

# U.S. DOE Occupational Medicine

## Supporting The Mission Through Healthy, Safe, and Secure Workers

January 2009

*DOE Occupational  
Medicine is an  
Integral Component  
of the Office of  
Health, Safety, and  
Security*

### Welcome Back to U.S. DOE Occupational Medicine - and to Secretary of Energy, Dr. Stephen Chu

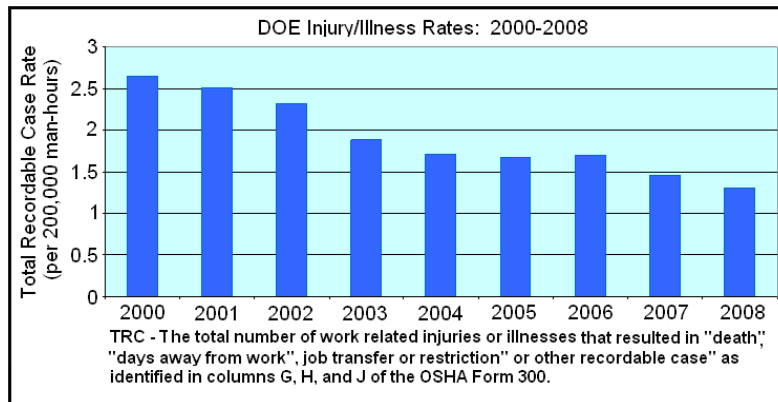


Since our first edition, several important changes have occurred within the DOE Complex, none as important as the confirmation of the new Secretary of Energy, Dr. Stephen Chu - a DOE scientist, laboratory director, and Nobel Prize winner. As the past Director of DOE's Lawrence Berkeley National Laboratory, Dr. Chu has insights into the health and safety programs at Office of Science Laboratories and we look forward to his leadership on a wide range of issues. In this issue, we are considering a variety of programs which further DOE's strategic objective of bringing occupational health services to workers wherever and whatever the nature of their work.

### From the Office of Corporate Safety Analysis, DOE's "Feedback and Improvement Engine:" HEALTH & SAFETY IS WORKING!

Bill Roege, Director of the Office of Corporate Safety, reports that overall measures of DOE worker health and safety reflect over 50% decline in OSHA-reportable injuries and illnesses since the year 2000 (see bar chart below). Although data must always be interpreted with care, this is certainly in large part the result of commitment from both workers and management to Integrated Safety Management (ISM) under the leadership of Mr. Michael Kilpatrick, DOE's Deputy Chief for Health Safety, and Security (HSS), the recent recipient of the Secretary of Energy's "Excellence Honor Award."

The impact of 10 CFR 851 *Worker Safety and Health Programs* rule, promulgated in 2006 through the newly-created DOE Office of Health, Safety, and Security, is another likely contributor to the further declines in injuries and illnesses. (Continued on page 2)



### Argonne National Laboratory's Dr. Jamie Stalker – the New Chair of EFCOG's Occupational Medicine Subcommittee

Congratulations to ANL's Dr. Jamie Stalker on her appointments in October 2008 as Chair of the EFCOG Occupational Medicine Subcommittee. In this important role, she leads occupational physicians throughout DOE in their ongoing efforts to identify emerging concerns to worker health and safety, to facilitate the development of best medical practices, and to communicate the changing needs of site health and safety programs to DOE's Office of Health and Safety. Dr. Stalker is board-certified in Internal Medicine, graduated from Chicago's own Rush Medical School, and completed undergraduate studies and research at Indiana University's acclaimed Biology Department in Bloomington, Indiana. (Continued on page 2)

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## Argonne National Laboratory's Dr. Jamie Stalker – the New Chair of EFCOG's Occupational Medicine Subcommittee (Cont'd from Page 1)

