
<i>Chemical Accident Prevention and Risk Management Planning under the CAA</i> (guidance manual), April 28, 1998	Serves as an aid to DOE facilities in determining if they are subject to, and in compliance with, EPA's June 20, 1996, rule (61 <i>FR</i> 31667) requiring certain air sources to develop risk management plans for the prevention of and response to accidental releases of regulated substances.
<i>Incorporating Environmental Justice Principles into the CERCLA Process</i> (guidance manual), May 1, 1998	Summarizes how environmental justice and CERCLA intersect, particularly with respect to how environmental justice issues can arise during the Department's CERCLA response processes. It calls attention to activities within the CERCLA response processes where data gathering, analyses, or procedures may need to be extended or added to help achieve environmental justice.

Table 5. Guidance Documents (cont.)

Title and Date	Description
Guidance Manuals, Regulatory Bulletins, and TAP Reports (cont.)	
<i>Environmental Management Systems Primer for Federal Facilities</i> (guidance manual), June 12, 1998, jointly developed by DOE/EH-41 and EPA*	Familiarizes Federal facility managers with the fundamentals of EMSs in order to help them improve the EMSs at their facilities and to address some important issues that are unique to Federal agencies.
<i>Hazardous Waste Combustors; Revised Standards; Final Rule — Part 1 Issued</i> (regulatory bulletin), August 1, 1998	Provides a comprehensive overview, including its significance to DOE operations, of the main provisions of EPA's June 19, 1998, regulation (63 FR 33782) that finalized certain proposed revised standards under RCRA and CAA applicable to hazardous waste combustion units (i.e., incinerators, cement kilns, and light-weight aggregate kilns).
<i>RCRA Subpart CC Organic Air Emission Standards Technical Amendment: Questions & Answers, Update</i> (TAP Report), August 1, 1998	Addresses in a question-and-answer format additional issues concerning the implementation of EPA's revised standards for controlling organic air emissions from certain hazardous waste management activities.
Information Briefs	
<i>Environmental Management Systems: Code of Environmental Management Principles (CEMP)</i> , December 1, 1997	Describes the CEMP, which was developed by EPA in coordination with several other Federal agencies, including DOE. It was developed in response to EO 12856 and is a voluntary set of five principles for assisting agencies in improving the effectiveness of environmental protection activities.
<i>RCRA Subpart CC Organic Air Emission Standards: Tanks</i> , January 1, 1998	Provides a comprehensive review of the RCRA requirements in 40 CFR 264 and 265 for controlling organic air emissions from hazardous waste tanks.
<i>Environmental Management Systems: Getting Started</i> , March 1998	Addresses activities involved in implementing an environmental management system.
<i>Environmental Management System: Institutionalizing Pollution Prevention</i> , March 1998	Describes how an EMS can enhance DOE's P2 efforts.
<i>Non-Time-Critical Removal Actions</i> , April 1, 1998	Discusses the concept of CERCLA "non-time-critical" removal actions in responding to releases or threatened releases of hazardous substances into the environment, with emphasis on their use by DOE environmental restoration program managers.
<i>CERCLA Requirements Associated with Real Property Transfers</i> , April 1, 1998	Provides a comprehensive summary of the CERCLA statutory and regulatory requirements pertinent to the transfer of DOE real property.
<i>RCRA Subpart CC Organic Air Emission Standards: Waste Determination</i> , April 1, 1998	Focuses on the waste determination requirements of the RCRA organic emissions standards for surface impoundments, tanks, containers, and miscellaneous units at hazardous waste treatment, storage, and disposal facilities (TSDFs).
<i>RCRA Subpart CC Organic Air Emission Standards: Containers</i> , April 1, 1998	Provides a comprehensive discussion of the requirements applicable to containers that are subject to the RCRA organic emissions standards in 40 CFR 264 and 265 for surface impoundments, tanks, containers, and miscellaneous units at hazardous waste TSDFs.

Table 5. Guidance Documents (cont.)

Title and Date	Description
Information Briefs (cont.)	
<i>Using Remedy Monitoring Plans to Ensure Remedy Effectiveness and Appropriate Modifications</i> , July 1, 1998	Defines and outlines the key elements of remedy monitoring plans developed for CERCLA remedial actions and RCRA corrective actions.
<i>Effects of Future Land Use Assumptions on Environmental Restoration Decision Making</i> , July 1, 1998	Illustrates and discusses how the consideration of reasonably anticipated future land uses impacts remediation decision making under CERCLA and RCRA.
Guidance Memoranda	
<i>Upgrading of Existing Underground Storage Tank (UST) Systems</i> , October 15, 1997	Provides DOE elements with information concerning an upcoming compliance milestone in 40 CFR 280 for the upgrading of existing petroleum and hazardous substance UST systems (i.e., tanks and ancillary piping). Instructions are provided on accessing additional guidance pertaining to the Federal UST program on EH-41's Web site and the EPA Office of USTs Web site.
<i>Uncontrolled Hazardous Waste Sites; Listing and Deletion Policy for Federal Facilities,*</i> November 26, 1997	Provides notification and an overview of EPA's November 24, 1997, notice (62 FR 62523) that describes the agency's interim final policy revision for deleting Federal facilities listed on the NPL and deferring them to RCRA corrective action authorities.
<i>Guidance on Testing Requirements for Mixed (Radioactive and Hazardous) Waste</i> , December 23, 1997	Announces the availability and provides a summary of the November 1997 (62 FR 62079) joint NRC and EPA final guidance on the testing requirements for mixed waste.
<i>EPA's Interim Final Directive on Monitored Natural Attenuation,*</i> February 19, 1998	Announces and gives an overview of the EPA Office of Solid Waste and Emergency Response Directive 9200.4-17, <i>Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites</i> , made available through a December 8, 1997, FR notice (62 FR 64588).
<i>Areas Where the 1-Hour Ozone Ambient Standard No Longer Applies</i> , February 19, 1998	Advises program and field offices that some DOE facilities subject to the 1-hour ozone National Ambient Air Quality Standard will soon become subject instead to the 8-hour standard. EPA's January 16, 1998, regulation (63 FR 2726) to revoke the old 1-hour standard in certain areas and its implications for DOE facilities are discussed.
<i>Stratospheric Ozone Protection Final Rule Related to Release and Disposal of Halons and Training of Technicians</i> , March 13, 1998	Outlines and describes the main requirements of EPA's March 5, 1998, rule (63 FR 11084), issued under Section 608 of the CAA, that establishes standards for the manufacture and handling of halon and halon-containing equipment. The rule is relevant to DOE's halon repository at the SRS and to DOE and contractor fire protection personnel in their handling of halon in fire extinguishing equipment.
<i>Analysis of Final Rule that Amends Leak Repair Provisions of Refrigerant Recycling Regulations</i> , April 24, 1998	Summarizes EPA's August 8, 1995, amendments (60 FR 40420) to the refrigerant recycling regulations under Section 608 of the CAA. The rule, which has several provisions of particular interest to DOE operations, provides greater flexibility to owners and operators of industrial process sources and to some Federally-owned commercial and comfort-cooling refrigerant sources with respect to leak repair requirements.

Table 5. Guidance Documents (cont.)

Title and Date	Description
Guidance Memoranda (cont.)	
<i>Delay of Implementation Date for Clean Fuel Fleet Program Requirements</i> , May 6, 1998	Summarizes EPA's April 23, 1998, final rule (63 <i>FR</i> 20103) which delays by one model year the requirement that a covered area's state air quality implementation plan initiate a Clean Fuel Fleet Program operator purchase requirement under the CAA. Potentially affected DOE facilities are identified in the memo.
<i>Final Rule for Compliance Assurance Monitoring (CAM)</i> , May 8, 1998	Describes EPA's final CAM regulation (October 22, 1997, 62 <i>FR</i> 54900) that establishes requirements for major stationary sources of air pollution subject to CAA Title V air quality permitting and which use control devices to achieve compliance with emission limits. The memo highlights the components of the CAM rule that may be pertinent to DOE operations and references additional guidance available from EPA.
<i>Interim Air Quality Policy on Wildland and Prescribed Fires</i> , June 3, 1998	Provides notification, a summary, and related information on EPA's May 21, 1998, notice (63 <i>FR</i> 27957) in which they announced their "Interim Air Quality Policy on Wildland and Prescribed Fires." An EPA Internet address for accessing the policy and additional information is provided. The information is useful as several DOE sites utilize prescribed fires.
<i>Analytical Methods for Measuring Radionuclides in Drinking Water</i> ,* June 23, 1998	Provides, for information and use, an attached copy of the document entitled <i>Compendium of EPA-Approved Analytical Methods for Measuring Radionuclides in Drinking Water</i> .
<i>Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments</i> , August 19, 1998	Provides an overview of, and information on obtaining, EPA's interim final guidance for designing and conducting an ecological risk assessment under CERCLA. The Internet address for EH-41's "Dose and Risk Resources Web Page" is also provided for individuals desiring guidance, policy, and technical assistance on ecological, radiological, and dose and risk issues relevant to DOE facilities and operations.
* Indicates items that are not available on the EH-41 Web site.	

