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<i>Title:</i>	Suspect/Counterfeit Items Information Guide for Subcontractors/Suppliers
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<i>Intended for:</i>	Suppliers, vendors, sellers, contractors, and subcontractors intending to provide items or services to Los Alamos National Laboratory



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Form 836 (7/06)

Counterfeiting is not a victimless crime

“It is a distressing but undeniable fact that there are unscrupulous vendors throughout the world that distribute defective products. There are also many instances where legitimate vendors unknowingly distribute items that do not conform to specifications because of deficiencies in design or manufacturing. These S/CI and non-conforming items could break or fail in a way that could injure our workers or cause a safety system to fail.”
The Deputy Secretary, *Independent Oversight Special Study of The Department of Energy’s Management of Suspect/Counterfeit Items*, August 2003.

“The link between organized crime groups and counterfeit goods is well established. But Interpol is sounding the alarm that intellectual property crime is becoming the preferred method of funding for a number of terrorist groups. There are enough examples now of the funding of terrorist groups in this way for us to worry about the threat to public safety. We must take preventative measures now.” *The links between intellectual property crime and terrorist financing*. Secretary General of Interpol, Ronald K. Noble, speaking before the U.S. House Committee on International Relations, July 16, 2003.

Disclaimer

This booklet provides information on individual components identified as suspect or suspect/counterfeit. Without additional information, the manufacturers or suppliers identified should not be considered as to have engaged in any wrongdoing. It is not necessarily a negative reflection on a supplier or manufacturer if their products are reported as suspect/counterfeit items (S/CI). Reputable manufacturers and suppliers have a vital interest in preventing the manufacture and distribution of S/CI associated with their names. The supplier or manufacturer may have been victimized and is pursuing S/CI associated with its products in an aggressive, prudent, and professional manner to get these items off the market. Therefore, each particular case must be examined on its own merit without making premature conclusions about the fault or culpability of the manufacturer or supplier whose name is associated with the S/CI.

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Comments or questions: Contact Ken Brandt, (505) 665-6377; Email – kbrandt@lanl.gov

INTRODUCTION

Counterfeiting – Simply, if a product can be manufactured, it can also be counterfeited.

Counterfeiting of industrial and commercial grade items is an international problem that places worker safety, program objectives, expensive equipment, and security at risk. In order to prevent the introduction of Suspect/Counterfeit Items (S/CI), this information sheet is being made available as a guide to assist in the implementation of S/CI awareness and controls, in conjunction with subcontractor's/supplier's quality assurance programs.

When it comes to counterfeit goods, including industrial materials, items, and equipment, no market is immune. Some manufacturers have been known to misrepresent their products and intentionally use inferior materials and processes to manufacture substandard items, whose properties can significantly vary from established standards and specifications. These substandard items termed by the Department of Energy (DOE) as S/CI, pose immediate and potential threats to the safety of DOE and contractor workers, the public, and the environment. Failure of certain systems and processes caused by an S/CI could also have national security implications at Los Alamos National Laboratory (LANL).

Nuclear Safety Rules (federal laws), DOE Orders, and other regulations set forth requirements for DOE contractors to implement effective controls to assure that items and services meet specified requirements. This includes techniques to implement and strengthen existing effective controls in the procurement and receipt inspection processes, thereby minimizing the potential threat of entry of S/CI to LANL.

As a qualified supplier of goods or services to the LANL, your company will be required to establish and maintain effective controls to prevent the introduction of S/CI to LANL. This will require that your company warrant that all items (including their subassemblies, components, and parts) sold to LANL are genuine (i.e., not counterfeit), new, and unused, and conform to the requirements of the LANL purchase orders/contracts unless otherwise approved in writing to the Los Alamos National Security (LANS) contract administrator/procurement specialist. See Attachment 1, *S/CI Quality Clause*, for further contractual information on S/CI requirements.

GENERAL INFORMATION

Suspect/Counterfeit Item

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. 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.

