

#### **Department of Energy**

Washington, DC 20585
November 24, 2004

The Honorable John T. Conway Chairman Defense Nuclear Facilities Safety Board 625 Indiana Avenue, NW, Suite 700 Washington, D.C. 20004-2941

Dear Mr. Chairman:

In the Secretary's August 25, 2003, report to you on suspect/counterfeit items (S/CI), the Department committed that, "Directives will be revised to reflect the process and roles and responsibilities of the Office of Environment, Safety and Health (EH) and other organizations. It is anticipated that the Department of Energy (DOE) Order 414.1, DOE Guide 414.1, DOE Order 440.1A, and DOE G 440.1-6 will be revised to consolidate the S/CI process and requirements. The EH internal process guide and checklists will be finalized and approved based on the approved directives." The purpose of this letter is to provide you with the status of the Department's progress in this area.

The Department developed a new Guide, DOE G 414.1-3, Suspect and Counterfeit Items Guide for use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE Order 414.1B, Quality Assurance, issued on November 3, 2004. The Guide incorporates the EH S/CI process and updates other S/CI information. It supersedes DOE G 440.1-6, Suspect Counterfeit Items Guide for use with DOE O 440.1, Worker Protection Management; 10 CFR 830.120; and DOE O 5700.6C, Quality Assurance, dated June 1997. Additionally, EH has finalized the EH S/CI Process Guide (enclosed) that is being used to implement the S/CI process and approved it for use. This completes the commitment described above, which is the final action/commitment outlined in the Secretary's August 25, 2003, report to be completed.

If you have any questions, please contact me at (301) 903-8008, or have your staff contact Frank E. Tooper at (202) 586-1772.

Sincerely,

Frank B. Russo

Deputy Assistant Secretary

Office of Corporate Performance Assessment

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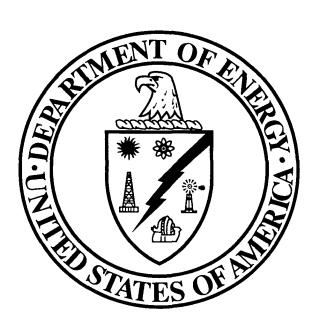
Enclosure

cc: Russell Shearer, EH-1 Mark B. Whitaker, DR-1 Frank E. Tooper, EH-32



## SEPARATION

## Office of Environment, Safety and Health Process Guide for the Identification and Disposition of Suspect/Counterfeit or Defective Items at Department of Energy Facilities



Prepared by
U.S. Department of Energy
Office of Environment, Safety and Health
Office of Corporate Performance Assessment

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#### Process Guide for the Identification and Disposition of S/CI or Defective Items

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#### Process Guide for the Identification and Disposition of S/CI or Defective Items

#### **ACRONYMS**

DCS Data Collection Sheet

DNFSB Defense Nuclear Facilities Safety Board

DOE Department of Energy

EH Office of Environment, Safety and Health EM Office of Environmental Management

FE Office of Fossil Energy
GC Office of General Counsel

GIDEP Government/Industry Data Exchange Program

HQ Headquarters IG Inspector General

INPO Institute of Nuclear Power Operations

LOI Lines of Inquiry

NA National Nuclear Security Administration

NE Office of Nuclear Energy, Science and Technology

NRC Nuclear Regulatory Commission

OA Office of Independent Oversight and Performance Assurance

OE Operating Experience Program

ORPS Occurrence Reporting and Processing System

POC Point of Contact

PSO Program Secretarial Officer

QA Quality Assurance SC Office of Science

S/CI Suspect or Counterfeit Item

Revision: 1	Effective Date:
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Recommended  Lean School Analytical Studies	Date

#### 1.0 INTRODUCTION

In the Deputy Secretary's March 18, 2003 letter to the Defense Nuclear Facilities Safety Board, the Assistant Secretary for the Office of Environment, Safety and Health (EH) was assigned responsibility for identifying, evaluating, monitoring, managing, and resolving crosscutting safety issues. As part of this effort, EH has assumed responsibility for activities associated with suspect/counterfeit items (S/CIs) or defective items from the Department of Energy (DOE) Quality Assurance Working Group (QAWG). This process guide and supporting manual provide direction to EH on implementing the S/CI and defective item process.

The Office of Corporate Performance Assessment (EH-3) will use the process guide and supporting manual to collect, screen, disposition, and communicate information on S/CI or defective items that could potentially impact operations at DOE facilities.

#### 1.1 S/CI and Defective Item Terminology

The following sections define S/CI and defective item terminology as used in this process guide.

#### 1.1.1 Defective Items

A defective item or material is any item or material that does not meet the commercial standard or procurement requirements as defined by catalogues, proposals, procurement specifications, design specifications, testing requirements, contracts, or the like. It does not include parts or services that fail or are otherwise found to be inadequate because of random failures or errors within the accepted reliability level (Reference: DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information, August 2003).

Manufacturers generally notify their customers when defective items are identified through such mechanisms as recall notices. Such notices may be directly sent to customers, or may appear in Federal agency or industry databases.

#### 1.1.2 Suspect Items

A suspect item is one in which there is an indication by visual inspection, testing, or other information that it may not conform to established Government- or industry-accepted specifications or national consensus standards. (Reference: DOE Guide 414.1-3, Suspect and Counterfeit Item Guide for use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1B, Quality Assurance).

Suspect items must be further investigated to determine whether they are counterfeit. When an item contains indications, but insufficient evidence, of irregularities such as noncompliance with agreed-upon specifications in the manufacturing process, it may be declared suspect.

#### 1.1.3 Counterfeit Items

A counterfeit item is a suspect item that is a copy or substitute without legal right or authority to do so or one whose material, performance, or characteristics are knowingly misrepresented by the vendor, supplier, distributor, or manufacturer. An item that does not conform to established requirements is not normally considered an S/CI if the nonconformity results from one or more of the following conditions, which should be controlled by site procedures as nonconforming items: defects resulting from inadequate design or production quality control; damage during shipping, handling, or storage; improper installation; deterioration during service; degradation during removal; failure resulting from aging or misapplication; or other controllable causes. (Reference: DOE Guide 414.1-3, Suspect and Counterfeit Item Guide for use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1B, Quality Assurance).

#### 2.0 RESPONSIBILITIES

DOE is committed to establishing and implementing a process to ensure that S/CI or defective items are quickly identified and that actions are taken to ensure safety at DOE facilities. EH has assumed a corporate leadership role, and is responsible for ensuring the effective implementation of this process.

#### 2.1 EH Responsibilities

The Assistant Secretary for the Office of Environment, Safety and Health (EH-1), reporting to the Deputy Secretary, is responsible for ensuring that Departmental crosscutting ES&H issues are addressed and resolved in a timely manner. These include Quality Assurance (QA) issues and S/CI or defective items that could potentially impact operations at DOE facilities.

EH will work closely with the Office General Counsel (GC) and the Office of Inspector General (IG) to ensure that sensitive or "Official Use Only" information is handled properly and that headquarters and field organizations get all relevant information in a timely manner to ensure an effective investigation.

EH-3 has overall responsibility for implementing the EH S/CI process, including:

- Ensuring EH-3 staff are trained and qualified on the identification of S/CI and this Process Guide,
- Screening data sources to identify potential S/CI or defective items,
- Preparing and distributing Operating Experience Notifications for potential S/CI or defective items,
- Drafting memoranda from EH-1 and developing, in cooperation with subject matter experts, GC and IG lines of inquiry for crosscutting or high-priority S/CI or defective items, requesting that Program Secretarial Officers (PSOs) direct field element investigations and interface with other DOE offices as necessary,
- Evaluating the completeness of information provided to PSOs on the results of field element investigations of crosscutting or high-priority S/CI or defective items.
- Conducting trending and analysis for actions taken on S/CI or defective items,
- Preparing the annual S/CI Report to disseminate information regarding S/CI trends, analysis, and related quality assurance/procurement issues,
- Providing feedback and recommendations to EH-1 on S/CI process improvements.

#### 2.2 PSO and Field Responsibilities

PSOs are expected to:

- Provide guidance to field elements on actions required for EH-3 Operating Experience Notifications,
- Direct field elements to investigate crosscutting or high priority S/CI or defective items in response to instruction from EH-1 via memorandum and lines of inquiry,
- Assess and document the results of investigations and actions taken by field elements and communicate those results to EH-1,
- Provide guidance to field elements on actions required as a result of investigations.

DOE field elements are expected to:

- Screen Operating Experience Notifications provided by EH-3 for S/CI or defective items and take appropriate action.
- Formally investigate crosscutting or high priority S/CI or defective items as requested by PSOs.
- Report to PSOs the results of investigations for high priority S/CI or defective items.
- Use the Occurrence Reporting and Processing System (ORPS) to report identified S/CI or defective items and take necessary corrective actions.
- Notify the IG at the local level upon identification of an S/CI that could impact DOE operations.

#### 3.0 S/CI OR DEFECTIVE ITEM REVIEW PROCESS

Appendix A contains a flow chart of the EH process used to ensure that S/CI or defective items are quickly identified and that appropriate actions are taken, documented, and reported. Sections 3.1 through 3.7 describe the various actions within the flow chart.

#### 3.1 Data Sources Reviewed for S/CI or Defective Items

EH-3 utilizes the following data sources to identify S/CI or defective items that could potentially impact DOE operations.

- DOE's ORPS database contains events reported across the DOE complex. Some of these events describe S/CI or defective items.
- The Government-Industry Data Exchange Program (GIDEP) database contains events reported by both Federal agencies and industry, some of which describe S/CI or defective items. Access to the GIDEP database is restricted. The Process Guide Support Manual includes access forms that users must submit to GIDEP. The Support Manual also describes the GIDEP access, data download, and reporting processes.
- The Institute of Nuclear Power Operations (INPO) database contains events reported by commercial nuclear power plants in the United States, some of which describe S/CI or defective items. Access to the INPO website is restricted. The Process Guide Support Manual describes the process for gaining access to the INPO website and instructions on downloading information.
- The IG website contains reports and other information, some of which address S/CI and defective items. Access to the IG website is available to the public and can be viewed at http://www.ig.doe.gov.
- Other data sources include notices issued by manufacturers that have not appeared in one of the above sources, DOE assessments, and field observations.

