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Suspect/Counterfeit Items Subject Area

Effective Date: Jul 20, 2016 ([Rev 2.15](#))
Periodic Review Due: **Jul 20, 2019**





What you may need



This information applies to the BNL Suspect/Counterfeit Items Coordinator, BNL Quality Representatives, and staff who maintain and/or inspect acquired items, items in storage/inventories, and installed components/assemblies.

Introduction

Suspect/Counterfeit items (S/CIs) are products represented as meeting specified requirements when, in fact, they do not. S/CIs have been a known problem to industry and the government since the early 1980s. This concern initially focused on fasteners, and over time has been expanded to include many items, both electrical and mechanical. A number of initiatives across the Department of Energy (DOE) complex have focused on searching for, identifying, and removing S/CIs. The DOE Inspector General has brought legal action against parties that have intentionally defrauded the DOE. However, these items continue to be a problem due to the many channels through which these items can enter a facility. These channels include the purchase of individual items, large assemblies, equipment installed by subcontractors, and equipment acquisitions through the DOE surplus equipment process that contain S/CIs.

S/CIs may pose immediate and potential threats to the safety of DOE and contractor workers, the public, and the environment. Failure of a safety or mission critical system due to an S/CI could also have security implications at DOE facilities. The most common S/CIs found at DOE facilities have been threaded fasteners fraudulently marked as high-strength bolts and refurbished electrical circuit breakers sold and distributed under false certifications. Falsified documentation has also misled purchasers into accepting S/CIs that do not conform to specified requirements. Forms of misrepresentation currently of concern are the following:

- Falsified product sources (counterfeits);
- Falsified (modified or counterfeit) product records;
- False marking as to class, type, or grade;
- False labeling as to qualification or acceptance by testing/certifying organizations;
- Used products misrepresented as new products.

The suitability of these items is unknown and their use could adversely affect the environment, safety, and health of the public or workers, or result in unintentional violations of DOE Orders.

This subject area contains the following sections:

1. [Detect Suspect/Counterfeit Item](#)
2. [Notify BNL S/CI Coordinator or Designee](#)
3. [Evaluate Suspect /Counterfeit Item](#)

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Contacts

SME: [James West](#), x8850

SBMS: x7267

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Training



Changes



Definitions



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4. [Retain Suspect/Counterfeit Item](#)
5. [Communicate Information on Suspect/Counterfeit Item](#)
6. [Disposition Suspect/Counterfeit Item](#)

Awareness training is available as a BNL web course on the [Training and Development](#) website. Select Suspect/Counterfeit Items Awareness Training (QA-SCI-3A). It is recommended that personnel involved with the maintenance and / or inspection of acquired items, items in storage/inventories, and installed components/assemblies take the Suspect/Counterfeit Items Awareness Training.

BNL personnel must be aware that some aspects of responsibilities associated with identification and/or reporting of SC/I may also fall under the purview of other SBMS-defined processes and is described in various subject areas for an abnormal event, identified issue, or nonconformance. Specific instructions for notifications and reporting for those aspects are contained in those SBMS documents, including the following:

- [Event/Issues Management](#) Subject Area
- [Inspections and Acceptance](#) Subject Area
- [Occurrence Reporting and Processing System \(ORPS\)](#) Subject Area

Standards of Performance

Managers shall respond promptly to staff concerns and take appropriate corrective actions.

Managers shall analyze work for hazards, authorize work to proceed, and ensure that work is performed within established controls.

All staff shall clearly and completely specify appropriate requirements for purchased goods and services consistent with project needs.

All staff and users shall identify, evaluate, and control hazards in order to ensure that work is conducted safely and in a manner that protects the environment and the public.

All staff and users shall ensure that they are trained and qualified to carry out their assigned responsibilities, and shall inform their supervisor if they are assigned to perform work for which they are not properly trained or qualified.

All staff and guests shall promptly report accidents, injuries, ES&H deficiencies, emergencies, and off- normal events in accordance with procedures.

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Detect Suspect/Counterfeit Item

- Staff members conducting inspections of acquired items, items in storage/inventories, and installed components/assemblies look for suspect/counterfeit items (S/CIs).

