

DEVELOPMENT OF WEB-BASED TOOLS FOR ENVIRONMENTAL ASSESSMENT

The key to effective environmental impact assessments is good communication. EAD developed two new tools that were successfully applied for the depleted uranium hexafluoride (UF₆) programmatic environmental impact statement (PEIS).

■ PROBLEM/OPPORTUNITY

A hallmark of environmental assessments is the large number of individuals and organizations that are stakeholders in the process. To plan, execute, and evaluate environmental impact statements (EISs) requires the efficient transfer of plans, information, results, comments, and resolutions among many organizations and the public. Historically, paper-based systems have been used for such communications. These systems are time-consuming, cumbersome, and inefficient; EAD believes that Web-based communication tools can be cheaper and faster and lead to better agency decision making. Such Web-based tools include content-oriented Web pages, communication-based Web pages, Web-accessed databases, and specialized browsers.

There are many interested stakeholders in the management program, including three U.S. Department of Energy (DOE) sites where UF₆ is now stored, regulators in the three states where those sites are located, three DOE headquarters organizations, contractors for all the DOE offices, nongovernment organizations, and the public. The challenge is to provide all these parties with pertinent information in a timely manner and to respond to a large volume of public comments in a reasonable time at a reasonable cost. EAD met these challenges by developing a depleted UF₆ Web site and by using the EAD-developed Comment and Response Management System (CRMS) to distribute comments and prepare and review responses.

■ APPROACH

Each environmental impact assessment offers new challenges for improving the process, which is mandated by the National Environmental Policy Act (NEPA). Whenever a step takes too long, costs too much, or is inefficient, EAD evaluates whether the purpose of the step would be better served by a new approach. Of great promise are Internet-based tools, because many inefficiencies in the NEPA process are related to information transfer.

The depleted UF₆ Web site is the first project-based Web site developed for NEPA. It has provided briefings for the public and regulators, served as a repository of important documentation, and acted as a vehicle for obtaining public comments. Its background information, supplemented by lots of graphics, has educated regulators and members of the public unfamiliar with depleted UF₆ and its management. The site contains easily accessible fact sheets; public notices; and engineering, cost, and environmental documents. In addition, an electronic form was available for people to provide comments on the depleted UF₆ management program and PEIS. In terms of use, the site has been very successful; in 1998, about 9,200 hosts logged onto it. Use went up when there were important program developments. Since the PEIS has been

■ RESULTS

The depleted UF₆ PEIS evaluates alternatives for managing the nation's depleted UF₆ stockpile.

finalized, the site will continue to be used to support selections of conversion technologies, uses for the materials produced, and requests for proposals.

EAD implemented its CRMS for the depleted UF₆ PEIS review process. This NEPA-mandated process gives interested parties an opportunity to comment on draft EISs at public meetings. This process has traditionally been expensive and time-consuming, with poor potential for quality control, since written comments have usually been hand-delivered to multiple responders and reviewers. EAD applied its password-protected, Web-browser-accessible CRMS to the job. The heart of the database consists of scanned comments, responses, reviews, and approvals. The system can accommodate as many as 12 people waiting to prepare and review responses. Comments circulate automatically as they pass through stages, greatly simplifying the process and maximizing quality control. CRMS efficiently handled the distribution, response, and review of about

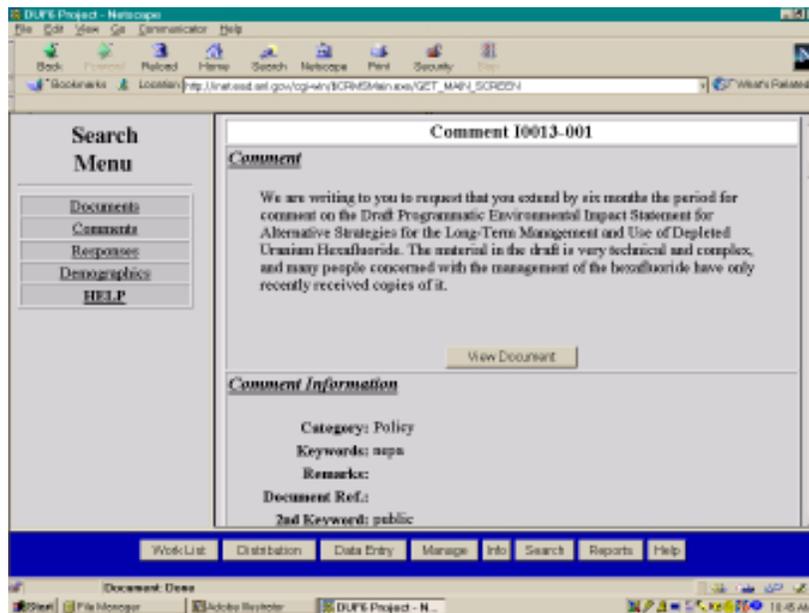
600 comments, allowing efficient production of a comment/response document to accompany the final PEIS. This unique system has recently been granted a copyright.

■ FUTURE

Other challenges that EAD is addressing include a browser for geographic information and an interactive forum for discussing programs and requirements for proposals. Recent developments in markup text languages have enabled the development of Web sites that can be used as active project management tools. CRMS and Web sites will continue to be adapted for specific needs. EAD will continue to develop and apply new Web-based technologies to enhance environmental impact assessments.

■ COMMUNICATION OF RESULTS

The depleted UF₆ Web site can be accessed at <http://web.ead.anl.gov/uranium/>.



CRMS search screen

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