Additional Environmental Guidance on the EH-41 Web Site (continued from page 19)

- ❑ ***Use of HCFC-123 as a Replacement for Other Ozone-depleting Refrigerants*** (posted October 1997) – A short, informational article assessing the health and safety implications of using hydrochlorofluorocarbon-123 (HCFC-123) as a replacement refrigerant. The article concludes that HCFC-123 (an important, transitional substitute refrigerant in use at some DOE facilities) is a safe and efficient chemical for refrigeration and air conditioning use when handled and used in accordance with established practices.
- ❑ ***Hall Amendment Summary*** (posted February 19, 1998) – A summary providing information on the historical background of the Hall Amendment and its provisions that apply to Section 646 of the DOE Organization Act.
- ❑ ***RCRA Corrective Action and CERCLA Remedial Action Reference Guide*** (posted April 16, 1998) – A concise, side-by-side overview of major topics and steps of the RCRA corrective action and CERCLA remedial action processes. The guide focuses on the statutory and regulatory requirements of each program.
- ❑ ***EH-41 Wetlands Update*** (posted May 22, 1998) – A bulletin providing the latest information on the DOE and Federal requirements applicable to wetlands, including the process for proposed DOE actions in a wetland.
- ❑ ***NPDES Storm Water Permitting Regulations*** (posted December 9, 1997; revised May 9, 1998) – A five-page document providing information on recent developments regarding EPA's National Pollutant Discharge Elimination System (NPDES) program and requirements.
- ❑ ***Issuance, Reissuance, and Modification of Nationwide Permits—Final Notification*** (posted May 29, 1998) – A seven-page notice describing the purpose of and implementing regulations for nationwide permits under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

- ❑ ***1998 Compliance Deadline for UST Systems*** (posted August 4, 1998) – An analysis of the basic requirements that must be met in December 1998 by certain UST systems in accordance with RCRA regulations.

Automated Environmental Guidance

EH-41 also develops automated guidance tools for its Web site to aid DOE and contractor environmental personnel with various tasks and procedures. Three examples are given below.

The *RQ-calculator* assists in determining whether a hazardous substance release is subject to the reporting requirements of CERCLA Section 103 (a) (i.e., it has exceeded its RQ within a 24-hour period). The RQ-calculator is a Web accessible computer program that allows the user to quickly determine whether any substance that has been spilled is a regulated substance and to advise whether the amount spilled exceeded its RQ.

During FY 1998 EH-41 added the *Special Requirements Applicable to Hazardous Waste* automated guidance to its collection of on-line programs designed to assist DOE personnel in hazardous waste management activities. The program is Windows-based and designed to help users determine what regulations apply when dealing with a RCRA hazardous waste. A series of questions and answers guides the user through modules to determine which RCRA regulations apply to the waste in question. The questions and answers include all major information from the RCRA regulations found in 40 CFR 261.

EH-41 released its *Site Conceptual Exposure Model (SCEM) Builder* in FY 1997. It is a Windows-based program that develops the familiar site conceptual models that EPA requires as part of the documentation for CERCLA and RCRA risk assessments. The SCEM Builder allows users to automatically enter site or problem specific parameters or choose from the program menu the waste release or environmental parameter details to be entered into the model. The model is then automatically developed and printed as program output, thereby significantly decreasing the time required to generate the needed documents for risk assessments. Project managers use SCEMs to develop their initial and advanced understanding of how a hazardous waste site “works” (i.e., they

use SCEMs to conceptualize and visualize relationships between waste sources, release mechanisms, exposure pathways, and human and ecological receptors).

The SCEM continues to be a useful risk assessment tool. It is being used in DOE risk assessment training that EH-41 is involved in, and EPA's RCRA office has considered it as a training aide in its Corrective Action Workshops. EH-41 has offered EPA assistance in use of the software.

Recognition

EH-41's Web site and various automated guidance tools have already begun to gain attention for their quality.

During FY 1998 EH-41 submitted nominations for its Web site and underlying automated programs and databases (i.e., *EnviroText*, *RQ-Calculator*, and *SCEM*) for the Global Information Infrastructure (GII) Awards. The Web site and programs/databases all made the semifinal round of judging, and *EnviroText* was selected as one of the six finalists in the government (both state and Federal) category. *EnviroText* is an on-line regulatory database that contains congressional information, Federal environmental laws and regulations, as well as Indian tribal codes and treaties.

Articles for DOE Environmental Newsletters

In addition to developing environmental guidance materials and computer tools, EH-41 regularly contributes articles to DOE's *ES&H Synergy* and *Envirowatch* newsletters.

ES&H Synergy is a quarterly newsletter published by EH to promote awareness and information exchange of all ES&H issues impacting DOE personnel and contractors. It is available on the Internet at <http://tis.eh.doe.gov/docs/synergy/synergy.html>.

Envirowatch provides EM professionals with headline-worthy articles on new and emerging environmental policies, regulations, legislation, and litigation. It is available for viewing on the Internet at <http://www.em.doe.gov/em75/envwatch>.

Please see **Table 6** on the following pages for a listing of articles that EH-41 prepared during FY 1998.

EH-41 Workshops and Courses during FY 1998

Since September 1989, EH-41 has developed and conducted environmental training workshops that provide another avenue to assist DOE and contractor staff in understanding and implementing Federal environmental regulatory programs and DOE environmental orders, directives, and guidance. In FY 1998 13 different types of workshops were held or sponsored by EH-41 that were attended by numerous participants. The following are highlights of these workshops.

- ❑ ***Site Environmental Report (SER) Workshop***
This one-day workshop presented proposed changes, fostered an exchange of ideas, and encouraged sharing of "lessons learned" in the preparation of the annual SERs as required by DOE 5400.1, *General Environmental Protection Program*, and DOE 231.1, *Environment, Safety and Health Reporting*. The workshop also provided an opportunity for discussion of additional reporting suggestions, streamlining the SERs, public involvement, and mechanisms for stakeholder participation. The use of the Internet as a tool for information sharing in the development and accessibility of SERs, both within DOE and with its stakeholders, was a topic of discussion as well. This workshop provided an information exchange forum that would result in increased quality, consistency, and timely release of the SERs to the public and other DOE customers in the future. This workshop was presented in Washington, D.C., to 30 people.
- ❑ ***Radionuclide National Emission Standards for Hazardous Air Pollutants (NESHAPs) Workshop***
This one-day workshop was held to promote information exchange and covered areas associated with NESHAPs implementation at sites. Topics discussed included NESHAPs/DOE National Status; finalization of ANSI N13.1; CAP88-PC, version 2.0; and the impact of reindustrialization and new technologies on stack sampling. This workshop was presented in Minneapolis, Minnesota, to approximately 30 attendees.

(text continues on page 28)

**Table 6. Articles for DOE Environmental Newsletters
during FY 1998**

Title	Publication Date
ES&H Synergy	
<i>1998 Compliance Deadline for UST Systems</i>	Fall 1997
<i>New Hazardous Substance Management Tools</i>	Fall 1997
<i>EPA Releases Guidance on Hazardous Waste Facility Siting</i>	Fall 1997
<i>Updated PCB Requirements Scheduled for Approval in 1998</i>	Winter 1998
<i>DOE Participates in Organization for Economic Cooperation and Development Workshop in Stockholm</i>	Winter 1998
<i>EPA Evaluates Amending Hazardous Waste Recycling Regulations</i>	Winter 1998
<i>NEPA and ISO 14001—A Significant Difference</i>	Winter 1998
<i>EPA Interim Policy on Monitored Natural Attenuation</i>	Spring 1998
<i>New Waste Minimization Prioritization Tool Helps Facilities Identify Chemicals of Greatest Concern</i>	Spring 1998
<i>EPA Issues Guidance on Section 7003 of RCRA</i>	Summer 1998
<i>Multimedia Pollution Prevention Permitting Project Focuses on Pollution Prevention</i>	Summer 1998
<i>Joint NRC/EPA Mixed Wastes Testing Guidance</i>	Summer 1998
Envirowatch	
<i>Clean Water Action Plan</i>	February 1998
<i>Water Rad Rule on Horizon</i>	February 1998
<i>Technical Standards for Hazardous Waste Combustion Facilities (RCRA/CAA)</i>	February 1998
<i>EPA Notice on Emissions Monitoring for Hazardous Waste Combustors</i>	February 1998
<i>Property Transfer Issues</i>	February 1998
<i>Toxic Chemical Release Inventory (TRI) Reporting</i>	February 1998
<i>PCBs Disposal Amendments (also known as the PCB Mega Rule)</i>	February 1998
<i>EPA Urges DOE to Withdraw Radiation Protection Rule</i>	February 1998
<i>RCRA and Clean Air Act Priority Enforcement</i>	March 1998
<i>Underground Storage Tank Deadline by December 1998</i>	March 1998
<i>Senate Accelerated Environmental Restoration Bill</i>	April 1998
<i>Revised Mercury Treatment Standards</i>	April 1998
<i>EPA Plans Mixed Waste Disposal Rule</i>	April 1998
<i>Generic Cleanup Strategies</i>	April 1998
<i>Listing and Deletion Policy for Federal Facility Sites on EPA's Superfund National Priority List (NPL)</i>	April 1998
<i>HazWaste Combustion Rule: Phase I</i>	May 1998
<i>RCRA Hazardous Waste Identification Rule (HWIR) for Contaminated Media</i>	May 1998
<i>Dose and Risk Assessment Web Page</i>	May 1998
<i>Clean Air Act General Conformity Rule</i>	May 1998