Dr. Stalker has been employed as an Occupational Health Physician at Argonne National Laboratory since January 2001 and was appointed Medical Director at Argonne in 2004. In 2008 she was chosen by Argonne to participate in the Strategic Laboratory Leadership Program at the University of Chicago Graduate Business School. She is active in education of Occupational Medicine residents in cooperation with the University of Illinois in Chicago. She is also a member of the Midwest Business Group on Health's Medical Director Council, the Chicago Medical Directors Group, ACOEM and American Biological Safety Association. She has a strong interest in integration of safety and health electronic databases and is applying this in her cooperation with ORAU and Occupational Health Link in a pilot web based electronic database system for Medical Surveillance at Argonne.  
**Contact:** Dr. Jamie Stalker ([jstalker@anl.gov](mailto:jstalker@anl.gov) or 630-252-2810).

## From the Office of Corporate Safety Analysis, DOE's "Feedback and Improvement Engine:" Health & Safety is Working! (Cont'd from Page 1)

The Office of Corporate Safety (HS-30) under the direction of Bill Roege, a former Air Force pilot and safety manager, is a multi-pronged force which, among other activities, uses the Computerized Accident/Incident Reporting System (CAIRS) to collect, track, and analyze "metrics" which, when carefully interpreted, can reflect both progress and areas for improvement in DOE's battle to continuously improve worker health and safety. In addition, the team generates safety alerts and bulletins regarding recognized or emerging safety concerns, annual reports regarding the status of DOE's efforts and progress in a variety of areas of safety, and briefs DOE's senior leadership as needed. DOE thereby strives to be a "learning organization."  
**Contact:** Mr. Bill Roege ([William.roege@hq.doe.gov](mailto:William.roege@hq.doe.gov) or (301) 903-0502).

### Learning Organizations:

- Willingness and desire to improve
- Reporting culture and data driven
- Robust investigations and direct observations
- Decisions and actions that ensure consider safety
- Follow-up to determine long-term effectiveness

## The Revitalization of Employee Assistance: Welcome to Maritza Skelton, DOE's New Contractor EAP Program Manager



The Office of Health and Safety welcomes its new Contractor EAP Program Manager, Ms. Maritza Skelton, a Licensed Independent Clinical Social Worker and Board-Certified Employee Assistance Professional with critical experience overseeing the Government Accountability Office's (GAO) EAP network. She will be coordinating HS-10 support for contractor EAP and substance services which are vital to DOE and DOE workers' health, safety, AND security. Ms. Skelton will be benchmarking DOE contractor EAP services to ensure that the EAP services meet the Federal and industry standards, while providing consultation and guidance to EAP contractors from the Federal and HQ levels.

Ensuring the effectiveness of DOE's EAP services continues to be a collaborative effort between the Office of Management which has promulgated and revises DOE O 350.1 *Contractor Human Resources Management Programs* (Change 05/08/98) which establishes the basis for DOE contractor EAPs and substance abuse programs within DOE; and the Office of Health and Safety which has promulgated 10 CFR 851 *Worker Safety and Health Rule* which provides that site occupational medicine programs review and approve established EAPs.

In addition, 10 CFR 707 *Workplace Substance Abuse Programs* calls for the services of EAPs in the furtherance of security programs. Ms. Skelton will therefore be working closely with all DOE EAPs to promote their effective service and to support our committed DOE employees who are challenged to balance their professional and personal lives. **Contact:** Maritza Skelton ([maritza.skelton@hq.doe.gov](mailto:maritza.skelton@hq.doe.gov) or (301) 903-7776).

## Case Files from DOE's Radiation Emergency Assistance Center/Training Site (REAC/TS)

The U.S. DOE's Radiation Emergency Assistance Center/Training Site (REAC/TS) in Oak Ridge, TN is tasked with providing technical support to occupational health providers and to workers within the DOE complex and responds 24/7 to calls for assistance from around the world with expert advice regarding dose estimates and medical management of radiological exposures or internal contamination with radioactive materials. DOE's Office of Health and Safety is pleased to be a long-standing sponsor and supporter of REAC/TS and will be presenting a series of cases within this newsletter as prepared and submitted by Dr. Doran Christensen, REAC/TS Associate Director. Thus, occupational health providers may sharpen their case management skills, while our valued workers and managers will gain awareness regarding the tremendous support they will receive should the unthinkable occur.