“Knockoff” parts are a growing concern in industry; they are inferior to design and reliability. Knockoffs are similar to counterfeit parts, but evade the patent and trademark laws by avoiding actual manufacturer / brand names. They are reverse-engineered to look like the OEM products; often labeled/marked with OEM part numbers, and the packaging is almost identical to the OEM design. For the purpose of this guide, knockoffs will be categorized as S/CI.

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:

- Defects resulting from inadequate design or production quality control;
- Damage resulting during shipment, handling, or storage;
- Improper installation;
- Deterioration during service;
- Degradation during removal;
- Failure resulting from aging or misapplication; or
- Other controllable causes.

ITEMS PRONE TO BE COUNTERFEITED

Items prone to be counterfeited:

- Moderate - or low-cost, high-demand / high turnover use items;
- Items easily copied by secondary market suppliers;
- Items that often bypass the vendor (seller or manufacturer) and are drop shipped to the requestor;
- Items that are not typically inspected; and
- Items that are sold by un-authorized distributors.

Typical S/C items are:

- Used, rebuilt, or reconditioned items sold as new;
- Fraudulently marked or labeled as being manufactured by a recognized reputable company, or certified by a regulatory or certifying agency; and
- Manufactured with misrepresented inferior materials or processes that create a potential for failure and exposure to hazards.

Industrial types of items, materials, parts, and components that have been counterfeited include, but not limited to:

- Hoists, as well as other hoisting, lifting, and rigging equipment;
- Electronic components, including capacitors and semiconductors;
- Valves, pipe, pipe fittings, and flanges;
- Fasteners, i.e., bolts, nuts, and washers¹;

¹ Fastener: Metallic screw, nut, bolt, or stud having internal or external threads with a nominal diameter of 1/4 inch (6 mm) or greater - or a 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.

- Electrical equipment and devices, including circuit breakers, connectors, and motors;
- Metal plates, bars, shapes, channel members, and other structural items; and
- Welding rods and electrodes.

The listing of commercial grade items that have been counterfeited is extensive.

Following is a partial listing:

- Batteries: household, camera, and cell-phone;
- Extension cords;
- Surge suppressors;
- Fire extinguishers;
- Automotive components, including oil filters and brake pads; and
- Computer software.

ENCLOSURES

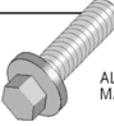
- (1) S/C Bolt Headmark List
- (2) Suspect Item Indicator List
- (3) S/CI Examples

ATTACHMENT

- (1) S/CI Quality Clause

Enclosure 1
S/C Bolt Headmark List

Suspect / Counterfeit Bolt Headmark List



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

	Grade 5		Grade 8
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GRADE 5 FASTENERS WITH THE FOLLOWING MANUFACTURERS' HEADMARKS:

	MARK J	MANUFACTURER Jinn Her (TW)		MARK KS	MANUFACTURER Kosaka Kogyo (JP)
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GRADE 8 FASTENERS WITH THE FOLLOWING MANUFACTURERS' HEADMARKS:

	MARK A	MANUFACTURER Asahi Mfg. (JP)		MARK KS	MANUFACTURER Kosaka Kogyo (JP)
	MARK NF	MANUFACTURER Nippon Fasteners (JP)		MARK RT	MANUFACTURER Takai Ltd (JP)
	MARK H	MANUFACTURER Hinomoto Metal (JP)		MARK FM	MANUFACTURER Fastener Co of Japan (JP)
	MARK M	MANUFACTURER Minamida Sieybo (JP)		MARK KY	MANUFACTURER Kyohei Mfg (JP)
	MARK MS	MANUFACTURER Minato Kogyo (JP)		MARK J	MANUFACTURER Jinn Her (TW)
	MARK Hollow Triangle	MANUFACTURER Infasco (CA TW JP YU) (Greater than 1/2 inch dia)			
	MARK E	MANUFACTURER Daiei (JP)		MARK UNY	MANUFACTURER Unytite (JP)

GRADE 8.2 FASTENERS WITH THE FOLLOWING HEADMARKS:

	MARK KS	MANUFACTURER Kosaka Kogyo (JP)
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GRADE A325 FASTENERS (BENNETT DENVER TARGET ONLY) WITH THE FOLLOWING HEADMARKS:

Type 1		MARK A325 KS	MANUFACTURER Kosaka Kogyo (JP)
Type 2			
Type 3			

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 WITHOUT FURTHER TESTING.