Note: The following resources may be useful for identifying S/CIs:

- [Suspect Indications List](#);
- [Suspect Bolt Head Marking Card](#);
- [Suspect Stainless Steel Fastener Headmark List](#);
- [Detecting Suspect/Counterfeit Items During Facility Inspections](#);
- [Inspections and Acceptance](#) Subject Area.
- Quality Management Office, [Suspect/Counterfeit Items \(S/CIs\)](#) Intranet Page
- Department of Energy [Suspect/Counterfeit and Defective Items](#) Web Page

- If S/CIs are detected, follow the procedure detailed in this subject area.

Guidelines

The identification of S/CIs should initially focus on safety systems and applications that could create potential hazards (i.e., safety systems or safety-related applications used to mitigate hazards identified in the [Work Planning and Control for Experiments and Operations](#) Subject Area.) Consult your [Quality Representative](#) or [ESH Coordinator](#) for additional guidance.

Routine maintenance cycles and/or inspection activities for non-safety systems and applications should include provisions for the identification of S/CIs.

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Notify BNL S/CI Coordinator or Designee

1. If an S/CI is found, the staff member contacts the BNL [Suspect/Counterfeit Items \(S/CI\) Coordinator](#) or designee to report the item.

Note: The following information is useful for reporting S/CIs:

- Name of person that identified the material as S/CI.
- Description of the material(s) that is considered to be S/CI.
- Location where the material was identified as S/CI.
- Date and time the material was identified as S/CI.
- Explanation as to why the material is considered to be an S/CI (e.g. reference to manufacturers specifications, applicable standards, etc.).
- Indication of how the material was identified as S/CI (e.g. during receiving inspection, Tier 1 inspection, Operational Readiness Evaluation (ORE)).
- Indication of whether the material was found to be S/CI prior to use or in use.
- Current location of the S/CI.

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No Incoming References

Evaluate Suspect / Counterfeit Item

1. The organization, [Suspect/Counterfeit Items \(S/CI\) Coordinator](#), or designee and/or representative of PPM evaluate the suspect/counterfeit item and investigate to determine the S/CI status [either (1) acceptable, (2) discrepant, or (3) confirmed as S/CI]. The manufacturer of the item may be contacted for information/documentation to support a determination.

Note: It may be helpful to compare the S/CI with known genuine items for physical, functional and/or chemical characteristics. Inspection and testing may be performed to facilitate the determination of the status of S/CI. Refer to the [Inspections and Acceptance](#) Subject Area for additional information.

Depending on the outcome of the evaluation, determine how to proceed:

2. **If the product is acceptable for use**, there is no additional action required.
3. **If the product is determined to be discrepant and not S/CI**, the item is handled as non-conforming material as per the [Event/Issues Management](#) Subject Area, section on [Identify, Classify, and Report a Nonconformance](#) and the organization completes the following report:

BNL Supplier Nonconformance Report (NCR) – If the discrepant item is found during incoming inspection or if required by the [Event/Issues Management](#) Subject Area, the organization completes an NCR using the [BNL Supplier Nonconformance \(BSNC\) Reporting & Tracking System](#), which automatically notifies the Procurement and Property Management Division Quality Representative via e-mail. The Procurement and Property Management Division determines if actions need to be taken against the vendor for procured items. No additional actions required for the S/CI subject area.

4. **If the product is determined to be S/CI** and if it is found in installed components/assemblies, the organization assures appropriate action is taken immediately to ensure that worker safety is not jeopardized (e.g., lock-out/tag-out equipment with the S/CI, or block access to the area if failure of the S/CI has a potential impact on the environment, safety, or health [ES&H]).

The organization notifies the Occurrence Categorizer within the time limits specified in the [Occurrence Reporting and Processing System \(ORPS\)](#) Subject Area, and the following reports are completed as required:

- Occurrence Reporting and Processing System (ORPS) Report. The Occurrence Categorizer determines if the identified S/CI meets the Occurrence Reporting and Processing System (ORPS) reportability criteria. If so, the Occurrence Categorizer assigns an ORPS Category and the organization initiates the report.
- BNL Supplier Nonconformance Report (NCR). If the S/CI is found during incoming inspection or if required by the Events and Issues Subject Area, the organization completes an NCR using the [BNL Supplier Nonconformance \(BSNC\) Reporting & Tracking System](#) (see [Event/Issues Management](#) Subject Area, section on [Identify, Classify, and Report a Nonconformance](#)), which automatically notifies the Procurement and Property Management

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Division Quality Representative via e-mail.

