

# The



June 2012



# Message

## HSS Independent Oversight Evaluates the Extent of Safety Culture Concerns

The Department of Energy (DOE) Office of Health, Safety and Security (HSS) independent oversight program is conducting a safety culture evaluation of four design/build projects for new nuclear facilities at four sites. Building on the HSS safety culture review at the Hanford Site Waste Treatment and Immobilization Plant (WTP) in 2011, HSS will identify positive observations, areas in need of attention, conclusions, and recommendations for safety culture improvement. This effort will continue through October 2012, and a follow-up review will be conducted at WTP in 2013.

HSS was tasked to perform these evaluations in response to Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2011-1, Safety Culture at the Waste Treatment and Immobilization Plant, which indicated a chilled atmosphere adverse to safety at WTP and management suppression of technical dissent. The DNFSB recommended that DOE perform an extent-of-condition review to determine whether these safety culture weaknesses were limited to WTP, or whether they were evident at other DOE/National

Nuclear Security Administration (NNSA) sites or facilities.

Using validated methods for evaluating safety culture, HSS formed project review teams that include safety culture experts experienced in using the methodology. Five different methods are employed to collect and analyze information about the organizational behaviors that are associated with industry-accepted safety culture traits (see box at right). The scope of the reviews includes both Federal and contractor organizations.

HSS will report the results of each project review to the cognizant DOE line management. The reports will identify positive observations and areas where the traits necessary for a healthy safety culture need strengthening; conclusions from the analysis of the collected data; and recommended steps for developing and implementing safety culture improvement strategies.

When the project reviews have been completed, HSS will develop a comprehensive report summarizing its overall conclusions and

recommendations concerning safety culture throughout the DOE/NNSA complex. All reports will be publicly available on an HSS website.

### Organizational Behaviors

- Attention to Safety
- Communication
- Coordination of Work
- Formalization
- Organizational Learning
- Performance Quality
- Problem Identification and Resolution
- Resource Allocation
- Roles and Responsibilities
- Time Urgency
- Decision-Making
- Goal Setting/Prioritization
- Organizational Culture
- Organizational Knowledge
- Performance Evaluation
- Personnel Selection
- Training

### Safety Culture Traits

- Leadership Safety Values and Actions
- Problem Identification and Resolution
- Personal Accountability
- Work Processes
- Continuous Learning
- Environment for Raising Concerns
- Effective Safety Communication
- Respectful Work Environment
- Questioning Attitude

### *Safety Culture, continued*

In addition to these reviews of the major nuclear facility construction projects, HSS will oversee DOE line organizations' self-assessments of safety culture at other site

operations, which are another aspect of DOE's response to the 2011-1 recommendation. Self-assessments are also slated to be performed for the Headquarters organizations of NNSA, the Offices of Environmental

Management and Science, and the Office of Management's Office of Engineering and Construction Management. ■

## **HSS/NTC Joins Forces with HAMMER to Standardize Safety and Health Training Across DOE**

Since 2009, the HSS National Training Center (NTC) has sought to improve worker health and safety training through a partnership with the Volpentest HAMMER Training and Education Center in Richland, Washington, and the National Institute of Environmental Health Sciences (NIEHS). Under the guidance of the HSS/Union Focus Group, the partnership hosted a series of workshops across the DOE complex to discuss training reciprocity and standardization. The partnership is currently working with DOE Federal and contractor leadership to identify opportunities and processes for establishing reciprocity agreements that will improve worker safety, enable workers to move more easily between sites, and put workers to work faster, thus yielding significant cost savings and efficiencies.

Currently, NTC and HAMMER are working together to develop and deliver safety training courses. The first project is a pilot program to

encourage Radiation (RAD) Worker training reciprocity across DOE sites and contractors. The pilot initiative will include a review of RAD Worker courses to determine their consistency with published standards and guidance. RAD Worker training courses that meet the criteria will be "accredited" by the NTC, thus showing evidence of an objective HSS review of course adequacy. HAMMER is playing a key role in this pilot project by providing their RAD Worker training subject matter expertise to the development of standards and procedures. HAMMER also will serve as a test case for the initiative and will participate as a co-evaluator of candidate training courses.

The NTC is currently developing a safety conscious work environment (SCWE) training course in support of the DOE Response Team for Defense Nuclear Facilities Safety Board Recommendation 2011-1.