This list was prepared by the U.S. Customs Service after extensive testing of many samples of fasteners from around the United States. LANL considers any of these headmarks as S/CI.

In many cases, a new counterfeit fastener has roughly the same physical strength as the graded fastener it mimics, but does not meet the chemical composition or heat treatment requirements specified in consensus standards. As a result, it will stretch, exhibit metal fatigue, or corrode under less harsh service than the genuine fastener.

Enclosure 2
Suspect Item Indicator List

The following is an update to the Suspect Item Indicator list found in DOE G 414.1-3 and the DOE Suspect/Counterfeit Item Awareness Training manual.

SUSPECT ITEM INDICATOR LIST

Note: *This information alone does not constitute an item or material as being S/CI. Further research, such as a review of purchase orders, specifications, and certification / documentation is required before an item can be categorized as S/CI.*

I. GENERAL INDICATORS

Visual Inspection

- Nameplates, labels, or tags have been altered, photocopied, or painted over; are not secured well; are unusual in location and method of attaching; have incomplete data; or are missing. Preprinted labels that show typed entries.
- Item has wear marks or scratches on external surfaces.
- Obvious attempts at repair or beautification have been made, such as excess painting or wire brushing; evidence of hand-painting (touch-up), painted stainless steel; non-ferrous metals (e.g., copper, brass, bronze) are clean and bright indicating recent polishing.
- Handmade parts are evident; gaskets are rough-cut; shims and thin metal part edges show evidence of cutting or dressing by hand tools (filing, hacksaw marks, tin snips, or nippers).
- Assembled items fit poorly.
- Metallic items are pitted or corroded.
- Heat discoloration marks.
- Casting markings have been ground off and the item has been re-stamped with other markings.
- Configuration is not consistent with other items from the same supplier or varies from that indicated in supplier literature or drawings.
- Inconsistency between vendor (seller or manufacturer) name on the item and on the shipping container.
- Nameplates attached with inconsistent fasteners, such as screws instead of rivets, or a combination of rivets and screws.
- Nameplates attached in a different location than normal.
- Warning labels with grammatical errors and conflicts with information found elsewhere on the packaging.
- Nameplates missing manufacturer's standard markings, stamps, or logos, and with irregular stamping or inconsistent type (font).
- Inconsistent appearances of items in the same shipment.
- Shipping boxes / totes containing mixed batch numbers, expiration dates, and uniform product codes (UPC).
- The item or component matches the description of one that is listed on a suspect item list (e.g., DOE Suspect/Counterfeit Fastener Headmark List - Enclosure 1).
- Unusual packaging and boxing of items. Packaging is inconsistent with the manufacturer's normal packaging or documentation requirements.
- Questionable or meaningless numbers on the item(s) or packaging.

Enclosure 2
Suspect Item Indicator List

- Signs of weld repairs.
- Country of origin is China¹, Taiwan, India, Korea, or Mexico.
- Underwriters Laboratories (UL) marks missing one or more of the four elements (UL trademark, the word LISTED in capital letters, product identity, and a control number)²; a UL mark on the package – but not on the product.

Procurement

- Quoted price for the item is unusually discounted or low.³
- Unusual disclaimers, or denials, of responsibility for the accuracy of the test results, etc.
- The supplier is not a manufacturer's authorized distributor.
- Dimensions of the item are inconsistent with the specification requested on the purchase order, and those provided by the manufacturer at the time of the shipment.