Note: GIDEP and INPO user IDs and passwords remain active for 6 months and must be updated at the respective websites.

#### 3.2 Database Searches to Identify S/CI or Defective Items

EH-3 staff routinely searches various databases to identify potential S/CI or defective items that require further review. Appendix B contains a list of keywords to assist in identifying potential S/CI and defective items.

#### 3.2.1 ORPS Database Searches

#### Process Guide for the Identification and Disposition of S/CI or Defective Items

When field elements identify potential S/CI or defective items they report the items in ORPS. Historically, the majority of S/CI or defective items have been found in ORPS. EH-3 collects posted ORPS events and screens them for S/CI and defective items with potential impact to DOE operations. For each potential S/CI or defective item identified in ORPS, EH-3 prepares a Data Collection Sheet (DCS) and assigns a tracking number. The DCS is used to facilitate review of the S/CI or defective item and to document the actions that were taken to resolve the item. The Process Guide Support Manual contains a sample DCS.

#### 3.2.2 GIDEP Database Searches

At least once per week, EH-3 searches the GIDEP database for potential S/CI or defective items. After the initial screening for potential S/CI or defective item identified in GIDEP, EH-3 downloads the information to its network "O" drive and prepares a DCS from the information.

#### 3.2.3 INPO Database Searches

At least once per week, EH-3 searches the INPO database for potential S/CI or defective items. After the initial screening for potential S/CI or defective item identified in the INPO database, the EH-3 downloads the information to its "O" drive and prepares a DCS from the information.

Note: If S/CI or defective item information obtained from INPO is posted on the EH-3 S/CI website, reference to utility name, address, point of contact, and phone number must be omitted from the DCS.

#### 3.2.4 Other Sources of S/CI or Defective Item Data

EH-3 reviews and screens other sources of data for potential S/CI or defective items. Occasionally, for example, manufacturers, vendors, or end users may distribute notices to DOE that describe items of a suspicious nature, such as recalled defective items or items under investigation by the Defense Criminal Investigative Service. Other sources that may provide useful data include DOE assessments generated from Headquarters organizations (including IG), field evaluations, and reports on field inspections and surveillances. For each potential S/CI or defective item identified through other sources, EH-3 prepares a DCS and assigns it a tracking number.

#### 3.3 Data Collection Sheet Review

#### 3.3.1 EH-3 Operating Experience Review

EH-3 typically reviews DCSs once a week following the morning Operating Experience (OE) meeting. S/CI or defective items identified through the various database searches are evaluated to determine what action should be taken. Appendix C provides screening

#### Process Guide for the Identification and Disposition of S/CI or Defective Items

criteria to assist this determination. The EH-3 decision regarding actions to be taken is recorded on the DCS.

If a DCS does not contain sufficient information to make a determination as to applicability of the S/CI or defective item to DOE, EH-3 may request additional information. This information is typically obtained from the point of contact listed on the DCS. EH-3 may also, on a case-by-case basis, obtain input from DOE subject matter experts to assist in deciding on the appropriate action to be taken for a S/CI or defective item. EH-3 maintains a list of subject matter experts (SME) by topic on the S/CI website. The Process Guide Support Manual contains a sample SME list.

An important aspect of determining the significance of ORPS related S/CI or defective items starts when the initial ORPS event is researched. Many times the initial report indicates that additional work is being conducted by any of a variety of organizations. This may have an impact on how EH-3 will disposition the item. Where such follow-up work is indicated, EH-3 will flag the item for follow-up. The *Non-Routine To-Do List* located on the "O" drive shall be updated to indicate that follow-up is needed.

In order to assure that significant events are acted upon in a timely manner, EH-3 shall conduct routine searches in ORPS to determine whether any final reports have been issued for items flagged for follow-up. The Process Guide Support Manual contains further instructions for final ORPS report follow-up.

#### 3.3.2 Potential Actions Taken for S/CI or Defective Items

There are several possible actions that can result from the review of potential S/CI or defective item events. Appendix C provides more detail on criteria for determining actions to be taken.

#### Investigation

- An investigation is warranted if there is clear indication of a crosscutting or highpriority S/CI, if a criminal investigation is underway or expected to be initiated, or if a significant regulatory, environmental, health, or safety risk exists.
- EH-3's decision is documented on the DCS.
- An EH Safety Alert may also be sent out in advance of the formal investigation.
- EH-1 issues a memorandum within 30 days from the date the item is identified at the EH-3 OE meeting, requesting PSOs to conduct an investigation.
- Lines of inquiry are developed, and PSOs and field elements initiate an investigation.
- PSOs document results of the investigation and submit to EH-1.
- Issues identified as a result of an investigation are reported to the IG and in ORPS.

#### **Operating Experience Notification**

The following are forms of Operating Experience Notifications used to distribute information on potential S/CI or defective items within DOE.

#### **EH Safety Alert**

- An EH Safety Alert is warranted if documentation clearly indicates that a S/CI or defective item may be involved, and a significant regulatory, environmental, health, or safety impact exists.
- EH-3's decision to issue an EH Safety Alert is documented on the DCS.
- An EH Safety Alert on S/CI or defective items will be distributed within 10 days after being discussed at the EH-3 OE meeting.
- EH Safety Alerts are distributed to DOE Headquarters and Field Element management.
- EH Safety Alerts shall request a response back to EH-3 whether or not S/CI or defective items are found.
- EH-3 shall maintain a record of responses to EH Safety Alerts.
- EH Safety Alert are posted on the EH-3 S/CI website.
- Issues identified as a result of an EH Safety Alert are reported in ORPS.

#### **POC Notification**

- Points of contact notification are the most common form of Operating Experience Notification of potential S/CI or defective items. This is done when documentation indicates that the S/CI or defective item may be in use at DOE facilities.
- The DCS containing the potential S/CI or defective items shall be posted on the S/CI website within 10 days after the item was discussed at the EH-3 OE meeting.
- Points of contact are notified via the EH-3 S/CI website and list server distribution.
- EH-3 documents the points of contact notification on the DCS.
- The DCS shall be available on the S/CI website for a period of six months and then archived.
- S/CI or defective items identified by field element/contractor as a result of points of contact being notified are reported in ORPS.

#### **OE Summary**

- An article in the OE Summary is warranted if documentation indicates that the S/CI or defective item may be applicable to DOE facilities.
- EH-3 documents the OE Summary on the DCS.
- The article describing the S/CI or defective item shall appear in an OE Summary within 30 days after the item was discussed at the OE meeting.
- S/CI or defective items identified by field element/contractor as a result of an OE Summary article are reported in ORPS.

#### No further action

#### Process Guide for the Identification and Disposition of S/CI or Defective Items

- This is warranted if there is no clear indication that the event describes an S/CI or defective item or if the item does not apply to DOE facilities or operations.
- EH-3 documents the no further action on the DCS.

#### 3.4 S/CI Website

DCSs selected for Operating Experience Notification are posted on the S/CI website as either S/CI or defective items. For potential S/CI, an e-mail notification with a one line description and link to the EH-3 S/CI website is sent to points of contact subscribing to the EH-3 S/CI website list server notification. Individuals can subscribe to the S/CI or defective item list server email notification on the S/CI website. DCSs shall be available on the EH-3 website for a period of six months and then archived.

#### 3.5 Support Group and Lines of Inquiry

For S/CI items that are crosscutting or of a high priority, a support group of technical, legal, and investigative personnel will be convened as necessary to assist EH in developing lines of inquiry to support the investigation. The GC and the IG representatives in the support group will assist in dealing with sensitive (closely held) or "Official Use Only" information related to ongoing investigations. No information is to be withheld from DOE and the contractor community except whether a criminal investigation is planned or ongoing or who may have made the allegation. All other pertinent S/CI information will be provided. The Deputy Assistant Secretary for EH-3 or his designee will convene the support group within 10 days of the EH-3 OE meeting identifying the issue. EH-3 shall provide the support group with the necessary information to assist in developing lines of inquiry. The support group will be formed on an ad hoc basis and may consist of representatives from organizations such as:

- Environment, Safety and Health (EH) Lead
- Inspector General (IG)
- General Counsel (GC)
- Environmental Management (EM)
- National Nuclear Security Administration (NA)
- Science (SC)
- Fossil Energy (FE)
- Nuclear Energy (NE)

#### 3.5.1 Lines of Inquiry

Lines of inquiry are developed to ensure that the various organizations conducting the investigation gather consistent and defensible information. The lines of inquiry are developed by the support group discussed above, and typically include a set of questions to guide the investigation. (See the Process Guide Support Manual for sample lines of inquiry). The lines of inquiry typically specify the scope of the investigation, timeframe, what to do if S/CI are discovered, and the cost associated with conducting the investigation. The lines of inquiry are attached to the memoranda sent from EH-1 to PSOs for crosscutting or high-priority S/CI issues.

#### 3.5.2 EH-1 Memorandum to PSOs

EH-3 will prepare the memorandum identifying high-priority S/CI issues and requesting assistance from PSOs in formally investigating the event based on the lines of inquiry developed by the support group. The Process Guide Support Manual contains a sample EH-1 memorandum. The memorandum shall be prepared within 30 days of identifying the issue and is forwarded to EH-1 for signature and distribution. The memorandum with lines of inquiry, will request that PSOs respond to EH-1 with a plan and schedule for completing the investigation. Distribution of the EH-1 memorandum is determined on a case-by-case basis.

#### 3.6 Investigation of Crosscutting or High-Priority S/CI Items

PSOs will direct their field elements to conduct an investigation of the crosscutting or high-priority S/CI issue. PSOs will notify EH-1 of their plan and schedule for conducting the investigation. PSOs will document the results of their investigation, whether or not an S/CI is identified, and evaluate any impact. If an S/CI is identified, an Occurrence Report is submitted to ORPS, and the IG is notified in accordance with the requirements in DOE O 221.1, Reporting Fraud, Waste, and Abuse to the Office of the Inspector General. The PSOs will also develop the appropriate corrective actions to address the S/CI issue and collect the cost associated with this effort. The documented results of the investigation, including any corrective actions, are forwarded to EH-1.

#### 3.7 EH Review, Consolidation of Results and Inquiry Closeout

EH will consolidate the results of the PSO investigation reports and review them for completeness. EH may make recommendations to the PSOs regarding the report results. EH will forward consolidated information such as cost data and other information to the IG or other organizations as appropriate to closeout the investigation. EH-3 will use the results of investigations as input to the annual S/CI report. A sample investigation closeout package is contained in the Process Guide Support Manual.

