Assistant Secretary for
Environment, Safety
and Health

U.S. Department of Energy
Washington, D.C. 20585

ES&H SYNERGY

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Redesigned Accident Investigation Program Increases Accountability

Thomas Grumbly, Under Secretary of Energy, addressed participants attending a workshop on the Department of Energy's recently redesigned accident investigation program on August 5-8, 1996, in Crystal City, Virginia. The workshop, sponsored by the Office of Oversight, Office of Environment, Safety and Health, focused on changes in the investigation process and emphasized the skills and knowledge required to execute those changes.

Glenn Podonsky, Deputy Assistant Secretary for Oversight, told the attendees that the most significant of these investigation program changes are: (1) increasing the responsibility and authority of accident investigation boards to inquire into and analyze the role of relevant organizational and management systems, up to senior management levels, as potential root causes of accidents; (2) better defining the skills and qualifications required of accident investigation board members; and (3) streamlining the investigation and reporting process to reduce the preparation time for the final investigation report from 60 to 30 days.

A recent review of Department accident investigation policy indicated that uncertainty existed regarding the role of organizational and management systems in accident investigations and about the qualifications of individuals appointed to accident investigation boards. The redesigned investigation program incorporates a safety management template for gathering facts about the management systems and organizational concerns that can be applied to the facts to determine accident causes. Officials who appoint investigation boards must now brief them and indicate in writing that the scope of the investigation will include examining organizational and management factors that could have or should have prevented the accident.

Another improvement is that, the skills and qualifications of investigation board chairpersons and members are more clearly defined. All boards must include staff that have prior experience in conducting investigations and analyzing root causes of accidents, evaluating the effectiveness of management systems, and examining the adequacy of policy and policy implementation as they relate to the accident. Two teams with fully qualified personnel have been formed at Headquarters to meet the need for Type A accident investigations and written guidance is being developed to assist the field in conducting training for personnel who will conduct Type B accident investigations.

Continued on page 5

New NEPA Regulations Meet Strategic Alignment Milestone

The final amendments to DOE's regulations for compliance with the National Environmental Policy Act (NEPA) (10 CFR Part 1021), effective August 8, 1996 (61 *FR* 36222), improve DOE's efficiency in implementing its NEPA requirements by reducing costs and time without sacrificing quality. Extraordinary team work contributed to the unprecedented prompt completion of the final rule in less than five months from publication of the proposed rule and it also helped meet the critical milestone commitment to the Secretary's Strategic Alignment Initiative Plan in less than 12 months.

One field office noted that the final amendments appropriately balance NEPA process changes with the need to preserve the quality of the NEPA process. The Council on Environmental Quality commended the Department for its efforts at streamlining its NEPA process without sacrificing environmental quality. It further stated that the revisions would reduce costs and time associated with the process while making the analysis more useful to decisionmakers and the public.

In response to comments, DOE has made changes from the proposed amendments to the final amendments. For example, DOE has withdrawn the proposal to publish notices of availability instead of the full text of Records of Decision in the *Federal Register*. DOE will also include contractor conflict of interest statements in environmental impact statements, has withdrawn one proposed categorical exclusion, and has narrowed the coverage of others.

The final rule is also available on the DOE NEPA Web Site at *http://tis-nt.eh.doe.gov/nepa*. Questions, requests for further information, and requests for copies of the final rule may be directed to Bob Strickler, Office of NEPA Policy and Assistance, at (202) 586-2410, fax (202) 586-3915, or e-mail (*robert.strickler@eh.doe.gov*).

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ES&H SYNERGY

ES&H Synergy is a quarterly newsletter published by DOE's Office of Environment, Safety and Health (EH) to promote awareness and information exchange of all environment, safety, and health issues impacting DOE personnel and contractors. Each issue highlights Headquarters and field initiatives in environment, health physics, nuclear and facility safety, occupational medicine, and occupational safety and health. To be added to the distribution list or to receive a copy of this publication, call 1-800-473-4375. *Synergy* is also available electronically through Technical Information Services at *http://tis-hq.eh.doe.gov/doc/synergy/synergy.html.*

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Medical Incident Command/Mass Casualty Trailer Provides On-The-Spot Aid

The Medical and Emergency Services Department of Bechtel Nevada Corporation recently developed a new emergency medical vehicle for the Nevada Test Site (NTS) for treatment of multiple victim incidents on the NTS. This vehicle can provide on-scene command and supplies to treat 30-50 patients at one time and is invaluable when on-site resources are limited. The specialty vehicle was configured to meet three specific mission objectives: (1) mass casualty mitigation; (2) incident command; and (3) extended firefighter support during wildland fire suppression efforts. The vehicle consists of a 23 foot-long, 5th-wheel trailer, which is towed by a dual-wheel, one ton pick-up truck. The bed of the truck houses a five kilowatt, gasoline fueled generator which powers the trailer section with 110 volt AC. In addition, the trailer has a redundant 12 volt lighting system in the event of a generator failure.

In the mass casualty role, the vehicle is equipped with primary mitigation equipment configured in the rear portion of the trailer. Upon arrival at the scene, the vehicles's rear roll-up door is opened and immobilization, trauma and respiratory equipment is distributed to arriving paramedic crews. Triage and treatment areas are established with traffic cones, colored tape, and flags and patients are quickly assigned a priority for transport to a definitive care facility by available ambulances.

During the mitigation efforts, command and control is coordinated through the command post section of the trailer, where multiple radio frequencies are located and a lap-top computer is used to maintain patient and transport information. The tongue section of the trailer houses redundant inventories. Retaining these primary treatment supplies allows transporting paramedic crews a faster turn-around time at the destination hospital because they have not expended their ambulance supply inventories at the scene. Additional supplies include large canopy tents, chairs, blankets, water coolers, incident scene lights, large oxygen cylinders with multi-port regulators, and supplies to establish helicopter landing zones both day and night.

Primary mitigation equipment stored in rear portion of trailer

Bechtel Nevada Corporation, Medical and Emergency Services Department Mass Casualty Trailer

In the incident command role, the vehicle's midsection is configured as an office, with a small fold-down desk and cabinets which house procedure manuals and necessary incident reporting documents. Available communications include multiple NTS specific radio frequencies, and future upgrades may include local community emergency frequencies and Civil Defense channels. In addition, AC power is available for computers or other accessory equipment involved with documentation and reporting.

In the fire suppression support role, the vehicle provides a location for firefighters to be monitored and rehabilitated between periods of firefighting activity. Water and electrolyte supplements are administered with food prior to returning personnel to duty. Depending on the location of the fire, the vehicle may act as the primary incident command post in addition to the above mission.

The potential exists for this unit to be deployed in an outside community assistance role, as memorandums of agreement are currently being explored between local county agencies and the Department of Energy. For additional information about the mass casualty trailer, contact Charles Fauerbach, Deputy Fire Chief, NTS at (702) 295-5561.

Training-A Critical Part of Enhanced Work Planning

Enhanced Work Planning (EWP) pilot projects are currently ongoing at eight sites. Representing a departure from traditional planning, EWP's streamlined approach, using multidisciplinary teams with worker involvement to develop hazard based, integrated work packages, has increased productivity while simultaneously improving worker safety and health. At the core of the pilots are the multidisciplinary teams responsible for coordinating, reviewing, and approving the accelerated conduct of safe work. In order for the multidisciplinary team to function effectively, members must be trained in the guiding principles of EWP (i.e. how a risk-based awareness of the hazards associated with the work to be performed can be used to apply appropriate controls that promote the conduct of safe work.)