II. DOCUMENTATION

Documentation may be suspect or fraudulent when:

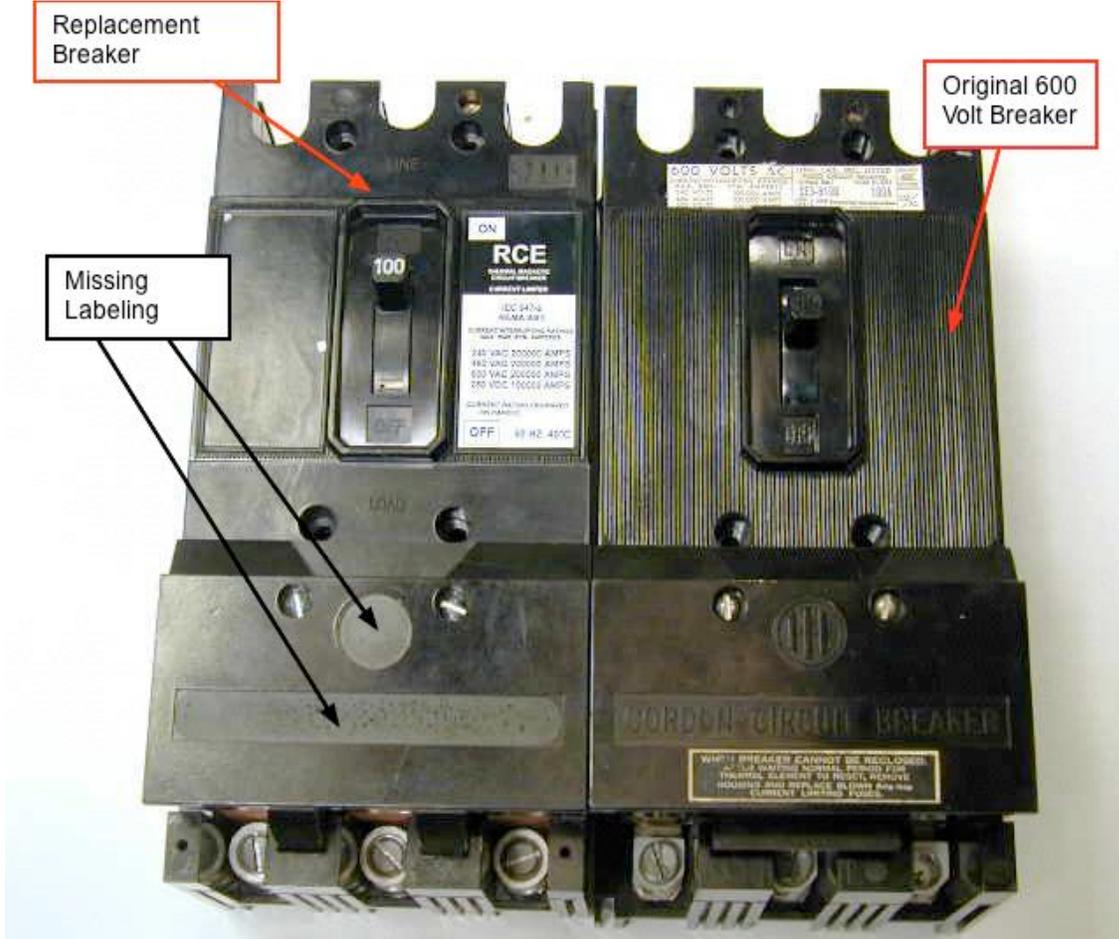
- The use of correction fluid or correction tape is evident.
- Type style, size, or pitch change is evident.
- Documentation is not signed or initialed when required,
- It is excessively faded or unclear (indicating multiple, sequential copying), or data is missing.
- The name of the document approver, or title, cannot be determined; the document has missing or illegible signature, initials; the approvers name and signature does not match.
- Technical data is inconsistent with Code or standard requirements.
- Certification or test results are identical between items when normal variations should be expected.
- Document is not traceable to the items procured.
- Corrections are not properly lined-out, initialed and dated.
- Documentation is not delivered as required on the purchase order, or is in an unusual format.
- Lines on forms are bent, broken, or interrupted indicating data has been deleted or exchanged by "cut and paste".
- Handwritten entries are on the same document where there is typed or preprinted data.
- Text on page ends abruptly and the number of pages conflicts with the transmittal.
- Data on a single line is located at different heights.