REAC/TS medical and health physics staff perform dose magnitude estimation to help guide medical management of a radiological injury. Dr. Ronald Goans, REAC/TS Senior Scientific/Medical Consultant (standing left), Dr. Doran Christensen, REAC/TS Associate Director (standing right), Steve Sugarman, REAC/TS Health Physics Project Manager (sitting at desk) and Mark Jenkins PhD (back to camera).

A recent call came to REAC/TS from Brazil where a teletherapy device engineer's was accidentally exposed to a 1,490 Ci cobalt-60 teletherapy source. The worker was changing out the smaller source for one of 6,000 Ci when the smaller source failed to release from the change-out tool as he attempted to put it into a protective cask. He unwittingly put his hand on the "business-end" of the change-out tool in front of the shielding on the handle.

As soon as he realized what he had done, he quickly moved his hand to behind the shielding. Initial estimates of exposure time to the worker's fingers were on the order of seconds. Preliminary calculations of the potential dose done by the employer's physicist were on the order of less than 600 rad (6 Gy) so there was not much concern for serious radiation injury immediately after the incident. As is often the case, the worker had no immediate symptoms or signs of injury. But, on day 15 following the exposure incident, REAC/TS received the call that the worker began experiencing redness and swelling on the dorso-radial aspect of his left index finger. Digital sequential photos of the injury were sent via the secured internet to REAC/TS for evaluation. On the basis of the appearance of erythema at day 15, the dose to skin was estimated at about 600 rad, the threshold for erythema from ionizing radiation. In spite of the initial relatively benign appearance of the injury, aggressive treatment was recommended including topical steroid ointment, oral pentoxifyline (Trental<sup>®</sup>), scrupulous attention to wound care and strict avoidance of pressure or excessive heat/cold.

For more than 30 years, REAC/TS has responded to thousands of such calls:

- Administration of radioiodine for diagnostic or therapeutic purposes to a woman who was unknowingly pregnant at the time of the procedure - what is the fetal dose?; What should be done medically?
- A worker notices that the hood ventilation fan is off. Facial contamination from fumes is detected. What are the consequences of the potential dose?
- A plutonium glovebox worker receives a puncture wound - is chelation treatment with DTPA of immediate concern?

As REAC/TS received subsequent photos that showed blister formation, a higher dose was estimated. REAC/TS monitored the case for more than two (2) months to ensure no further complications. Of concern in these cases is the peculiarity for radiation skin injuries to recur unexpectedly, sometimes months after the initial incident. **Contact:** Doran Christensen, REAC/TS Associate Director ([doran.christensen@orise.orau.gov](mailto:doran.christensen@orise.orau.gov) or (865) 576-3131).

### Keys to managing radiation injuries and illnesses:

- Physicians should consult with health physicists accustomed to performing dose estimations and/or call REAC/TS
- Dose estimations need to take into account the quality of various radiations and their interactions with tissue
- Incident reconstructions are fraught with variables such as time in the area and distance from the source, which both affect dose estimates - a small deviation in time or distance can greatly affect the dose estimate.
- Dose estimations and incident reconstructions is a process not an event - they sometimes must be repeated, often many times
- Keep workers fully informed and advised of the complexities and uncertainties of dose estimations and incident reconstructions that are used to guide medical management
- Remember to use dose estimates to help guide treatment, not dictate it - treat what you are seeing.