Initial team training consists of a detailed overview of the EWP process, the "how-to's" of EWP, and the potential barriers that may arise from using new methods and procedures. This training is provided by an Office of Environment, Safety, and Health (EH) technical assistant who serves as a facilitator and resident expert for EWP.

Additional training ensures effective EWP project team interaction and development of performance measures. The EH facilitator leads the EWP project team through an exercise to develop qualitative goals for the EWP project. Typically these goals are cost savings, schedule performance, customer satisfaction, and safety awareness. Each goal has descriptive characteristics and associated metrics used to measure progress toward these goals. The team determines how well the current work planning procedures meet the goals and develops enhancements to the work planning process based on EWP principles and the outcome of the exercise. The team periodically meets to determine how well they are meeting the goals using EWP.

After the EWP project team has been trained, the team itself works on developing training materials to assist in the enhanced conduct of work and safety and health awareness. For example, during EWP team training, a video covering the work management process from initial job request to closeout was produced at Fernald. While the video specifically addresses EWP planning as a component of maintenance work management, it can be applied to other operations. FERMCO used portions of this video to develop a "Roles and Responsibilities" training course for its maintenance workers.

Worker training and certification scheduling has also been addressed by the EWP project teams. A 'look forward' scheduling process which determines the training and certification required for crafts personnel 3-6 weeks prior to performing the work has been developed at Mound. Utilization of 'look forward' scheduling helps ensure that assigned workers are properly trained, certified, and physically able to do the work prior to job commencement. The ultimate result is that unexpected last minute suspensions due to untrained workers are avoided.

Yet another example of the importance of EWP training is the review of hazard and job-performance data by the EWP project team. Site training courses are critiqued to ensure that safety and health needs are adequately addressed. If the team identifies high risk activities during the planning or review process, additional worker training is provided onsite or through outside organizations.

The EWP project teams at the Hanford site are establishing a model working relationship with the Hazardous Materials Management and Emergency Response (HAMMER) organization designed to identify training needs. The HAMMER project is a partnership linking a wide array of resources and experts to meet the health and safety training needs of workers involved in environmental restoration and waste management activities. Tied to HAMMER training for Hanford workers are medical surveillance inputs that have the potential for changes in training curriculum when worker health effects are noted.

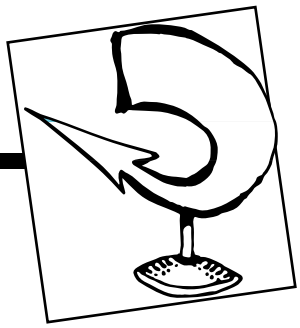
For more information on Enhanced Work Planning (EWP) contact Ed Patigalia at (301) 903-3972 or access the EWP home page at: *http://tis-nt.eh.doe.gov/wpphm/ewp/ewp2.htm.*

Enhanced Work Planning - An Overview of Success

The EWP process has been cited several times, in the field, at Headquarters, and on Capitol Hill as one of the most positive initiatives underway to improve DOE operations. Since its inception, the EWP initiative has proved that SAFETY SAVES by achieving significant gains in productivity while improving worker protection through the early integration of safety, health, and medical considerations. An overview of the successes resulting from the EWP projects across the complex include:

- **Safety and Health** - reductions in recordable injuries, lost/restricted workday case rate, reductions in exposures, and increased health and safety awareness due to greater involvement of health and safety in the 'up-front' planning of work;
- **Cost Savings** - greater than $10 million in cost avoidances, across the complex, as a result of streamlining work processes and increased productivity;
- **Productivity** - a 29 to 43 percent reduction in maintenance backlogs combined with a similar increase in the number of jobs completed.
- **Streamlined Process** - a 20 to 86 percent reduction in time to complete requested maintenance services due to simplified work planning and a newly developed computer programs.

Sustainable Development Focuses on New Direction for Environmental Policy



The President's Council on Sustainable Development, established in 1993 and charged with developing new approaches to integrate economic and environmental policies, recently announced 10 national goals for a sustainable future. The Council focused on the idea of reforming the current environmental management system to encourage pollution prevention and to move towards more collaborative decision making among different levels of government. In addition, the Council supported developing a more cost-effective system based on performance, flexibility linked to accountability, extended product responsibility, tax and subsidy reform, and market incentives.

This new direction in environmental protection will involve adjustments government-wide in developing policies and implementing regulations. The first reform is to move from a federally-focused governmental decision-making structure to a collaborative one that shares responsibility among many levels of government. The second reform shifts the focus from centralized environmental regulation organized around separate programs to protect air, water, and land to a comprehensive place-based approach.

Sustainable Development is broadly defined as economic growth that will benefit present and future generations without detrimentally affecting the resources or biological systems of the planet. Sustainability seeks prosperity—not just economic growth—in a way that draws together economic, social equity, and environmental considerations, striving always to sustain the earth's resources and its people.

The 10 national interdependent goals for a sustainable future adopted by the Council include:

- **Health and the environment.** Ensure that every person enjoys the benefits of clean air, clean water, and a healthy environment at home, at work, and at play.
- **Economic prosperity.** Sustain a healthy economy that affords the opportunity for a high quality of life.
- **Equity.** Ensure equity and opportunity for economic, social, and environmental well-being.
- **Conservation of nature.** Use, conserve, protect, and restore natural resources—land, air, water, and biodiversity—in ways that help ensure long-term social, economic, and environmental benefits for current and future generations.
- **Stewardship.** Create a widely held ethic of stewardship that strongly encourages individuals, institutions, and corporations to take full responsibility for the economic, environmental, and social consequences of their actions.
- **Sustainable communities.** Encourage people to work together to create healthy communities where natural and historic resources are preserved, jobs are available, sprawl is contained, neighborhoods are secure, education is lifelong, transportation and health care are accessible, and all citizens have opportunities to improve the quality of their lives.
- **Civic engagement.** Create full opportunity for citizens, businesses, and communities to participate in and influence the natural resource, environmental, and economic decisions that affect them.
- **Population.** Move toward stabilization of the U.S. population.
- **International responsibility.** Take a leadership role in the development and implementation of global policies and standards of conduct that further the achievement of sustainability.
- **Education.** Ensure access to formal education and lifelong learning that will prepare citizens for meaningful work and a high quality of life and give them an understanding of concepts involved in sustainable development.

Based on their deliberations, members of the Council agreed that to achieve a vision of sustainability, some things must grow—jobs, productivity, wages, profits, capital and savings, information, knowledge, education—and others must not grow—pollution, waste, poverty, energy and material use per unit of output. The 25-member Council includes the Secretary of Energy and leaders from industry, government, and environmental, labor, and civil rights organizations.

Information in this article is derived from *Sustainable America: A New Consensus for Property, Opportunity, and a Healthy Environment for the Future*, the Council Report from the President's Council on Sustainable Development (PCSD) (Washington: GPO, February, 1996). The complete report is available on the World Wide Web at *http://www.whitehouse.gov/pcsd*. More information about the council or its task forces is available from the PCSD office at (202) 408-5296 or *pcsd@igc.apc.org*. For further information, contact Katherine Nakata (EH-413) at (202) 586-0801, fax (202) 586-3915, or e-mail *(katherine.nakata@eh.doe.gov)*.

Redesigned Accident Investigation Program Increases Accountability continued from page 1

An additional four-day training course in analytical techniques for accident investigations will be held in Las Vegas, Nevada the second week of December 1996. This course will provide in-depth training in event and causal factor charting, barrier analysis, change analysis, root cause analysis, and other analytic tools. Participants will be trained accident investigators who provide analytical expertise to Type A and Type B investigation boards. For the future, the Office of Oversight is exploring distance learning options, such as attendees at scattered sites participating interactively through televised media for meeting long-term training needs.