**Table 6. Articles for DOE Environmental Newsletters
during FY 1998 (cont.)**

Title	Publication Date
Envirowatch (cont.)	
<i>EPA Issues LDR Phase IV Final Rule</i>	June 1998
<i>DOE Concerns over EPA Plans for Rad Water Standards</i>	June 1998
<i>Guidance on EPA's Refrigerant Leak Repair Regulation</i>	June 1998
<i>Property Leasing: Hall Amendment</i>	June 1998
<i>New Superfund Off-Site Disposal Policy</i>	June 1998
<i>CERCLA Streamlining Success Stories</i>	June 1998
<i>Land Disposal Restriction (LDR) Phase IV Effective Date Issues</i>	September 1998
<i>PCB Disposal Amendments</i>	September 1998
<i>PCB Training Course Dry Run/Pilot Class</i>	September 1998
<i>EPA Proposed Guidance for Ozone and Particulate Matter</i>	September 1998
<i>DOE Comments on EPA Institutional Controls Manual</i>	September 1998
<i>Federal Agency Environmental Program Planning (FEDPLAN)</i>	September 1998
<i>Review of Natural Resources Integration Policy</i>	September 1998
<i>Amendments to Hazardous Chemical Reporting Thresholds Streamlining Requirements</i>	September 1998
<i>Interagency Work Group on Source Water Assessments</i>	September 1998
<i>Request for Field Data on Ground Water Standards</i>	September 1998
<i>Guideline for Procurement of Products Containing Recovered Materials</i>	September 1998

EH-41 Workshops during FY 1998

(continued from page 25)

❑ ***RCRA Corrective Action Course—National Environmental Training Office (NETO)***

This three-day course described the history of the corrective action program and how it is expected to continually change in the future. Interactive lecture sessions interspersed with video presentations and case studies were used to describe how DOE facilities could manage the corrective action program to achieve results. Subjects that were discussed included the 1990 proposed rule; the stabilization initiative; determinations of technical impracticability; risk assessment and land use assumptions; management of remediation waste; regulator and stakeholder relations; Corrective Action Management Units and Temporary Units; integrations with other programs, especially CERCLA; and recent and future developments, including EPA's ANPRM and the proposed HWIR, and their impacts on the corrective action program. The course ended with a roundtable discussion aimed at providing practical suggestions for addressing today's problems at participants' DOE facilities. At the conclusion of the workshop attendees were able to describe the corrective action process; discuss how the program has evolved over time; identify key decision points; identify options for proceeding at these decision points, including accelerated options; and develop a plan for completing facility corrective action obligations. This course was presented in Las Vegas, Nevada, to 14 participants.

❑ ***Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) Section 313 Toxic Release Inventory (TRI) Reporting Requirements—NETO***

This three-day course consisted of a series of presentations covering the reporting requirements of EPCRA Section 313 and the PPA of 1990. The course also addressed the reporting requirements as they apply to Federal agencies as a result of EO 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements*. A variety of hands-on exercises using the TRI reporting Form R and associated guidance materials were used to help participants understand the TRI reporting process. A half-day module covered the re-

vised interpretation of the "otherwise use" threshold and new industry categories that must be reported. This course was presented in Aiken, South Carolina, and Idaho Falls, Idaho, to 35 attendees.

❑ ***Release Reporting and EPCRA***

This two-day course focused on the episodic release reporting requirements in CERCLA Section 103 and EPCRA Section 304. The course explained the notifications that must be made to Federal, state, and local entities as required under CERCLA Section 103 and EPCRA Section 304 and also covered the Occurrence Reporting and Emergency Management notification and classification systems established by DOE Orders. The course covers the types of releases that must be reported, when and by whom; use of the "mixture rule" in reporting releases of hazardous wastes; continuous release reporting; emergency planning; hazardous chemical inventory reporting; a case study of the tritium release at the SRS plant; and insight into state and local regulators' expectations. This course was presented in Aiken, South Carolina, and Idaho Falls, Idaho, to a combined total of approximately 45 participants.

❑ ***Facility Disposition Principles: Integrating Safety and Enhancing Project Cost Effectiveness—Pilot Course***

This course addressed regulatory requirements for decontamination and decommissioning (D&D) under CERCLA, other laws, and DOE Orders; principles of environmental restoration and other streamlining programs that could apply to D&D activities; project management of D&D and programs under CERCLA; strategic evaluation of direct and indirect cost impacts associated with D&D projects; and methods that effectively combine the above issues to present an integrated set of strategic tools to assist workshop attendees in streamlining D&D projects. The training approach was an interactive classroom lecture setting extensively supplemented with "lessons learned" experiences and case studies that were carried through the workshop. This pilot course was presented in Oak Ridge, Tennessee, to approximately 40 participants.

❑ ***RCRA Orientation for Facility Managers—Self-Study Course***

This self-study course was developed to introduce users to RCRA. Course materials were derived from the more formal three-day RCRA orientation classroom training, but were expanded by developing two new modules to meet the needs of Nuclear Safety Managers. One of the new modules compares and contrasts RCRA closure and corrective action with CERCLA remedial action by incorporating the Oak Ridge Reservation as an example of a radioactively contaminated site that was closed under RCRA, but is undergoing remediation under CERCLA. The other module focused on emerging regulations and offered a snapshot of those expected to impact the Department most dramatically. Electronic files containing the subject course viewgraphs and handouts in PDF format can be accessed via the EH-41 Web site.

❑ ***Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) Training***

This four-day workshop covered an overview of the radiation survey and site investigation process, survey planning and design, field measurement methods and instrumentation, and interpretation of survey results. The workshop was presented in Denver, Colorado; Richland, Washington; Chicago, Illinois; Albany, New York; Oak Ridge, Tennessee; and Long Island, New York.

❑ ***Natural Resource Damage Assessment (NRDA) and Related Natural Resource Trustee (NRT) Topics—Pilot Workshop***

Topics covered during this half-day pilot workshop included implementing NR trustee responsibilities, understanding CERCLA's NRDA regulations, implementing DOE's policy on integrating NR risks into environmental response actions, and overview of NRDA and trustee issues at the SRS. This workshop was presented in Washington, D.C., to approximately 20 participants.

❑ ***Principles of Environmental Restoration—NETO***

This two-day course provided participants with a conceptual framework, logic process, and proven tools that can be used to make efficient and effective decisions in the conduct of

environmental restoration activities. The instruction introduced the "Streamlined Approach for Environmental Restoration (SAFER)," which provides for problem identification, data collection, decision making, and the use of early actions in a phased-response mode for rapid risk reduction. The course emphasized the importance of early stakeholder involvement and also presented the concepts of presumptive/generic remedies and how to identify when and how they can be used at DOE sites. The course presented four principles: (1) building an effective core team, (2) defining the problem clearly and consistently, (3) identifying likely response actions early, and (4) actively managing uncertainty as the underlying strategic basis for successful streamlining of environmental restoration projects. One of the goals of the course was to provide a forum where all the parties responsible for environmental restoration at DOE sites could begin to work collaboratively in a team environment that could then carry over to actual projects. During the training participants applied the principles by working in small, multi-organizational groups, or "core teams," to complete several exercises and participate in case studies based on actual site cleanups. This course was presented in Berkeley and Burbank, California, to 50 participants and Chicago, Illinois, to 49 participants. The courses held in California were sponsored by NETO and the State of California.

❑ ***Site Conceptual Exposure Model (SCEM) Builder Pilot Workshop***

This one-day pilot workshop was developed to demonstrate SCEM Builder applications and to provide instruction on conceptual modeling in the environmental restoration setting. The topics covered included application of SCEMs in the project planning, site assessment, and remedy selection and post implementation phases of environmental restoration projects; SCEM Builder functionality demonstration and hardware requirements; and demonstration cases using the SCEM Builder. This workshop was presented in Washington, D.C., to approximately 15 participants.

- ❑ ***Technical Assistance Workshop on Conducting a Preliminary Gap Analysis***
This one-day workshop was developed to identify gaps, strengths, and weaknesses of current management systems and to provide recommendations on implementing an EMS that conforms to the ISO 14001 standard. This workshop was presented in Idaho Falls, Idaho, to approximately 35 attendees.
- ❑ ***Workshop Establishing a DOE Topical Committee on Environmental Management Systems (EMS)***
The primary purposes of this one-day workshop were: (1) to introduce DOE EMS practitioners to the benefits the EMS Topical Committee can provide as a forum for identifying issues, meeting peers, developing cross-cutting activities, and fostering information exchange; (2) to review, and amend as needed, the Draft Charter for the DOE Topical Committee on EMS; (3) to discuss current EMS issues and the status of EMS implementation at DOE; and (4) to develop a work plan of priority interests and activities for the Topical Committee on EMS. This workshop was presented in Washington, D.C., to 40 participants.

Special Presentations

The office also addresses DOE policy and guidance needs by giving special briefings and presentations on selected issues to program and field offices and at various DOE conferences. Additionally, to inform outside organizations of DOE policies, EH-41 gives talks at national seminars and meetings. Provided below are examples of EH-41's activities in this area during FY 1998.