#### 4.0 ENTERING S/CI OR DEFECTIVE ITEM INFORMATION IN GIDEP

The Office of Management and Budget (OMB) Policy Letter 91-3, requires agencies to establish policies and procedures for using GIDEP to exchange information, examine GIDEP information and promptly disseminate safety-related information, conduct assessments of the effectiveness of their programs, and establish procedures for involving the IG in S/CI issues, including receipt and dissemination of sensitive information.

EH-3 shall review S/CI ORPS entries and ensure that appropriate information is entered into GIDEP as required by OMB Policy Letter 91-1. The Process Guide Support Manual contains instructions about entering S/CI information into GIDEP.

#### 5.0 PREPARATION OF THE ANNUAL S/CI REPORT

EH-3 shall prepare an annual S/CI report that documents S/CI and defective items that were identified and their disposition. This includes both high-priority and lower-priority S/CI items that were contained in Operating Experience Notifications and investigations. The report will characterize the current status of the S/CI process, corrective actions taken, and recommendations for improvement.

Lessons learned and training issues will also be included. The annual S/CI report provides historical data and trend information regarding discovery and disposition of S/CI in the DOE complex.

The intent of the annual S/CI report is to disseminate information regarding S/CI and defective item trends, analyses, and related procurement/quality assurance issues. The report is provided to DOE management to relay information on progress within the Department on S/CI and defective item issues. The Process Guide Support Manual contains portions of a previous annual S/CI report as a guideline.

#### 6.0 TRAINING

EH-3 staff shall be trained on identifying S/CI or defective items and on the EH S/CI process.

#### 7.0 S/CI PROCESS IMPLEMENTATION REVIEWS

EH-3 shall periodically conduct S/CI process implementation reviews at selected DOE facilities. The purpose of these reviews is to:

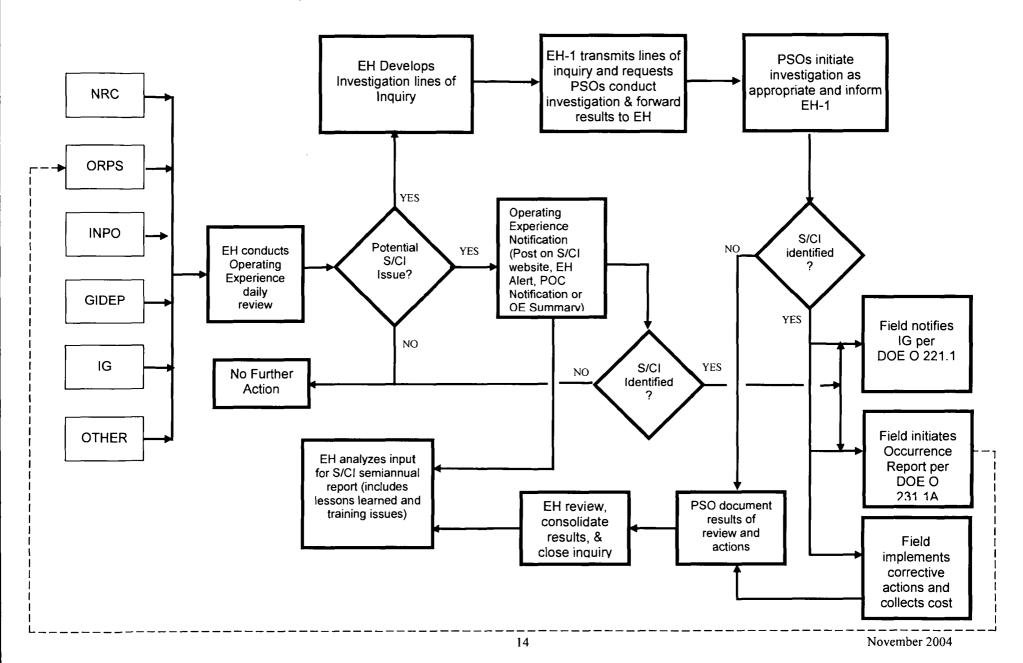
- sample implementation of the S/CI and defective item process in the field
- communicate expectations for the S/CI and defective item process implementation
- gather feedback on issues encountered in S/CI and defective item process implementation
- solicit improvements in the S/CI and defective item process

The S/CI process reviews should be conducted by a team with representatives from EH-3, the Headquarters PSO and the site. The process review should be in the form of a self-assessment that determines the effectiveness of S/CI process implementation by sampling. Tracing the response to Safety Alerts is one example of sampling. Other samplings could be site specific. The results of the S/CI process reviews will be discussed with site management prior to departure.

#### 8.0 RECORDKEEPING

DCSs, the annual S/CI report, and other EH-3 reports detailing activities associated with S/CI or defective items shall be maintained electronically, on the EH-3 S/CI website and in a location accessible to EH-3 personnel. The records shall be maintained for at least five years.

Appendix A
Suspect/Counterfeit and Defective Item Process Flow Chart



### Appendix B Suspect/Counterfeit and Defective Item Keywords

The following list contains keywords and phrases related to the S/CI and defective item process. This is a sample of keywords and should be considered red flags to help assist in the identification of potential S/CI and defective items during searches of the INPO, GIDEP, ORPS, and other databases. By themselves, some of the words and phrases may not be indicative of an S/CI or defective item, but combinations may point toward the need for closer evaluation to make the appropriate decision.

#### **Defective Items**

- non-conformance with specifications
- investigation
- further investigation
- enforcement action
- defect
- component failure
- returned to supplier
- unexpected failure
- new...failed
- returned to supplier

#### Suspect/Counterfeit Items

- alleged falsification
- falsification
- potentially fraudulent
- problems with testing
- fraudulent data or certification
- complaint
- under seal
- litigation
- qui tam
- improper certification
- improper marking
- invalid data
- unapproved parts (Federal Aviation Administration term related to S/CI)
- Defense Criminal Investigative Service (DCIS)
- Inspector General (IG)
- held for IG
- suspect
- counterfeit
- returned to supplier
- investigation
- further investigation
- identical data or certifications

An extensive list of terms and phrases related to actual S/CI and defective items such as:

- improper weld
- missing or improper manufacturer's standard markings
- evidence of tampering
- document not traceable to the item procured

can be found in Suspect Indications List of the Suspect/Counterfeit Awareness Training document found on the EH S/CI website at https://info.eh.doe.gov/sci/refdocs/.

Appendix C
Criteria for Determining Level of Action for Potential S/CI or Defective Items

Screening Criteria for Operating Experience Notifications Po						Potential EH-3 Action			
Question	No	Yes	Include in OE Summary	POC Notification	EH Safety Alert Issued	Investigation			
Does the issue require any EH-3 involvement to obtain additional information?	See additional screening criteria.	Additional information on the issue will be obtained from Headquarters or field SMEs and/or the DCS point of contact. No action required until additional information is evaluated.							
Is this a repeat occurrence?	See additional screening criteria.	Previous occurrences should be reviewed to help determine action to take.	X	X	-				
Does the issue affect more than one site or have the potential to affect more than one site?	Scope of S/CI or defective item implications may be limited and can be addressed by the respective site.	Scope of S/CI or defective item may be crosscutting with complex-wide applicability. OE notification required based on applicability to DOE facilities and operations.	X	Х					
Has the issue been declared S/CI or defective, or does it have the potential to be declared S/CI?	See additional screening criteria.	S/CI has already been declared. OE notification required based on applicability to DOE.	Х	х	Х	Х			
Is an investigation underway or about to be initiated regarding potential criminal activities?	See additional screening criteria.	An investigation is in progress. OE notification required based on input from IG and GC and applicability to DOE facilities and operations.			х	х			
Does the issue have any immediate or potential regulatory, environmental, health, or safety impact?	See additional screening criteria.	Scope of S/CI or defective item may be crosscutting with complex-wide applicability.  OE notification required.	х	х	х				
Could other organizations address the issue more appropriately?	See additional screening criteria.	EH transfers action to appropriate organization. No further action required,							
Does the issue have any complex-wide procurement implication?	See additional screening criteria.	Scope of S/CI or defective item is crosscutting with complex-wide applicability. OE notification required.	Х	Х	Х	Х			

Note: EH-3 staff will use professional judgment in determining the potential actions to be taken using the above criteria.

#### Appendix D References

- 1. DOE Order 221.1, Reporting Fraud, Waste, and Abuse to The Office of Inspector General, March 2001
- 2. DOE Order 231.1A, Environment, Safety and Health Reporting, August 2003
- 3. DOE Manual 231.1-2, Occurrence Reporting and Processing of Operations Information, August 2003
- 4. DOE Order 414.1B, Quality Assurance, April 2004
- 5. DOE Guide 414.1-3, Suspect and Counterfeit Item Guide for use with 10 CFR 830 Subpart A, Quality Assurance Requirements and DOE O 414.1B, Quality Assurance
- 6. Office of Environment, Safety and Health Support Manual to the Process Guide for the identification and Disposition of Suspect/Counterfeit of Defective Items
- 7. IAEA-TECDOC-1169, Managing suspect and counterfeit items in the nuclear industry, August 2000

### SEPARATION PAGE

# Office of Environment, Safety and Health Support Manual to the Process Guide for the Identification and Disposition of Suspect/Counterfeit and Defective Items at Department of Energy Facilities



Prepared by
U.S. Department of Energy:
Office of Environment, Safety and Health
Office of Corporate Performance Assessment

November 2004

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#### **ACRONYMS**

DCS Data Collection Sheet

DNFSB Defense Nuclear Facilities Safety Board

DOE Department of Energy

EH Office of Environment, Safety and Health EM Office of Environmental Management

FE Office of Fossil Energy
GC Office of General Counsel

GIDEP Government/Industry Data Exchange Program

HQ Headquarters
IG Inspector General

INPO Institute of Nuclear Power Operations

LOI Lines of Inquiry

NA National Nuclear Security Administration

NE Office of Nuclear Energy, Science and Technology

NRC Nuclear Regulatory Commission

OA Office of Independent Oversight and Performance Assurance

OE Operating Experience Program

ORPS Occurrence Reporting and Processing System

POC Point of Contact

PSO Program Secretarial Officer

QA Quality Assurance SC Office of Science

S/CI Suspect or Counterfeit Item

#### Supporting Manual for the Identification and Disposition of S/CI and Defective Items

Revision: 1	Effective Date:
Approved  Law June July  Deputy Assistant Secretary for Corporate Performance A	Assessment Date
Recommended  Frank School Studies  Director, Office of Analytical Studies	11/22/01/ Date

#### 1.0 INTRODUCTION

In the Deputy Secretary's March 18, 2003 letter to the Defense Nuclear Facilities Safety Board, the Assistant Secretary for the Office of Environment, Safety and Health (EH) was assigned responsibility for identifying, evaluating, monitoring, managing, and resolving crosscutting safety issues. As part of this effort, EH has assumed responsibility for activities associated with suspect/counterfeit items (S/CIs) or defective items from the Department of Energy (DOE) Quality Assurance Working Group (QAWG). This process guide support manual provides direction to EH on implementing the S/CI and defective item process.