**Next Issue: Americium-241 Inhalations by Environmental Worker**



## Federal Occupational Health Services: A Key Partner in Advancing DOE's Occupational Health Services



Dr. Gene Migliaccio, the Director of Federal Occupational Health Services (FOH), is a former U.S. Air Force health services administrator and retired Public Health Service Officer leading DOE's primary partner in advancing the health and safety of federal workers. FOH is located within the U.S. Department of Health and Human Services from whence it provides occupational health, safety, and wellness services to more than 500,000 federal employees. FOH's medical consultants are well-informed regarding applicable government and industry "best practices" - even referenced by both DOE (DOE G 341.1-1A *Guide on Federal Employee Occupational Medical Programs*) and OPM guidance regarding employment practices and benefits. FOH thus provides not only direct service to federal workers at DOE sites where federal workers predominate and to federal workers who manage contractor activities at the remaining DOE sites, but also sets a standard for DOE's contractors in the delivery of occupational health services.

In fact, FOH has been partnered with DOE to provide services for almost 20 years and currently supports thirteen (13) DOE sites, including DOE Headquarters in Washington, D.C., Argonne National Laboratory, Golden Field Office, Richlands Operations Office, National Nuclear Security Administration in New Mexico, Office of Secure Transportation, Savannah River Site, and the Power Management Administrations. DOE sites and federal agencies in general are charged with complying with a number of agency-specific directives, as well as government-wide regulations relating to employee health and safety. FOH provides these services through convenient Interagency Agreements in accordance with the provisions of the Federal Acquisition Regulations, Public Law 79-658 and the Economy Act. Flexibility is important, because changes in service requirements can occur rapidly and interagency agreements negate the need for contract modifications.

For example, FOH's Medical Surveillance Program involves the systematic assessment of employees exposed or potentially exposed to occupational hazards. As potential hazards are recognized or enter the workplace, FOH can quickly and conveniently adapt to the additional requirements for medical surveillance. In addition, FOH offers a complete range of occupational health services which can be customized to meet the unique needs of an organization and help assure compliance with all applicable regulatory standards.

Lastly, FOH supports both workers and employers through its medical employability services which facilitate requests for reasonable accommodations by workers under the protections of the Americans with Disability Act Amendments Act (ADAAA) of 2008, an increasing priority for employers such as DOE striving to retain a highly-valued and aging workforce. Consultations regarding stay-at-work and return-to-work determinations and Family and Medical Leave Act requests are increasingly important as workers live and work longer while managing a variety of health concerns with potential impact on essential duties they undertake on DOE's behalf. As such benefits are increasingly sought and utilized, assurances of worker confidentiality and independent verification make FOH an increasingly attractive partner. **Contact:** Kathleen Berman, FOH Consultant ([KaBerman@psc.gov](mailto:KaBerman@psc.gov) or (303) 236-0076 x 259).

### FOH services potentially available to Federal employees include the following:

- Management and oversight of onsite health centers
- Physical exams (e.g., pre-placement, preventive, periodic, and fit for duty)
- Medical surveillance and analysis of exposures to job hazards (e.g., noise, asbestos, and chemicals)
- Medical clearances (for a commercial driver's license and for respirator use)
- Specialized programs for law enforcement agencies
- Expert medical consultation for reasonable accommodation, family and medical leave, and other employability issues
- Management of confidential medical records
- Emergency response and first aid
- Consultation on pandemic flu preparedness
- Immunizations (flu, tetanus, pneumonia, hepatitis, and work-related travel)
- Health promotion programs (weight management, exercise, and nutrition)
- Health screenings (blood pressure, cholesterol, diabetes, vision, and hearing)
- Health education programs
- Smoking cessation programs
- Online health risk appraisals and tracking tools

## Americans with Disability Act Undergoes Significant Change

The Americans with Disability Act Amendments Act (ADAAA), effective January 2009, is an important piece of legislation with implications for the DOE workforce and its occupational health providers. As workers increasingly survive childhood injuries and illnesses through the advancements in medicine and technology, they present to DOE and other places of employment with unique concerns and needs in terms of post-offer, pre-placement medical assessments. Similarly, the aging workforce more often requests "reasonable accommodations" under the protections of the ADAAA in order to *continue* working in potentially hazardous environments. Occupational health providers play a critical role in this area by providing DOE and its contractors with medical recommendations which must consider these complex matters. The ADAAA retains the basic definition of "disability" as an impairment that substantially limits one or more major life activities, a record of such an impairment, or being regarded as having such an impairment. However, significant changes in each of the associated terms must be carefully considered by occupational health providers.