- ❑ Environmental Management Systems, Including the ISO 14001 Standard—Briefing of Fernald senior DOE and contractor staff
- ❑ Implementation of an Environmental Management System (EMS) Based on the ISO 14001 International Standard—Briefing of Idaho Operations Office (ID) senior management and Lockheed Martin Idaho Technology Company
- ❑ DOE-STD-1120-98, "Integration of Environment, Safety and Health into Facility Disposition Activities"—Briefing of EH-4
- ❑ Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)—X-change '97: The Global D&D Marketplace Conference
- ❑ DOE's Process for Establishing Authorized Limits for Material and Equipment Release Streams—X-change '97: The Global D&D Marketplace Conference
- ❑ EPA's Proposed Air Emission Standards for Hazardous Waste Combustors—Briefing of EH and EM staff and management
- ❑ "Phase III" Negotiations with EPA on an Agreement to Conduct Annual Environmental Management Systems Audits—Integrated Safety Management System Lessons-learned Workshop
- ❑ New Developments in Radionuclide Continuous Emission Monitoring (CEM)—2nd Annual Meeting of the Interagency CEM Coordinating Committee (ICCC)
- ❑ Use of the Site Conceptual Exposure Model (SCEM) Builder during Environmental Site Investigations—Waste Management '98 Conference
- ❑ The Expanding Role of Environmental Management Systems in DOE—Waste Management '98 Conference
- ❑ Draft Results on the Radiological Control Criteria Approach for Hazardous Wastes—CRCPD Workshop
- ❑ Implementation of Environmental Management Systems in the Federal Government—Global Environmental Management Initiative annual meeting
- ❑ EPA's Waste Minimization Prioritization Tool—P2 Workshop
- ❑ DOE's Policy for Management of Environment, Safety and Health (DOE Policy 450.4)—National Environmental Policy Act (NEPA) Compliance Officers meeting
- ❑ Using Environmental Management Systems as a Self-Assessment Tool—National Oceanic and Atmospheric Administration conference

- ❑ Environmental Management Systems, Audit Protocols, and Integrated Safety Management—National Aeronautics and Space Administration’s strategic planning workshop
- ❑ Use of Environmental Management Systems in the Public Sector—Federal Facilities Council meeting
- ❑ Environmental Management Systems as a Component of Integrated Safety Management, and a DOE-wide Perspective on Environmental Management Systems—Training program on ISO 14000 and P2
- ❑ The EH-412 Radiation Control Criteria Study—CRCPD annual meeting
- ❑ Progress on DOE TRI Reduction Goal, Update of EPA’s TRI Expansion Efforts, and Results of DOE TRI Chemical Use Reporting Pilot—DOE P2 Conference
- ❑ Integration of Environmental Management Systems (EMSs) into Sites’ Integrated Safety Management Systems, EMS Auditing Issues, and the Implementation Status of EMSs across DOE—ISO 14001 Lead Auditor Course
- ❑ Public Perception of Radiation Risks—New England Chapter of the Health Physics Society Annual Meeting
- ❑ Update on the Clean Water Action Plan (CWAP) and the Implementation Plan Being Developed by EH for DOE Review—Water Resource Issues Work Group meeting
- ❑ Update on the Development of Revised MCLs for Radionuclides and the Issues for DOE that Have Been Raised Regarding the Approach that EPA Is Taking—Water Resource Issues Work Group meeting
- ❑ Cleanup Standards for Radioactive Materials—annual meeting between DOE and representatives of the Republic of the Marshall Islands
- ❑ DOE’s Experiences in Implementing Environmental Management Systems—Bridging Institutions in Environmental and Safety Policy Conference
- ❑ DOE Standards for and Implementation Guidance on Recycling and Reusing Metal Containing Residual Radioactive Material—Beneficial Recycle and Reuse Conference
- ❑ The Mission and Activities of the Interagency Steering Committee on Radiation Standards (ISCORS) and its Subcommittees—Briefing of representatives from the Office of the Assistant Secretary for Defense Programs (DP), the Office of Science (SC), and EM
- ❑ Proposed Secretarial Directive to Accelerate DOE’s Phaseout of Class I Ozone-depleting Refrigerants by Promoting Use of Privatized Funding Schemes—Briefing for the Assistant Secretary for Environment, Safety and Health (EH-1) and EH-4
- ❑ DOE’s Experiences with CERCLA Natural Resource Trustees and DOE’s Policy on Integrating Natural Resource Concerns into Environmental Restoration Response Actions—DOD Tri-Services Meeting on Ecological Risk Assessment
- ❑ Site Conceptual Exposure Model Builder—TechnoVentions ’98 conference

IV. Management Support

The combined experience and technical expertise of EH-41 staff members in the environmental arena provide EH and other Departmental organizations with a broad knowledge base to draw from in dealing with various regulatory and compliance issues. EH-41 utilizes several different avenues to ensure its abilities support and enhance DOE environmental protection activities. First, the office initiates or actively participates in projects and activities designed to improve Departmental compliance with environmental standards. Second, EH-41 routinely responds to requests for technical assistance or information and performs reviews of Departmental ES&H documentation. Lastly, the office provides needed leadership or expert advice as a chair of or participant in DOE work groups and committees. Examples of EH-41's performance in these areas during FY 1998 are listed below.

Environmental Compliance/Assistance Projects

Low-level Waste (LLW) Facility Reviews

EH-41 contributed significantly to the DOE LLW Federal Review Group (LFRG) in determining the technical adequacy of the PA/Composite Analysis (PA/CA) for various LLW sites around the DOE complex. EH-41 took part in LLW technical review team visits to SRS and the Nevada Test Site (NTS) as part of the PA/CA review for the LLW facilities at those sites. Reviews of the PA/CA for LLW disposal sites at ORNL and LANL were conducted as well. Besides the site visits, EH-41 provided both written and oral input to the reviews, including participation in numerous meetings and teleconferences with other DOE personnel.

Ground Water Monitoring at SRS

EH-41 had a leadership role on the DOE Ground Water Protection Work Group's technical peer review of the quality assurance/quality control (QA/QC) procedures for ground water

monitoring at SRS. SRS requested the review as a means of responding to a recent DOE Office of Inspector General's (IG's) report that recommended revisions to the QA/QC procedures to reduce costs. EH-41 and the review team visited SRS to conduct the review and, thereafter, developed a report containing observations and recommendations concerning the technical adequacy of the QA/QC procedures and the data validation process used at the site. The recommendations were aimed at providing adequate quality data, based on customer needs, with lower costs and a more rapid turn-around time.

Environmental Restoration Streamlining

As part of a DOE peer review process, EH-41, in conjunction with the Office of Program Integration (EM-43), select DOE sites, EPA, and state agencies, prepared and disseminated information on the application of streamlining principles to successfully address environmental restoration situations at DOE facilities. The streamlining principles were developed by DOE, including EH-41, and EPA to improve cleanups under RCRA and CERCLA and were first described in the joint DOE/EPA "Principles of Environmental Restoration" course, which is currently provided by DOE's NETO in association with EM-43, EH-41, and EPA. Below are the titles of the documents and the benefits achieved at each site from applying the principles. (Each document is available on EH-41's Web site.)

- *Expediting the Removal Approach for Remediating and Releasing the Mound Plant* – The benefits achieved at Mound amount to an estimated lifecycle cost savings of \$2 billion. The expected acceleration of the site exit schedule is 25 years.
- *Accelerating the RI/FS Process for the Old Radioactive Waste Burial Ground at the Savannah River Site* – The benefits achieved at SRS amount to a project cost savings of \$5 million and a schedule reduction of two years.
- *A Lessons Learned Review of the Double Tracks Project at the Nevada Test Site* – The benefits achieved at NTS amount to an estimated cost savings of \$14–22 million.

Risk Assessment Strategies

Because of EH-41's experience with risk assessment issues, they were asked by EM during FY 1998 to assist in strategic planning for the EM Center for Risk Excellence (CRE). The CRE seeks to develop strategies for addressing environmental risk issues that are relevant to DOE programs and operations. During the year EH-41:

- participated in strategic planning meetings for EM's CRE,
- prepared a module identifying long-term stewardship issues and strategies for inclusion in the CRE strategic plan,
- partnered with CRE in developing strategies to address environmental risk issues, and
- served as a technical editor and prepared articles for the EM CRE's Risk Excellence Notes.

EcoRisk Tools

EH-412 sponsored/coordinated the development of various ecological risk projects and associated reports that became available at the beginning of FY 1998. The projects/reports were funded through an Interagency Agreement between DOE and EPA's National Center for Environmental Assessment (NCEA), under the auspices of the Strategic Environmental Research and Development Program (SERDP). The following deliverables were provided to NCEA during FY 1998:

- Methods and Tools for Estimation of the Exposure of Terrestrial Wildlife to Contaminants,*
- Effects of Ionizing Radiation on Terrestrial Plants and Animals: A Workshop Report, and*
- A Guide to the ORNL Ecotoxicological Screening Benchmarks.*

These deliverables provide DOE program managers with a better understanding of the technical basis, appropriate application, and regulatory acceptance of ecological screening benchmarks in general and the ORNL benchmarks in particular. *A Guide to the ORNL Ecotoxicological Screening Benchmarks* was made available on the EH-41 Web site.