The Office of Corporate Performance Assessment (EH-3) will use the process guide and supporting manual to collect, screen, disposition, and communicate information on S/CI or defective items that could potentially impact operations at DOE facilities.

#### 2.0 SUPPORT MATERIAL TO THE EH PROCESS GUIDE

The information contained in this support manual provides instructions on how to access various databases and examples of documents that EH-3 personnel will be required to develop as part of their activities in implementing the EH S/CI and defective item process. Example documents should be modified as required to meet specific needs.

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#### 3.0 DATABASE ACCESS INSTRUCTIONS AND SAMPLE FORMS

#### 3.1 EH-3 Data Collection Sheet

# DEPARTMENT OF ENERGY OPERATING EXPERIENCE WORKING GROUP DATA COLLECTION SHEET ISSUE CPSC Recall of Light Fixtures TRACKING NUMBER DCS 655 GIDEP SOURCE OF ISSUE AAN-U-04-76 (CED 04-01-04)

#### **DESCRIPTION**

The following product safety recall was conducted by the firm in cooperation with the Consumer Product Safety Commission. Consumers should stop using the product immediately unless otherwise instructed.

Name of Product: High Intensity Discharge (HID) light fixtures with acrylic lenses and/or reflectors

Units: About 52,600

Manufacturer: Lithonia Lighting, of Conyers, Ga.

**Hazard**: A component in the light fixture can leak fluid, which can degrade the acrylic lenses and reflectors, causing them to crack and fall. Falling pieces of acrylic can injure someone below the fixture.

**Incidents/Injuries**: Lithonia is aware of 42 incidents where pieces of acrylic fell from fixtures. One person suffered a laceration on his forehead when a piece of an acrylic lens fell.

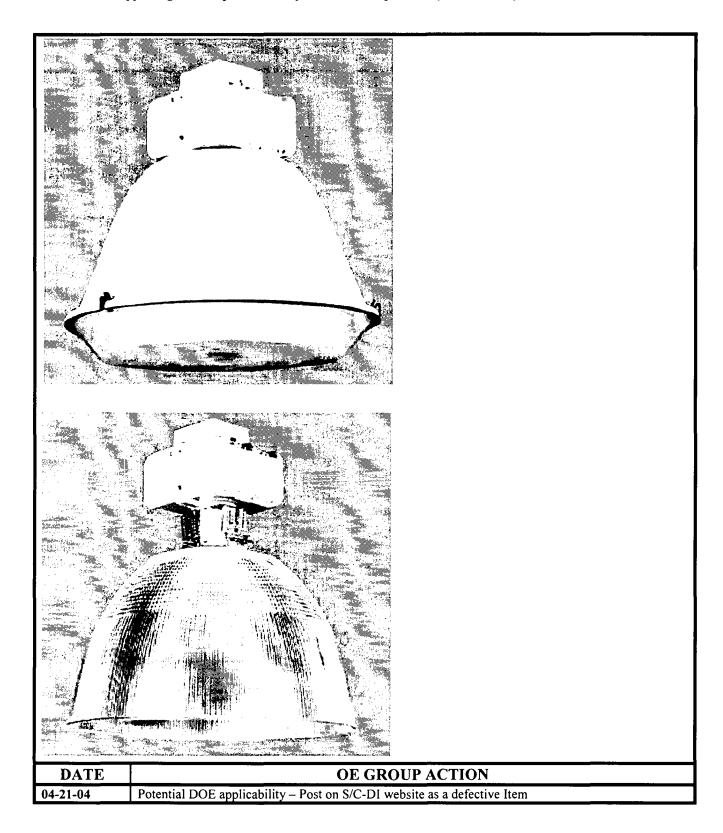
**Description**: These are Indoor HID light fixtures with acrylic lenses and/or reflectors. They are generally used in industrial and commercial locations such as retail spaces, warehouses, and gymnasiums. Only certain models of specific wattage lights are included in the recall. Check the Lithonia Web site for a list of the specific model and wattage combinations included. All recalled fixtures were manufactured in Crawfordsville, Indiana, and have a date of manufacture from November 2002 through October 2003. The models, wattages, city and date of manufacture, and "Lithonia" can be found on a label attached to the ballast housing.

**Sold by**: Lighting and electrical supply distributor nationwide from November 2002 through February 2004.

Manufactured In: USA

**Remedy**: Building owners and managers with recalled fixtures should contact Lithonia to verify that the fixtures are included in the recall and arrange for a replacement of the fixture or faulty component. Lithonia and their distributors are directly notifying customers who purchased the recalled fixtures.

**Consumer Contact**: Lithonia Lighting 866-345-2294 8am-5pm ET M-F www.lithonia.com/indoorHIDacrylicrecall/



#### 3.2 Final ORPS Report Follow-up

An important aspect of determining the significance of ORPS related S/CI or defective items starts when the initial ORPS event is researched. Many times the initial report indicates that additional work is being conducted by any of a variety of organizations. This may have an impact on how EH-3 will disposition the item. Where such follow-up work is indicated, EH-3 will flag the item for follow-up. The *Non-Routine To-Do List* located on the EH-3 "O" drive at *O:\QA EH-3 and historical QAWG\Follow-up SCDI\SCDI To Do List* shall be updated to indicate that follow-up is needed.

In order to assure that significant events are acted upon in a timely manner, EH-3 shall conduct routine searches in ORPS to determine whether any final reports have been issued for items flagged for follow-up. The following search process has been developed for this purpose:

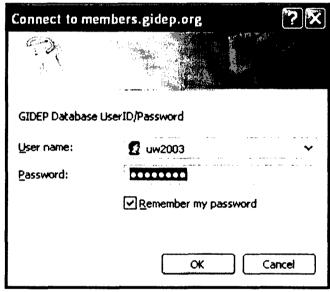
- 1. Type in the Boolean Logic Box: (14 or 17) and 35
- 2. Hit Refine
- 3. In box 14, under Nature of Occurrence, select: Search RC Only. Under Reporting Criteria, select 4C(1), 4C(2), and 4C(3).4. In box 17, under HQ Keyword Before 2003, select: Search New HQ Keywords Only. Under HQ Keyword On/After 2003, select 11E and 11H.
- 4. In box 35, select >/= to your date.
- 5. Hit Finished Searching.

In order to keep track of the final ORPS reports identified during the routine searches, EH-3 shall download "html" ORPS query to the EH-3 "O" drive at O:\QA EH-3 and historical QAWG\ORPS-OBITT Searches\Final ORPS report updates. This will assist in maintaining a record of the work conducted, allow for future viewing to assist in analysis, and provide an easy source to access when compiling information for the annual S/CI report.

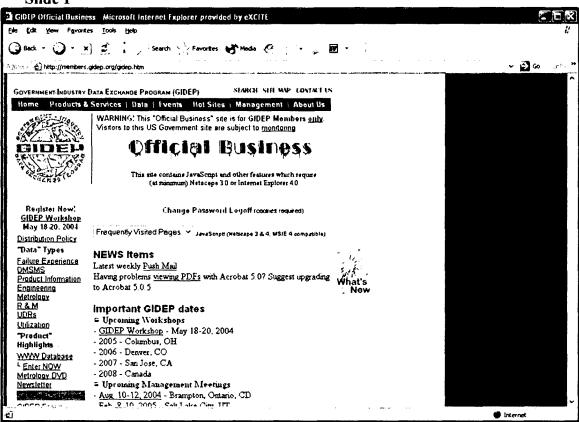
#### 3.3 GIDEP Access and Data Download Process

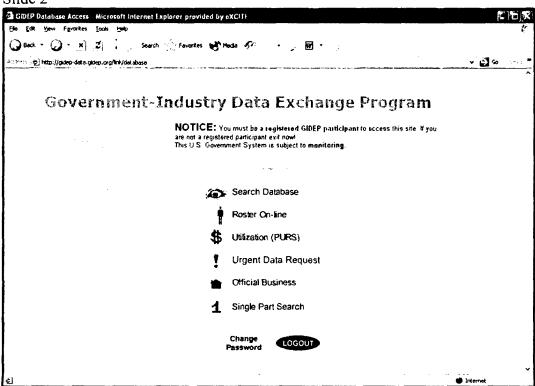
- 1. As with ORPS, access to this website requires a User ID and password which are obtained through GIDEP that are active for a 6 month period. Users are notified when the 6 month date is approaching and to change their password within approximately 30 days of expiration.
- 2. Section 3.4 contains the forms users need to fill out and submit to GIDEP at (FAX) 909-273-5200 to obtain a User ID and password.
- 3. Information on how to join is located at the Internet website: <a href="http://www.gidep.org/">http://www.gidep.org/</a>.
- 4. Approximately twice weekly, the EH-3 OE Group logs on (Slide 0) and accesses the GIDEP database by selecting "Enter Now" (Slide 1 below) and then "Search Database" (Slide 2 below) at: <a href="http://members.gidep.org/gidep.htm">http://members.gidep.org/gidep.htm</a>. While there are many issues involving defective items posted on this website, S/CI events are rarely observed.

