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Suspect/Counterfeit Items Program

Cognizant Department: Quality Assurance

Approved by: Jon Hoff

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1.0 INTRODUCTION [1, 2]

This program document defines the process for the prevention, detection and control of suspect/counterfeit items (S/CI) at the Waste Isolation Pilot Plant (WIPP). The objective of the S/CI program is to prevent the introduction and use of S/CIs through engineering involvement, design, procurement, testing, inspection, maintenance, evaluation, disposition, reporting, trend analysis, and lessons learned work process controls.

The program includes provisions for designated personnel to be informed of and trained on S/CI processes and controls, as applicable, including prevention, detection, inspection, and disposition of S/CIs. The program also works toward obtaining the most accurate, up-to-date information from all available sources on S/CIs and suppliers. Sources include but are not limited to:

- Government Industry Data Exchange Program
- Institute of Nuclear Power Operators
- Department of Energy (DOE) Occurrence Reporting and Processing System
- DOE S/CI website

S/CI controls are applied to safety and non-safety applications, as specified in this document. Safety applications are those whose failure could adversely affect the environment, safety, or health of the public or workers, including but not limited to safety-related systems, structures, and components, as defined in the WIPP Documented Safety Analysis for Contact-Handled and Remote-Handled facilities, and equipment, tools, and other supplies that provide protection for the user, such as mobile cranes, etc.

2.0 DEFINITIONS

A Counterfeit Item is one that has been copied or substituted without legal right or authority or whose material, performance, or characteristics have been misrepresented by the supplier or manufacturer. Items that do not conform to established requirements are not normally considered S/CIs if nonconformity results from one or more of the following conditions (which must be controlled by site procedures as nonconforming items):

(1) defects resulting from inadequate design or production quality control;
(2) damage during shipping, handling, or storage;
(3) improper installation;
(4) deterioration during service;
(5) degradation during removal;
(6) failure resulting from aging or misapplication; or
(7) other controllable causes.

An Electrical Component is any component in the generation, transmission, distribution, or consumption of electric power. Examples are circuit breakers, semi-conductors, current and potential transformers, fuses, resistors, switchgear, overload and protective relays, motor control centers, heaters, motor generator sets, DC power supplies, AC inverters, transmitters, and ground fault circuit interrupters.

Fastener means "a metallic screw, nut, bolt or stud having internal or external threads with a nominal diameter of 1/4 inch (6 millimeters) or greater, or a load indicating washer, that is through-hardened or represented as meeting a consensus standard that calls for through hardening and that is grade identification marked or represented as meeting a consensus standard that requires grade identification marking…" (Public Law-106-34, *Fastener Quality Act of 1999*)

Item is an all-inclusive term used in place of any of the following: appurtenance, assembly, component, equipment, material, module, part, structure, subassembly, subsystem, system, unit, or support systems.

Rework is the disposition process by which an item is made to conform to original requirements by completion or correction. ("Replace" is a rework function.)

A Suspect Item or part 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. A suspect item may or may not be nonconforming depending on the outcome of the investigation.

Use-as-is is a disposition permitted for a nonconforming item when it can be established that the item is satisfactory for its intended use and it remains in place.

3.0 PROGRAM

The purpose of the S/CI program is to properly identify, evaluate, and disposition S/CIs. Only those items that have been found acceptable through engineering analysis and formal disposition are retained for use.

The following work process controls, in conjunction with the use of best available S/CI information, are utilized to implement the program:

- Engineering involvement in the development of procurement specifications; during inspection and testing; and when replacing, maintaining, or modifying equipment.

- Procurement processes that prevent introduction of S/CIs by:

  - Identifying technical and Quality Assurance (QA) requirements in procurement specifications;

- Accepting only those items that comply with the procurement specifications, consensus standards, and commonly accepted industry practices; and

- Inspecting inventory and storage areas to identify, control, and disposition S/CIs.

- Inspection, identification, evaluation, and disposition of S/CIs installed in safety applications and other applications that create potential hazards.

- Engineering evaluations and disposition of S/CIs installed in safety applications/systems or in applications that create potential hazards. The evaluations consider potential risks to the public and worker and cost/benefit impact, and include a schedule for replacement (if required).

- Ensuring that S/CIs identified in safety and non-safety applications during routine maintenance and/or inspection are reported, evaluated, and dispositioned to prevent future use.

- Contacting the DOE Inspector General (IG) before destroying or disposing of S/CIs and their documentation.