The Procurement and Property Management Division determines if actions need to be taken against the vendor for procured items.

Note: The S/CI Coordinator or a designee is available for assistance.

5. The S/CI Coordinator follows the section on "[Retain Suspect/Counterfeit Item](#)".

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Retain Suspect/Counterfeit Item

1. If S/CIs are found during receiving inspection or in storage/inventories, the S/CI Coordinator or designee works with members of the organization to ensure S/CIs are segregated to prevent use and retained.
2. If S/CIs are found in installed components/assemblies the S/CI Coordinator or designee contacts safety and quality personnel in the organization where the S/CI was detected. The safety and quality personnel perform and document an evaluation of the impact a failure of the S/CI would have on ES&H. Based on the results of this evaluation, the organization will take one of the following actions:
 - Remove S/CI Immediately – The organization arranges for the S/CI to be removed immediately. Take appropriate action to ensure that worker safety is not jeopardized (e.g., lockout/tag-out equipment, if the S/CI is in a safety related function).
 - Remove S/CI at Later Date - Schedule removal of S/CI at a later date, e.g., during the next maintenance cycle. Take appropriate action to ensure that worker safety is not jeopardized (e.g., lockout/tag-out equipment, if the S/CI is in a safety related function).
 - S/CI Can Remain in Place - Decide to leave S/CI in place. When this course of action is taken, the location of the S/CI is documented and appropriate records supporting the decision kept on file (e.g., engineering calculations, pictures, drawings, memos). Supporting records documenting the decision to leave S/CI in place are to undergo appropriate review and approval. Take appropriate action to ensure that worker safety is not jeopardized (e.g., lockout/tag-out equipment, if the S/CI is in a safety related function).
3. Forward any S/CI that is removed to the S/CI Coordinator. The S/CI Coordinator will retain the item until a disposition is determined.

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Communicate Information on Suspect/Counterfeit Item

If S/CI is found on site, the [Suspect/Counterfeit Items \(S/CI\) Coordinator](#) or designee:

1. Notifies the DOE Brookhaven Site Office (DOE-BHSO) and [Quality Representatives](#) (QReps), The DOE-BHSO is responsible for notifying the DOE Office of the Inspector General (OIG) and the responsible DOE Program Office.
2. Requests QReps take actions that are appropriate for their organizations to determine if the item is located in their area. For example, if the specific item of S/CI identified is known to be in stock, in use or installed, this item should be inspected to determine if it is, or contains, S/CI.
3. The QRep responds to the S/CI Coordinator or designee per instructions indicated in the request and, if the S/CI identified in the provided information is discovered, implements the section [Notify BNL SCI Coordinator or Designee](#).

If the [Suspect/Counterfeit Items \(S/CI\) Coordinator](#) or designee receives information on S/CI discovered within the DOE complex, the S/CI Coordinator or designee:

1. Communicates information, including supporting documentation, on S/CI discovered to the BNL Quality Representatives (QReps);
Note: Sources of information on the discovery of S/CI may include other DOE facilities, Lessons Learned, Technical Bulletins or from BNL personnel.
2. Requests QReps to take actions that are appropriate for their organizations to determine if the item is located in their area. For example, if the specific item of S/CI identified is known to be in stock, in use or installed, this item should be inspected to determine if it is, or contains S/CI.
3. The QRep responds to the S/CI Coordinator or designee per instructions indicated in the request and, if the S/CI identified in the provided information is discovered, implements the section [Notify BNL SCI Coordinator or Designee](#).

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Disposition Suspect/Counterfeit Item

1. The [Suspect/Counterfeit Items \(S/CI\) Coordinator](#) or designee coordinates with appropriate personnel in the organization to assure that S/CIs are rendered unusable and disposed of in an appropriate manner.

Note: S/CIs may need to be retained in the event of litigation as determined by the DOE Office of Inspector General (OIG). Release of these S/CIs by the OIG is communicated to BNL by the DOE-BHSO.