Slide 0

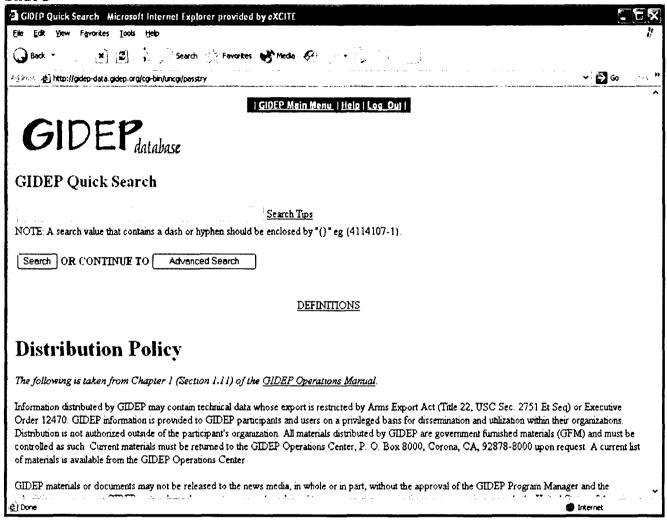


Slide 1

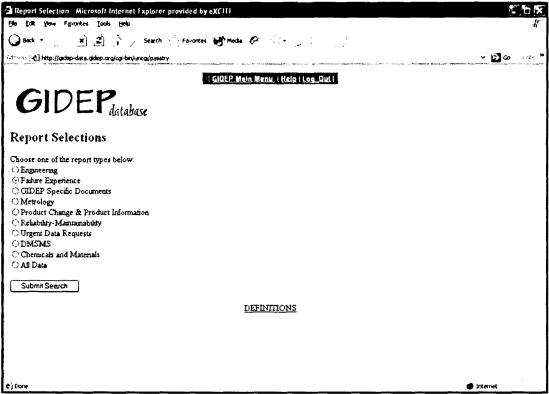




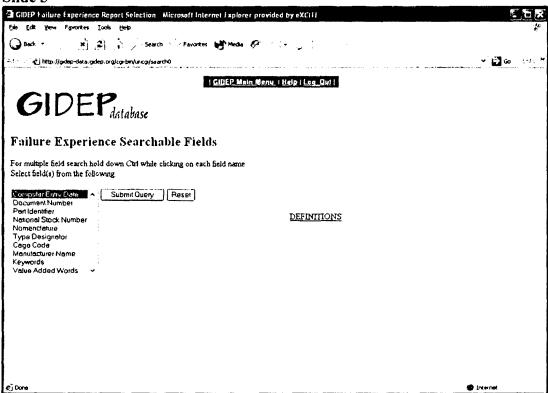
5. Relevant S/CI and defective item information can be accessed from the "GIDEP Database" by selecting "Advanced Ssearch" (Slide 3). Within this database, "Failure Experience:" (Slide 4) should be selected.



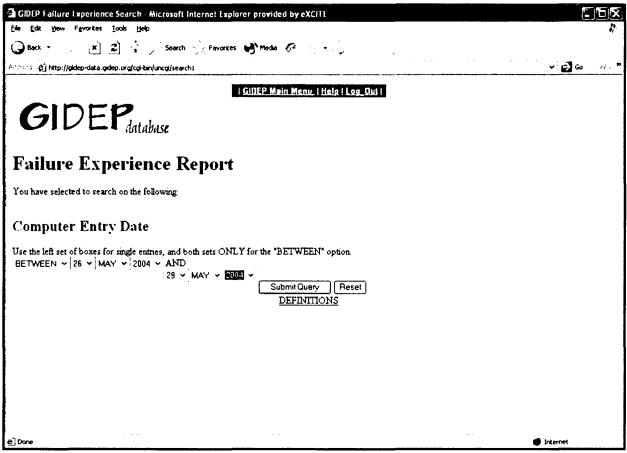
#### Slide 4



6. Next, select "Computer Entry Date" (Slide 5)

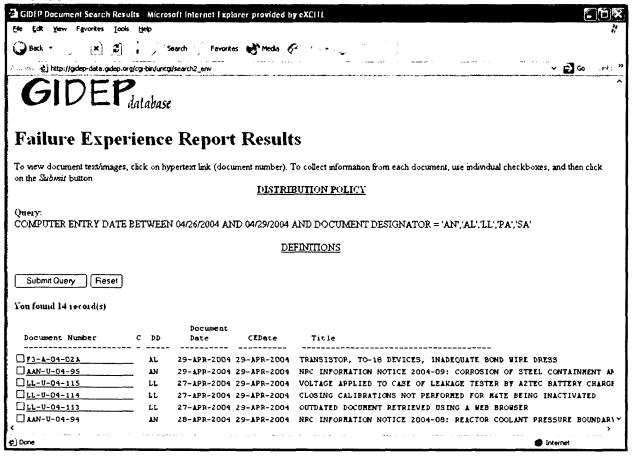


7. Next, select the desired period of time for the posted events during that timeframe (Slide 6). Then review the posted GIDEP events for S/CI or defective item occurrences.

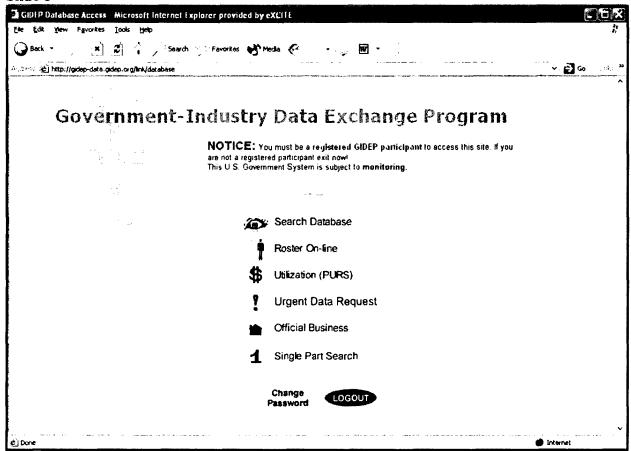


8. Download each of the relevant S/CI and defective item (Slide 7) as individual files onto the "O" drive at O:\QA EH-3 and historical QAWG\GIDEP searches\EH-3 GIDEP searches May 2003 and after.

Slide 7



9. Following the download of the GIDEP S/CI or defective item, log off the system and select the "Utilization Report" portion of the website (Slide 8) if at least one individual GIDEP event was accessed during the session.



- 10. If the event accessed did not contain relevant S/CI or defective item information that will be discussed at the daily OE Group meeting, then fill out a "no impact report."
- 11. If the event does contain relevant S/CI or defective item information that will be discussed at the daily OE Group meeting, then fill out a, "Impact Report" for that event. Section 3.4 contains a sample statement that can be inserted into the explanation section of the impact report. Also, check off and fill out an estimated cost savings, where designated, for \$1000 and then submit the report.
- 12. This process must be repeated for each GIDEP event that is accessed. While these reports need to be filled out before the end of the fiscal year, it is encouraged that the process be followed during each access session so that the report load is not over burdensome and to prevent the possibility of forgetting to complete the reports at a later date. The EH-3 lead for GIDEP will review draft GIDEP utilization reports, and approve and submit them to GIDEP electronically (Figures 9 and 10). Failure to complete the reports will eventually result in GIDEP database access denial.

Figure 9

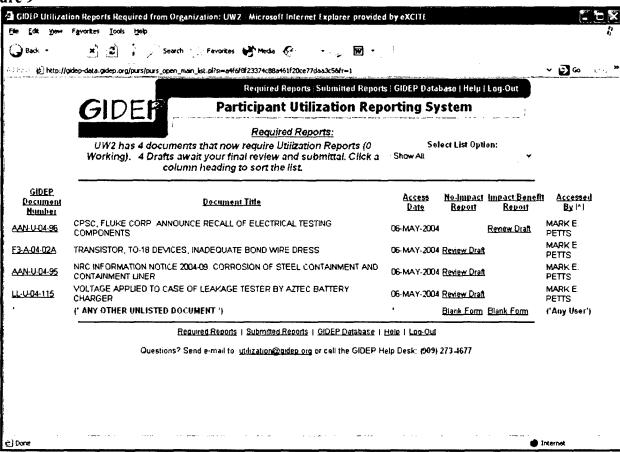
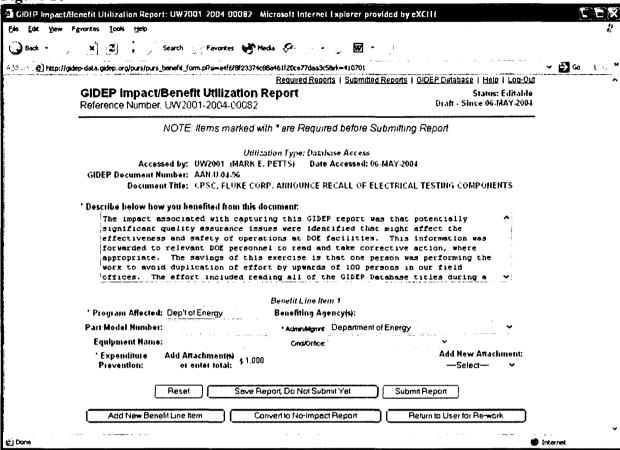


Figure 10



- 3.3 GIDEP Access and Data Download Process (continued)
- 12. The DCS shall be maintained at O:\EH-3\QA EH-3and historical QAWG\Data Collection Sheets.
- 13. Section 3.1 contains a sample DCS.
- 14. The GIDEP Help Desk (909-273-4677) can answer questions regarding authorizations and access.

## 3.4 Sample GIDEP Utilization Report Statement for S/CI with potential DOE Impact

The impact associated with capturing this GIDEP report was that potentially significant quality assurance issues were identified that might affect the effectiveness and safety of operations at DOE facilities. This information was forwarded to relevant DOE personnel to read and take corrective action, where appropriate. The savings of this exercise is that one person was performing the work to avoid duplication of effort by upwards of 100 persons in our field offices. The effort included reading all of the GIDEP Database titles during a given time period, opening up and reading all reports that appeared to have potential quality assurance significance, capturing the relevant information from the reports deemed significant, and providing the information to the DOE EH-3 for distribution to appropriate personnel at our field offices.

Estimated cost savings – total time spent for the report is about 15 minutes from initial look at the title to providing the information for distribution. The average hourly rate for the employees is about \$40. Hence, 0.25 hours x \$40 = \$10/employee/event x 100 employees = \$1000 saved for this report.

