



HSS Accomplishments

October 2006 – March 2007

The First 180 Days

During the first six months following the establishment of HSS, HSS has worked to place the proper people with the necessary skills and expertise in the proper functions in the new organization. HSS has also focused on ensuring that we effectively apply the resources Congress has provided to best serve DOE workers and the American people and to better secure our national assets. We have made a good start, and with support of the President's FY 2008 Budget, we will be able to build upon that foundation. In support of the HSS FY 2008 budget request, recent HSS activities include:

Site visits by HSS senior management to over 21 locations and organizations, as well as meetings with Headquarters program offices during the first four months: HSS senior management conducted visits around the DOE complex to meet with program office, site office, and contractor management and union representatives, as well as external organizations, to provide information on the creation of HSS and its roles and organization, and to obtain feedback on issues related to health, safety, environment and security. Meetings were held with the: Idaho Operations Office (ID), Hanford, the Office of River Protection (ORP), Pacific Northwest National Laboratory (PNNL), Pantex, Site, the NNSA Service Center, Sandia National Laboratories (SNL), the Office of Secure Transportation (OST), Nevada Test Site (NTS), the Y 12 National Security Complex (Y-12), Yucca Mountain, Oak Ridge National Laboratory

(ORNL), the Oak Ridge Office (OR), Kansas City Plant (KCP), the Hazardous Materials Management and Emergency Response (HAMMER) Training Center, Lawrence Livermore National Laboratory (LLNL), Stanford Linear Accelerator Center (SLAC), Lawrence Berkeley National Laboratory (LBNL), Savannah River Site (SRS), Los Alamos National Laboratory (LANL), Brookhaven National Laboratory (BNL), the Director of the National Institute for Occupational Safety and Health (NIOSH) and the Associate Director for Mining, NIOSH, as well as the Government Accountability Project (GAP), the Project on Government Oversight (POGO), and the Building Trades Commission of the AFL-CIO. These initial visits/meetings have resulted in an ongoing dialogue between HSS, the field, and external stakeholders to enhance policy development, provide site assistance, and facilitate the resolution of a number of health, safety, environment and security issues.

Benchmarking meetings: HSS senior management conducted meetings with organizations and agencies that are responsible for high-risk activities similar to those at DOE. As part of an overall effort to analyze and improve the Department's current safety management programs, HSS conducted meetings to gain insight into how the private sector or other government agencies measure, manage and improve safety. HSS held meetings with the U.S. Air Force (USAF) Assistant Secretary for Environment, Safety and Health; DuPont safety executives; the National Security Agency; and the Naval Safety Center. The visit to the Naval Safety Center included an HSS demonstration of the DOE Occurrence Reporting and Processing System (ORPS), the DOE Computerized Accident and Injury Reporting System (CAIRS), and the DOE Lessons Learned Database. HSS conducted follow-up meetings with Air Force staff, at their request, to assist in their efforts to achieve safety excellence. Follow-up discussions focused on

developing safety excellence models, developing performance expectations for safety for DOE Federal and contractors, and integrated safety management (ISM).

Communicating/Interfacing with the Institute of Nuclear Power Operations (INPO): HSS met with INPO in January to discuss their technical assistance process and application in the commercial nuclear industry and at DOE. HSS is planning follow-up discussions to discuss how to best utilize INPO's technical assistance capabilities to foster improvements at DOE.

Improving Defense Nuclear Facilities Safety Board (DNFSB) Interface and Cooperation: HSS is working to improve DOE interface with the DNFSB by increasing HSS communication with the Board. Improved coordination is continuing to address safety in design and construction, nuclear risk assessment policy, nuclear material packaging, and quality assurance program efforts throughout the Department.

Revision of Regulatory Language: Rules referencing the former Assistant Secretary, EH, were amended. A Federal Register Notice was published on November 28, 2006, amending various regulations to transfer the applicable health, safety, environment and security functions to HSS that previously were carried out by EH and SSA.

Health, Safety and Security Managers Focus Group: HSS formed the integrated Health, Safety and Security Managers Focus Group composed of senior HSS managers to solicit, discuss, and address topics and issues of interest to DOE managers and stakeholders. HSS conducted the first monthly Focus Group meeting on February 12 with the Acting Administrator,

NNSA, and senior NNSA safety and security managers and a second meeting on February 26 with the Under Secretary for Science and senior Office of Science (SC) managers and a third meeting on March 27 with the Yucca Mountain Program. Meetings are being scheduled with other program offices and invitations for participation are being extended to union representatives and interested stakeholders.