Communicating NR Issues

The office maintained open lines of communication within DOE regarding NR issues. EH-41 accomplished this, and continues to do so, through its leadership role on the DOE NR Trustee Coordinators Steering Committee. For example, EH-41 conducted a video conference on January 29, 1998, to provide committee members, composed of various DOE program and field office representatives, with:

- updated information on relevant NR issues, including EPA's position on incorporation of NR risks in CERCLA documents and Departmental interactions with other Federal NR trustees, and
- the opportunity to share information on site-specific NR issues and activities.

Such meetings allow EH-41 to stay aware of the progress of DOE sites in implementing NR concerns into environmental response actions and to respond to pertinent issues.

NR/Environmental Restoration Integration

A DOE policy to address the Department's responsibilities as both an NR trustee and a lead response agency for environmental restoration activities at its sites was signed by the Assistant Secretary for Environmental Management (EM-1) at the end of FY 1997. EH-41 worked with EM to develop the policy and has since then made it self available to various DOE sites to assist with implementation. The following examples highlight the office's activities in this arena during FY 1998.

- Visited SRS on several occasions to assist the SRS Environmental Protection Division (EPD) and the Environmental Restoration Division (ERD) with a project to integrate CERCLA's ecological risk assessment requirements with the SRS NR Trustees' concerns. Specifically, EH-41 assisted EPD/ERD with project scoping meetings and work plan development concerning plans for ecological risk assessments of CERCLA operable units at the site.

- ❑ Traveled to the Fernald Environmental Management Project (FEMP) site in Fernald, Ohio, on March 26–27, 1998, to meet with DOE and contractor staff working on NRD issues and remediation of an operable unit at the site. EH-41 provided technical assistance regarding FEMP’s attempt to implement an innovative procedure that will integrate the response action and the NR restoration plan. EH-41 also toured potential restoration areas, consulted staff on trustee coordination and NRDA issues, and reviewed a draft of the integrated plan.

EMS Implementation

EH-41 is leading the way for DOE in understanding and applying the EMS concept to Departmental facilities. In addition to its other EMS promotional activities during FY 1998 (see **Table 3**), the office established a DOE Topical Committee on EMSs to:

- ❑ provide a forum within DOE to share experiences and lessons learned in developing and implementing EMS and
- ❑ serve as the DOE focal point for EMS standards and issues, including actively working with other EMS organizations within DOE and in other Federal agencies.

The committee is open to all DOE and DOE contractor personnel with responsibilities for developing, evaluating, or implementing EMSs at Departmental sites, facilities, or laboratories. EH-41 hosted several meetings of the committee during FY 1998. Agenda items included lessons learned at DOE facilities, implementation issues, development of a committee charter, and EMS auditing issues.

Finally, EH-41 assisted staff at the following DOE sites in understanding and/or implementing EMSs: Fernald Field Office, Brookhaven National Laboratory (BNL), and Idaho National Engineering and Environmental Laboratory (INEEL).

Awareness of Cultural Resources

EH-41 promotes and develops cultural and historical resource management programs for DOE and its facilities. The following are some of the re-

lated activities conducted by EH-41 during FY 1998.

- ❑ Hosted the Fourth Annual DOE Cultural Resources Forum on March 25, 1998, in Seattle, Washington. (The Forum was held in conjunction with the annual Society of American Archaeology meeting.) DOE historic preservation contacts or representatives from DOE sites and Tribal representatives participated. The focus of the meeting was the Native American Graves Protection and Repatriation Act (NAGPRA). A National Park Service representative discussed NAGPRA and responded to DOE questions.
- ❑ Hosted a DOE meeting with the National Council on Public History (NCPH) Program Committee on April 15, 1998, in Austin, Texas. The purpose of the meeting was to:
 - meet with NCPH members and others regarding DOE history-related activities,
 - introduce the DOE Cultural Resource Management Program and the DOE History Division Program,
 - establish a dialogue with people who are doing DOE history-related work,
 - identify and discuss common issues, and
 - provide DOE sites with an opportunity to discuss their history-related activities.
- ❑ Coordinated the Departmental response to DOI’s Federal Archeological Activities Questionnaire for FY 1997. The DOE Federal Preservation Officer, an EH-41 staff member, annually requests that DOE field sites submit information regarding their archeological programs and projects for the fiscal year. The information provided is compiled for DOE submission’s to DOI. It also assists EH-41 in evaluating DOE’s archeological activities and further developing DOE’s cultural resource management program.
- ❑ Prepared for its Web site an updated DOE Cultural Resources Directory, which provides DOE complex-wide information on points of contact and expertise available for historic preservation, Indian issues, and other aspects of cultural resources.

Emergency Response Preparedness

EH-41 provides technical support to numerous DOE emergency response exercises that ensure proper preparation in the event of accidents or hazardous materials releases at DOE sites. Examples of EH-41's participation in such drills and exercises during FY 1998 are provided below.

- ❑ A November 6, 1997, drill from the DOE headquarters' Emergency Operations Center (EOC) to test the emergency plan for the NTS Device Assembly Facility in preparation for its operational readiness review.
- ❑ A February 10, 1998, technical operations cadre drill at the EOC, based on an SRS scenario in preparation for SRS' upcoming annual emergency preparedness exercise.
- ❑ An April 1, 1998, annual emergency response drill for Sandia National Laboratory (SNL); participated with other members of the Emergency Management headquarters team in this delayed drill from the EOC while maintaining communications with Albuquerque Operations Office (AL).
- ❑ A July 15, 1998, emergency response exercise at the EOC for LANL.
- ❑ An August 28, 1998, annual integrated emergency response exercise for Lawrence Livermore National Laboratory (LLNL) at the EOC.

Stratospheric Ozone Protection

EH-41 and the Office of Federal Energy Management Programs (EE-90) are working on an initiative to accelerate DOE's phaseout of Class I ozone-depleting refrigerants (i.e., the class of chemicals most damaging to the stratospheric ozone layer). They are promoting the use of privatized funding mechanisms (such as Energy Savings Performance Contracts) to acquire new, energy-efficient refrigeration and air conditioning systems. During FY 1998 EH-41 and the Office of the Assistant Secretary for Energy Efficiency and Renewable Energy (EE) combined to prepare a draft decision paper on the various options available. The paper clearly indicates that:

(1) the options would bring about major P2 and energy efficiency benefits and

(2) the preferred option would result in a substantial reduction in DOE operating costs.

The initiative was presented to the DOE Environmental Executive (EE-1) who was looking for "missed opportunities" to reduce waste and conserve energy throughout the DOE complex. EE-1 requested that EH/EE move ahead with the initiative and develop a decision package for S-1 with EE in the lead. The initiative progressed to the level of a proposed Secretarial directive by the end of FY 1998.

Additionally, to disseminate information on successful DOE efforts to phase out the use of ODSs, EH-41 posted three ODSs phaseout-case studies on its Web site. The case studies (involving a refrigerant replacement at Fermi National Accelerator Laboratory, a halon replacement at Princeton Plasma Physics Laboratory, and an ozone-depleting solvent replacement at the Oak Ridge Y-12 Plant) discuss issues such as approach used, funding sources, and lessons learned. Electronic copies of the case studies can be accessed from the EH-41 Web site at: <http://tis-nt.eh.doe.gov/oepa/guidance/ozone/phaseouts.html>.

Environmental Planning and P2

EH-41 is actively involved in Departmental P2 planning and reporting. Two examples of the office's FY 1998 participation in this area are described below.

- ❑ The office coordinated an interim and final DOE response to EPA's Office of Federal Facilities Enforcement's request for updated information on the department's FY 1999 plans, or FEDPLAN, for controlling environmental pollution. These plans are required under EO 12088, Federal Compliance with Pollution Control Standards.
- ❑ EH-41 prepared for EH-1's signature the *Third Annual Progress Report on Executive Order 12856*, which was submitted to EPA in Fall 1997 in accordance with EO 12856. The report includes information submitted by DOE sites to TRI for reporting year 1995 and describes DOE's P2 activities during 1995 through early 1997. It discusses DOE's progress in meeting the 50-percent reduction goal under the EO and also meeting DOE's reduction goals for

sanitary wastes and radioactive, low-level mixed, and hazardous wastes. The Department's success in reaching affirmative procurement goals is also covered. The report was made available to a larger audience through its placement on the EH-41 Web site.

ES&H Performance Indicators

EH-41 routinely reviews and analyzes DOE environmental compliance data to identify trends and summarize the information for interested DOE elements. The summaries are provided to the Office of Operating Experience Analysis and Feedback (EH-33) for incorporation in quarterly DOE ES&H Performance Indicators reports. During FY 1998 EH-41 reviewed and summarized the following data/information:

- DOE's Notice of Violation (NOV) data for the first quarter of 1998,
- 1996 Annual SERs for environmental permit exceedances, and
- DOE-wide performance indicator data during the second quarter of 1998 for cited regulatory violations and for completion of enforceable milestones.