# 3.5 Sample GIDEP Participation Request Form

GIDEP PARTICIPATION REQUEST	Reserved for Office Use Only
We hereby request participation in GIDEP and agree to abide by the GIDEP Participation Requirements shown below.	OTDEP Operations Charter Approval Officer Approval
The company/activity official authorizing participation is:	DA 18:
Name:Title:	
Signature:Phone:	
Our U. S. government contract number(s) is/are:	
Our Commercial and Government Entity (CAGE) code is:	
Our appointed GIDEP Representative will be:	
Name (Last, First, M.I.)  Job Title:  Activity/Company:  Mailing Address:  City, State, Zip  Nature of Business:  Telephone number:  E-mail Address:  Note! This application may be stored electronically and the scanned signature will be treated as an or Send this form together with at least one GIDEP User Authorization for GIDEP Operations Center, P. O. Box 8000 Corona, CA 92878-8000 Or FAX: (909)  GIDEP PARTICIPATION REQUIREMENTS  ELGIBLITY Opt the Chadras Operation of National Defence  A U. S. Overancest agency.  A A U. S. Overancest agency.  A A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency.  A A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  A U. S. Overancest agency of the Chadras Operation of National Defence  D. Overancest agency of the Chadras Operation of Operation of Operation of Operations of Operation of Oper	m to: ) 273-5200

01.001

#### 3.5 Sample GIDEP User Authorization Form (continued)

# GIDEP USER AUTHORIZATION FORM IS REQUIRED FOR EACH GIDEP DATABASE USER)

By signing this authorization I certify, as a authorized GIDEP official business user, that I:

- 1. Have read and understand the Information Security Policy below dated 2 August 1999.
- 2. Agree to comply with the terms and conditions of the Policy shown below.

Reserved for Office Use Only
AUTOMATED DIPORMATION SYSTEM APPROVAL (INVAS, COMM, CA ALS SECURITY OFFICIER)
APPROVED

1. USER NAME (TYPE OR PRIN	2. DEPT/MS	: 3. PH	3. PHONE:		
4. Job Title	City of Birth (for security use)	5. E-MAIL ADDRESS			
6. SIGNATURE:	7. ORGANIZATION:			8. PARTICIPANT CODE: (if essigned)	
9. PRIMARY AREA(s) OF INT	EREST: (Select all that apply.)				
☐ Engineering Data	☐ Failure Experience Data		Reliab	Reliability Maintainability	
☐ Metrology Data	O Product Information Data (DMS/MS) Data				
10. HOW DID YOU HEAR AB	OUT GIDEP? (Select all that ap	ply.)			
O World Wide Web	O Exhibit/Show	77	O Clin	ic (Year)	
GIDEP Representative	GIDEP Workshop	,	(Year / Location)		
O Contractor	Other		(	,	
		······································			
	This PartMwtBe Completed	l by the GIDEP Representative			
notify the GIDEP OPERATIONS	SENTATIVE, the policies and pro SCENTER If THE ABOVE GIDS ronically and the scanned signat	EP USER no longer requi-	res access to	the GIDEP databases. This	
22. GIDEP REPRESENTATIVE (	TYPE OR PRINT):		23. DAT	E:	
24. SIGNATURE:					

#### INFORMATION SECURITY POLICY

2 August 1999

Purpose: To make known general Automated Information Systems (AIS) security guidelines for accessing databases where communication is via approved internet web or modern to U.S. Government (NAVY) computer systems.

Scope: These procedures set forth the basic AIS security protocol for signing-on, signing-off and general use of the host computer system. These security guidelines comply with DoD Manual 5220.22M and OPNAVINST 5239.1A. Access to GIDEP information is controlled though a seties of good operating practices and privileged passwords assigned to authorize users. Missise of passwords and the access obtained by their usage can result in denial of further GIDEP usage and possible penalties under 18 USC 1905 and other applicable statutory regulations.

Password Control The GIDEP representative for each participating activity will submit a GIDEP USER AUTHORIZATION (GUA) form for each user to the GIDEP Operations Center. The GIDEP Operations Center will issue a temporary password for each new user identified on the GUA. This password is valid for a period of fifteen (15) days and must be changed by the user before accessing the GIDEP database. The password should be changed at three to six month intervals, but no longer than six months, or anytime actual or suspected compromise of the password has occurred.

When the user resigns, has been terminated, transfers, or has no further authorized use for his/her passwords, immediately notified the GIDEP Operations Center Help Desk by e-mail (gidep@gidep.corona.navy.mil) or Phone (909) 273-4677.

Do NOT share your passwords. You are responsible for all activity initiated under your password.

Do NOT leave the computer unattended when logged on to GIDEP. Terminate web access when a session is completed.

Report suspected tampering or security violations to the company security personnel and the GIDEP Operations Center. Stop processing data until the system can be checked.

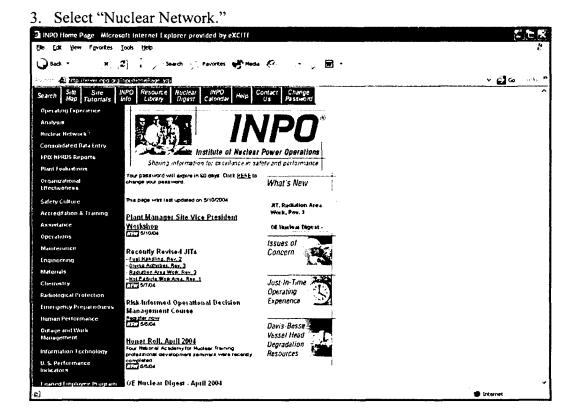
Data Management Do not procest clausified information. Process all OIDEP information, fairly copy and electronic methal from unauthorized disclosure. If in doubt about proper security procedures, please contact your security manager and/or the GIDEP Operations Center for further assistance or information.

#### 3.6 INPO Access and Data Download Process

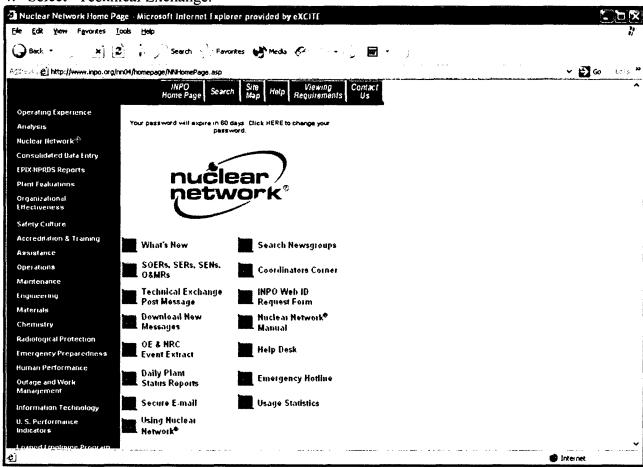
1. Each EH-3 INPO user can access the INPO website (<a href="http://www.inpo.org/inpo/HomePage.asp">http://www.inpo.org/inpo/HomePage.asp</a>) from their personnel work computer following logon..



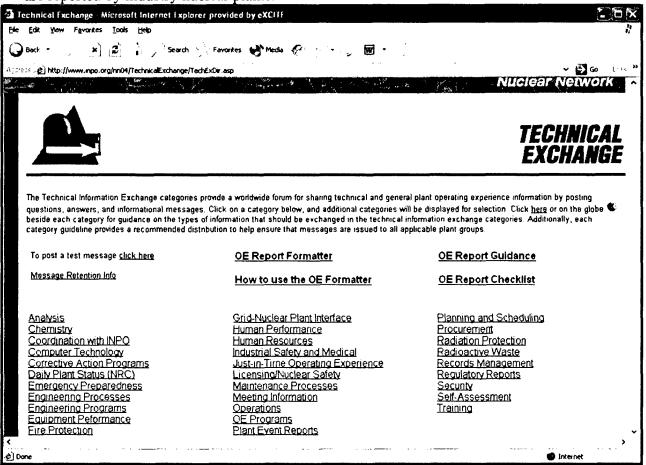
2. Enter the User name and password. Obtain both from Earl Carnes, EH (301-903-5255). Earl changes the logon password every 6 months.



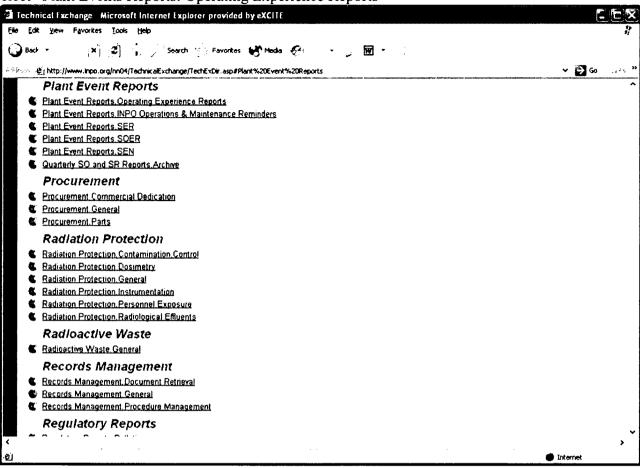
4. Select "Technical Exchange."



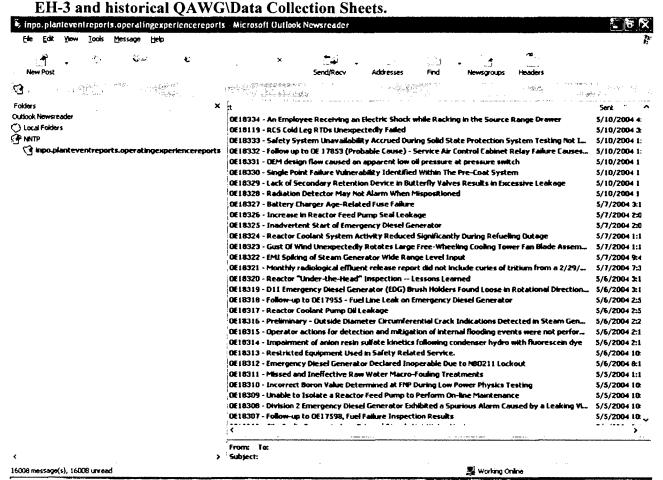
5. Select "Plant Event Reports" which are operating experience reports posted daily as they are reported by industry nuclear plants.