The redesigned investigation program will help the Office of Oversight meet its goal of conducting investigations thoroughly and efficiently, while reducing costs. The recent changes have resulted in significant cost savings to the Department, with over $1.5 million being saved in fiscal year 1996, when compared with costs in 1995. For additional information contact Dennis Vernon, Accident Investigation Program Manager at (301) 903-4839 or e-mail (*dennis.vernon@eh.doe.gov*).

Office of Occupational Medicine and Medical Surveillance Assists Savannah River Occupational Medical Program

The Office of Occupational Medicine and Medical Surveillance (EH-61) provides technical assistance to Department of Energy (DOE) line managers with responsibility for occupational health protection by supporting management reviews of contractor occupational medical programs (OMP) under their authority. Savannah River Operations Office (SRO) management received such support in June 1996 when a review team led by health professionals from EH-61 partnered with SRO and Westinghouse management to evaluate medical services at the Savannah River Site (SRS). This evaluation team also included a physician consultant from the University of Alabama at Birmingham and two physicians from the Consortium For Risk Evaluation and Stakeholder Participation (CRESP).

Pre-Visit Activities

Prior to the visit to SRS, numerous conference calls between SRO, Westinghouse management, and team members helped determine:

- the information required for SRO to perform its own assessment of the OMP and to carry out its other occupational medicine responsibilities effectively;
- what expertise EH-61, other team members, or health professionals could provide;
- the time required to conduct the evaluation;
- the visit agenda and interview questions for those pre-determined site personnel who could provide the best information to the team; and
- the content and format of the report to be generated from the review.

Technical Assistance Visit

The first day of the technical assistance visit, the team conducted an inbriefing with all review participants to ensure that everyone understood the expectations, goals, and the methods of this review. The basis for the evaluation of the OMP came from data obtained through Westinghouse Occupational Medical Department's completion of a Contractor Occupational Medical Program Profile questionnaire developed by EH-61, a tour of the SRS facilities, and interviews with representatives from a variety of health-related disciplines. The review team's critique primarily concentrated on the collective functions of the OMP. In addition, the physicians from CRESP looked at subcontractor issues and medical surveillance as it pertained to potentially exposed groups. Overall analyses were based on a "generic" model of an effective and efficient occupational medical department using a combination of industry standards, government standards, and personal experience of team members.

The team's final report consisted of an evaluation of the program highlighting specific issues to be considered by SRO in light of agency downsizing and budgetary constraints. The team used a "priority" approach and grouped OMP activities into the following four major categories which proved to be particularly helpful to SRO management.

- Medical services that are required by law, regulation, orders, or policy were designated as mandatory.
- Services that constitute good medical practice and contribute to the quality, efficiency, and effectiveness of health care provision were categorized as services that are necessary and "should" be provided.
- Services that are not necessary but provide a positive benefit to the workforce and to the employer when resources are available were categorized as optional.
- Services that are being done but provide no real value to the workforce or are an unnecessary drain on departmental resources were categorized as unnecessary and probably could be discontinued.

Other issues suggested for consideration by SRO include the following:

- The OMP may want to evolve from providing routine medical examinations on a universal basis (in the interest of administrative simplicity) to targeting examinations of individuals with a high-risk profile.
- The OMP could spend less time and resources on initial primary medical care that is non work-related.
- The OMP may want to address potential problems arising as hazardous waste workers hired for short-term jobs several time a year by more than one employer come onsite to participate in environmental restoration and decontamination and decommissioning activities.
- The OMP could measure the cost effectiveness of its case management, wellness, and other nonmandatory programs as a means of overall efficiency and effectiveness.

EH-61 will conduct, on request, additional technical assistance visits of occupational medical programs. For further information on this program, contact Cheryl Keller (EH-61) at (301) 903-9846 or e-mail (*cherry.keller@eh.doe.gov*).

Electronically Transmit Your Interpretations Questions

Do you have questions for the Department of Energy Worker Safety and Health Interpretations Response Line? If so, you may electronically transmit your questions by using the following e-mail address: interps@spok.eh.doe.gov.

Don't have access to e-mail? You may fax your questions to the Response Line at (301) 903-9976.

Interpretations on asbestos, fall protection, and hazard communications are available on Fax on Demand. Call (301) 903-6692 for a menu of available interpretations.

Improved Access to DOE Radiation Exposure Information

The Office of Worker Protection and Hazards Management (EH-52), Assistant Secretary for Environment, Safety and Health, administers the management of radiation exposure records for all DOE employees and contractor personnel in accordance with DOE Order 231.1 (formerly DOE Order 5484.1). As of October 15, 1996, the responsibility for managing occupational radiation exposure records was centralized at a new location with a redesigned Radiation Exposure Monitoring System (REMS) database to take advantage of newer database technology and provide improved access to exposure information for researchers and the general public.

The improved methods of dissemination include:

- A newly-published annual report of occupational radiation exposure information;
- a new Internet World Wide Web site which includes a basic query facility for obtaining summarized exposure data and;
- Technical Information Services (TIS) Data Analysis Services to provide assistance.

The DOE Annual Occupational Radiation Exposure Report, 1992-1994, has been re-engineered as the result of a significant cooperative effort between the field and the ES&H staff to meet user needs. The process of data collection, analysis, and report generation is being streamlined to give managers a current assessment of radiation protection and safety at DOE. The new annual report is a full-color, graphics-rich document that analyzes radiation exposure information from the perspective of the worker and the DOE sites. The report includes analysis of how the dose is distributed among the work force with particular attention to the workers in the higher dose ranges. New sections have been added to examine changes in requirements, the impact of DOE's change in mission and facility operational status on occupational exposure over the years, and a discussion of recent successful As Low As Reasonably Achievable (ALARA) activities. To request a bound copy of the Annual Report, contact the ES&H InfoCenter at 1-800-473-4375.

Effective October 15, the REMS Web Page included the full on-line version of the annual report for viewing, downloading, or printing. This page is the focal point for up-to-date information on the recording and reporting of DOE occupational radiation exposure. It also includes a query feature for viewing summaries based on user selection of the radiation exposure data collected from the DOE sites. Reference documents and guidance are also provided along with links to other Web Sites of interest. The Web Site address is: *http://tis-nt.eh.doe.gov/wpphm/*. Check the "What's New at this Site" link on the REMS Web Page for announcements concerning all aspects of DOE occupational radiation exposure information.

The use of the Annual Report, either in hard copy form or through the Web Page, combined with the new query feature for viewing summarized exposure data, will provide a relatively comprehensive set of information to satisfy most users. If more detailed information is required, analysts may contact the ES&H HelpLine at 1-800-473-4375 to obtain assistance from the TIS Data Analysis Services.

WIPP Assists Cyprus Mining Toward VPP Goal

The Waste Isolation Pilot Plant (WIPP) is providing technical assistance to Cyprus Miami Mining Corporation in its application for Occupational Safety and Health Administration (OSHA) Voluntary Protection Program (VPP) designation. Applicants for a VPP designation may receive assistance from a similar industry that has star status. WIPP was awarded Department of Energy (DOE) Voluntary Protection Plan (VPP) status on October 3, 1994. DOE's Carlsbad Area Office and Westinghouse Waste Isolation Division manage and operate WIPP, an underground waste repository that could open in 1998. WIPP is designed to demonstrate the safe handling, transportation, and disposal of transuranic waste in deep geological beds.