The purpose of this course is to provide SCWE training for Federal and contractor senior leaders on the importance of establishing and maintaining an open and collaborative work environment within the DOE. This course, scheduled for deployment in the next couple of months, will target all DOE Federal and contractor senior leaders and managers with responsibility for defense nuclear facilities and/or construction projects and the Federal offices with associated oversight responsibilities.

The NTC and HAMMER will be working together to tailor the SCWE training developed for DOE senior leaders to meet the needs of DOE Federal and contractor workers. Through this partnership, HAMMER and NTC will ensure that all levels of DOE Federal and contractor employees receive consistent safety culture training. ■

## **Website and Awareness Card Provide Information on Chronic Beryllium Disease**

In December 2011, HSS launched a new awareness website about chronic beryllium disease (CBD); it can be accessed at [http://www.hss.doe.gov/cbd\\_awareness.html](http://www.hss.doe.gov/cbd_awareness.html). The website provides a broad-based set of information and resources about beryllium, CBD, CBD symptoms,

and consequential conditions of CBD and its treatment. Along with the website, HSS has developed a wallet-sized card (shown on the next page) for workers and their treating physicians with summary information about CBD.

The CBD Awareness Card and Awareness website are part of HSS's corporate outreach initiative to provide information to the worker community, as well as the medical community, and to enhance the likelihood of timely diagnosis and treatment of potential CBD cases.

### CBD Awareness, continued

The main driver for this effort is the concern associated with the potential difficulties experienced by beryllium-sensitized or CBD victims in receiving appropriate medical care within medical communities that may lack specific training in the care of beryllium-affected patients. The medical community at large does not generally encounter cases of CBD or have extensive knowledge of the disease, and thus does not often generate medical documentation that adequately captures the relationship between the presenting illness (i.e., a secondary effect or consequential condition of CBD or its treatment) with the underlying condition of CBD.

The primary audience for the CBD Awareness website is:

1. Former and current DOE Federal and contractor workers;
2. Practicing clinicians; and
3. Healthcare educators and researchers.

The CBD Awareness website is intended as a general information resource. The information is neither intended nor implied to be a substitute for professional medical advice and the care provided by a physician.

Some of the topics covered in the website include:

- Beryllium, its uses, and the work areas and missions where the current or former DOE workforce may have encountered beryllium

## Chronic Beryllium Disease (CBD) Information Card

The front of the card features the HSS logo and title. It asks physicians to consider occupational exposure to beryllium if a patient has a chronic respiratory disorder lasting more than 3 months with symptoms like cough, shortness of breath, fatigue, or night sweats. It lists clinical conditions such as enlarged lymph nodes, scarring on lung scans, and granulomatous inflammation. It also notes that beryllium sensitization is asymptomatic but increases the risk of developing CBD. A URL for more information is provided at the bottom.

The back of the card provides information for those already diagnosed with CBD. It lists consequential illnesses such as Cor Pulmonale, Pulmonary Hypertension, Respiratory Failure, Beryllium Dermatitis/Skin Nodules, and Anxiety and Depression. It discusses how immunosuppressive medications can affect the disease and lists other medical conditions that may be aggravated, including Infection, Anxiety and Depression, Diabetes, Hypertension, Osteoporosis, Glaucoma, Cataracts, Hyperlipidemia, Insomnia, and Gastroesophageal Reflux Disorder. It also lists Weight Gain and Obesity. A URL for more information is provided at the bottom.

**FRONT** **BACK**

Developed by

- Symptoms and clinical findings associated with CBD that may assist a healthcare provider in the diagnosis and treatment of CBD
- Medical conditions an individual may develop as a result of CBD or its treatment
- Resources available to the current and former DOE workforce that may facilitate the timely diagnosis of CBD
- Links to research about beryllium and CBD that workers, clinicians, doctors, and healthcare educators and researchers may find useful.

Workers who are currently employed at a DOE site can obtain more detailed information about beryllium surveillance programs by contacting the occupational medicine department at the site via <http://www.hss.doe.gov/cmo/directory.html>.

DOE, through HSS, sponsors free beryllium screening for former workers from all DOE sites. More information on this voluntary program and the Former Worker Screening Programs can be found at <http://www.hss.doe.gov/healthsafety/fwsp/formerworkermed/index.html>.