6. Select "Plant Events Reports: Operating Experience Reports"



7. Access individual reports of interest and download onto the "O" drive at O:\EH-3\QA



8. Logoff the INPO website.

#### 3.7 Sample Lines of Inquiry

The investigation should address the following lines of inquiry to determine if DOE facilities have procured and/or used <u>material/parts</u>, <u>components or equipment</u> supplied by <u>company name</u> or <u>company name</u> vendors and if so, what actions need to be taken.

- 1. Has site contractor(s) (including their subs) procured or used material/parts, components or equipment that may have been heat-treated, supplied or tested by *company name* after *date*?
- 2. Has site contractor(s) (including their subs) procured or used material/parts, components or equipment that may have been supplied or tested by <u>company name</u> from vendors/suppliers identified on the attached list (<u>Attach vendor list if applicable</u>), after <u>date</u>?
- 3. If material/parts, components or equipment heat-treated, supplied or tested by <u>company name</u> or <u>company name</u> vendors were procured, were they identified as nonconforming and either removed or technically justified for use?
- 4. If you discover that site contractor(s) (or subs) have or use material/parts, components or equipment, supplied or tested by <u>company name</u> or <u>company name</u> vendors:
  - a. Determine whether these material/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or significant system) or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
  - b. Collect and track information on procurement and use of <u>company name</u> material/parts, components or equipment for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later end up in safety applications.
- 5. Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other DOE sites.
- 6. Determine the cost associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost, etc.); total cost for travel (if any) and total cost for testing (if any). It is not necessary to submit backup documentation, but your respective sites should maintain it in case the costs are changed later.
- 7. Identify training provided by the DOE and the contractor in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

#### 3.8 Sample EH-1 Memorandum to PSOs

MEMORANDUM TO: RAYMOND ORBACH, SC-1

CARL MICHAEL SMITH, FE-1 WILLIAM MAGWOOD, NE-1

DAVID GARMAN, EE-1 MARGARET CHU, RW-1

FROM: BEVERLY A. COOK

ASSISTANT SECRETARY

ENVIRONMENT, SAFETY AND HEALTH

SUBJECT: Investigation of the Use of Improperly Heat Treated Aluminum

Supplied by Temperform USA

On February 14, 2003, the Defense Nuclear Facilities Safety Board (Board) sent a letter to the Secretary requesting a report "...that documents implementation of the complete set of actions required to verify that no aluminum parts heat-treated by Temperform USA are in use in safety-related or mission-sensitive applications." The potential implications of improperly heat-treated aluminum supplied by Temperform and in use within the Department goes beyond defense nuclear facilities. The Secretary's Office has assigned me as the lead for this issue and the purpose of this memorandum is to request your assistance in completing the investigation into the possible use of improperly heat-treated aluminum material/parts from Temperform.

Although the DOE Quality Assurance Working Group has collected a substantial amount of information, it is not clear that the investigation results were adequate and/or consistent. I request that you complete or verify that your investigation is complete based on the attached lines of inquiry (Attachment 1). This will help us determine in a consistent manner if the Department has procured and/or used heat-treated aluminum material/parts or equipment supplied by Temperform or Temperform vendors and if so, what actions need to be taken.

To support this effort, please provide a schedule by April 30, 2003, for completing your investigation to address the attached lines of inquiry. The Defense Criminal Investigative Service has given permission to release to Department contractors the affected part numbers and the identity of the companies that sent parts to Temperform. Attachment 2 is a list of the companies who had parts processed at Temperform and/or who approved Temperform as a vendor. The part number list is a 1,200 plus page document and can be provided, if needed.

Based on your input, we will prepare a report to document our findings. I have assigned Mr. Ray Hardwick as the senior manager in EH to coordinate both the response to the Temperform issue and to suggest a corporate process to ensure adequate disposition of future issues. I also request that you designate a senior manager from your organization to work with Mr. Hardwick on these issues.

# 3.8 Sample EH-1 Memorandum to PSOs (continued)

If you have any questions concerning this request, please call me or Mr. Hardwick at (202) 586-0307.

#### Attachments

cc:

R. Hardwick, EH-2

R. Milner, RW-1

M. Johnson, SC-1

G. Staffo, EE-3C

C. Zamuda, FE-7

R. Lange, NE-40

## 3.9 Sample Investigation Closeout Package

MEMORANDUM TO: GREGORY FRIEDMAN

INSPECTOR GENERAL, U.S. DEPARTMENT OF ENERGY

FROM: BEVERLY A. COOK

ASSISTANT SECRETARY

ENVIRONMENT, SAFETY AND HEALTH

SUBJECT: Results of Investigation of the Use of Improperly Heat Treated

Aluminum Supplied by Temperform USA

Over the past several months the Department has been investigating the use of improperly heat treated aluminum supplied by Temperform USA. The Secretary's Office assigned me as the lead for this issue and the purpose of this memorandum is to provide a consolidated report of the results of the investigations across the Department. The results of the investigations conducted at the Department's defense nuclear facilities have been forwarded to the Chairman of the Defense Nuclear Facilities Safety Board in response to concerns they expressed earlier in the year.

The attached report provides a summary of the results of the investigation, including the cost associated with conducting the investigation. While the investigation indicates that some of our sites did have procurements involving Temperform USA or its vendors, we have not identified any safety issues associated with the procurement or use of these parts and materials. The reported cost associated with this investigation is \$240,737.77.

Specific information related to individual site investigations may be obtained by contacting the responsible program office directly. If you would like assistance in doing this, or require additional information from my Office, please contact Mr. Frank Russo at (301) 903-8008.

cc:

E. Beckner, NA-10

J. Roberson, EM-1

R. Orbach, SC-1

W. Magwood, NE-1

C.M. Smith, FE-1

D. Garman, EE-1

M. Chu, RW-1

L. Otis, GC-1

# 3.9 Sample Investigation Closeout Package (continued)

- M. Whitaker, S-3.1
- R. Hardwick, EH-2
- F. Russo, EH-3
- J. Mangeno, NA-3.6
- X. Ascanio, NA-124
- S. Johnson, EM-5
- R. Milner, RW-1
- M. Johnson, SC-1
- G. Staffo, EE-3C
- C. Zamuda, FE-7
- R. Lange, NE-40
- B. Burdick, IG 221
- P. Gervas, GC-61
- F. Tooper, EH-32

# Report on Results of Temperform USA Investigation



Washington, D.C. 20585

November 5, 2003

#### U.S. Department of Energy - Report on Results of Temperform USA Investigation

#### Background

In June 2002 the Government-Industry Data Exchange Program (GIDEP) issued an Agency Action Notice regarding the improper heat treating of aluminum parts by Temperform USA. The notice indicated that Temperform USA allegedly provided false certifications of heat treating processes and quality inspections from 1998 to at least 2000 on numerous Department of Defense (DoD) programs. Although the notice was directed primarily at DoD, National Aeronautics and Space Administration (NASA), and commercial prime contractors involved with aviation and aeronautical programs, the notice did recommend that other organizations "... review all orders or procurements associated to aluminum alloy parts, (especially parts identified as "flight safety critical") for possible impact...."

In response to that GIDEP Notice, the DOE Quality Assurance Working Group (QAWG) sent an email to its members in July 2002 requesting information to determine if any weapons systems, support devices, or any other programs had parts or raw material that may have been heat treated, supplied, or tested by Temper-form USA. A follow-on email was sent to QAWG members in December 2002 to provide additional information and to clarify the request.

In February 2003 the Defense Nuclear Facilities Safety Board (Board) sent a letter to the Secretary of Energy indicating its concerns with the Department's progress in addressing the Temperform USA issue. The letter requested a report that documented the implementation of the complete set of actions required to verify that no aluminum parts heat treated by Temperform USA are in use in safety-related or mission-sensitive applications.

Although the QAWG had collected a substantial amount of information, it was not clear that the investigation results were adequate or consistent or that they would support an adequate response to the Board's request. On March 18, 2003, the Assistant Secretary for Environment, Safety and Health (EH) sent a memorandum to Environmental Management (EM) and the National Nuclear Security Administration (NNSA) requesting that they verify completion of their inquiries into possible use of items heat-treated by Temperform USA. On March 25, 2003, EH sent a memorandum to the other program offices also requesting that an investigation be conducted.

The EH memorandums included lines of inquiry that were used as a basis for conducting the investigations. The Defense Criminal Investigative Service gave the Department permission to release to Department contractors the affected part numbers and the identity of the companies that sent parts to Temperform USA. That list of the companies who had parts processed at Temperform USA or who approved Temperform USA as a vendor was included with the EH memorandums. The part number list (a 1,200 plus page document) was made available to the program offices to support their investigations. The EH memorandums and lines of inquiry are included as Attachment One.

All of the responsible program offices completed their investigations and submitted the results of their reviews to EH. The investigations identified some materials and parts procured from Temperform or vendors. However, the investigations confirmed that these materials/parts were not used in any safety-related or mission-sensitive application at any site. The total reported cost associated with this investigation is \$240,737.77.

In the case or EM and NNSA, a report was previously provided to the Board in response to their concern in this area. A summary of the conclusions provided in that report, as well as the results of the other program office investigations are provided below. Additionally, copies of the program office responses provided to EH are included as Attachment Two.