The ADAAA broadens the definition of 'disability' by modifying key terms of that definition by:

- Expanding the definition of 'major life activities';
- Redefining who is 'regarded as' having a disability;
- Modifying the regulatory definition of 'substantially limits';
- Specifying that "disability" includes any impairment that is episodic or in remission if it would substantially limit a major life activity when active; and
- Prohibiting consideration of the ameliorative effects of "mitigating measures" when assessing whether an impairment substantially limits a person's major life activities, with one exception - the use of "ordinary eyeglasses or contact lenses." The ADAAA expressly requires consideration of the ameliorative effects of "ordinary eyeglasses or contact lenses" when assessing whether impairment substantially limits a major life activity. This means that when determining whether a person is substantially limited in the major life activity of seeing, the person's vision should be assessed in its corrected state when using such eyeglasses or contact lenses.

The ADAAA also:

- Adds a new provision restricting employers' use of qualification standards, tests, or other selection criteria that are based on uncorrected vision standards;
- Clarifies that an individual who satisfies only the "regarded as" prong of the definition of disability is not entitled to 'reasonable accommodation'; and
- Modifies the language of the ADA's "General Rule" that prohibited discrimination against "a qualified individual with a disability because of the disability of such individual" to say that discrimination is prohibited against "a qualified individual on the basis of disability."

For additional information, consider the following resources:

- 1) ADA Federal Government Homepage: <http://www.ada.gov/>
- 2) DOE Office of Equal Employment and Diversity: <http://diversity.doe.gov/>
- 3) Office of Compliance Assistance Policy, U.S. Department of Labor: <http://www.dol.gov/compliance/index.htm>
- 4) Equal Employment Opportunity Commission concerning the ADAAA: [http://www.eeoc.gov/ada/amendments\\_notice.html](http://www.eeoc.gov/ada/amendments_notice.html)
- 5) Guide to Disability Rights Law: <http://www.ada.gov/publicat.htm#Anchor-14210>
- 6) DOJ Civil Rights Division enforces ADAAA: <http://www.usdoj.gov/crt/>
- 7) DOJ Disability Rights: <http://www.usdoj.gov/crt/drs/drshome.php>

## Highlighting AdvanceMed Hanford Occupational Medicine Services Beryllium-Affected Workers Cardiopulmonary Rehabilitation - A Winning Team Effort

Dr. Victor Nwilo and the staff of AdvanceMed Hanford have established an evidence-based, yet innovative approach to supporting the medical needs of beryllium-affected workers which reflects the important principles of tertiary prevention or disease management. The AdvanceMed Cardiopulmonary Rehabilitation Program was put into place for the specific benefit of beryllium-affected workers and is designed to initiate the rehabilitation process, restore/maintain functionality in the individual and, most importantly, teach the individual how to maintain a conditioning level. Fundamentally, the twelve-session program is modeled after cardiopulmonary rehabilitation programs for individuals with chronic obstructive pulmonary disease (COPD). In addition to existing baseline assessment and conditioning services, a bi-annual assessment is performed by AdvanceMed staff, including pulmonary function testing, blood pressure, body composition analysis, submaximal graded exercise testing to evaluate aerobic capacity, oxygen saturation as measured by finger pulse oximeter, and dyspnea scale grading.



With the number of participants too low for meaningful statistical analyses at present and a limited duration of the cardiopulmonary rehabilitation program, it is premature to draw any statistically significant conclusions about its effectiveness, but the subjective improvements are evident. Dr. Nwilo notes that an additional benefit they have identified is that workers gain a sense of control over their disease process - manifest or potential - and that Site contractors appreciate the availability of a program that enables workers to participate in rehabilitation on-site. Participating workers, in turn, appreciate the convenience, safety, guidance and individual attention provided to them. **Contact:** Ms. Kim Conley ([Kimberly\\_d\\_conley@rl.gov](mailto:Kimberly_d_conley@rl.gov) or (509) 373-6160).