HSS hopes the information provided in the CBD website will help patients understand the interrelationship between CBD and other medical conditions they may be experiencing. HSS also believes that this information may help clinicians who have little experience with CBD understand the wider effects of the disease.



## Office of Nuclear Safety Moves Forward: Second Nuclear Safety Workshop Scheduled for September 19-20, 2012



In September, DOE will lead a workshop continuing the efforts that began at the June 2011 Nuclear Safety Workshop, which hosted over 200 senior leaders and technical experts to discuss the natural disasters and nuclear accident at the Japanese Fukushima Daiichi plant, as well as DOE efforts to evaluate and mitigate beyond design basis events. This second workshop will again focus on evaluating and mitigating beyond design basis events and will also address nuclear safety culture and risk management.

A major objective of the June 2011 workshop was for the Department to strengthen its partnerships with key organizations, including the Nuclear Regulatory Commission, Environmental Protection Agency, Defense Nuclear Facilities Safety Board, Department of Homeland Security, and Institute of Nuclear Power Operations. This was particularly important given lessons to be learned from the Fukushima Daiichi accident.

Using insights from the June 2011 workshop and results of initial reviews of the Department's capabilities to mitigate beyond design basis events, the Department issued a report, *Review of Requirements and Capabilities for Analyzing and Responding to Beyond Design Basis Events*, in September 2011. This report contained a comprehensive action plan aimed at further strengthening DOE's nuclear safety program. One of the long-term recommendations contained in that report was, in the spirit of continuous improvement, to conduct a follow-up Nuclear Safety Workshop to discuss the Department's experiences from actions taken at its nuclear facilities and to develop further opportunities to

improve based on the collective knowledge of the nuclear safety community.

To continue this path forward, the Department is holding the second Nuclear Safety Workshop on September 19-20, 2012, at the Bethesda North Marriott Hotel and Conference Center in Bethesda, Maryland. This upcoming workshop will continue the excellent work started at the first workshop by fostering the sharing of approaches, best practices, and initiatives in the nuclear safety community with a focus on the regulatory framework for analyzing beyond design basis events, nuclear safety culture, and the control and use of risk assessments to support nuclear safety decision-making. The workshop has the theme of *Post Fukushima Initiatives and Results* and will feature distinguished speakers, detailed discussions in three technical breakout sessions – *Beyond Design Basis Events Analysis and Response*; *Safety Culture*; and *Risk Assessment and Management* – and a concluding panel discussion on the three breakout session topics.

The workshop's intended audience is senior managers and technical experts involved in DOE nuclear operations and nuclear safety, along with national and international leaders, industry experts, and scholars from the nuclear safety community. Online registration for the workshop will begin in late July. The website address is [www.hss.doe.gov/nuclearsafety/nsworkshop2012](http://www.hss.doe.gov/nuclearsafety/nsworkshop2012) and contains the agenda and additional information about the workshop. Contact the workshop planner, Earl Hughes, at (202) 586-0065 for further information.



# DOE GreenBuy Awards Recognize Sustainable Acquisition

DOE recently recognized 22 facilities for exemplary performance in sustainable acquisition through its newly formed GreenBuy Awards program (see map below). Under this program, DOE sites can gain recognition for purchasing programs that are effective in obtaining products that save energy, conserve water, and reduce health and environmental impacts.

The HSS Office of Sustainability Support, in coordination with the Office of Procurement and Assistance Management (MA), launched the GreenBuy program to recognize sites for “green purchasing” beyond traditional compliance requirements.

## Federal Sustainable Acquisition and Priority Products

Federal policy requires the Department and its contractors to purchase environmentally-friendly products to reduce or eliminate waste

at the source, promote the use of non-toxic or less-toxic substances, implement conservation techniques, and reuse materials rather than put them into the waste stream. For more information about sustainable acquisition requirements, see <http://www.fedcenter.gov/programs/buygreen/>.

To comply with these requirements, and to reduce the environmental impacts associated with its operations, DOE has established requirements for the preferential purchase of products that are:

- Energy efficient
- Water efficient
- Made from recycled content (designated by the Environmental Protection Agency)
- Made from bio-based content (designated by the Department of Agriculture)
- Non-toxic or less-toxic than conventional alternatives

- Registered to the Electronic Product Environmental Assessment Tool.