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Detecting Suspect/Counterfeit Items During Facility Inspections

General

The following is intended to provide those involved in facility inspections sufficient guidelines to identify the most commonly discovered Suspect/Counterfeit Items (S/CIs). It is not intended to be an all inclusive description of the subject matter. Further reference information on typical S/CI markings or indicators can be found in the Suspect/Counterfeit Items subject area, in the Exhibits section.

Reporting

Report any discovered S/CI to the BNL S/CI Coordinator.

New Construction

The following applies to new construction or renovated/modified areas or systems. If S/CI are discovered, follow the Suspect/Counterfeit Items subject area.

1) Fasteners

Focus on visible and accessible fasteners. Grade 5 and 8 high strength fasteners are the primary items of concern. However, certain stainless steel fasteners have also been identified as suspect (see the Suspect/Counterfeit Items subject area). Concentrate on safety related applications, e.g., high pressure systems, equipment or structures supporting heavy loads, critical load paths of cranes and lifting devices, etc.

- Active assembly / construction areas: If suspect grade fasteners are used, check fastener stock or local "on-site" sources of supply. Ensure that no suspect grade fasteners are used (see the Suspect Bolt Head Marking Card).
- Local stock areas:
 - If suspect fasteners are found in stock, check assembly / construction areas for suspect fasteners.
 - If suspect fasteners are found installed, a more detailed inspection on the remainder of assembly / construction areas, systems, or buildings may be necessary.

2) Strut Material

- Are they marked to identify the manufacturer (symbol or name) and part designation? These are typical markings for this material.
- If they are not marked, consider them suspect until documentation can be reviewed to verify manufacturer and part designation.
- Is the "same" part received both marked and unmarked? A change in a "typical" condition can be indication of counterfeit parts; i.e., if the part is normally marked, but is now received unmarked; normal packaging has changed.

3) Circuit Breakers Uninstalled

- Check stock or the local supply. Breakers should be:
 - Individually packaged.
 - Have clear and sharp markings and no obvious signs of previous use.
 - If S/CIs are found in stock, segregate questionable material. Consider inspecting installed breakers.

- Installed Breakers - check breaker handles.
 - Handles should have typical embossed markings (manufacturer's symbol or rating).
 - If the handle shows signs of tampering, consider the part suspect. Lock-out/Tag-out questionable material. Consult the BNL S/CI Coordinator to confirm. Consider inspecting other locations of installed breakers.

4) Structural Steel

- Fasteners holding steel members together are high strength fasteners. They should be checked against the Suspect Bolt Head Marking Card.

5) Piping Components

Focus on safety related systems, e.g., high pressure systems.

- Piping fittings should have clear and sharp manufacturer markings. They should not have any over-stamped or altered markings.
 - Purchasing clauses may require that they be made in the U.S.; check for foreign markings.
 - Purchase orders or specifications may require Certified Material Test Reports (CMTR) for materials ordered. If so, these should be provided by the supplier and kept on file.
- Flanges typically have identification markings on the outer circumference, including:
 - Manufacturer's name or symbol
 - Pressure rating
 - Size
 - Standard or Code that it complies with
 - Heat number
- Valves / Fittings / Couplings
 - Clear manufacturer's markings
 - No over-stamping or altering of markings
 - Check fasteners against the Suspect Bolt Head Marking Card
- Pressure switches
 - Clear manufacturer markings
 - Normally individually packaged
 - Normally calibrated (check the purchase order)

6) Miscellaneous

- Fire Extinguishers
 - Proper labeling and appropriate markings
- Assemblies – Mechanical assemblies received as one unit
 - Check the fasteners
 - Flanges
 - Breakers

Old Construction

The following applies to parts of a facility that has had no renovations or modifications to systems. See the New Construction section above for guidelines applying to modified or renovated areas. If S/CIs are discovered, follow the Suspect/Counterfeit Items subject area.

1) Fasteners

Focus on visible and accessible fasteners. Grade 5 and 8 high strength fasteners are the primary items of concern. Concentrate on safety related applications, e.g., high pressure systems, equipment or structures supporting heavy loads, critical load paths of cranes and lifting devices, etc.