### New Office of Health and Safety Webpage for Beryllium-Affected Workers

DOE workers and vendors who have developed sensitivity to beryllium or who have chronic beryllium disease (CBD) may now go to a single source of information to understand their medical condition and to learn whether they are eligible and how to apply for health care and other financial benefits under the Energy Employees Occupational Illness Compensation Program (EEOICP). In addition to information regarding the EEOICP, workers will find links to the DOE's Former Workers Program under which former workers are eligible for free periodic health screenings that are focused on identifying health outcomes potentially associated with exposures to workplace hazards during employment at DOE. Other resources pertaining to beryllium and CBD are available through the Centers for Disease Control (CDC), the National Institute for Occupational Safety and Health (NIOSH), OSHA, and EPA. **Contact:** Claudia Beach ([claudia.beach@hq.doe.gov](mailto:claudia.beach@hq.doe.gov) or (301) 903-9826).

**Webpage:** <http://www.hss.energy.gov/healthsafety/berylliumaffectedworkers/>.

### 2009 Chemical Safety and Lifecycle Management Workshop – Lean and Green

March 10-12, 2009

Chemical Safety Topical Committee's 11<sup>th</sup> Annual Joint Chemical Management Workshop hosted by the DOE Headquarters Office of Health, Safety and Security and the EFCOG Chemical Safety and Life Cycle Management Subgroup

DOE Headquarters  
Forrestal Building Auditorium,  
1000 Independence Ave, S.W.,  
Washington, D.C. 20585.

Coming this Spring to the Forrestal Auditorium near you is a free DOE workshop, "Chemical Safety and Lifecycle Management – Lean and Green" spotlighting lean and green chemical management and nanotechnology. The EFCOG Environment, Safety, and Health (ESH) Working Group's annual Spring Meeting sessions are public and will also cover industrial hygiene, occupational safety, chemical safety, and radiation safety. Safety and health professionals who participate earn valuable certification maintenance points. Additional information regarding past years' agenda, presentations, and registration. **Contact:** Mr. Dan Marsick ([dan.marsick@hq.doe.gov](mailto:dan.marsick@hq.doe.gov) (301) 903-3954) or go to: [http://www.hss.energy.gov/HealthSafety/WSHP/chem\\_safety/](http://www.hss.energy.gov/HealthSafety/WSHP/chem_safety/).



## Submitting Blind Samples Under 10 CFR 707 - Workplace Substance Abuse Program at DOE Sites

Recently a question came to HQ regarding the 10 CFR 707 drug testing programs. The question was: “what are DOE’s requirements for submitting blind drug testing samples?” The response was as follows:

“All sites must ensure that the clinics Federal comply with the HHS/SAMHSA Mandatory Guidelines for Workplace Drug Testing Programs [Federal Register: April 13, 2004 (Volume 69, Number 71)] [Notices] [Page 19644-19673] which can be found under section (k) *Agency Blind Sample Program* of the HHS SAMHSA Mandatory Guidelines.



Each clinic should, during the initial 90-day period of any new drug testing program, submit blind performance test samples to each laboratory it contracts with in the amount of at least 20 percent of the total number of specimens submitted (up to a maximum of 200 blind samples) and thereafter a minimum of 3 percent blind samples (up to a maximum of 100 blind samples) submitted per quarter.”