To help navigate this large, overlapping set of requirements, DOE developed a list of “Priority Products” that go beyond compliance to embody leadership-level sustainability attributes. The Priority Products list, which includes 40 products in 7 categories, was developed by DOE’s Sustainable Acquisition Working Group after extensive research and review of dozens of green products. Products on the list support sustainable purchasing, control environmental impacts, and substantially exceed current compliance requirements.

The Priority Products list provides DOE sites with optional “stretch” goals for focusing their sustainable acquisition efforts. Sites can tailor this list to meet their specific circumstances, allowing them to select categories and products of the



### *GreenBuy, continued*

most value at the local level. Facilities may report additional green products and are encouraged to nominate new candidates for the list. This list also assists sites in engaging with the vendor community and informing contract language and related reviews. The full list of priority products is available at <http://www.hss.doe.gov/sesa/sustainability/epp/>.

### **GreenBuy Awards Program**

The Priority Products list forms the backbone of DOE's new GreenBuy recognition program. GreenBuy incentivizes DOE sites to establish and report on effective programs that purchase Priority Products. To be considered for the GreenBuy Award, sites voluntarily report and document their achievements using the Pollution Prevention Tracking and Reporting System (PPTRS). Sites can qualify for GreenBuy Awards at three levels – Gold, Silver, or Bronze – based on purchases of key products and categories:

- Gold: At least 9 products covering at least 5 product categories
- Silver: At least 6 products covering at least 3 product categories

- Bronze: At least 3 products covering at least 2 product categories.

The 2012 GreenBuy Program exceeded all expectations in its first year. Nearly three-quarters of all DOE sites voluntarily reported purchasing performance. HSS reviewed and analyzed the data submissions in PPTRS and found that 22 sites achieved recognition, with 3 Gold, 8 Silver, and 11 Bronze Award winners. This outcome reveals the dedication and enthusiasm of DOE staff to demonstrate leadership in sustainable environmental stewardship.

Over time, awards will become progressively difficult to achieve; sites will not be recognized for the same award level two years in a row except for Gold. For future recognition, Bronze Award winners need to achieve the Silver level; Silver Award recipients need to achieve Gold level. A site may report up to three of the same products from the previous year but must demonstrate a transition to other products from the Priority Products list. Participant facilities must extensively document each product in PPTRS for it to count toward a GreenBuy Award,

by reporting quantities purchased, history of usage, and validation methodologies.

### **GreenBuy and Sustainable Acquisition Working Group Contact Information**

The DOE Sustainable Acquisition Working Group has more than 400 DOE Federal and contractor staff members, as well as participants from program and Headquarters offices. The Office of Sustainability Support has chaired the Working Group for more than a decade, sponsoring bimonthly conference calls, special training, technical support, and site-specific assistance.

For more information regarding the GreenBuy Award program, or to join the Sustainable Acquisition Working Group, please contact DOE Sustainable Acquisition Coordinators Jeff Eagan at [jeff.eagan@hq.doe.gov](mailto:jeff.eagan@hq.doe.gov) and 202-586-4598 or Shab Fardanesh at [shabnam.fardanesh@hq.doe.gov](mailto:shabnam.fardanesh@hq.doe.gov) and 202-586-7011. For inquiries about particular Priority Products and their qualifications, please contact DOE Sustainable Acquisition Consultant Sandra Cannon at [cannon@ecopurchasing.com](mailto:cannon@ecopurchasing.com) and 509-529-1535. ■

## **SERT System To Improve Compensation Program Support for Current and Former DOE Workers**

In May, HSS launched initial operating capabilities for the Secure Electronic Records Transfer (SERT) system, an easy-to-use and secure web-based application that searches, retrieves, transfers, and protects records and information used in support of the Energy Employees

Occupational Illness Compensation Program Act (EEOICPA).

SERT was developed by the HSS Office of Worker Screening and Compensation Support, in conjunction with the Idaho National Laboratory and the HSS Office of Information

Management, to facilitate the secure transfer of current and former employee records from DOE sites to the Department of Labor (DOL) and the National Institute for Occupational Safety and Health (NIOSH). Until SERT is fully implemented, the employee records supporting actions in the EEOICPA program will continue to be sent via encrypted thumb drive from DOE sites to DOL/NIOSH by overnight shipping. The past decade has seen several instances

## SERT, continued

of lost or misplaced shipments that resulted in missing or lost personally identifiable information (PII). SERT was developed to be a cost effective method to securely transmit and protect the sensitive personal information of current and former DOE employees.