Radionuclides NESHAPs Issues

EH-41 co-hosted with DOE's Hanford Site the Radionuclide NESHAPs Annual Meeting on August 4, 1998, in Minneapolis, Minnesota. The meeting was held in conjunction with the 25th DOE/NRC Nuclear Air Cleaning and Treatment Conference, August 3-6, 1998. The NESHAPs Annual Meeting addressed important issues such as implementing the new American National Standards Institute (ANSI) N13.1 standard on representative sampling; implementation problems with 40 CFR 61, Subpart H; and the DOE Privatization/Reindustrialization initiative and its impact on NESHAPs compliance.

Technical Assistance and ES&H Documentation Reviews

EH-41 offers further value to the Department's environmental programs through its ability to successfully respond to requests for ES&H technical assistance and documentation reviews. Several

examples of the office's technical assistance (**Table 7**, see pages 37-39) and documentation review (**Table 8**, see pages 40-43) activities are provided on the following pages.

Participation in Work Groups and Committees

EH-41 chairs or participates in various DOE, interagency, national, and international work groups and committees. Specific examples are provided below.

- Advisory Council on Historic Preservation
- ANSI-Registration Accreditation Board EMS Council
- BDAC
- CAA Services Steering Committee
- CRCPD D&D Subcommittee
- DOE Ground Water Protection Work Group Peer Review Team
- DOE Guide 450.4-1 (ISMS Guide) Revision Writing Team
- DOE NR Trustee Coordinator's Steering Committee
- DOE PCB Focus Group
- DOE Topical Committee on EMS
- DOE TRI Focus Group
- DOI's Task Force on Amphibian Declines and Deformities
- EH Self-Assessment Follow-up Work Group
- EH-41 Communications Team
- EH-41 EMS Team
- EH-412's Clean Air Working Group
- EPA CAA Advisory Committee
- Energy Facility Contractor Group on ISO 14000

(text continues on page 44)

Table 7. Technical Assistance Provided by EH-41 during FY 1998

Organization or Office	Assistance Provided
Air and Water Quality	
Office of NEPA Policy and Assistance (EH-42)	Helped prepare DOE guidance on implementing the CAA General Conformity Rule in the context of the NEPA process.
EH-4	Prepared an issue paper on the need for continuous monitoring for tritium emissions at the Hanford Plasma Arc Furnace with respect to DOE 5400.5 and DOE 5400.1.
Environment, Safety and Health Division (SC-83)	Provided information on criteria air pollutant attainment/nonattainment status for areas in which there are DOE facilities.
Pantex Plant	Responded to an inquiry concerning the interpretation of an EPA requirement on registration of refrigerant recycle/recapture equipment [40 CFR Part 82.162(a)(b)(c)].
Senior Policy Advisor to the Secretary of Energy	Provided information, including impacts to DOE, concerning the development of an Administration Action Plan in response to Vice President Gore's initiative to improve and strengthen water pollution control efforts across the country.
IG	Provided requested information on ground water monitoring at DOE sites; IG was considering a review of ground water monitoring program costs in FY 1999 and needed the information to complete a brief scoping exercise.
Hazardous Waste	
Office of Environment, Safety and Health Evaluations (EH-22)	Responded to a request for technical assistance regarding the regulatory status of INEEL's New Waste Calcining Facility and the issue of whether it should be permitted as an incinerator or as a miscellaneous treatment unit under RCRA.
Office of the Assistant General Counsel for Environment (GC-51)	Provided requested information on EPA's current position concerning the regulatory status of solvent contaminated rags and wipers under RCRA.
Office of Security Affairs, Field Operations Division (NN-513)	Provided regulatory expertise relative to the consideration of RCRA hazardous waste management requirements in a draft intersite agreement NN-513 was developing on a safeguard practices for nuclear materials packaged for long-term storage.
EH-22	Provided requested information concerning RCRA requirements for satellite accumulation areas. The information was needed in connection with an ES&H evaluation being conducted at Lawrence Livermore National Laboratory.
Office of Environmental and Regulatory Analysis (EM-75)	Provided information and technical assistance with respect to RCRA permitting requirements and corrective action. The office had requested the information as it developed a report titled <i>Paths to Closure: Compliance with RCRA and CERCLA</i> , which explains how EM makes cleanup decisions in compliance with RCRA and CERCLA.
EH-3	Advised EH-3 regarding questions they had in assessing the applicability of RCRA to accelerator-produced tritium.
Office of the Deputy Assistant Secretary for Nuclear Material and Facility Stabilization (EM-60)	Responded to a request for assistance in defining "legacy waste" and in identifying sources where this term previously has been addressed. EM-60 needed the information for the NRC external regulation pilot at ORR.

Table 7. Technical Assistance Provided by EH-41 during FY 1998 (cont.)

Organization or Office	Assistance Provided
Radioactive Waste/Radiation Protection	
GC	Provided sworn testimony for the Department in litigation between the DOE Weldon Spring Site Office (WELD) ("Petitioner") and the Missouri Department of Natural Resources ("Respondent") concerning the type and regulatory classification of radioactive material and waste present at the Weldon Spring Site.
Fernald Field Office	Consulted staff on the proper procedure for the release of recycled copper ingots that contain residual radioactive material.
SNL	Provided information regarding the characterization of LLW and the implications of characterization uncertainties with respect to LLW PAs.
GC	Provided technical assistance to a Departmental conference call to discuss and gather information regarding a petition NRC had received requesting that they exercise licensing authority over the high-level waste that is stored in 51 underground tanks at the SRS.
Rocky Flats Field Office (RFFO)	Advised staff regarding concerns they presented on meeting requirements of Order DOE 5400.5 for the release of property and issues relating to independent verification of radiological surveys.
Oakland Operations Office (OAK)	Clarified requirements on consulting with host states before approval of an exemption from the Order DOE 5820.2A requirement that LLW be disposed of at DOE sites.
EH-3	Provided extensive input (i.e., comments, additional relevant information) to the development of EH-3's draft guidance on the handling and safe storage of tritium materials.
NR	
Office of Program Initiatives (EM-47)	Provided policy assistance in responding to an Executive Secretarial correspondence action concerning a letter from the Regional Administrator, U.S. EPA Region II, to the Under Secretary of Energy. The EPA letter dealt with notification to NR trustees, in accordance with Section 104 (b)(2) of CERCLA, of potential injuries to trust resources at or in the vicinity of NPL sites in EPA Region II.
Office of Strategic Planning and Analysis (EM-24) and EM-75	Provided an update of the activities of the site NR Trustee Coordinators and of the DOE Trustee Councils in preparation for an upcoming presentation to the National Association of Attorneys General (NAAG).
Pantex Plant	Provided requested information on funding Texas State NR Trustees' participation in planning meetings and discussions about NR issues that may affect the cleanup at the plant.
DOE contractor staff at INEEL	Provided assistance and guidance regarding questions about the NRDA process, including those related to determining parties responsible for the various aspects of the process.
Westinghouse Savannah River Company	Assisted with the development of a draft document entitled "Natural Resource Trustee Requirements and CERCLA Integration Strategy." The document presents the SRS strategy for integrating the CERCLA process with NRDA and other trustee concerns during the conduct of SRS environmental restoration activities.
Office of Southwestern Area Programs (EM-45)	Responded to a request for information and clarification concerning the application of NRDA to RCRA sites covered by permits under the Hazardous and Solid Waste Amendments or Section 3008(h) orders.

Table 7. Technical Assistance Provided by EH-41 during FY 1998 (cont.)

Organization or Office	Assistance Provided
<i>Environmental Restoration</i>	
EM	Assisted in developing a proposal to delist Pantex's CERCLA site from the NPL.
Ohio Field Office (OH)	Responded to a request for technical assistance concerning the development of a contingent removal environmental restoration strategy at the Mound Plant.
SRS	Responded to a request for technical assistance on focusing the feasibility study for the Old Radioactive Waste Burial Ground and on the "plug-in" Record of Decision approach for several reactor seepage basins at the site.
SRS	Provided consultation, at SRS's request, on determining if the "NPL for Uncontrolled Hazardous Wastes Sites; Listing and Deletion Policy for Federal Facilities" (62 FR 62523) would apply to some of the cleanup sites at the facility.
EH-42, EM-24	Advised on the potential for preparing an EIS to address issues pertaining to long-term stewardship at DOE sites.
DOE project manager for a research test bed program at INEEL	Provided regulatory technical assistance to this program that was being conducted in conjunction with a CERCLA cleanup.
<i>Miscellaneous</i>	
EH-1	Prepared a response to a permanent exemption request from the RFFO for preparation of the Annual SER.
Office of the Assistant General Counsel for Contractor Litigation (GC-31)	Provided information concerning the British Nuclear Fuels Limited, Inc. (BNFL) contract to conduct D&D activities at the East Tennessee Technology Park (the former K-25 Plant) in Oak Ridge, Tennessee. The information was needed in response to a civil case against the Department regarding the contract.
BNL	Advised BNL staff on implementing their EMS commitments.
EH-1	Prepared, in conjunction with EH-22, a briefing paper for EH-1 concerning a NOV that EPA had issued to BNL. The paper compared the findings cited in the NOV with findings of the ISM Evaluation issued in April 1997.
Richland Operations Office (RL)	Responded to a request for expertise/assistance with EMSs/ISO 14001 and served on the Phase I ISMS verification team at the Hanford Tank Farms.
Office of Eastern Area Programs (EM-42)	Provided ecological risk information to assist with a task to rank release sites into "high," "medium," and "low" ecological risk categories for purposes of prioritizing work in a program budget exercise.
EM-42	Provided requested information on upcoming regulatory initiatives that may have a significant impact on DOE environmental management operations and activities.
EH	Developed environmental/P2-related "talking points" for incorporation into the Secretary's introductory remarks concerning the DOE safety initiative (i.e., ISM).