- Testing procured or installed S/CIs as necessary using approved engineering test methods, when applicable.

- Reporting S/CIs in accordance with DOE O 231.1A, *Environment, Safety, and Health Reporting*, and DOE O 221.1, *Reporting Fraud, Waste, and Abuse to the Office of Inspector General.*

- Conducting trend analysis and issuing lessons learned reports for use in improving the S/CI program.

The objective of the program is preventing, detecting, and controlling suspect or counterfeit items in WIPP structures, systems, and components which might compromise safety by:

- Ensuring that items intended for use in safety systems comply with design/technical specifications and procurement documents.

- Maintaining current information on S/CIs and associated suppliers using all available sources within the government and industry, and disseminating relevant information on S/CIs accordingly.

- Training and Informing employees on S/CI prevention, detection, disposition, and availability of information.

- Identifying, controlling, and dispositioning S/CIs that could create potential hazards in safety systems and applications.

- Reporting discoveries of and disseminating information about S/CIs.

Two approaches are used in the identification and control of S/CIs. The first approach focuses on preventing introduction of S/CIs into the supply system through S/CI indoctrination, training, design/technical specifications, documentation, procurement controls, and information dissemination. The second approach focuses on detection, tracking, and applicable replacement of S/CIs present in existing plant systems and equipment through the receipt, maintenance, modification, and inspection processes.

3.1 Prevention

3.1.1 Training

NOTE

S/CI Indoctrination/Briefing sessions include information pertaining to prevention, detection, and disposition. Indoctrination/briefing material also includes how to find S/CI information and the S/CI log on the WIPPnet QA web page.

Responsible managers shall assure personnel who perform the following functions have either completed DOE and/or Management and Operating Contractor (MOC) S/CI training, **or** attended a WIPP "S/CI Indoctrination/Briefing" session(s), as applicable:

3.1.1.1 The disciplines and organizations represented below require DOE/MOC S/CI training:

- QA personnel who inspect for S/CIs

- Cognizant Engineers (CE) and alternates

3.1.1.2 The disciplines and organizations represented below should receive S/CI Indoctrination/Briefing based on the individual's assigned responsibilities:

- Maintenance personnel

- Facility Inspection personnel

- Procurement buyers, requisitioners, and credit card holders

- Material Control personnel involved in identification and segregation of potential S/CIs

3.1.2 Procurement

Technical and QA requirements shall be identified in the applicable procurement documents, as necessary.

Contracts should require that items be new unless specified otherwise. The rationale for acquiring used items shall be stated. Contracts should also contain clauses to identify the supplier or subcontractor's responsibilities regarding S/CIs. These clauses shall prohibit subcontractors from bringing S/CIs on site and hold them accountable for replacing S/CIs at their own expense.

Only those items which comply with contract specifications shall be accepted.

Individuals who purchase items by credit card shall receive S/CI training before making credit card purchases. Credit card holder or requisitioners are responsible for inspecting purchased items for S/CIs.

3.1.2.1 Receipt Inspections

QA shall perform receipt inspections on Quality Level 1 and 2 items and as requested (e.g., purchase order requirements), according to QA procedures.

The material control personnel shall check for S/CIs during routine receipt activities for all other parts, material, and equipment and immediately notify QA if any are found.

S/CIs identified during the receipt process shall be identified and held by QA as nonconforming items and shall not be returned to the supplier.

3.1.3 Design Documentation

CE(s) will develop technical specifications for procurement of facility items and determine critical characteristics that should be specified in the contract.

3.1.4 Information Dissemination

The Suspect Items Coordinator (SIC) will review all available sources to obtain the most accurate, up-to-date information on S/CIs that may have an effect on WIPP activities and equipment. Sources that may be used in this review include:

- Government Information Data Exchange Program (GIDEP)
- Nuclear industry journals and publications, including those available through the Institute of Nuclear Power Operations
- DOE S/CI web site
- Occurrence Reporting System (ORPS)

3.2 Detection

3.2.1 Planning and Scheduling

Planning and scheduling of S/CI inspections for WIPP systems, structures, equipment, parts, and material will be based on the guidelines contained in Attachment 1, Graded Approach Guidelines for Planning & Scheduling Suspect/ Counterfeit Items (S/CI) Inspections.

NOTE

QA participation in Condition Assessment Survey (CAS) Facility inspections will be based on safety impact or previously documented S/CI inspection results.