DOE is required to respond to EEOICPA records requests within 60 days. Although the information is sent via overnight carrier, processing the shipment through facility mail rooms, at both the sender's and recipient's end, often takes a total of four to eight working days. Data transmission through the SERT system will be instantaneous, and by eliminating the processing time, the SERT will greatly improve DOE's overall response time and ultimately reduce the timeframe for the claims process for current and former DOE workers. The SERT system uses two-factor authentication to provide robust data security for the large amount of PII that must be transferred. In addition to enhancing the protection of PII and improving DOE's response time, the SERT will also lower DOE's program costs by eliminating shipping charges.

HSS believes that the implementation of the SERT system will be the single biggest improvement in how DOE processes EEOICPA requests.

## Injury and Illness Dashboard Improves Data Transparency and Visualization

HSS announces the availability of the Injury and Illness Dashboard (<http://www.hss.doe.gov/sesa/analysis/cairs/cairs.html>), a tool that allows users to easily explore DOE occupational safety and health injury and illness information. Its features include:

- Graphical and tabular depictions of injury and illness information
- Calendar year and fiscal year incidence rates for DOE and DOE contractor total recordable cases (TRC) of injuries and illnesses and cases involving days away from work or on job transfer or restriction (DART) due to injury or illness
- Incidence rates of injuries and illnesses by DOE program organization and site
- Information on injury characteristics (e.g., nature of work being performed and injury sustained) by program organization and site
- Summary site comparison data for a selection of metrics, including TRC and DART cases and rates.

The Dashboard facilitates data visualization of injury and incidence rates and injury characteristics by allowing the user to adjust built-in Dashboard parameters. Graphical and tabular displays of information can be created to easily identify and understand injury and illness trends and foster continual learning and improvement in worker safety.

For example, users can easily create, view, and compare injury and illness TRC and DART data trends through graphical and tabular displays for user-selected individual or multiple

DOE program organizations and sites over a specified timeframe. Users can then “drill down” within these injury and illness data trends to learn about injury characteristics associated with these incidence rates. A graphical display of injury characteristics information for DART cases at one or more user-selected sites can easily be created to show the parts of the body injured and the events that resulted in the injuries. This information can be used to identify trends involving multiple cases (such as overexertion of specific body parts) associated with similar injury events, facilitating opportunities for corrective actions and improvements to prevent future injuries and illnesses. Examples are shown on the next page.

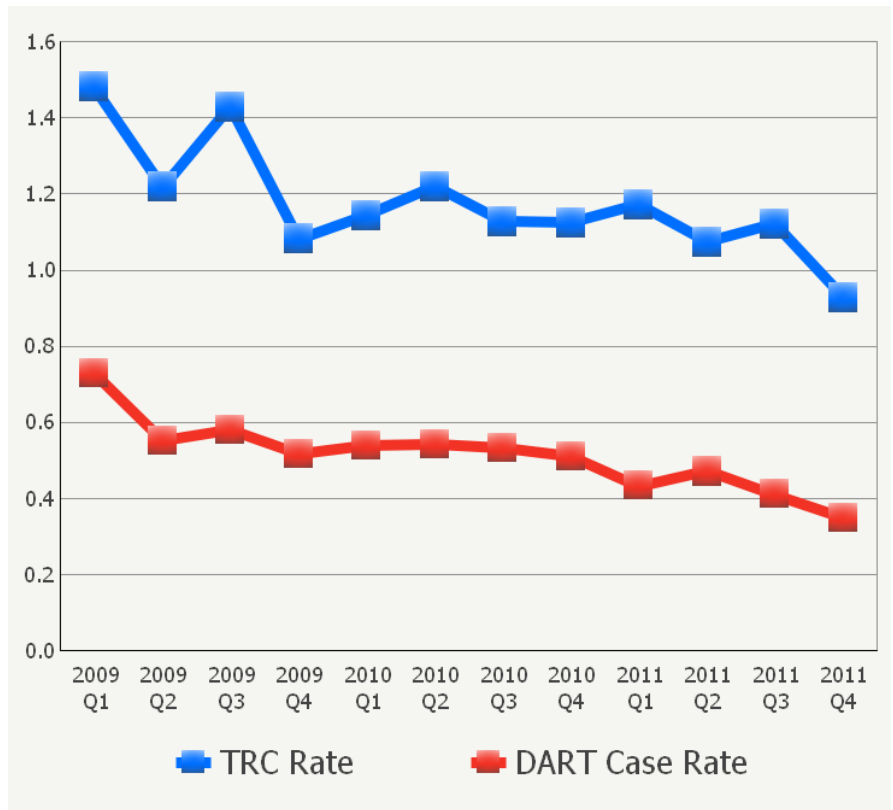
Departmental requirements for the collection and analysis of injury and illness information are included in DOE Order 231.1B, *Environment, Safety and Health Reporting*. The Injury and Illness Dashboard provides access to occupational injury and illness information in accordance with security, privacy, and confidentiality requirements.