Develop and Implement a Policy on Differing Professional Opinion (DPO): HSS finalized DOE P 442.1, *Differing Professional Opinions on Technical Issues Related to Environment, Safety and Health*, to facilitate dialogue and resolution on DPOs related to environment, safety, and health aspects of DOE facilities and activities. This Policy provides a process for technical issues to be resolved when there is disagreement with line management. The process requires the employee to identify the issue and its basis and to give that information to the DPO manager within HSS or NNSA. Implementation of the DPO process also includes educating DOE managers and employees on the program.

10 CFR Part 851, Worker Safety and Health Program: Implementation of this program has re-invigorated the Departments focus on workers as a valuable asset and is being facilitated through assistance and outreach by:

- Conducting monthly conference calls and office-to-office contact with DOE Federal and contractor staff to assist in the development, review, and approval by site management of contractor worker safety and health programs,
- Issuing DOE Guide 440.1-8, *Implementation Guide for use with 10 CFR 851 Worker Safety and Health Program*, on December 27, 2006, to provide supplemental information and

describe implementation practices to assist contractors in effectively developing, managing and implementing required worker safety and health programs,

- Maintaining a 10 CFR 851 web site as a comprehensive source of assistance for implementation of the Rule,
- Revising DOE Order 440.1, *Worker Protection Management for DOE Federal and Contractor Employees* currently in the DOE review and approval process, to remove contractor requirements contained in 10 CFR 851, and
- Developed an electronic web based variance process (now available on the 10 CFR 851 website) to ensure that HSS provides timely review of applications for variances and provides recommendations to the cognizant Under Secretary.

Injury and Illness Surveillance Program (IISP): The IISP is the only source of information about the health of the current contractor workforce. It covers 80,000 workers at 13 DOE sites. The program's goal is to monitor morbidity and assess the overall health of the workforce, identifying those groups that may be at risk of occupational illness or injury. The program provides a focus for intervention that can reduce or eliminate that risk. Surveillance data also provide a means to evaluate the effectiveness of that intervention.

Energy Employees Occupational Illness Compensation Program Act (EEOICPA): HSS has strengthened and enhanced the implementation of EEOICPA through:

- Working cooperatively with and assisting the Department of Labor (DOL) to process claims filed by DOE Federal and contractor employees by providing DOL, the National Institute for Occupational Safety and Health (NIOSH), and the Advisory Board on Radiation and Worker

Health access to all available records and information needed to support such claims in a timely manner;

- Maintaining improved communication and coordination with DOL/NIOSH through weekly conference calls and periodic meetings with the President's Advisory Board on Radiation and Worker Health;
- Working with line management to identify field points of contact to improve EEOICPA implementation;
- Increasing efforts to recover records that may assist workers / former workers in EEOICPA claims; and
- Supporting a DOL initiative to develop a site exposure matrix detailing the hazards and potential resulting illnesses for each DOE site to assist DOL adjudicate EEOICPA Part E claims.

Enhance Integrated Safety Management (ISM): The November 1, 2006 approval of the ISM Manual will provide clearer policy guidance and focused leadership. The Deputy Secretary designated the Director, Office of Health and Safety, HSS, as the DOE Champion for ISM to drive implementation throughout the Department in coordination with the program and field offices. Vesting this level of responsibility within the policy office that is primarily responsible for worker safety is essential for improving ISM implementation across the DOE complex.

Safety and Security Interface: HSS is capitalizing on the synergy implicit in its creation to improve the policy interface between the security measures needed to counter the threats to Departmental security assets and the safety measures necessary to protect the health and safety of

DOE workers and the public and to protect the environment. This effort is currently focused on resolving the safety and security issues that have arisen with the implementation of enhanced security measures needed to respond to modifications to the Department's Design Basis Threat (DBT). In addition:

- HSS is providing technical assistance to integrate safety and security design considerations early in the construction process. DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, was revised to incorporate security. This directive has historically focused on the incorporation of safety into capital asset construction planning and renovation projects. The addition of security language will allow for clearer integration of security and safety functions in field project planning and design. HSS is now participating on crosscutting Departmental teams to develop DOE functional guides to accompany the recently revised directive.
- HSS is providing assistance to resolve issues in security training implementation, with the goal of identifying potential conflicts between safety performance goals being established for protective forces and effective training methods.
- Through participation in the Government Electronics & Information Technology Association Safety System Committee, HSS is working to improve the integration of environment, safety, and health considerations into the process for conceiving, producing, deploying, and supporting weapons systems.