S/CI planning and scheduling will include:

- A review of the CAS program schedule to ensure the effective use of resources by combining inspection activities, when applicable.
- Computerized History and Maintenance Planning System (CHAMPS) derived worksheet (or equivalent) that identifies systems, structures and components (SSC) for the applicable WIPP facility or equipment to be inspected for S/CI.
- CHAMPS derived worksheet (or equivalent) that includes projected S/CI inspection dates for the applicable WIPP SSC.

3.2.2 Inspections

Conduct of a S/CI inspection will include the following:

- Use of a CHAMPS derived worksheet (or equivalent) that identifies Safety Significant (SS) and Safety Class (SC) equipment for the applicable facility or equipment to be inspected for S/CI
- Completion of a CHAMPS derived worksheet (or equivalent) that identifies S/CI Inspection results with references to Nonconformance Reports (NCRs) for the applicable equipment and associated facility
- Completion of a QA Inspection Report (EA13QA1006-1-0) for the applicable equipment and associated facility

- Facility schematics (or equivalent) that illustrate completed S/CI inspections based on WIPP functional classification(s):

  - SC
  - SS
  - Balance of Plant (BOP)

NOTE

S/CIs identified during normal maintenance and operations activities shall be reported and dispositioned in accordance with Sections 3.3 and 3.4 of this document.

3.3 Reporting

S/CIs shall be reported, documented, and dispositioned using the Nonconformance Reporting System as specified in WP 13-QA3004, Nonconformance Report. QA will complete Attachment 2, Suspect/Counterfeit Items Program QA Checklist, and it will become part of the NCR file.

NCRs containing S/CI issues shall be reported to the Facilities Shift Manager or designee for inclusion in the ORPS.

NCRs containing S/CI issues shall be reported to the DOE IG. Destruction of S/CIs shall occur after the IG has expressed no interest in retaining the items.

Results of S/CI inspections shall be entered into the web accessible S/CI database in a timely manner. The S/CI database is accessible at \\Gallina\SCI\sci_log.pdf (sorted by building number) or \\Gallina\SCI\sci_log_pn.pdf (sorted by part number), or from the QA home page on WIPPnet.

3.4 Disposition

S/CIs shall be evaluated and dispositioned by the CE using the NCR process as specified in 13-QA3004.

The engineering disposition of S/CIs will be limited to "use-as-is" or replace. The rigor of the CE's analysis justifying use-as-is dispositions shall be based on a graded approach of the part's suitability for the specific application in the specific system. Only those items that have been found acceptable through engineering analysis and formal disposition shall be use-as-is.

3.4.1 Use-as-is

3.4.1.1 S/CIs in designated safety systems or critical load paths

Engineering analysis justifying use-as-is for S/CIs installed in safety systems, critical load paths, or in applications that create potential hazards shall consider potential risks to the public, and worker, and the environment.

3.4.1.2 Use-as-is in other WIPP structures, systems, and components

Engineering disposition justification in non-safety systems shall confirm that the system is not a safety system, that there is no critical load path, and that continued use will not create a potential hazard to worker, public, or environment.

Use-as-is for electrical components is prohibited.

3.4.2 Replace

Engineering evaluations are not required for part replacements that meet or exceed original design requirements.

The CE shall provide a replacement schedule.

Removed S/CIs shall be identified and placed in QA hold until the IG indicates they have no use for them.

3.4.3 Marking

Installed S/CIs shall be identified and marked with fade-resistant, blue paint or permanent marker. S/CIs which are dispositioned to remain in place shall remain marked for identification to preclude reuse.

3.4.4 Disposal

S/CIs shall be destroyed or rendered completely useless by appropriate means. Documentation attesting to S/CI destruction shall identify the NCR number, number of S/CIs destroyed, be signed, and placed in the NCR file.

The IG shall have released parts or documentation prior to destruction.

4.0 ROLES AND RESPONSIBILITIES

4.1 Department Managers

Department Managers are responsible for ensuring the S/CI work process controls, in conjunction with the use of best available S/CI information, are utilized to implement the program through prevention, detection, and disposition of suspect/counterfeit items, as applicable.

4.2 Quality Assurance Department

The QA Manager is the WTS point of contact of the Suspect/Counterfeit Items Program. The QA manager shall designate a SIC to perform routine coordination of activities.

NOTE

Designated QA personnel will provide S/CI technical support as Subject Matter Experts (SMEs) and will assist other departments in matters involving S/CIs.