¹ In 2003, more than 66% of goods seized at ports of entry into this country were traced to China. What are Counterfeiting and Piracy Costing the American Economy. National Chamber Foundation, 2005.

² Refer to <http://www.ul.com/ace/fake.html>

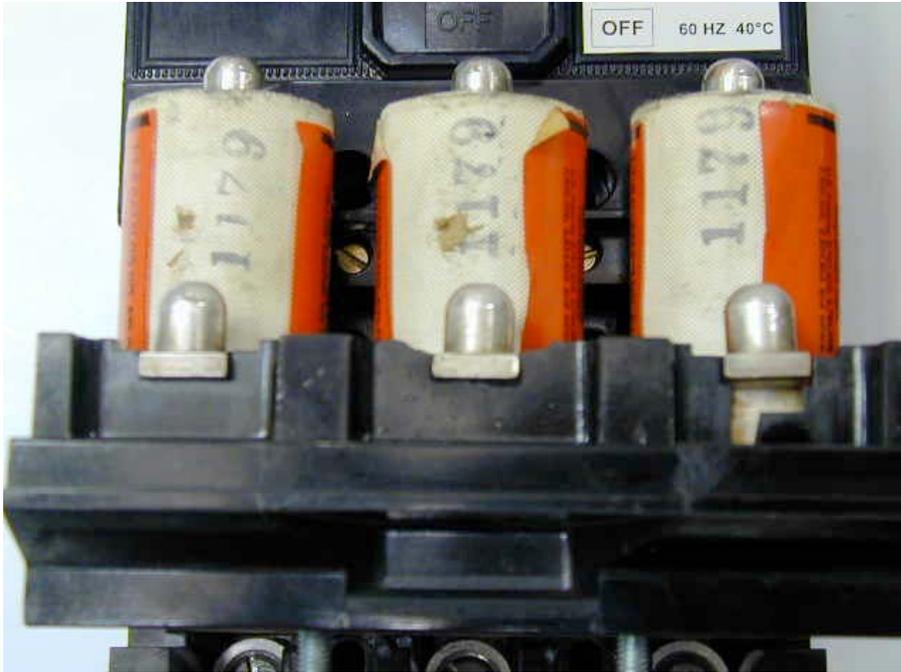
³ There have been reports of counterfeiters raising prices to just below OEM levels in order to prevent such concerns. http://fleetowner.com/mag/fleet_counterfeit_parts_buyer/index.html

Enclosure 3
S/CI Examples



Circuit Breakers.
Suspect indicators – missing information
Left – Used 600 volt, 100 amp breaker sold as “new”.
Right – Original breaker

Enclosure 3
S/CI Examples



Fuses.
S/CI - Used internal components within 600 volt, 100 amp breaker sold as “new and unused”.



Hook, lifting.
S/CI - Altered working load limit (WLL) marking.