Investigation Results

Location	Temperform or Temperform Vendor?	Safety-Related or Mission Sensitive?	Disposition	Reported Investigative Cost
		National Nuclear Secur	ity Administration	
SSO/SNL	Yes	No	Action Completed – Records reviewed. Verified no safety system or mission sensitive application.	\$3,500.00 - SNL \$3,000.00 - SSO
PXSO/BWXT	Yes	No	Action Completed – Records reviewed. Verified no safety system or mission sensitive application.	\$7,5400.00 - BWXT \$713.00 - PXSO
SRSO/WSRC	No	Not Applicable	Not Applicable.	\$2,175.00 – WSRC \$2475.00 - SRSO
LASO/LANL	Yes	No	Action Completed – Records reviewed. Verified no safety system or mission sensitive application.	\$6,000.00 - LASO \$83,000.00 - LANL Parts replacement - \$17,000.00 - LANL
YSO/BWXT	No	Not Applicable	Not Applicable.	\$600.00 – YSO \$1220.00 – BWXT
LSO/LLNL	Yes	No	Action Completed – Records reviewed. Verified no safety system or mission sensitive application.	\$12,750.00 - LLNL \$4,000.00 - LSO
KCSO/ Honeywell	Yes	No	Action Completed – Records reviewed. Verified no safety system or mission sensitive application.	\$3,582.00 - Honeywell \$600.00 - KCSO
Nevada Test Site	Yes	No	Action Completed – Records reviewed. Verified no safety system or mission sensitive application.	\$2,500.00 – Bechtel \$3,000.00 – NSO
		Environmental N	Janagement	
Carlsbad Field Office	No	Not Applicable	Not Applicable	\$86.64
Idaho	No	Not Applicable	Not Applicable	\$4,860.00
Ohio	No	Not Applicable	Not Applicable	\$1,789.00

# U.S. Department of Energy - Report on Results of Temperform USA Investigation

Location	Temperform or Temperform Vendor?	Safety-Related or Mission Sensitive?	Disposition	Reported Investigative Cost
Oak Ridge	No	Not Applicable	Not Applicable	Insignificant
Office of River Protection	No	Not Applicable	Not Applicable	\$5,883.00
Rocky Flats	No	Not Applicable	Not Applicable	\$380.13
Richland	No	Not Applicable	Not Applicable	BHI - \$2,500.00 PNNL - \$3,650.00
Savannah River	No	Not Applicable	Not Applicable	\$750.00
		Office of S	cience	
AMES	No	Not Applicable	Not Applicable	\$4,000.00
ANL – E/W	No	Not Applicable	Not Applicable	\$4,000.00
BNL	Yes	Not Applicable	Items purchased were procured specifically for non-safety applications. These items were either subsequently discarded, manufactured prior to 1998, or used in assembly tables and tooling. Not deemed necessary to track.	\$23,000.00
FNAL	No	Not Applicable	Not Applicable	\$11,120.00
LBNL				\$10,000.00
ORNL	No	Not Applicable	Not Applicable	\$8,814.00
PNNL	No	Not Applicable	Not Applicable	\$3,650.00
PPPL	No	Not Applicable	Not Applicable	\$1,000.00
SLAC				\$1,600.00
TJNAF	No	Not Applicable	Not Applicable	Insignificant

# U.S. Department of Energy - Report on Results of Temperform USA Investigation

Location	Temperform or Temperform Vendor?	Safety-Related or Mission Sensitive?	Disposition	Reported Investigative Cost
		Energy Efficiency and Ren	ewable Energy	
NREL	No	Not Applicable	Not Applicable	Insignificant
	On	fice of Civilian Radioactive V	Vaste Management	
Yucca Mountain	No	Not Applicable	Not Applicable	Insignificant
Yucca Mountain	No	Not Applicable	Not Applicable	Insignificant
		Fossil Energy	,	•
All FE Field Sites	No	Not Applicable	Not Applicable	Insignificant

# **ATTACHMENT ONE**

# EH Investigation Request and Lines of Inquiry

# **ATTACHMENT TWO**

**Program Office Response Memorandums** 

# 3.10 Sample List of SME Contacts to Notify of Important Issues November 2003

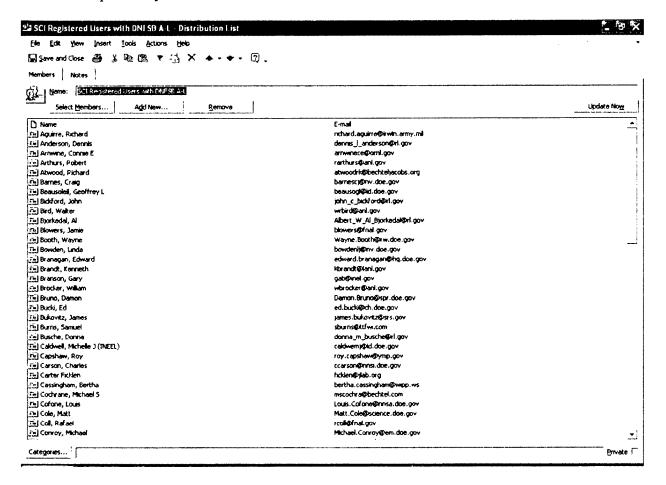
Anyone identifying names that should be changed are encouraged to provide the update information to Rick Green, EH-32 at 301-903-7709 <a href="rick.green@eh.doe.gov">rick.green@eh.doe.gov</a>, Tom Williams, EH-32 at 301-903-4859 <a href="tom.e.williams@eh.doe.gov">tom.e.williams@eh.doe.gov</a>, or Mark Petts, EH-32 at 301-903-2414 <a href="mark.petts@eh.doe.gov">mark.petts@eh.doe.gov</a>

- 1. DOE Office of **Aviation** Management, Robert Jenkins <u>robert.g.jenkins@hq.doe.gov</u>, James Combs <u>jcombs@doeal.gov</u>
- 2. Backup Power Working Group, John Fredlund, NNSA HQ John.Fredlund@nnsa.doe.gov
- 3. Chemical Safety Topical Committee, Gail Kleiner, Gail.kleiner@hq.doe.gov
- 4. Construction Safety, Pat Finn, pat.finn@eh.doe.gov
- 5. DOE Chief Information Officer, Brenda Coblentz, Brenda.coblentz@hq.doe.gov
- 6. Emergency Management SIG, Dorothy Manning, manningd@orau.gov
- 7. Energy Facility Contractors Group (includes maintaneance, SQA), Joe Yanek, joseph.yanek@srs.gov
- 8. Fire Protection Topical Committee, Jim Bisker, jim.bisker@eh.doe.gov
- 9. DOE Office of General Counsel, Paul Gervas, PAUL.GERVAS@hq.doe.gov
- 10. DOE Hoisting and Rigging Technical Advisory Committee, Pat Finn, pat.finn@eh.doe.gov
- 11. Industrial Hygiene/Occupational Safety SIG, Deborah McFalls, mcfallsd@orau.gov
- 12. DOE Office of Inspectors General, Brent Burdick, <u>BRENT.BURDICK@hq.doe.gov</u>
- 13. Packaging Management Council, Ashok Kapoor, DOE-AL, and Jim Johnston, LANL hmconslt@lanl.gov
- 14. Performance Based Management SIG, Paul Krumpe, paul.krumpe@dp.doe.gov
- 15. Procurement, Richard H. Hopf, ME-60 202-586-8613 Richard. Hopf@hq.doe.gov
- 16. Quality and Safety Management Special Interest Group (QSM-SIG) Katherine Brack <a href="mailto:kjbrack@pantex.com">kjbrack@pantex.com</a>, \*Bud Danielson <a href="mailto:bud.danielson@eh.doe.gov">bud.danielson@eh.doe.gov</a>, Denise Viator viatord@orau.gov
- 17. DOE **Radiation Control** Coordinating Committee, Maria Gavilras-Guinn <u>Gavrilas-guinn@em.doe.gov</u>, Joel Rabovsky, joel.rabovsky@hq.doe.gov
- 18. Safety Analysis Software Group, Dae Chung, Dae.chung@nnsa.doe.gov
- 19. Security, Ron Edge, SO-11, Program Manager 301-903-4247 Ronnie. Edge@hq.doe.gov
- 20. DOE Contractors **Supplier Quality Information** Group (SQIG), Steve Stein, steinl@bnl.gov
- 21. **Transportation** External Coordination Working Group, Judith Holm, Co-Chair jholm@doeal.gov
- 22. NNSA Weapons Quality Assurance, Joel Smith joel.smith@nnsa.doe.gov
- 23. Welding Topical Committee, William S. Harker harkerws@id.doe.gov

### 3.11 Sample S/CI or Defective Item Distribution List

This list is used to forward significant new S/C-DI information (e.g., alerts, training manuals) via e-mail to registered users of the S/C-DI website. The S/C-DI push mail distribution list is comprised of at least two separate alphabetized lists of registered S/C-DI website users and is available at

O:\QA EH-3 and historical QAWG\Contacts\ SCI Registered Users with DNFSB w-o most EH. This list is updated by EH-3 staff as additions and deletions are identified.



# 3.12 S/CI Annual Report Example

The S/CI annual report is available at <a href="http://www.eh.doe.gov/sci/">http://www.eh.doe.gov/sci/</a> under the title "Analysis and Trending of Suspect/Counterfeit Items at DOE Facilities."

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#### 3.13 S/CI Annual Report Example (continued)

#### **EXECUTIVE SUMMARY**

This report was prepared by the Office of Environment, Safety and Health (EH), to disseminate information regarding Department of Energy (DOE) suspect/counterfeit items (S/CI) and defective items. EH has assumed responsibility for activities associated with S/CI and defective items from the Department of Energy (DOE) Quality Assurance Working Group (QAWG). Within EH, the Office of Corporate Performance Assessment (EH-3) now routinely collects, screens, dispositions, and communicates information on S/CI and defective items that could potentially impact operations at DOE facilities.

This semiannual report updates the S/CI report issued in April 2003 by the QAWG, and includes data on S/CI events reported in the Occurrence Reporting and Processing System (ORPS) between January 1, 1991, and June 30, 2003. The report provides the DOE complex with general information, trends and analyses about S/CI and defective items and related quality assurance/procurement issues. As described in the report the following is a summary of the current S/CI and defective items:

- S/CI events reported during the first six months of 2003 (26) continue to be reported at a rate similar to 2002 (54).
- There were no injuries or near misses resulting from S/CI within the DOE complex.
- While the number of S/CI reports has decreased since the peak of 144 in 1994, the number of S/CI events reported has remained relatively constant (approximately 55 per year) since 2000.
- During the previous reporting period from January 1991 through December 2002, ORPS reports indicated that 92% of S/CI pertained to fasteners. During the current reporting period, 81% of the reported S/CI events pertain to fasteners.
- During the previous reporting period from January 1991 through December 2002, approximately 74% of all S/CI were found subsequent to installation. During the current reporting period, this improved to 65% for the reported S/CI events pertaining to installed items.

The Office of Independent Oversight and Performance Assurance (OA) conducted a special study of the Department's management of S/CI, including a recent issue regarding improperly heat-treated aluminum. The OA report indicates that some S/CI processes were effective at some DOE sites. However, there were weaknesses in the S/CI processes at DOE Headquarters and most sites in a number of important areas including timeliness and thoroughness in acting on S/CI.

The entire report is also accessible on the EH website at <a href="http://www.eh.doe.gov/sci/">http://www.eh.doe.gov/sci/</a>.