The SIC is responsible for:

- Completing Attachment 2
- Notifying the IG
- Evaluating and coordinating S/CI information dissemination, including lessons learned, with cognizant departments as required
- Preparing reports and trend analysis as required by management.
- Actively participating in GIDEP and maintaining GIDEP membership

Quality Assurance Inspection Services are responsible for performing receipt inspections, assisting with S/CI inspection, S/CI verification, and S/CI NCR preparation, as required.

4.3 Cognizant Engineers

CE will develop technical specifications for procurement of facility items and determine the critical characteristics of purchased items that should be specified on the purchase order.

CE shall approve all S/CI testing.

CE shall disposition S/CIs using the WIPP Site nonconformance reporting system.

4.4 Business Management

4.4.1 Procurement Services

Procurement personnel shall ensure appropriate QA requirements, engineering specifications, and S/CI clauses are incorporated in purchase orders to preclude the introduction of S/CIs.

Credit card holders shall not order fasteners on a credit card, except for non-grade fasteners as allowed per WP 15-PC3042.

4.4.2 Material Control

Material Control personnel are responsible for initial identification and segregation of potential S/CIs entering the site through procurement activities that are not subject to QA inspection.

Material Control personnel shall:

Contact QA Inspection Services when parts, material, or equipment that are potential S/CIs are received at the site.

Segregate potential S/CIs pending QA Inspection Services review.

5.0 RECORDS

The following records may be generated by the implementation of this program. They will be handled, stored and dispositioned in accordance with the responsible department's Records Inventory and Disposition Schedule:

- Attachment 2 - Suspect/Counterfeit Items Program QA Checklist

6.0 REFERENCES

DOE Order 414.1C, *Quality Assurance, Attachment 2, Section 4, DOE-Wide Suspect/Counterfeit Item Prevention Process*.

DOE G 414.1-3, *Suspect/Counterfeit Items Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1B, Quality Assurance*

NQA-1-1989 Edition, *Quality Assurance Program Requirements For Nuclear Facilities*

Public Law-106-34, *Fastener Quality Act of 1999*

WP 02-AR3001, Unreviewed Safety Question Determination

WP 09-CN3023, Functional Classification for Design

WP 13-1, Washington TRU Solutions LLC Quality Assurance Program Description

WP 13-QA3004, Nonconformance Report

EA13QA1006-1-0, Quality Assurance Inspection Report

Attachment 1 - Graded Approach Guidelines for Suspect/ Counterfeit Items (S/CI) Inspections

Table (1) shall be used to determine S/CI inspection scheduling priorities.

Table 1 -Classification and Scheduling Guide

CLASSIFICATION GUIDE	SCHEDULING GUIDE
Critical to Safety*	Category (A) - Top Priority
Important to Safety and Operations **	Category (B) - Priority
Limited or No impact to Safety or Operations***	Category (C) - Lowest Priority

* **Category A** - WIPP structures, systems and components (SSCs) are critical to safe operation based on WIPP SSC functional classification (e.g., Safety Class [SC], as determined by WP 09-CN3023, Functional Classification for Design, according to the provisions of the Contact-Handled (CH) or Remote-Handled (RH) Documented Safety Analysis [DSA]).

** **Category B** - WIPP structures, systems and components (SSCs) that demonstrate an importance to safety based on WIPP SSC functional classification (e.g., Safety Significant [SS] as determined by WP 09-CN3023, Functional Classification for Design, according to the provisions of the CH or RH Documented Safety Analysis [DSA]).

*** **Category C** - This category includes Balance-of-Plant (BOP) structures, systems and components (SSCs) not categorized above.

Attachment 2 - Suspect/Counterfeit Items Program QA Checklist

NCR Number: _____ QA Inspection Report No.: _____

Indicate actions taken

	Yes	No	Comments
Equipment locked out/tagged out or shut down? ----			
Items marked (blue) for identification? -----			
Hold tag placed? -----			
Occurrence Report Written? -----			
IG Notified? -----			
IG Response? -----			
Hold tag removed? -----			
Log Entry Made? -----			

S/CI REPLACED

Engineering justification (not required) -----			
WO for replacement -----			
QA Replacement Inspection -----			
Used Parts in QA hold? -----			
AR for Destruction -----			
WO for destruction -----			

USE-AS-IS

Engineering justification -----			
Critical load path equivalent -----			
Safety System -----			
Submitted for Unreviewed Safety Question			

Other Action Taken: _____

Print Name	Signature	Title	Date