Crosscutting Issues: HSS is working to identify and prioritize crosscutting worker safety and health issues, which HSS will use to provide assistance to program and field elements. HSS is also working to develop a DOE-wide process for identifying and addressing crosscutting issues,

e.g., worker safety aspects of protective force activities especially in light of elite force implementation and safety aspects of deployed security technologies.

Strengthen the rigor of the Voluntary Protection Program (VPP): HSS has promoted a renewed awareness of the significance of this program by the Deputy Secretary and other senior managers. HSS is revising processes and procedures to emphasize performance-based evaluations and plans to incorporate the VPP program into the DOE Directives System to strengthen the program's rigor and formality. To involve a larger portion of the DOE contractor workforce, HSS is working to expand the positive impact of the VPP program through senior management involvement, application of various incentives, and outreach through national VPP organizations and meetings.

Pandemic Influenza Preparedness Planning: HSS is providing coordination and support to the Department, through education and awareness training and close coordination with NNSA, to ensure that pandemic response is incorporated in the DOE COOP plan and program office and field COOP implementation plans. HSS has established the Biological Effects Monitoring Team (BEMT) to coordinate Department-level planning and response. HSS is coordinating with the Site Occupational Medical Directors to assist in their pandemic preparedness planning.

Former Workers' Records: Data will be maintained from a 1981 Naval Shipyard Study (Naval Reactors project) conducted by Johns Hopkins Bloomberg School of Public Health (JHSPH).

International Health Studies: HSS is strengthening the relationships with the applicable governments as well as the conduct of the international health and environmental monitoring programs associated with the Radiation Effects Research Foundation; Marshall Islands; Palomares, Spain; and Russia.

Integration of Safety into the Design Process: HSS is working with NNSA, EM, and the DOE Central Technical Authorities to develop safety design criteria for seismic design and co-located worker safety-significant structures, systems, and components that involve radiological thresholds. As with security issues discussed earlier, HSS is also providing assistance to ensure seamless integration of safety into DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, by coordinating the development of a new DOE Standard, DOE STD-1189, with those developing DOE O 413.3A guidance.

Maintenance Management Program for DOE Nuclear Facilities: HSS is leading and coordinating a DOE Working Group to address crosscutting implementation issues associated with DOE O 433.1, *Maintenance Management Program for DOE Nuclear Facilities*. On February 13, the Working Group addressed a series of crosscutting implementation issues. The subgroups have revised their charters to address funding needs, data collection time, time period for data analysis, and formulation of recommendations.

Operational Readiness Review (ORR) Program: HSS is working with DOE elements to develop needed changes to the DOE ORR Order (DOE O 425.1C, *Startup and Restart of Nuclear Facilities*), guidance, and training curriculum, as well as to identify processes for the

sharing of effective ORR-related practices, with the goal of creating continuous improvement in the DOE ORR and Readiness Assurance processes.

Environmental Management System (EMS) Implementation Status Annual Reporting:

The report, incorporating analysis and a summary of comments provided by sites, was submitted to the Environmental Protection Agency (EPA) on February 2 by the Chief Health, Safety and Security Officer, as DOE's Agency Environmental Executive.

DOE 2007 Pollution Prevention (P2) Awards Program: As DOE's Agency Environmental Executive, HS-1 nominated the Department's Best-in-Class selections as the Department's entries to the White House Closing-the-Circle competition based on the Department's Best-in-Class nominees. The Best-in-Class selections will also serve as entries for the DOE *P2 Star* awards that HS-1 will present in recognition of exemplary achievements in pollution prevention during the Earth Day 2007 celebration in April.

Pollution Prevention Data Reporting and Analysis: HSS developed a summary of its preliminary findings based on its evaluation of pollution prevention and environmentally preferable purchasing data submitted by DOE program and field elements. These findings, as well as other findings from the review of this P2 data, will be used to identify opportunities for providing technical assistance to improve site- and program-specific performance in the pollution prevent area.