Enclosure 3
S/CI Examples

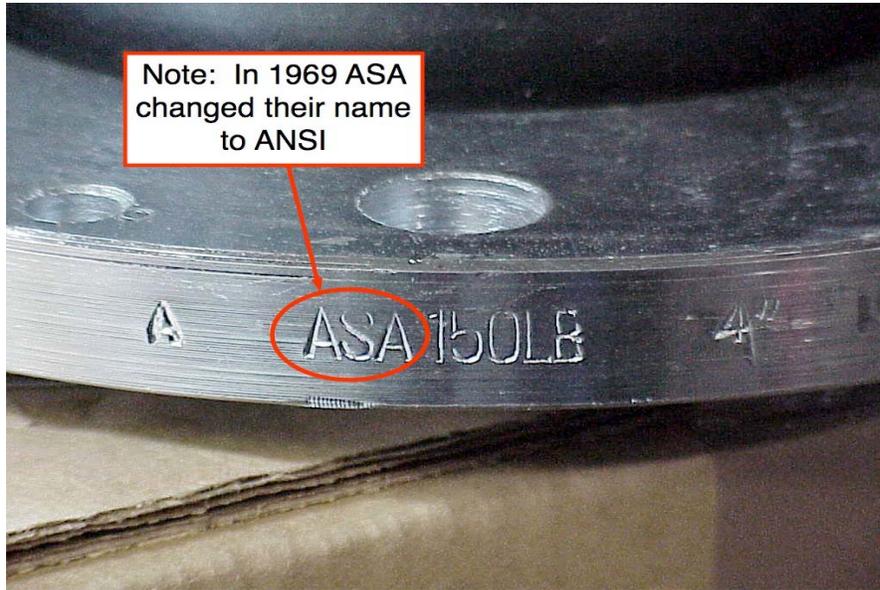


Shackle.
S/CI – Trademark violation. 6-1/2 Ton rated screw pin shackle, minus any manufacturer's name or logo, and country of origin. The red colored screw pin is a Crosby Group trademark.



Flange.
Suspect indicator - Hand stamping

Enclosure 3
S/CI Examples



Flange.

Suspect Indicator – Meaningless information; ASA is a reference to an obsolete consensus standards organization.



Bolts.

Suspect/Counterfeit SAE Grade 5 (ASTM A 449) bolts. From the left -the first three are missing the required manufacturer's symbol, and the fourth bolt has the "KS", Kosaka Kogyo, insignia. All four are on the DOE S/C bolt headmark list (Enclosure 1).

Enclosure 3
S/CI Examples



Label.
Suspect indicator - Worn label with missing information on a “new” air-dryer valve.



Valve, internal.
S/CI - Internal corrosion of an air-dryer valve sold as “new”.

Enclosure 3
S/CI Examples



Extension cords.

S/CI - Underwriters Laboratories (UL) Inc. issued an alert regarding 25 and 50 ft. cords. The cords are marked as UL listed and having 14 gauge wire. These have not been approved by UL and the wire size is actually significantly undersized, leading to potential fire hazards. <http://www.ul.com/newsroom/notices.html>



Sprinkler heads, fire protection.

S/CI - UL issued two alerts in 2006 regarding Chinese manufactured sprinkler heads having counterfeit UL marks. <http://www.ul.com/newsroom/notices.html>

Enclosure 3
S/CI Examples



Batteries.

S/CI – “Copper Top” trademark violation¹ and confusingly similar name² of the manufacturer “Duracell”. Counterfeit batteries present a higher risk of malfunction; constructed without adequate vent holes (safety feature), and often contain mercury - a heavy metal that damage the central nervous system when ingested and can harm the environment when the batteries are discarded.

¹Counterfeit indicator

²Suspect indicator

Contacts / Resources

CONTACT

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Suspect/Counterfeit Items Lead
Los Alamos National Laboratory
Los Alamos, New Mexico 87545
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(505) 665-6377

TRAINING

Los Alamos National Laboratory
LANL Course # 39907
Suspect/Counterfeit Items Overview
Registration – (505) 667-0059

INTERNET RESOURCES

Coalition Against Counterfeiting and Piracy, U.S. Chamber of Commerce
No Trade in Fakes Supply Chain Tool Kit
<http://www.thecacp.com>

U.S. Customs and Border Protection
http://www.cbp.gov/xp/cgov/newsroom/photo_gallery/

Underwriters Laboratories Inc.
<http://www.ul.com/newsroom/notices.html>

Microsoft
Genuine Microsoft Software / How to Tell
<http://www.microsoft.com/resources/howtotell/en/counterfeit.msp>

Counterfeit Auto Parts
Congressman Mike Rogers, Michigan's 8th Congressional District
<http://www.mikerogers.house.gov/Gallery.aspx?G=6>

National Electrical Manufacturers Association
Anti-Counterfeiting News
<http://www.nema.org/gov/anti-counterfeiting/news.cfm>

Public Laws

PUBLIC LAWS

Stop Counterfeiting in Manufactured Goods Act. Public Law 109-181, March 16, 2006.