Table 8. ES&H Documentation Reviews Provided by EH-41 during FY 1998

Originating Office	Document Title or Description	EH-41 Reviewed and Took the Indicated Action
Radioactive Waste/Radiation Protection		
Oak Ridge Operations Office (OR)	Plans to release and recycle lithium hydroxide monohydrate drums from the Portsmouth Gaseous Diffusion Plant (PORTS).	Prepared the EH response, finding that the proposed activity did not require authorized release limits under Order DOE 5400.5.
DP	Draft revised <i>Guide for Disposition of Nuclear Weapon Components and Related Materials</i> .	Provided input.
AL	A two-volume technical basis document and associated dose assessment concerning supplemental limits for radiological releases at Grand Junction's Building 2.	Provided comments, concluding that the documentation was sufficient to justify AL's approval of the supplemental limits.
GC	A draft letter to exempt the WIPP from DOE Order 5820.2A requirements.	Provided EH-4 with comments and recommended alternatives.
AL	LANL's pre-decisional draft report, <i>Proposed Free-Release Verification Limits for Two Unregulated LANL Waste Streams</i> , dated August 13, 1997, and supporting materials.	Provided comments.
EM	Draft <i>DOE Complex-Wide Maintenance Program Plan for LLW PA/CA</i> .	Submitted comments.
Office of the Deputy Assistant Secretary for Waste Management (EM-30)	A draft memorandum to the Nevada Operations Office (NV) pertaining to a proposal for a joint DOE and State of Nevada oversight agreement for the LLW disposal program at the NTS.	Recommended EH-4 concurrence, with conditions.
EM	A document for EM-1 signature titled <i>U-233 Waste Definition: Disposal Options, Safeguards, Criticality Control, and Arms Control</i> . The document was prepared by ORNL and INEEL and was to be submitted to the DNFSB in accordance with its Recommendation 97-1 concerning the safe storage of U-233.	Recommended EH-1 concurrence, with conditions.
EH-42	The draft <i>Department of Energy Idaho National Engineering and Environmental Laboratory Advanced Mixed Waste Treatment Project Environmental Impact Statement</i> .	Submitted comments.
EH-42	June 1998 Report to Congress, <i>The Oak Ridge Transuranic Waste Treatment Project</i> , DOE-ORO-2067.	Provided comments.

Table 8. ES&H Documentation Reviews Provided by EH-41 during FY 1998 (cont.)

Originating Office	Document Title or Description	EH-41 Reviewed and . . .
Radioactive Waste/Radiation Protection (cont.)		
OR	<i>White Paper for As Low As Reasonably Achievable Analysis of the Boiling Nuclear Superheat Reactor Facility, Rincon, Puerto Rico and Summary Report for the Radiological Survey of the Boiling Nuclear Superheat (BONUS) Research Reactor, Rincon, Puerto Rico.</i>	Submitted comments indicating that the documents support the intended use of the decommissioned BONUS reactor as a museum.
Office of Civilian Radioactive Waste Management (RW-1)	A draft letter for S-1's signature to the EPA Administrator concerning the Agency's development of a radiation protection standard for DOE's geologic repository at Yucca Mountain, Nevada.	Provided EH-4 concurrence.
Environmental Restoration		
Office of the Deputy Assistant Secretary for Planning, Policy and Budget (EM-20)	A preliminary report on long-term stewardship entitled <i>Moving From Cleanup to Stewardship</i> .	Developed comments.
OR	BNFL's Waste Management and Transportation Program procedures for the Three-Building D&D Project at the East Tennessee Technology Park (formerly known as the K-25 Plant) in Oak Ridge, Tennessee.	Submitted comments and recommendations.
Fernald Field Office	The draft <i>Natural Resource Impact Assessment and Natural Resource Restoration Plan</i> .	Provided recommendations and comments.
Cultural Resources		
Office of Coal and Power Import and Export Activities (FE-27)	The Programmatic Agreement for protection of historic properties at the Naval Petroleum Reserve No. 1 in light of its proposed sale.	Provided comments.

Office of the Assistant Secretary for Congressional and Intergovernmental Affairs (CI-1)	A proposed historic preservation initiative that would involve the identification and assessment of all properties associated with the Manhattan Project and Cold War era into national categories with associated historic themes.	Recommended EH-1 concurrence.
Table 8. ES&H Documentation Reviews Provided by EH-41 during FY 1998 (cont.)		
Originating Office	Document Title or Description	EH-41 Reviewed and . . .
<i>Air and Water Quality</i>		
OH	The BWX Technologies, Inc., report entitled <i>HH Building Project—Gas Cylinder Disposition Health and Safety Plan</i> , which addresses radioactive gas characterization work in the HH Building at the DOE Mound plant.	Commented from an air quality perspective.
EH	The Secretarial memorandum on the Administration's Clean Water Initiative.	Participated in the EH concurrence process.
Office of the Deputy Assistant Secretary for Materials Asset Management and National Security Policy Analysis (PO-5)	A detailed plan to revise the vadose zone monitoring program at the Hanford site so it would better integrate monitoring, modeling, and management across the site and better characterize the subsurface conditions at the 200 Area where the single shell tanks are located.	Provided comments.
<i>P2 & Miscellaneous</i>		
EM-77	The document, <i>Pollution Prevention Goals for 2000 and Beyond: a DOE Review Paper</i> .	Commented on.
External Regulation Project Team	The May 7, 1998, draft report entitled <i>Pilot Project on NRC External Regulation of DOE Facilities, Lawrence Berkeley National Laboratory</i> .	Developed comments.
EM-77	The draft <i>1997 Annual Report of Waste Generation and Pollution Prevention Progress</i> .	Provided comments.
EH-42	An article for an issue of the NEPA Lessons Learned Quarterly Report.	Submitted comments.

Office of the Associate Deputy Secretary for Technical and Environmental Support (DP-45)	A draft paper entitled <i>An Analysis of Environment, Safety, and Health (ES&H) Management Systems for Department of Energy (DOE) Facilities.</i>	Provided extensive comments.
EH-4	<i>Office of Oversight Progress Report, DOE Safety Performance.</i>	Developed comments.
EM-77	A proposal to incorporate P2/Energy Efficiency into DOE operations as a normal part of every-day business.	Submitted comments.
Table 8. ES&H Documentation Reviews Provided by EH-41 during FY 1998 (cont.)		
Originating Office	Document Title or Description	EH-41 Reviewed and . . .
<i>P2 & Miscellaneous (cont.)</i>		
Office of Emergency Management (NN-60)	Draft revisions of Order DOE 151.1, <i>Comprehensive Emergency Management System</i> , and DOE Guide 151.1-1, <i>Emergency Management Guide.</i>	Submitted comments.
Office of Budget and Administration (EH-71)	revised draft Order DOE 430.1, Change 1, <i>Life Cycle Asset Management</i> , and associated implementation guides	provided input to the EH-4 review of the draft Order

Participation in Work Groups and Committees (continued from page 36)

- Energy Management Steering Committee
- Environmental Justice Interagency Work Group
- ERCCC
- Federal Advisory Committee Act's Subcommittee for Ozone, Particulate Matter, and Regional Haze Implementation Programs
- Federal Interagency Non-point Source Task Force
- Federal NR Trustees Interagency Work Group
- Headquarters Emergency Management Team
- HWIR Focus Group
- IAEA Radioactive Waste Advisory Committee
- IAEA's Radioactive Waste Safety Standards Advisory Committee
- ICCC
- Indian Issues Points of Contact
- Integration Core Team
- Interagency ESSLs Work Group
- Interagency ESSLs Work Group Subcommittee on Ecological Exposure Modeling
- Interagency Source Water Assessments Work Group
- Interagency Work Group on EMS [ISO 14000]
- ISCORS
- ISCORS Cleanup Subcommittee
- ISCORS D&D Subcommittee
- ISCORS Mixed Waste Subcommittee
- ISCORS Risk Harmonization Subcommittee
- ISCORS Sewage Sludge Subcommittee
- LDR Reinvention Roundtable
- LFRG
- LFRG DOE NTS PA/CA Review Team
- LFRG for the LANL PA/CA
- Macroencapsulation Working Group
- MARLAP Integration Team
- MARLAP Work Group
- MARSSIM Work Group
- Materials and Asset Management Working Group
- Mississippi River/Gulf of Mexico Watershed Nutrient Task Force
- Monitoring, Research and Assessment, and Information Work Group (Work Group #6)
- National Technical Work Group
- NCPH
- Phase I ISMS Verification Team at Hanford Tank Farms
- Phase III — EMS Assessment Work Group
- Safety Management Implementation Team
- SERDP Advisory and Coordinating Committee for the Environmental Risk Assessment Program
- SERDP Conservation Technical Thrust Area Working Group
- SRS Ecological Risk Assessments Multi-Agency Working Group
- SRS LLW CA Technical Review Team
- SRS NR Trustees Working Group
- State and Tribal Government Working Group
- Waste Reduction Steering Committee
- Water Resource Issues Work Group
- Watershed Work Group (Work Group #9)