Integration of Enforcement Activities: The HSS Office of Enforcement has integrated nuclear

safety (Price-Anderson Amendments Act, [PAAA] Part 820); security (Part 824); and worker safety and health (Part 851) enforcement programs to provide a consistent and proven approach for conducting enforcement activities. The Office is working on enforcement and successive implementation of 10 CFR Part 851, the worker safety and health rule. Key initiatives include frequent workshops, conferences, and teleconferences that engage policy, implementation and enforcement issues. In addition, HSS is conducting the first Part 824 security enforcement investigation of the facts and circumstances that resulted in the recent LANL security incident.

Corporate Safety Performance Indicators: HSS is focusing on solving systemic causes of deficient performance to reduce and prevent events by examining leading as well as lagging performance indicators. HSS has developed a Corporate Safety Indicator “dashboard” to provide senior management with the status and trends of DOE safety performance that can be utilized as an effective tool to focus, on a monthly basis, senior management dialogue and attention on areas of safety and health priority.

DOE Operating Experience Program Council: HSS is expanding the DOE Operating Experience Program, to include all DOE Federal and Contractor Operating Experience Program Coordinators, to communicate operating experience and lessons learned across the Department more effectively. An Operating Experience Council made up of DOE Federal and DOE contractor managers, as well as, managers from “Best in Class” industries, will help ensure the use of valuable lessons learned from within, and outside of the Department.

National Training Center (NTC): HSS is acting to enhance and integrate safety and security training throughout the Department. Efforts to date include:

- Conducting the fourth Leadership Development Institute course in March 2007;
- Hosting the semi-annual Federal Technical Capabilities Panel meeting in December 2006;
- Increasing focus on safety and security training interface based on the safety and security expertise within HSS;
- Conducting a new Senior Technical Safety Manager (STSM) Overview course in February 2007, consisting of lecture, discussion, activities, and sample exams with questions similar to those presented on the actual STSM qualification exam;
- Dedicating the Integrated Safety and Security Training and Evaluation Complex (ISSTEC) in December 2006;
- Developing a new Tactical Response Force Course to provide enhanced performance-oriented training that includes an additional two weeks of tactical operations and weapons skills;
- Conducting the first new ten-week Tactical Response Force Course, completed on March 16, 2007, at the ISSTEC;
- Conducting Tactical Leadership Course at the ISSTEC for protective force supervisory personnel from across the DOE complex to enhance their leadership skills in responding to potential threats against DOE resources; and
- Conducting a safety and security training needs assessment survey to identify training requirements for new security and/or safety technologies.

Enhancement of Management Systems Supporting Employee Assistance: The Employee Assistance Task Force, led by HSS, was established to review and assess incidents that raise issues associated with employee concerns. HSS is developing a plan to implement recommendations resulting from this special review, DOE has also benchmarked, discussed, and compared such issues of workplace/workforce reliability, against with the chemical/petrol sector, the military, defense contractors and the National Security Agency.

Independent Oversight: To increase DOE's health, safety, and security posture, HSS has a rigorous performance-based independent oversight program that assesses safeguards and security; cyber security; emergency management; and environment, safety and health programs across the Department. Independent oversight inspections focus on many areas, including contractor self-assessments, DOE line management evaluations, and worker performance in order to continuously evaluate DOE's safety and security posture. HSS has a strong capability to identify weaknesses in safety and security programs and program implementation through mechanisms such as program reviews, limited-scope performance testing, and large-scale force-on-force exercises. The effectiveness and value of HSS's assessments enable DOE sites to take timely corrective actions, or when necessary, immediate compensatory action to address any weakness.

FY 2007 Independent Oversight Inspections conducted to date include:

- Combined Security and Cyber Security Inspection at the Strategic Petroleum Reserve;
- LANL Combined Safeguards and Security, Cyber Security and Emergency Management Inspection;

- NNSA-SC Personnel Security Follow-Up Review;
- Classification and Information Control Inspection of Oak Ridge Operations Office (OR), ORNL, and East Tennessee Technology Park (ETTP);
- Continuing unannounced Cyber Security Penetration Testing of selected DOE/NNSA sites;
- Cyber security site assistance visits;
- NTS Combined ES&H and Emergency Management Inspection;
- OST Emergency Management Inspection;
- SLAC ES&H Inspection;
- LLNL ES&H Inspection; and
- Technical Surveillance Countermeasures (TSCM) Special Review.