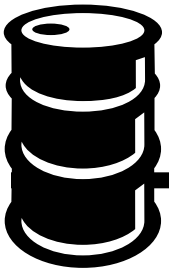
This is the first time a government facility has ever mentored a commercial operation in safety under VPP. A formal mentoring agreement was entered into in early April by representatives from Cyprus, Westing-house Waste Isolation Division, and the Carlsbad Area Office. Under the agreement, DOE and Westinghouse will advise Cyprus with their application and help them prepare for an OSHA assessment team site visit.

VPP star status is a safety milestone towards nationally recognizing an already-in-place safety culture and process. Cyprus, a copper mining and processing operation, is striving for VPP recognition. Cyprus received international recognition for its environmental reclamation success and its total quality management programs. George Dials, Carlsbad Area Office manager said, "Everyone has a personal responsibility for their own and their co-workers' safety," and "safety is the first priority of the organization."

For more information, contact Ron Eimer (EH-51) at (301) 903-2927 or e-mail at *(ron.eimer@eh.doe.gov)*.

OXYCHEM Approved For Star Status

Occupational Safety and Health Administration (OSHA) STAR status has been approved for the Oxychem Plant in Delaware City, Delaware as a result of a combination OSHA and DOE-VPP team on-site evaluation. This plant produces 400 tons of elemental chlorine per day with sodium hydroxide, potassium hydroxide, and hydrogen as by-products.



Land Disposal Program Flexibility Act of 1996 (P.L. 104-119)

On March 26, 1996, President Clinton signed into law Public Law 104-119 (H.R. 2036), cited as the "Land Disposal Program Flexibility Act of 1996." This legislation amends certain sections of the Solid Waste Disposal Act [now more commonly referred to as the Resource Conservation and Recovery Act (RCRA)]. In particular, this Act makes adjustments relative to land disposal restriction (LDR) provisions, and to ground water monitoring at solid waste landfill units. The legislation also includes various technical corrections to the Solid Waste Disposal Act.

A copy of this statute is available through the Internet on the EH-41 World Wide Web Site for viewing and/or downloading at *http://tis-nt.eh.doe.gov/oepa* under the "Environmental Laws" section. A more detailed summary of this legislation is also available at this address under "What's New." For further information, contact Al Sikri or Bill Fortune, Office of Environmental Policy and Assistance at (202) 586-1879 or 586-7302 or e-mail at (*atam.sikri@eh.doe.gov*) or (*william.fortune@eh.doe.gov*), respectively.

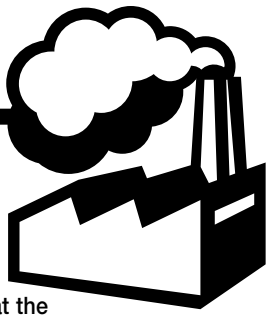
Expert Panel Provides Guidance for Future Research at the Radiation Effects Research Foundation

In a recently released report, an expert panel of the world's leading radiation scientists commissioned by the U.S. Department of Energy (DOE) and the Japanese Ministry of Health and Welfare in 1995 strongly endorsed the core research programs of the Radiation Effects Research Foundation (RERF) located in Hiroshima and Nagasaki, Japan. Jointly supported by DOE and the Japanese government, the RERF, and its predecessor agency, the Atomic Bomb Casualty Commission, have conducted research on the medical effects of radiation in atomic bomb survivors for the past 50 years. Studies conducted by RERF have formed the basis for international radiation health standards that limit exposure levels in a wide range of occupational and clinical settings and have laid the foundation of current knowledge of the health risks from radiation exposure.

The "International Blue Ribbon Panel" report, presented on July 2, 1996, highlighted the importance of ongoing research on radiation risk, including cancer mortality and incidence being done by the RERF Departments of Epidemiology and Statistics and of the work performed by the Information Technology Department. Further, the panel recommended that the RERF develop a more stringent scientific peer review process and that it strengthen its ties with universities and research organizations in Japan and worldwide.

The complete Report of the Blue Ribbon Panel is available on the World Wide Web at: *http://tis-nt.eh.doe.gov/ihp/rerf*. Comments on the report and its recommendations are welcome and should be sent to Joe Weiss (EH-63) at (301) 903-1846 or *e-mail (joseph.weiss@eh.doe.gov)* or Libby White (EH-63) at (301) 903-7582 or *(elizabeth.white@eh.doe.gov)*.

Joint EH/EM Environmental Restoration Workshop



The Office of Environmental Policy and Assistance, in collaboration with the Office of Environmental Management (EM) delivered a new workshop, "Principles of Environmental Restoration," at the Savannah River Site on July 16-18, 1996. The workshop presented the underlying strategic principles that are the basis for successful streamlining of environmental restoration projects. It builds on earlier Office of Environment, Safety and Health (EH) workshops that teach the basics of the CERCLA and RCRA remediation processes, as well as lessons learned from applying the principles during the Streamlined Approach for Environmental Restoration pilot projects and the EM Strategic Milestone Reviews.

The workshop included participants from DOE and Westinghouse staffs, technical support contractors, and nearly 20 State of South Carolina and EPA Region IV CERCLA and RCRA regulators. It also provided a forum where all parties responsible for successfully streamlining environmental restoration activities could work together and begin building teams.

Attendees responded to the workshop positively. "All [South Carolina Department of Health and Environmental Compliance] SCDHEC participants, both technical as well as programmatic, found the workshop helpful in avoiding many of the pitfalls that commonly plague the remedial selection process . . . they felt this workshop helped them to formalize these concepts into a standardized decision matrix they could use consistently into the future in order to make better informed remedial decisions," wrote Keith Collingsworth, Federal Facility Agreement Manager to Rich Dailey, workshop leader in the Office of Environmental Policy and Assistance, RCRA/CERCLA Division (EH-413).

EH cosponsors the workshop with the Office of Program Initiatives (EM-47) and the Office of Training and Education (EM-13). Several sessions of the workshop are being scheduled for FY 97 around the DOE-complex. The four principles taught in the course are: (1) building an effective core team; (2) defining the problem clearly and concisely; (3) identifying likely response actions early; and (4) actively managing project uncertainties. For more information on the workshop, please contact Richard Dailey (EH-413) at (202) 586-7117 or e-mail *(richard.dailey@eh.doe.gov).*

Delegation of the Hazardous Waste Delisting Authority to EPA'S Regions

On October 10, 1995, the Environmental Protection Agency (EPA) Administrator formally extended the delegation of the hazardous waste delisting authority to EPA's 10 Regional Offices. As a result of this action, delisting petitions which require Federal decision will now be reviewed by the appropriate EPA Regional Office instead of the EPA Headquarters. The Agency believes that decentralizing the delisting authority to the regional administrators will result in more timely responses to delisting petitions.

In a notice published in the *Federal Register* on June 25, 1996 (61 *FR* 32798), EPA acknowledges this changes in the delegation of authority and provides a list of Regional EPA delisting contacts. They should be contacted for information about the delisting process and for guidance on submitting delisting petitions to EPA Regional Offices.

Under the 40 CFR 260.20, "General" and 260.22, "Petitions to Amend Part 261 To Exclude A Waste Produced at a Particular Facility," regulations implementing the requirements of the Resource Conservation and Recovery Act (RCRA), facilities may petition EPA to remove their wastes from the hazardous waste management system by excluding them from the lists of hazardous wastes contained in sections 261.31, "Hazardous Wastes from Non-Specific Sources," and 261.32, "Hazardous Wastes from Specific Sources," of 40 CFR.