- If suspect fasteners are found in stock, check assembly / construction areas for suspect fasteners.
- If suspect fasteners are found installed, a more detailed inspection on the remainder of systems of the building may be necessary.

2) Structural Steel

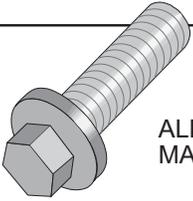
- Fasteners holding steel members together are high strength fasteners. They should be checked against the Suspect Bolt Head Marking Card.

3) High Pressure Systems

- Flanges typically have identification markings on the outer circumference, including:
 - Manufacturer's name or symbol
 - Pressure rating
 - Size
 - Standard or Code that it complies with
 - Heat number
- Valves / Fittings / Couplings
 - Clear manufacturer's markings
 - No over-stamped or altered markings
 - Check fasteners against the Suspect Bolt Head Marking Card.

SUSPECT/COUNTERFEIT PART

HEADMARK LIST



ALL GRADE 5 AND GRADE 8 FASTENERS OF FOREIGN ORIGIN WHICH DO NOT BEAR ANY MANUFACTURERS' HEADMARKS



Grade 5



Grade 8

GRADE 5 FASTENERS WITH THE FOLLOWING MANUFACTURERS' HEADMARKS:



MARK
J



MARK
KS

GRADE 8 FASTENERS WITH THE FOLLOWING MANUFACTURERS' HEADMARKS:



MARK
A



MARK
KS



NF



RT



H



FM



M



KY



MS



J



Hollow
Triangle

(CA TW JP YU) (Greater than 1/2 inch dia)



E



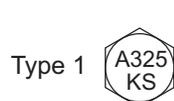
UNY

GRADE 8.2 FASTENERS WITH THE FOLLOWING HEADMARKS:



MARK
KS

GRADE A325 FASTENERS WITH THE FOLLOWING HEADMARKS:



Headmarkings are usually raised – sometimes indented.

KEY: CA-Canada, JP-Japan, TW-Taiwan, YU-Yugoslavia

ANY BOLT ON THIS LIST SHOULD BE TREATED AS DEFECTIVE.

Suspect Indications List

Note: Updated information appears in *bold and italics*.

Components with the following indications are considered suspect:

I. PIPING AND PIPING COMPONENTS (INCLUDING MECHANICAL AND METAL PRODUCTS)

A. General Indications

- Used component appearance
- Unusual or inadequate packaging
- Foreign newspapers used as packaging
- Scratches on component outer surface
- Evidence of tampering
- Components with no markings
- Pitting or corrosion
- External weld or heat indications
- Questionable or meaningless numbers
- Typed labels
- Evidence of hand-made parts
- Painted stainless steel
- Ferrous metals that are clean and bright
- Excess wire brushing or painting
- Ground-off casting marks with stamped marks in the vicinity
- Ground-off logo mark
- Singes of weld repairs
- Threads showing evidence of wear or dressing
- Inconsistency between labels
- Old or worn nameplates
- Nameplates that look newer than the component
- Missing manufacturers standard markings and logos
- Overlapping stamps
- Different colors of the same part
- Traces of Prussian Blue
- No specification number
- No size designation

- Missing pressure class rating
- Other missing designations per the specification
- Evidence of re-stamping
- Deficient welds on chemical/nuclear shipping casks
- Thinner than expected
- Parts identified as “China” only, or “Korea,” “Mexico,” “Thailand,” “India”
- ***Excess certification logos (i.e., “UL,” “FM,” “CGA.” “AGA” all on one valve body is not normal, usually will have one or two logos plus ANSI or ASME.)***

B. General Valve Indications:

- Wrench marks on valve packing glands, nuts, and bolts
- Nameplates attached with screws rather than rivets
- Poor fit between assembled valve parts
- Dirty internals
- Scratched or marred fasteners or packing glands
- Gate valve: gate off-center when viewed through open end
- Fresh sand-blasted appearance of valve bodies, eye bolts fittings, stems
- Loose or missing fasteners
- Different types of hand wheels on valves of the same manufacturer
- Some parts (e.g., hand wheels) look newer than rest of the valve
- Improper materials (e.g., bronze nut on a stainless stem)
- Post-manufacturing alteration to identification/rating markings
- Indication of Previous Joint Welding
- ***Excessive standards markings (e.g. UL, FM, CGA, AGA) (may need to check with manufacturer literature for what standards they use.)***
- ***Valves will not open or close, even when wrench applied.***
- ***Substandard valves mixed in with standard valves (substitution).***