Personnel Security Program Review: The Chief Health, Safety and Security Officer served as the chairman of the task force, composed of staff from HSS, the Under Secretary of Energy, Under Secretary for Science, and Under Secretary for Nuclear Security (Administrator, NNSA). This task force examined the Department's personnel security policies and procedures, quality assurance and line oversight, training, and organizational structure for access authorizations and provided the Secretary of Energy with their results and recommendations.

Enhance security policy in coordination with efforts to revitalize health and safety policy: HSS has begun a complete review of security policy to include identifying current security requirements, identifying those that respond to requirements levied upon the Department from external sources, identifying the protection need that each requirement under review was intended to meet, and assessing the effectiveness of the current requirement in meeting that need.

HSS, in coordination with the DOE program and site offices, will create a revised set of requirements that is more performance-based, is presented in a way that increases the utility of the directive, and that is significantly more concise than the current directives set.

Design Basis Threat (DBT) Annual Review: HSS coordinated and led the 2006 review of the DBT policy.

INL Zero-Baseline Review of Security Protection Measures: HSS conducted a review (referred to as a “Super Site Assistance Visit”) to demonstrate that the deployment of security technologies, complemented with modifications to protective force tactics, can help sites meet the DBT Policy requirements in a cost-effective manner.

Revised Vulnerability Assessment (VA) Methodology: The results of the INL Super Site Assistance Visit, and subsequent validation activities and process review, led to the development of a draft VA methodology that more closely reflects a representative risk assessment metric than the current worst-case VA methodology.

Security Technology Deployment: HSS has proceeded with a multi-faceted approach to deploy security technologies at DOE and NNSA facilities to improve the effectiveness of their protection systems while minimizing recurring costs and impacts to site operations and ensuring the safe operation of the new technologies. HSS has established agreements with several sites to deploy specific technologies in 2007. HSS has also worked extensively with these sites and various vendors, other government agencies, and testing laboratories to select, procure, and

deploy technologies that represent the best possible investment for the Department to protect critical assets and that adhere to safety principles.

Performance Test and Analysis: Performance Test and Analysis Center activities focus on enhancing overall security performance testing effectiveness throughout the complex. Force-on-Force Performance Testing Protocols and Rules of Engagement were developed, extensively field tested, and recently approved by senior management for distribution and implementation. At the request of certain field elements, HSS has reviewed protection strategies to facilitate the deployment of new security technologies; reviewed critical pathways identified by VAs; developed adversary scenarios to use for their performance testing program; and observed force-on-force performance testing exercises to assist the field element enhance their protection strategies.

ANSI Voluntary Consensus Standards: In December 2006, the ANSI N-15 Committee, *Methods of Nuclear Material Control*, was re-accredited under the American National Standards Institute (ANSI), along with the Institute of Nuclear Materials Management (INMM) as Secretariat. This is a major milestone under ANSI. Re-accreditation lays the foundation for current and future development of ANSI voluntary technical standards relating to nuclear material control, including physical protection and associated safety impacts. HSS staff members participate and hold Board positions on the ANSI N-15 Committee. The ANSI writing groups and subcommittees provide a means for continued collaborative work between DOE, the Nuclear Regulatory Commission (NRC), government and commercial entities, and the international community on many different issues related to nuclear material control.

Radiation Source Protection and Security Task Force: HSS participates on the task force established under the Energy Policy Act of 2005, and led by the NRC, to 1) evaluate radiation source protection and security in the United States, and 2) provide recommendations for appropriate regulatory and legislative changes relating to the security of radiation sources.

Classification and Declassification Training, Technical Guidance and Document Reviews:

Recent HSS efforts include:

- Completion of review of DOE historic records slated for declassification by December 31, 2006, under EO 12958.
- Review of previously released records at the National Archives in order to recover and report inadvertent releases of Restricted Data and Formerly Restricted Data as required under Public Laws 105-261 and 106-65. This effort is near completion with a 25th report to Congress anticipated in May of this year.
- Review of Other Agency Records referred to DOE and Quality Control Reviews of Other Agency Records for identification of Restricted Data and Formerly Restricted Data records as required under Public Laws 105-261 and 106-65. These efforts are ongoing and anticipated through at least calendar year 2009.
- Courses for Historical Records Restricted Data Reviews for various government agencies to assist them identify potential Restricted Data and Formerly Restricted Data information in their documents and prevent the inadvertent release of sensitive nuclear technologies.

- Additional resources dedicated to reviews of classified documents requested under the Freedom of Information Act (FOIA) and the mandatory provisions of EO 12958 for various DOE elements and other government agencies.