Petitioners must provide sufficient information to EPA to allow the agency to determine that the waste to be excluded does not meet any of the criteria under which the waste was listed as hazardous waste. In addition, the EPA Administrator must determine that factors other than those for which the waste was listed would not warrant retaining the waste as a hazardous waste.

Under RCRA, states authorized to administer a delisting program in lieu of the federal program also may exclude wastes from hazardous waste regulations (18 states are currently authorized to implement the RCRA delisting process). Facilities that manage their wastes in states with delisting authorities should petition that state for an exclusion rather than the EPA. Even in unauthorized states, petitioners should contact the state authorities to determine what procedures might be necessary for delisting under state laws.

For further information, call Emile Boulos, Office of Environmental Policy and Assistance at (202) 586-1306, fax (202) 586-3915, or e-mail *(emile.boulos@eh.doe.gov)*.

Public Performance-Based Permitting

The Environmental Protection Agency's (EPA) Permits Improvement Team (PIT) issued a concept paper that introduces a revised approach to environmental permitting called public performance-based permitting, or "P3," in the May 10, 1996 *Federal Register* (61 *FR* 21856). When the final version of this concept paper is approved, it will serve as a statement of official EPA policy on environmental permitting and will be used by EPA permit programs as guidance. Some EPA programs, such as "National Pollutant Discharge Elimination System" permitting, are already applying many of the principles of performance-based permitting. With these permitting revisions, DOE facilities may find it easier to comply with environmental regulations.

The "P3" principle of performance-based permitting includes:

- **Environmental Results**
  Permitting agencies should increase ambient (environmental) monitoring as a permit condition in selected permits, while comparatively reducing other emissions monitoring and reporting requirements. This would allow permitting agencies to prioritize permitting information requirements based on real environmental impacts. It is also important not to increase the information gathering and reporting burden on permitted facilities.

- **Facility compliance**
  Permitting agencies should establish reporting requirements based on a facility's level of compliance (e.g., reduce reporting for facilities with good compliance records) and potential impact of an activity, create incentives for pollution prevention and technological innovation, and provide compliance assistance to facilities that are making good-faith efforts but finding it difficult to comply.

- **Agency performance**
  EPA should devise methods to measure the performance of permitting systems and to continually improve these systems based on performance data received.

The PIT is also attempting to establish criteria to determine when individual permits are needed and when they could be replaced with permits requiring less administrative oversight and cost, without any impact to the environment. Alternatives to individual permits include general permits, permits-by-rule, hybrid permits, and conditional and *de minimis* exemptions from permitting. Criteria developed by the PIT's Alternatives to Individual Permits Task Force include:

- Issuing permits only where there is a real or potential adverse environmental impact and the regulatory agency needs to be involved in developing proper controls.

- Issuing individual permits only where there is a potential for significant environmental impact or high degree of variability in regulatory requirements at individual facilities.

Implementation of performance-based permitting should increase a facility's operational flexibility by reducing the review steps needed to reasonably demonstrate that the permittee will meet performance standards.

A number of measures can enhance the permitting process. Public involvement, an important step in improving the permitting process, can be increased by making information about permittee compliance performance available through databases and publications. Another important aspect of improving the environmental permitting process concerns how the performance and success of the permitting programs are measured through the three categories of process, results, and customer service.

For further information contact Katherine Nakata or Al Sikri, (EH-413) at (202) 586-0801 or at (202) 586-1879, fax (202) 586-3915, or e-mail *(katherine.nakata@eh.doe.gov)* or *(atam.sikri@eh.doe.gov),* respectively.

Safety and Health Technical Assistance for Deactivation and Decommissioning

In response to the growing inventory of Department of Energy (DOE) surplus facilities that must be dispositioned and the accompanying safety and health risks, the Office of Environment, Safety and Health (EH) has established a Deactivation and Decommissioning (D&D) Technical Assistance Program to help implement a safe and more cost-effective management approach to improving safety and health (S&H) during such cleanup activities.

Program success has benefitted from several teams that have formed across the complex to deliver S&H technical assistance. Team composition has included managers, supervisors and workers from the Office of Environment, Safety and Health, the Office of Environmental Management (EM), several Field Offices and DOE contractors.

Fueled and mobilized by the success of the first such team to deactivate the huge PUREX facility (SYNERGY Winter 1995: *"Lessons Learned in Report on Integrated Safety and Health Approach for D&D Activities"*), the program's activity level has increased.

Team members have developed an integrated S&H management framework, an adaptive system designed to export several fundamental principles: define the work to be done, characterize the hazards associated with the work, establish the proper hazard controls; involve S&H experts early in the process; and assemble a core, multi-disciplinary team, including workers, for project planning and execution. Application of these principles at several DOE sites such as Hanford and Idaho have given rise to several other activities.

Most recently, the Hanford 233-S Plutonium Concentration Facility was selected as a decommissioning pilot project to demonstrate the integration of DOE nuclear facility and worker safety requirements with the CERCLA cleanup process. Related activities include helping to establish the project's authorization basis; reviewing S&H documentation, including hazard categorization analyses; and developing and disseminating lessons-learned information to other sites and facilities. Two lessons learned documents to be published this fall include one on the successful application of the integrated safety and health management framework principles for small-scale D&D projects at the Idaho National Engineering Laboratory, and one that discusses site and project-specific issues, problems and resolutions associated with deactivation and decommissioning-related hazard analysis for worker protection.

Richland Operations Office, Savannah River, EM and EH team members are making use of the contract reform initiative to formulate project-specific S&H performance expectations for D&D work. EH has also begun an in-depth evaluation of the potential impacts on S&H activities and compliance imposed by external regulations. This assessment includes a review of the Nuclear Regulatory Commission's, Environmental Protection Agency's and Occupational Safety and Health Administration's regulatory framework as applicable to DOE's D&D work, as well as reviews of how the commercial nuclear industry addresses compliance with external regulations during cleanup work.

An interactive web site is being developed to address the most current information. The web site will include links to several related information and data resources and databases, discussion forums, an events calendar, technical question-and-answer capability and much more. The web site is expected to be fully operational before the end of the year.

For more information, contact Tony Eng, Office of Worker Health and Safety at (301) 903-4210, FAX: (301) 903-8817, or e-mail (*tony.eng@eh.doe.gov*).

FFERDC Final Report on Principles For Federal Facilities Cleanup

In April 1996, the Environmental Protection Agency (EPA) distributed the "Final Report of the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC): Consensus Principles and Recommendations for Improving Federal Facilities Cleanup." This final report addresses the cost for cleanup of 61,155 sites nationwide (estimated between $230 billion and $390 billion over the next 75 years) in a time of increasing fiscal constraints. Further, the report emphasizes the need to enhance the relationships between the regulated community and regulating agencies.

Overall, the principles and recommendations of the report assist ongoing efforts necessary to ensure that cleanup decisions protect human health and the environment for current and future generations, are cost effective, and reflect the values of the affected customers.

FFERDC is a federally chartered advisory committee for which the EPA serves as the chartering agency. Participants include five federal agencies (including DOE), state, tribal and local governments, and numerous other national, regional and locally based environmental, community, environmental justice and labor organizations. The members of the Committee participate as individuals, not as official representatives of their organizations or agencies. The final report includes several chapters with supplemental recommendations that address community involvement, advisory boards, funding and priority setting, and capacity building among various stakeholder groups.