C. Specific Valve Indication: Valves produced by the following manufacturers generally have the following features and are considered suspect if they are missing these features:

Crane Valves:

- Body cast or forged markings
- Crane name
- Pressure rating
- Pattern number
- Nameplate Information:
 - Made from stainless steel (silver color) with black lettering
 - Attached by drive screws OR attached on valve stem underneath handle. Valve size pressure class, operating pressure at temperature
 - Body material
- Seat material on valve body and valve seat
- Stem trim material and heat treat conditions

- Certification data Military specification, if applicable
- Drawing number Shop Order Number (SO#)
- Body cast or forged markings including the name “Crane”
- Valve class
- Valve size
- Grade of steel
- Melt number

Powell Valves (Wm. Powell Co.):

- Body cast or forged markings including the name “Powell”
- Valve class
- Valve size
- Grade of steel
- Melt number
- Nameplate Information:
 - Riveted to valve body OR attached to valve stem underneath handle
 - Attached with single end welded wire (small valves)
 - Serial number
 - Valve size
 - Figure number
 - Body style
 - Valve stem, disc, and seat type
 - Strength at temperature
 - Strength at 100F
 - The WM. Powell Co. Cin., Oh. Made in U. S. A.

Vogt, Henry Machine Co., Inc.:

- Body cast or forged markings:
 - The name “Vogt”
 - Pressure rating
 - Pattern number
 - Size
 - Material specification
 - Two code ID – 3 – letter code and a 4-digit code
- Nameplate Information
 - Made from aluminum with electro-chemical etched lettering
 - Attached on valve stem underneath handle
 - Valve size
 - Pressure class, operating pressure at temperature
 - Body material
 - Internal seat material or internal H.F.
 - Stem trim material
 - Specification number Drawing Number
 - Pressure rating

Walworth Valves:

- Body Cast or forged markings
 - The name “Walworth”
 - Pressure class
 - Size
 - Heat code
 - Serial number (stamped)
- Nameplate information
 - Made from aluminum
 - Attached by drive screws
 - Attached to cover at times
 - Valve size
 - Pressure class and operating pressure at temperature’
 - Body material
 - Internal seat material or H.F.
 - Stem trim material and heat treat conditions
 - Figure number
 - Serial number
 - Location of Manufacture
 - Item code number

Masoneilian—Dresser Valves:

- Masoneilian or Worthington Controls stamped on nameplate
- MD or Masoneilian on valve body

II. ELECTRICAL COMPONENTS

A. General Indications:

- Screwdriver marks on terminals
- Different screw types or materials on terminals
- Handwritten or typed rather than stamped tags
- Missing tags (usually UL approval tag)
- Pitted or worn contacts and lugs
- Not in manufacturer’s box or container
- Signs of paint or smoke
- Insufficient nameplate information
- Missing terminals
- Screws used in place of rivets
- Body worn or discolored
- Rough metal edges
- Scratched or marred surfaces
- Metal color inconsistencies
- Modified or re-stamped nameplates

- Improper fastening of nameplates
- Plastic parts of different colors
- Discolored or faded manufacturer's labels
- Past due calibration stickers (internal and external)
- Broken or damaged solder terminations
- Broken or damaged termination lugs
- Contact surfaces that do not mate properly
- Lubrication that appears to be old
- Shipping in plain packaging (no manufacturer bar code)
- *Used or damaged parts in new packaging*

B. Specific Indications:

Molded Case Circuit Breakers:

- Handle modified to change ampere rating
- Style is no longer manufactured
- Unusual packaging: bulk packaging, generic packages, and cheap appearance
- Refurbisher's name on breaker
- Broken seal between halves
- Contradicting amperage ratings

Fuses:

- Label missing or weathered
- Wear marks on bases

Power (Draw out) Circuit Breakers:

- Different color or shape of over current devices
- Suspicious-looking auxiliary trip devices

Motor Starters:

- Poor fitting or wrong voltage rated operating coil

Motor Control Centers:

- Breakers that are not easily opened or closed with compartment door closed
- Exposed buss work with compartment doors open

Electro-mechanical Relays:

- Poor or loose fitting relays

Potter-Brumfield Relay:

- Sloppy coil lead solder joints
- Painted relay base grommets (normally clean)
- Terminal strips fastened with eyelets
- Painted rivets fastening the terminal strip to the relay housing
- Termination screws in brown paper bags (should be in clear, heat-sealed plastic bags)
- Use of bubble wrap (plastic with Styrofoam should be used)
- Repainted inner bell surface
- Missing or inconsistent date codes, inspection stamp, and test stamp
- Incorrect shaft relay cover clearance, shaft play, and lack of bearing lubricant
- Tops of rotor shafts painted a color other than black
- Non-uniform numbers stamped on the contact decks, indicating decks made up from various relays
- Incorrect coil (i.e., 125 VDC relay with 200 VDC coil)

Capacitors:

- Polished surfaces scratched or dented
- Termination lugs scarred
- Buildup of debris and dirt in termination guards
- Plain packaging (no manufacturer bar codes)

III. FASTENERS

A. General Indications:

- No manufacturer's or grade mark (unless certified to a specification not requiring marking)
- Evidence of machining marks
- Poor thread form, evidence of wear, or dressing
- Head marks shown on the Suspect Fastener Head Mark List
- Foreign manufacturer not meeting Public Law 101-592
- No markings for nuts or washers packaged with labels indicating that they were manufactured to a code or MIL-SPEC which requires marking
- Head markings are marred, missing, or appear to have been altered
- Head markings are inconsistent with a hear/lot
- Double stamping
- Metric and SAE Stamping
- ***Head marks with raised marks and depressed marks on same bolt (not normal manufacturing process)***

IV. DOCUMENTATION AND CERTIFICATION:

A. General Indications:

- Use of correction fluid or correction tape
- Type style or pitch change is evident
- Documentation has missing (or illegible) signature, initial, or data
- Document is excessively faded or unclear
- Inconsistent technical data
- Certification or test results are identical between items when normal variations should be expected
- Document is not traceable to the items procured
- Technical data are inconsistent with code or standard requirements
- Documentation is not delivered as required on the purchase order, or in an unusual format
- Lines on forms are bent, broken, or interrupted indicating that data have been deleted or exchanged by “cut and paste”
- Handwritten entries are on the same document where typed or pre-printed data exist
- Data on a single line are located at different heights
- Product recall
- ***Chemical alloy composition totals 100% (or >99.75%) as shown on Certified Material Test Report (CMTR)***
- ***Heat and lot numbers are same for different materials in same order (i.e. 6010 and 7018 weld wire can not be manufactured from same heat and lot of material.)***

V. STAINLESS STEEL WIRE ROPE:

A. General Indications:

- No or incomplete documentation
- ***Noticeable alteration of documentation***

VI. LIFTING MATERIALS

A. General Indications:

- ***Original markings ground off and re-stamped***
- ***Altered markings on identification tags***
- ***Used appearance of items (i.e., straps appear worn or hooks have indications of previous use)***
- ***Parts identified as “China” only, or “Korea,” “Mexico,” “Thailand,” “India” with no manufacturer markings or identifications.***

- *No or incomplete documentation*
- *Red hooks not labeled with Crosby Group markings (“Crosby” or “CG”) Crosby has “The Crosby Red Carbon Steel Hook U.S.A. Trademark, Registration #2,108,103.*

The following information was reproduced from a Safety Engineering New Bulletin issued by Sandia National Laboratory, Albuquerque, New Mexico. Contact person for this information is Betty Fleming, SNL.