**Contact:** Mr. Joe Hopkins ([joe.hopkins@hq.doe.gov](mailto:joe.hopkins@hq.doe.gov) or (301) 903-5619).

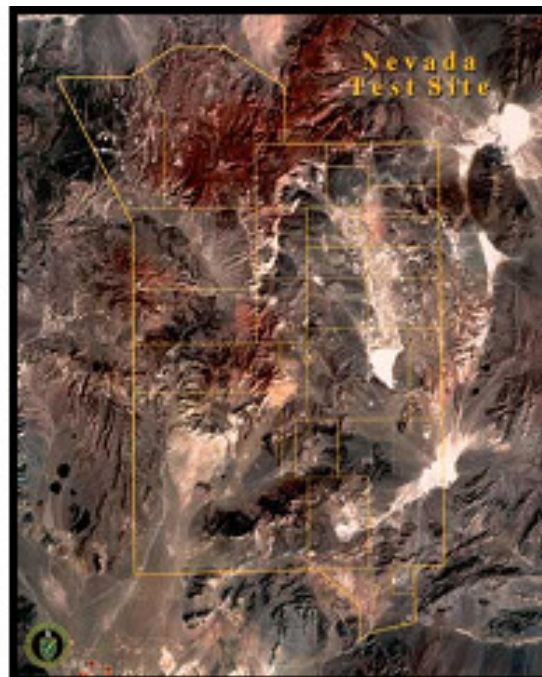
For additional information regarding the 10 CFR 707 Rule, and the HHS/SAMHSA Mandatory Guidelines for Federal Workplace Drug Testing Programs please see the following:

- 1) <http://www.hss.energy.gov/healthsafety/WSHP/rule851/rule707.html>.
- 2) [http://www.workplace.samhsa.gov/FedPgms/Pages/HHS\\_Mand\\_Guid\\_Effective\\_Nov\\_04.aspx](http://www.workplace.samhsa.gov/FedPgms/Pages/HHS_Mand_Guid_Effective_Nov_04.aspx)

## All the Right Moves: Implementation of 10 CFR 851’s Occupational Medicine Provisions at Nevada Test Site

Dr. Jeff Moon, the Medical Director for the Nevada Test Site (NTS), and his staff have been leaders in the charge to implement the requirements of DOE’s relatively new 10 CFR 851’s with respect to Occupational Medicine. Supporting approximately 5,000 workers who are operating under approximately 12 contractors and are distributed over nearly 1,400 square miles of rugged terrain would be a challenge for any occupational health program, but the NTS team has tackled this challenge systematically.

Rolling plans were based upon a *needs assessment* which considered the potential for expanded job hazard analyses, medical surveillance requirements, clinical services, and the requisite collection of morbidity and mortality data for contractors and subcontractors. Site-specific issues to overcome included the timely performance of randomized drug screens for workers subject to the Human Reliability Program’s (HRP) stringent requirements. In considering the strategy for implementing 10 CFR 851, Dr. Moon collaborated with the Environment, Safety, Health, and Quality organization, Procurement, and General Counsel.



Dr. Moon’s team now operates through two medical clinics to provide the required occupational injury and illness care; return-to-work evaluations; medical surveillance and certification examinations; immunizations; wellness programs; ergonomics programs; and Employee Assistance Programs. Continued success, of course, is dependent upon strong communication, the maintenance of medical program flexibility to address craft assignments, the recognition of changes within the workforce, and incorporation of subcontractors as activities at NTS advance. The result is a world-class occupational health program. **Contact:** Dr. Jeff Moon ([moonjc@nv.doe.gov](mailto:moonjc@nv.doe.gov) or (702) 295-6566).

## The Art of Medicine: The Code of Hammurabi

Under the Code of Hammurabi which is accorded to the Ruler of Babylon, Hamurrabi (1792-1750), the physician's fees to be set and patients and physicians were to appeal their grievances to the King's court. These principles and practices were revealed by clay tablets from ancient Mesopotamia and depicted by Robert Thom in his 45 historical painting and given by Pfizer, Inc. to the University of Michigan which has in turn made them available to the public.



For more information, please visit the University of Michigan's online News Service at: <http://www.ur.umich.edu>.

### Comments, Questions, or Suggestions? Please submit to:

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This newsletter can be found on the HS webpage: <http://www.hss.energy.gov/HealthSafety/>

You may also provide feedback through links on the Newsletter website.