For more information on the FFERDC principles for environmental cleanup of Federal facilities, contact Suzanne Rudzinski (EM-24) at (202) 586-4373 or fax (202) 586-9172. For copies of the report, contact the Federal Facilities Restoration and Reuse Office, U.S. EPA at (202) 260-9924 or fax (202) 260-5646 or contact The Keystone Center, Science and Public Policy Program at (970) 468-5822 or fax (970) 262-0152.

The Office of Operating Experience Analysis Gains Expertise Through Field Detail Program

The Office of Operating Experience Analysis (EH-33) has implemented a program to bring field personnel with diverse experience and technical disciplines to Headquarters (HQ). Four field personnel have participated to date. The program has been tremendously successful, resulting in benefits to both HQ and the field; EH-33 gains invaluable field/discipline experience to improve our product while field organizations are exposed to the environment, safety and health (ES&H) analysis techniques and become familiar with Headquarter's business.

During February and March 1996, Savannah River Site Facility detailed **Chuck Messick** to EH- 33. A critical player in making changes to the ORPS Order and Defense Nuclear Facility Safety Board concerns, Chuck provided HQ with better insight into reporting issues in the field. He returned to the field with a better understanding of Headquarter's need for analysis information and with other complex-wide experiences.

Bob Desmarais, Director of Operations Safety Management at Brookhaven National Laboratory, participated in the program May through July 1996. Bob brought extensive Radiological Control and field management experience to HQ and provided analysis for the Performance Indicator Report, he also served as a field office member of Summit '96 Measures Team. In return, he gained excellent corporate level exposure to safety and health performance measures.

Joe Schvimmer on loan from the Office of Nuclear Non-Proliferation is working with the Performance Indicator group surveying and summarizing the use of ES&H performance measures at Department of Energy sites. **Larry Larsen,** whose primary focus is ORPS re-engineering, is detailed to EH-33 from the Idaho Office of Customer and Organizational Services until December 1996.

Plans for detailing HQ personnel to the field are also underway and EH-33 is seeking field locations. Personnel interested in participating in this program should contact Tom Rollow (EH-33) at (202) 586-7449 or e-mail *(tom.rollow@eh.doe.gov)*.

Ergonomics Initiative Announced

A Department of Energy (DOE) Ergonomics Initiative to prevent or reduce work-related musculoskeletal disorders by DOE office workers is being sponsored by the Office of Environment, Safety and Health. This initiative is in partnership with the Forrestal and Germantown Chapters of the National Treasury Employees Union (NTEU). Objectives of the initiative are to facilitate the transfer of cost-effective information and expertise from the private and Federal sectors to the DOE community and institute and promote a sustained ergonomics awareness campaign, and a technical assistance program.

Sixty-five percent of all occupational illnesses are associated with repetitive motion or cumulative trauma disorders (headache, eye strain, back, neck and shoulder pain, tendinitis, and carpal tunnel) that cost the American industry at least $20 billion a year in worker compensation costs. The National Institute of Occupational Safety and Health (NIOSH) staff estimates that by the year 2000, 50 percent of the workforce may suffer from repetitive motion injuries. DOE's Ergonomics Initiative is based on workers' compensation data analysis, previous Headquarters and field ergonomic surveys, as well as private sector experiences and lessons learned literature reviews.

As part of this initiative, 1-day training seminars were held on May 14, 15, and 16, 1996, in the Forrestal Building. The seminars taught skills on how to fit an ergonomic computer workstation to an employee and correct basic ergonomic hazards. Further training is being scheduled.

To enhance the ergonomics initiative, partnerships are being formed with other Government agencies (Occupational Safety and Health Administration, NIOSH, etc.) to share lessons learned, resources, and technical expertise. By Fall, the initiative will expand to include field programs. The Oak Ridge Operations Office Ergonomic Program will serve as the model, enabling organizations and operations offices to develop and/or strengthen their programs.

Tara O'Toole, Assistant Secretary for Environment, Safety and Health, kicked off **ERGONOMICS AWARENESS WEEK** on June 11 at the Forrestal Building. "Heightening employee ergonomic awareness and reducing repetitive motion injuries are important issues," said O'Toole at the ergonomic exhibit displayed in the Forrestal main lobby. Help Yourself Guides, ergonomic workstation hazards pictures, an office ergonomics video, a computer workstation demonstration, and numerous handouts comprised the exhibit. Ergonomics experts were available all week to address employee questions and concerns. A separate Ergonomics Awareness Week was held from June 25-28, 1996, at the Germantown Building.

The DOE Ergonomics Initiative is staffed by the DOE Federal Employee Occupational Safety and Health Program Office. For additional information on this initiative, contact Les Bermudez (EH-51) at (301) 903-9879 or *(leslie.bermudez@eh.doe.gov)*.

Positioning of Paramedic Crew at Nevada Test Site Enhanced Through Implementation of Medical Risk Code Matrix

Recent downsizing of work activities and the resulting budgetary constraints have greatly altered medical needs at the Nevada Test Site (NTS), compelling the site's emergency medical services to develop improved methods of positioning paramedic crews on the NTS. Previously, the nuclear testing program work sites positioned across the 1400 square mile area required 24-hour paramedic coverage with fixed medical stations positioned near by to respond to the potential needs of work sites with more than one hundred workers. But, the end of the nuclear testing program greatly altered the NTS mission, and as decommissioning and remediation of inactive work increased at NTS, it became difficult to determine when a limited project site required direct paramedic support. Later, as these work sites diminished and hours of the existing paramedic stations decreased, questions regarding the assumption of responsibility for medical support funding were raised.

As a result of these changing conditions at NTS, a Quality Working Group, chaired by Dr. Ronald Costin, NTS Occupational Medicine Director, set out to develop a method for determining the most effective positioning of paramedics. Costin selected professionals from several disciplines including construction, drilling, mining, industrial safety, and pre-hospital medicine for the Working Group. The Group decided to base the medical services positioning method on an existing industrial safety procedure for determining job risk (risk assessment code), incorporating additional factors relevant to paramedic operations in a rural setting.

To perform the risk assessment, Group members examined data relating to accident rates for specific work activities on the NTS and on patient survivability rates in traumatic and medical emergency situations in rural environments. Consideration of factors affecting ambulance response time was also significant, primarily because the majority of the NTS ambulance responses were medical in nature (such as heart attacks and asthma) as opposed to traumatic injuries. In addition, because of the older average age of the existing workforce, population size was a consideration.

The Quality Working Group identified three primary factors relating to emergency medical response on the NTS: (1) job risk; (2) work site population; and (3) ambulance response time. Weight factors were then applied in accordance with the standard job-risk matrix where a code of 5 is considered the least risky, and a code of 1 is the most risky. The sum of the code for the three risk factors is considered the total Medical Risk Code (MRC) in which a 10 or higher is considered acceptable and does not require adjustment to the position of the paramedic crews. An MRC of 9 or less requires one of the following to occur in order to raise the MRC to an acceptable level: (1) improve the level of job risk by making the work safer to perform; (2) reduce the work site population; or (3) move the paramedic crew closer to the work activity.

Because the first two factors are difficult to control, the most logical way to improve the MRC is to decrease the ambulance response time to the work site. Examples of methods to reduce the ambulance response times to provide an acceptable MRC include improving the road surfaces traveled by the emergency crews (especially dirt surfaces) and ensuring that the responding crews are cognizant of the fastest route to the site in all weather conditions.

It must be noted that the MRC and resulting medical support recommendations are presented to management as a guide and not as a mandatory requirement. If the risk is deemed great and funding is made available, a paramedic crew is positioned at the closest existing medical facility or, in the absence of an appropriate facility, paramedics are positioned at the work site.