Acronyms

Acronym	Definition
AEA	Atomic Energy Act
AL	Albuquerque Operations Office
ALARA	as low as reasonably achievable
ANPRM	advance notice of proposed rulemaking
ANSI	American National Standards Institute
ARARs	applicable or relevant and appropriate requirements
BDAC	Biota Dose Assessment Committee
BNFL	British Nuclear Fuels Limited, Inc.
BNL	Brookhaven National Laboratory
BONUS	Boiling Nuclear Superheat
CAA	Clean Air Act
CAM	compliance assurance monitoring
CEMP	Code of Environmental Management Principles
CEMS	continuous emissions monitoring systems
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESQG	conditionally exempt small quantity generator
CFR	<i>Code of Federal Regulations</i>
CI-1	U.S. Department of Energy's Office of the Assistant Secretary for Congressional and Intergovernmental Affairs
CPG	Comprehensive Procurement Guideline
CRCPD	Conference of Radiation Control Program Directors
CRE	EM Center for Risk Excellence
CWAP	Clean Water Action Plan
D&D	decontamination and decommissioning
DNFSB	Defense Nuclear Facilities Safety Board
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DP	U.S. Department of Energy's Office of the Assistant Secretary for Defense Programs
DP-45	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Program Support, Office of the Associate Deputy Assistant Secretary for Technical and Environmental Support
EE	U.S. Department of Energy's Office of the Assistant Secretary for Energy Efficiency and Renewable Energy
EE-1	U.S. Department of Energy's Assistant Secretary for Energy Efficiency and Renewable Energy (also serves as the U.S. Department of Energy's Environmental Executive)
EE-90	U.S. Department of Energy's Office of Federal Energy Management Programs
EH	U.S. Department of Energy's Office of the Assistant Secretary for Environment, Safety and Health
EH-1	U.S. Department of Energy's Assistant Secretary for Environment, Safety and Health
EH-22	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Oversight, Office of Environment, Safety and Health Evaluations
EH-3	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Nuclear and Facility Safety
EH-33	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Nuclear and Facility Safety, Office of Operating Experience Analysis and Feedback
EH-4	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environment
EH-41	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environment, Office of Environmental Policy and Assistance
EH-412	U.S. Department of Energy's Office of Environmental Policy and Assistance, Air, Water and Radiation Division
EH-413	U.S. Department of Energy's Office of Environmental Policy and Assistance, RCRA/CERCLA Division
EH-42	U.S. Department of Energy's Office of the Deputy Assistant Secretary for

	Environment, Office of NEPA Policy and Assistance	EM-77	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Site Operations, Office of Pollution Prevention
EH-5	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Worker Health and Safety	EMS	environmental management system
EIS	environmental impact statement	EO	Executive Order
EM	U.S. Department of Energy's Office of the Assistant Secretary for Environmental Management	EOC	Emergency Operations Center
EM-1	U.S. Department of Energy's Assistant Secretary for Environmental Management	EPA	U.S. Environmental Protection Agency
		EPCRA	Emergency Planning and Community Right-to-Know Act
		EPD	Environmental Protection Division
EM-20	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Planning, Policy and Budget	EPMP	Environmental Protection Management Program
EM-24	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Planning, Policy and Budget, Office of Strategic Planning and Analysis	ERCCC	U.S. Department of Energy's Environmental Radiation Control Coordinating Committee
EM-30	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Waste Management	ERD	Environmental Restoration Division
EM-37	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Waste Management, Office of Technical Services	ES&H	environment, safety, and health
		E-SSLs	Ecological Soil Screening Levels
EM-40	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environmental Restoration	FE-27	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Coal and Power Systems, Office of Coal and Power Import and Export Activities
EM-42	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environmental Restoration, Office of Eastern Area Programs	FEDPLAN	Federal Agency Environmental Program Planning
EM-43	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environmental Restoration, Office of Program Integration	FEMP	Fernald Environmental Management Project
EM-45	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environmental Restoration, Office of Southwestern Area Programs	FR	<i>Federal Register</i>
EM-47	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Environmental Restoration, Office of Program Initiatives	FY	fiscal year
EM-60	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Nuclear Material and Facility Stabilization	GC	U.S. Department of Energy's Office of the General Counsel
EM-75	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Site Operations, Office of Environmental and Regulatory Analysis	GC-31	U.S. Department of Energy's Office of the Deputy General Counsel for Litigation, Office of the Assistant General Counsel for Contractor Litigation
		GC-51	U.S. Department of Energy's Office of the Deputy General Counsel for Environment and Civilian and Defense Nuclear Property, Office of the Assistant General Counsel for Environment
		GC-71	U.S. Department of Energy's Office of the Deputy General Counsel for Energy Policy, Office of the Assistant General Counsel for Legislation
		GC-80	U.S. Department of Energy's Office of the Assistant General Counsel for General Law

GII	Global Information Infrastructure	NESHAPs	National Emission Standards for Hazardous Air Pollutants
HAP	hazardous air pollutant	NETO	National Environmental Training Office
HCFC	hydrochlorofluorocarbon	NN-513	U.S. Department of Energy's Office of Security Affairs, Field Operations Division
Hg	mercury	NN-60	U.S. Department of Energy's Office of Emergency Management
HWIR	Hazardous Waste Identification Rule	NOV	notice of violation
IAEA	International Atomic Energy Agency	NPDES	National Pollutant Discharge Elimination System
ICCC	Interagency Continuous Emission Monitoring Coordinating Committee	NPL	National Priorities List
ID	Idaho Operations Office	NR	natural resource
IG	U.S. Department of Energy's Office of Inspector General	NRC	U.S. Nuclear Regulatory Commission
INEEL	Idaho National Engineering and Environmental Laboratory	NRD	natural resource damage
ISCORS	Interagency Steering Committee on Radiation Standards	NRDA	natural resource damage assessment
ISM	Integrated Safety Management	NRT	natural resource trustee
ISMS	Integrated Safety Management System	NTS	Nevada Test Site
ISO	International Organization for Standardization	NV	Nevada Operations Office
LANL	Los Alamos National Laboratory	OAK	Oakland Operations Office
LCAM	life cycle asset management	ODS	ozone-depleting substance
LDR	land disposal restriction	OH	Ohio Field Office
LFRG	DOE Low-level Waste Federal Review Group	OMB	Office of Management and Budget
LLNL	Lawrence Livermore National Laboratory	OR	Oak Ridge Operations Office
LLW	low-level radioactive waste	ORNL	Oak Ridge National Laboratory
MARLAP	Multi-agency Radiation Laboratory Protocols Manual	ORR	Oak Ridge Reservation
MARSSIM	Multi-Agency Radiological Survey and Site Investigation Manual	P2	pollution prevention
MOA	memoranda of agreement	PA/CA	performance assessment/composite analysis
MOU	memorandum of understanding	PCB	polychlorinated biphenyl
MVAC	motor vehicle air conditioners	PDF	portable document format
NAAG	National Association of Attorneys General	PM	particulate matter
NAGPRA	Native American Graves Protection and Repatriation Act	PMAAs	Power Marketing Administrations
NCEA	National Center for Environmental Assessment	PO-5	U.S. Department of Energy's Office of the Deputy Assistant Secretary for Materials Asset Management and National Security Policy Analysis
NCPH	National Council on Public History	PORTS	Portsmouth Gaseous Diffusion Plant
NEPA	National Environmental Policy Act	PPA	Pollution Prevention Act of 1990
		QA/QC	quality assurance/quality control
		R&D	research and development
		RCRA	Resource Conservation and Recovery Act

RCTP	Radiological Control Technical Position
RESRAD	Residual Radioactive (materials code)
RFFO	Rocky Flats Field Office
RI/FS	remedial investigation/feasibility study
RL	Richland Operations Office
RQ	reportable quantity
RW-1	U.S. Department of Energy's Office of Civilian Radioactive Waste Management
S-1	U.S. Department of Energy's Secretary of Energy
SAFER	Streamlined Approach for Environmental Restoration
SC	U.S. Department of Energy's Office of Science
SC-83	U.S. Department of Energy's Office of Laboratory Operations and Environment, Safety and Health, Environment, Safety and Health Division
SCEM	Site Conceptual Exposure Model
SDWA	Safe Drinking Water Act
SER	Site Environmental Report
SERDP	Strategic Environmental Research Development Program
SNL	Sandia National Laboratory
SRS	Savannah River Site
TAP	Technical Assistance Project
TRI	Toxic Chemical Release Inventory
TSCA	Toxic Substances Control Act
TSD	treatment, storage, and disposal
TSDF	treatment, storage, and disposal facility
UST	underground storage tank
VOC	volatile organic compound
WELD	Weldon Spring Site Office
WIPP	Waste Isolation Pilot Plant