The Federal government's Open Government Initiative challenges each government agency to find ways to make information included in datasets generated and owned by the Federal government more transparent and easily accessible to the public. This release of the Injury and Illness Dashboard is the next step for HSS in meeting the Open Government Initiative (<http://www.whitehouse.gov/open/about>) objectives of the Administration and the Department

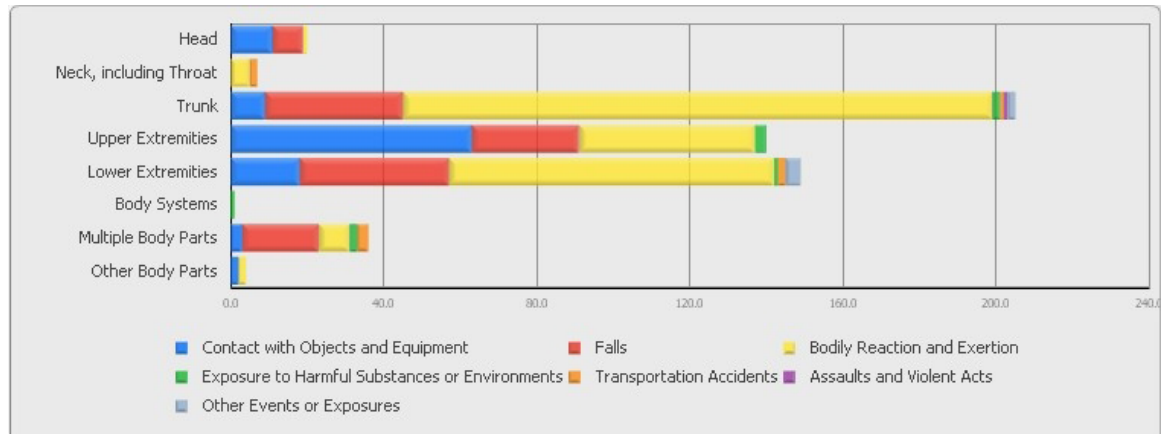
*Dashboard, continued*

by providing greater transparency in presenting the numbers and types of injuries occurring at DOE sites. The Injury and Illness Dashboard is the second data dashboard to be published by HSS. The first was the Public Final Occurrence Reports Dashboard (<http://www.hss.doe.gov/sesa/analysis/orps/finalorps/orps.html>), which provides information on safety-related occurrences at DOE sites. The publication of these two dashboards and the continued development of additional dashboards and analytical tools demonstrate HSS's commitment to support the Department's efforts toward Open Government (<http://energy.gov/about-us/open-government>).

HSS welcomes your comments and suggestions to help further enhance the Injury and Illness Dashboard. For more information on the Department's injury and illness recordkeeping and reporting program or the Injury and Illness Dashboard, please contact HSS's Office of Analysis (Janet Macon; 301-903-6096; [Janet.Macon@hq.doe.gov](mailto:Janet.Macon@hq.doe.gov)).



**Injury and Illness Incidence Rates per 200,000 Work Hours for all DOE Operations: 2009-2011**



**DART Case Characteristics (Body Part and Event Type) for all DOE Operations: 2011**

## Solicitation of Comments, Questions, and Suggestions



HSS welcomes your thoughts about our newsletter. Please send or phone comments, questions, or suggestions to:

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