With the development of the MRC method at NTS, a company-wide procedure was needed to ensure that the NTS Medical Department receives adequate and consistent information to best position medical support services. By using data forms compiled by the various departments and a timed ambulance response performed by the closest paramedic station, the NTS Medical Department acquires the information needed to calculate the MRC. The emergency medical response plan is then prepared and forwarded to the site-specific project manager. This process is repeated each time a new work site or work shift is added to the NTS grid map. In addition to the risk-factor forms from various departments, response time effectiveness and site visits are documented on official forms.

The MRC method of response adequacy analysis has provided an important tool for evaluating current staffing and positioning, as well as future planning for consolidating paramedic stations into a more cost-efficient and response-ready model. For additional information contact Charles Fauerbach, Deputy Fire Chief, NTS at (702) 295-5561.

Risk Code	5	4	3	2	1
Job Risk (RAC)	Low	Low	Mod	High	High
Ambulance Response Time (Minutes)	<10	10-16	17-23	24-30	31or>
Population	<10	10-20	21-30	31-40	41 or>

A New DOE Management Tool: The Price-Anderson Amendments Act Enforcement Program

Background

DOE has implemented a program to take action against DOE indemnified contractors for activities that violate nuclear safety rules. These rules are promulgated by DOE to ensure that work is carried out in a manner that protects the safety of the worker, the public and the environment. This program also provides positive incentives for contractors to improve nuclear safety culture through compliance to standards and requirements, self-identification of problems, reporting potential noncompliance to DOE, and initiating timely and effective corrective actions.

The 1988 Price-Anderson Amendments Act (PAAA) extended indemnification to DOE operating contractors. At the same time, Congress required DOE to begin undertaking enforcement actions against those contractors who violate nuclear safety rules. The law provides for the issuance of Notices of Violations and, where appropriate, civil monetary penalties of up to $100,000 per day.

Such enforcement actions require the formal promulgation of rules in accordance with the Administrative Procedures Act, including adequate procedures for public notice and comment. To date, two programmatic rules have become enforceable as final rules — *Quality Assurance Requirements* and *Radiation Protection for Workers.* Additionally, DOE rules on *Contractor Employee Protection* and *Accuracy of Information (Submitted to DOE)* have been identified as nuclear safety rules that are also enforceable. In October 1995, the Department completed putting in place the organization infrastructure, training and formal guidance.

Administration

The DOE enforcement program is administered by the DOE Headquarter's Office of Enforcement and Investigation, linked with PAAA coordinators in field and program offices, and supported by technical experts from DOE Headquarters and field elements. It is structured to use existing resources, in conjunction with independent judgments by the Office of Enforcement and Investigation on compliance, safety significance, corrective actions and enforcement action.

Noncompliance Identification and Investigation

DOE expects that noncompliance above DOE's reporting thresholds for potentially more significant noncompliance will be reported into the Noncompliance Tracking System (NTS), which is linked to DOE's Occurrence Reporting and Processing System. Additionally, noncompliances may be identified independently through DOE-field office input, Headquarter's reviews, DOE facility representatives, the DNFSB, DOE PAAA Coordinators, DOE Office of Oversight, or reviews by enforcement staff of various sources. Workers with potential noncompliance issues may also directly contact the Office of Enforcement and Investigation confidentially, or the DOE site PAAA Coordinator, the Nuclear Safety Hot-Line, or the DOE Office of Contractor Employee Protection.

The Office of Enforcement and Investigation, with input from Field and Program Office Management, will decide which potential noncompliances are of such importance that an investigation should be conducted with the potential for enforcement action.

Enforcement Process

DOE's process and regulatory authority for enforcement actions is embodied in a Regulation (10 CFR Part 820), supplemented by the Enforcement Policy (Appendix A to 10 CFR Part 820) and guidance documents. Following an investigation DOE's selection of an enforcement action can include any of the following based on the facts and significance of the noncompliance: (1) an enforcement letter, indicating that the investigation is being closed without further action, based on the proper actions having been taken by the contractor; (2) a Notice of Violation with no civil penalty; (3) a Notice of Violation with civil penalty; and (4) referral to the Department of Justice for criminal prosecution.

Decisions on severity level, what enforcement action to take, and magnitude of any civil penalty are dependent on safety significance, initiative by the contractor in identification and reporting, and timeliness and effectiveness of corrective actions. With these elements appropriately addressed by the contractor, the Department can waive all or part of the civil penalties, and in some cases, refrain from actions entirely. The PAAA statute provides exemption of DOE not-for-profit entities for any liability for civil penalties; however, DOE may impose Notices of Violation for these contractors.

In response to a Notice of Violation under the PAAA, contractors are required to document specific actions taken and planned to prevent recurrence of similar events. Field Office personnel verify completion of corrective actions before the case is closed.

Enforcement Action Status

Under the two effective substantive rules, all contractors have filed implementation plans that have been approved by DOE. Contractors have reported over 90 noncompliances into DOE's Noncompliance Tracking System. Evaluations of approximately 60 PAAA compliance issues are currently underway by the Office of Enforcement and Investigation, and Field Office PAAA Coordinators, including DOE identified noncompliance.

DOE recently issued its first enforcement actions which included Notices of Violation and Civil Penalties for violations of nuclear safety rules. Additionally the Office of Enforcement and Investigation has closed a number of noncompliance without action, based on evaluations of contractors' corrective action plans and initiatives.

DOE's approach to enforcement involves innovative methods to avoid manpower intensive inspection forces and to motivate contractor ownership of compliance and safety. This will result in a more effective and efficient regulatory process that, in conjunction with other elements of the DOE Safety Management Program, improves safety to the public and workers for DOE activities. Additional Information on DOE's Enforcement Program may be obtained from R. Keith Christopher, Director, Office of Enforcement and Investigation, (301) 903-0100.

DOE Independent Oversight Office: Making A Difference

In early 1995, DOE established the Office of Oversight as an independent entity within the newly re-engineered Office of Environment, Safety and Health. At the time, no one in DOE knew what to make of the new assessment organization, but it was clear there would be no more "Tiger Team" audits producing long lists of non-compliances with confusing orders and no noticeable benefits for the Department.

What there *would* be was nothing short of a revolutionary approach to oversight at DOE, totally independent from line management, and providing DOE managers with quality information intended to improve management performance in environment, safety, and health. The goal of the Oversight Office is to provide focused, disciplined analyses that hold managers accountable for safety in a way that is fair and effective. This approach also helps managers make better decisions about priorities and resource allocations.

The fair amount of skepticism which greeted the Office of Oversight eighteen months ago has gradually evolved into a fair amount of relief by DOE managers in both headquarters and the field. However, this change required actual experience by the field with the new oversight processes and it involved hundreds of personal meetings between oversight managers and top DOE line managers, program mangers, the Defense Nuclear Facility Safety Board (DNFSB), Field Offices, and Congress.

Today the Department and its stakeholders are starting to see positive results. Some of the benefits of the new Oversight efforts include: the reallocation of resources to address safety needs such as reduction of critical maintenance backlogs; safety systems being brought into compliance with their design criteria; increased attention to safety needs when setting budget priorities; greater attention being focused on subcontractor safety programs; modifications of managers attitudes to ensure safety as DOE moves toward privatized activities; the development of new and safer ways for hoisting, rigging, and crane operations; implementation of improved radiological control programs, resulting in decreased worker and environmental contamination; and increased initiative among line managers to correct identified safety deficiencies and to put in place processes that prevent future deficiencies.