Fastener Quality Act. Public Law 101-592, Nov. 16, 1990.

Attachment 1
S/CI Quality Clause

Suspect/Counterfeit Items Quality Clause included in many LANL procurements
(LANL Form 838c, Quality Assurance Supplement, 11/06)

1. The Subcontractor shall establish and maintain effective controls to prevent the introduction of suspect or counterfeit items (S/CI) to Los Alamos National Laboratory facilities (LANL). 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. 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.
 - a. Types of material, parts, and components known to have been misrepresented include (but are not limited to) fasteners, such as bolts, nuts, and washers; cranes and hoists, as well as other hoisting, rigging, or lifting equipment; valves; pipe and fittings; flanges; electrical equipment and devices; plates, bars, shapes, channel members, and other structural items; and welding rods and electrodes.
 - b. 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:
 - i. Defects resulting from inadequate design or production quality control;
 - ii. Damage during shipping, handling, or storage;
 - iii. Improper installation;
 - iv. Deterioration during service;
 - v. Degradation during removal;
 - vi. Failure resulting from aging or misapplication; or
 - vii. Other similar causes, which do not involve any misrepresentation about nature, quality, form, or function.
2. Notwithstanding any other provisions of this subcontract, the Subcontractor warrants that all items (including their subassemblies, components, and parts) tendered to LANS shall be genuine (*i.e.*, not counterfeit), new and unused, and conform to the requirements of the subcontract, unless otherwise approved in writing by the Contract Administrator prior to delivery. Subcontractor further warrants that all components, parts, materials, and supplies incorporated into LANL facilities or equipment by the Subcontractor during performance of work at LANL, shall be genuine, new and unused, and original-equipment-manufacturer items, unless otherwise approved by the Contract Administrator in writing as suitable for the intended purpose prior to use. The Subcontractor's warranty also extends to labels and/or trademarks or logos affixed, or designed to be affixed; to items supplied or delivered to LANS; and to certifications, affirmations, information, or documentation related to the authenticity and quality of items supplied or delivered to LANS under this subcontract.
3. Other than claims covered by an applicable "Nuclear Hazards Indemnity Agreement" clause, the Subcontractor shall indemnify LANS, its agents, and third parties for any financial loss, injury, or property damage resulting directly or indirectly from S/CI; items that have been provided under false pretenses; and items that the subcontractor knows, or should know, to be defective, materially altered, damaged, deteriorated, degraded, and have nonetheless been tendered as genuine, original, new and unused, or suitable for the intended purpose or use.
4. Because falsification of information or documentation may constitute criminal conduct, LANS may temporarily segregate items, and related paperwork, that are suspected to be S/CI, pending a determination by National Nuclear Security Administration or Department of Energy officials (NNSA/DOE) as to whether the segregated items should be impounded as evidence.

Attachment 1
S/CI Quality Clause

- a. In the event NNSA/DOE directs LANS to impound the segregated items, no liability shall be asserted or enforceable against LANS, NNSA, or DOE because of the impoundment, all such liability being expressly waived by the Subcontractor or any person claiming any right or interest under this subcontract in the impounded items.
 - b. LANS shall incur no liability for failure to return impounded items to the Subcontractor and does not assume any liability for loss or damage to the items impounded or temporarily segregated pursuant to this clause regardless of the circumstances under which said loss or damage may have occurred and whether the impounded or temporarily segregated items are in LANS' possession or under its control.
5. Nothing in this clause shall limit LANS' right to reject S/CI, and related paperwork, as nonconforming, to deny payment for such items, to return such items to the Subcontractor once NNSA/DOE has released the items, or to assert other remedies provided under this subcontract or by law.
 6. Unless otherwise authorized by the Contract Administrator in writing, the Subcontractor shall cause this clause, including this paragraph, to be inserted in all lower-tier subcontracts entered into under this subcontract.
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