- *DOE-STD-1099-99, 15.1 Shackles states: Shackles shall meet or exceed the requirements of Federal standard RR-C-271D. Each shackle body shall be permanently and legibly marked in raised or stamped letters on the side of the bow and shall be used to show:*
 - *Manufacturer’s name or trademark*
 - *Size*
 - *Safe Working Load (or Working Load Limit)*
- *ASTM B30.10 Hooks, for importing requires that the manufacturer’s identification be forged, cast or die-stamped on a low stress or non-wearing area of the hook*

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★ **Suspect/Counterfeit Items** Subject Area
 Effective Date: Jul 20, 2016 ([Rev 2.15](#))
 Periodic Review Due: **Jul 20, 2019**




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Suspect Stainless Steel Fastener Headmark List

Effective Date: **Jul 20, 2016**

[Where to next](#) 

Contacts 
 SME: [James West](#), x8850
 SBMS: x7267

- Requirements 
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- Changes 
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- Add Keywords 

7/19/09



HELP STAMP OUT SUSPECTS/COUNTERFEITS

Suspect Stainless Steel Fastener Headmark List

Examples of stainless steel fasteners that have been upgraded from 18-8 to ASTM A320 or ASTM A193 Grade B8 after hand stamping. The last three examples show samples of fasteners to indicate conformance to two non-compatible standards, ASTM A193 and ASTM F 593C.

Any bolt on this list should be treated as defective without further testing and process in accordance with HNF-PRO-301. Note: This list was originally Published by DOE /EH-0196, Issue No. 97-6

If any of these fasteners are located, contact your facility S/CI Point of Contact (POC) for instructions. The POC list is on the Hanford Intranet at: <http://docs.ri.gov/han.info/hlansci/hlansci.doc>. Scroll to the end of the document for the list.

	Surrounding White Color Illustrates Head Markings Before Hand Stamping
	Surrounding Black Color Illustrates Head Markings After Hand Stamping
S u s p e c t	



H06030212.1

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Reporting Obligations

None

External/Internal Requirements

BNL has to abide by all applicable Prime Contract clauses, DOE directives, industry standards, as well as Federal, state, and local laws. BNL develops its policies and procedures based on an evaluation of these external requirements. This Subject Area implements the following requirements:

Requirement Number	Requirement Title
10 CFR 830, Subpart A	Energy, Nuclear Safety Management, Quality Assurance Requirements
ISO 14001	International Organization for Standardization - Environmental Management System
O 210.2A (Apr 8, 2011)	DOE Corporate Operating Experience Program
O 221.1A	Reporting Fraud, Waste and Abuse to the Office of Inspector General
O 227.1A (Dec 21, 2015)	Independent Oversight Program
O 232.2 Admin Chg 1 (March 12, 2014)	Occurrence Reporting and Processing of Operations Information
O 414.1D Admin Chg 1 (May 8, 2013)	Quality Assurance
O 460.1C (May 14, 2010)	Packaging and Transportation Safety
OHSAS 18001	Occupational Health and Safety Management Specifications

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Training

Awareness training is available as a BNL web course on the [Training and Development](#) website. Select Suspect/Counterfeit Items Awareness Training (QA-SCI-3A). It is recommended that personnel involved with the maintenance and / or inspection of acquired items, items in storage/inventories, and installed components/assemblies take the Suspect/Counterfeit Items Awareness Training.

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Definitions

Term	Definition
acquired items	Includes the following items: <ul style="list-style-type: none"> • Surplus items; • Purchased items; • Items for research that may have been brought to BNL by scientists or guests.
counterfeit items	Parts made of inferior materials and/or that are incorrectly processed, and intentionally marked or labeled to indicate that they comply with appropriate design/technical criteria.
Defective Item	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, and testing requirements.
safety related application/ safety systems	A DOE nuclear and non-nuclear facility structure, system, or component whose preventive or mitigative function is a major contributor to defense-in-depth (i.e., prevention of uncontrolled material release) or worker safety as determined from hazard analysis. Also, a DOE structure, system, or component, including a primary environmental monitor or a portion of a process system, whose failure could adversely affect the environment, safety, or health of the public or workers.
suspect item	A component or assembly of questionable manufacture and/or origin, i.e., known to have been previously counterfeited, or having sufficient physical attributes to raise questions as to its acceptability. These include mechanical components (e.g., fasteners, bolts, studs, fittings, valves, flanges, and couplings), and electrical / electronic components (e.g., semiconductors and circuit breakers).

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