What is notable about these changes is that they are not limited to correcting specific "noncompliances" at specific facilities, but rather they involve systemic and programmatic improvements that will make safety considerations paramount in facility operations today and in years to come.

A key factor in the Office of Oversight's success has been the development and use of a "Safety Management Template" made up of the first three of five guiding principles of safety and security management as communicated by the Secretary of Energy to DNFSB in October 1994. These guiding principles and related criteria lay out management's responsibilities for safety and provide a consistent framework for evaluating the effectiveness of safety program management. The three guiding principles are:

(1) Line managers are responsible and accountable for safety and security management.

(2) Comprehensive requirements for safety and security management exist, are appropriate to the need, and are executed by line managers.

(3) The competence of each person is commensurate with assigned responsibilities.

The Office of Oversight believes that the independent oversight program has "turned the corner" in terms of acceptance and credibility within DOE. The Office hopes all parties continue to work with them in their ongoing commitment to make DOE a safer place to work. As part of this commitment, the Office is currently revising its Safety Management Template to provide a one-to-one crosswalk with the seven guiding principles of the Integrated Safety Management Program described in the Department's recently issued response to DNFSB Recommendations 95-2.

Highlighting these successes does not imply that safety at DOE is no longer a major issue. Oversight investigations continue to show that DOE has been extremely lucky in "dodging the bullet" of catastrophic accidents. Despite reasonable efforts, DOE continues to experience serious accidents, such as the recent electrical shock of a 24-year old student at Los Alamos, an accident that may have been prevented with proper safety planning.

The Office of Oversight has completed 12 comprehensive inspections, 8 reviews, 4 special studies, and more than 300 site surveillances at facilities throughout the DOE complex. This Office is also responsible for accident investigations. If you are interested in any of these reports, call the Office of Oversight at (301) 903-3777. The reports are also available from the Oversight Home Page at *http://tis.eh.doe.gov/web/eh2/*.

The Epidemiologic Center for Worker Health and Safety

The Office of Epidemiologic Studies (EH-62) recently established a program to identify and integrate existing data from all DOE elements that can be used to address worker health and safety issues. Data are routinely collected to fulfill specific missions and functions; some of these data are collected for uses related to the operational aspects of DOE facilities, while others are collected specifically for environment, safety, and/or health purposes. Often data collected for one purpose can be valuable to address questions in other areas. The same databases, looked at from a different perspective, have the potential to provide new information that can increase our understanding of worker health and safety and support critical policy decisions. For example, worker compensation data collected for administrative purposes may provide epidemiologists with useful information to better understand conditions associated with on-the-job injuries.

The Epidemiologic Center for Worker Health and Safety, colloquially known as the "EpiCenter," began identifying data collection systems across EH and is now cataloging the types of data sets available. In collaboration with the Office of Information Management, the "EpiCenter" is developing a data set directory that is conceptually similar to a library's card catalog. Once the existing data sets have been identified, epidemiologists in EH-62 will determine if those data can be used to further explore the relationship between adverse health effects and occupational exposures. By integrating these data sets, EH-62 hopes to improve the understanding and prevention of worker health and safety risks. Although this program focuses on the epidemiologic analysis of health and exposure data, the "EpiCenter" model could be easily adapted for other uses such as operations analysis and oversight analysis. For more information on the "EpiCenter," contact Ed Washburn (EH-62) at (301) 903-2335 or e-mail *(ed.washburn@eh.doe.gov)*.

Office of Oversite Announces Its Home Page

Glenn Podonsky, the Deputy Assistant Secretary for Oversight recently announced the availability of a Home Page for the Office of Oversight (EH-2), found at: *http://tis.eh.doe.gov/web/eh2/*.

Although the Oversight processes continue to evolve, the goal of establishing a comprehensive review and analysis approach and generating a useful body of management information has been achieved. The Oversight Home Page is designed to take advantage of this progress—including World Wide Web and Internet technologies—to disseminate the existing and continuously expanding information from EH-2 to DOE senior managers and the public.

Documents and linkages within the Home Page provide detailed information regarding the philosophy and strategies adopted by the Office of Oversight. The guiding principles of safety management and information on Oversight missions, functions, policy issues, trends, and technologies are presented. In addition, there are linkages to important government and university Home Pages, such as the Defense Nuclear Facilities Safety Board, that are of interest to the oversight community and the public.

Office of Oversight documents accessible through the Home Page are organized in a library paradigm, using a bookcase and numerous bookshelves including:

- Oversight Guidance Documents
- ES&H Evaluations
- Safeguards and Security Evaluations
- Accident Investigation Program
- Special Reviews and Studies
- Site Profiles
- Operational Readiness Reviews

In addition to the documents and links of general interest, the Oversight Home Page is designed to provide access to DOE data repositories, which allows oversight analysts to use these data in trending and assessment activities. Linkage of the Oversight Home Page to a modernized Occurrence Reporting and Processing System is operational as a beta test. Efforts are underway to provide similar capabilities for the Computerized Accident/Incident Reporting System and the Performance Indicator Data System during the next fiscal year. Access to DOE data repositories are allowed only to authorized users.

Integrated access to DOE databases and the Oversight bookcase, along with Dynamic Data Exchange capabilities of modern software packages, is an essential feature of the Oversight Home Page and expected to significantly improve the productivity of oversight analysts. For example, data created by database searches can be ported into spreadsheet for further analyses. The resulting graphics could be presented in a word processing document along with text extracted from documents accessible though the Home Page.

Other New Home Pages

The Medical Surveillance Information System (MSIS) is now linked from TIS under TIS Medical Links and Database Services (9/4/96). The URL is http://www.ssds.com/doe/msishome.html. The objective of MSIS is to provide a clinical and information management tool for use by the site occupational medicine program.

The International Health Programs now has a web site. The site provides information and management services that expand the knowledge of health effects of radiation and related environmental hazards. It can be accessed at *http://tis-nt.eh.doe.gov/ihp/*

Fitzgerald Speaks at DOE and DOE Contractors Industrial Hygiene Meeting

Joseph E. Fitzgerald, Jr., Deputy Assistant Secretary for Worker Health and Safety, discussed the importance of incorporating safety into the work process at the DOE and DOE Contractors Industrial Hygiene Meeting on May 22, 1996, at the annual American Industrial Hygiene Conference and Exposition in Washington, D.C. The conference was sponsored by the American Industrial Hygiene Association and American Conference of Governmental Industrial Hygienists.

Joseph E. Fitzgerald, Jr., Deputy Assistant Secretary for Worker Health and Safety

One of Mr. Fitzgerald's major points was "health and safety programs become expendable if they are not integral to business performance." In the past, safety was seen as an independent and discipline-based function, but a shift to a corporate safety model places collaborative, seamless safety in an enhanced model with multidisciplinary teams. This emphasizes risk reduction and performance improvement, rather than compliance.

By incorporating safety into the work process, sites have begun recording a significantly lower rate of lost workday cases. A lost workday case is a work-related injury or illness that involves days away from work or days of restricted work activity, or both. For example, Fernald has recorded 2 million hours without a lost workday case, Savannah River has achieved 9.5 million hours without recordable injury/illness, and K-25 has seen a 75 percent reduction in its injury rate since the start of the worker-based "Take Two" safety initiative in May 1994. A new paradigm shift for safety focuses on fixing management systems and integrating multidisciplinary protocols. "Safety can be managed," concluded Mr. Fitzgerald.

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