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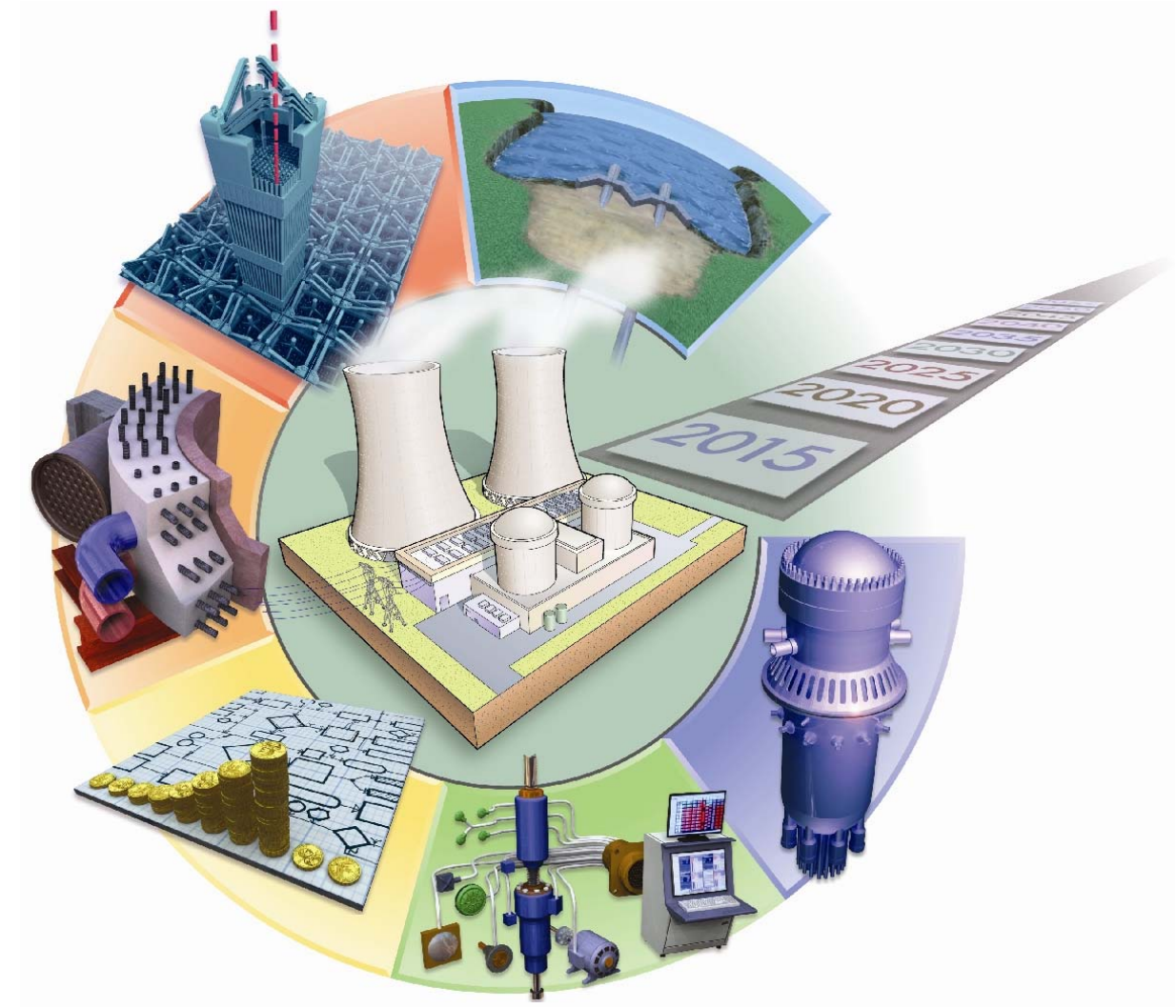
Plant Support Engineering: Counterfeit and Fraudulent Items

A Self-Assessment Checklist

1021493



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Technical Update, October 2010

EPRI Project Manager

M. Tannenbaum

ELECTRIC POWER RESEARCH INSTITUTE
3420 Hillview Avenue, Palo Alto, California 94304-1338 ▪ PO Box 10412, Palo Alto, California 94303-0813 ▪ USA
800.313.3774 ▪ 650.855.2121 ▪ askepri@epri.com ▪ www.epri.com

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Electric Power Research Institute (EPRI)
1300 West W.T. Harris Boulevard
Charlotte, North Carolina, 28262

Principal Investigator
M. Tannenbaum

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ABSTRACT

In today's global marketplace, an increasing percentage of our spare and replacement items (and their contents) originates outside the United States. Enormous growth in the manufacturing capabilities of regions such as Asia has resulted in an increase in the number of fraudulent and counterfeit items. We frequently hear of examples such as baby formula, dog food, lead paint in toys, etc. An increasing number of more industrial examples such as tools, structural steel, bearings, and electronics are also being identified. Counterfeiters are using increasingly sophisticated methods and capabilities to achieve their deceptions.

At least two suspected counterfeit or fraudulent items have been identified prior to receipt in 2010 by members of the commercial nuclear supply chain community. In June of 2010, the director of the Division of Construction Inspection & Operational Programs of the U.S. Nuclear Regulatory Commission identified counterfeit and fraudulent items as one four key Nuclear Regulatory Commission focus areas.

This self-assessment checklist is intended for use by licensees and their suppliers as a vehicle for identifying areas in which opportunity to reduce the risk associated with counterfeit and fraudulent items exists. Organizations that use the checklist can increase the probability that counterfeit and fraudulent items will be detected prior to being accepted for use, used in manufacturing, or installed in plant systems and equipment.

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EXECUTIVE SUMMARY

1.1 Introduction

Counterfeit and fraudulent items have found their way into the inventories of the transportation, aerospace, and defense industries to the extent that the U.S. government formed an interagency task force to address the issue. The U.S. Nuclear Regulatory Commission (NRC) is a participant in the task force, and in 2008 the NRC communicated their serious concerns in Information Notice 2008-04, "Counterfeit Parts Supplied to Nuclear Power Plants" [1]. The NRC continues to vigorously pursue the issue and identified counterfeit and fraudulent items as one of four major concerns during the Nuclear Vendor Oversight Conference in June 2010 [2].

In 2009, EPRI published 1019163, *Plant Support Engineering: Counterfeit, Fraudulent, and Substandard Items: Mitigating the Increasing Risk* [3], That report contains information that can be used by any organization to better understand the risk and causal factors associated with counterfeit and fraudulent items, as well as guidance on actions that can be taken to decrease the risk that counterfeit and fraudulent items will find their way into nuclear plant inventories, equipment, and systems.

Existing guidance on how to detect counterfeit and fraudulent items during inspection upon receipt is contained in Appendix C of EPRI NP-6629, *Guidelines for the Procurement and Receipt of Items for Nuclear Power Plants* [4]. This guidance was developed in the late 1980s and echoes similar recommendations contained in NRC Generic Letter 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulent Items" [5]. Implementing this guidance during inspection upon receipt is an important and effective means to prevent the use of counterfeit and fraudulent items. However, additional measures can be taken. In today's global economy, awareness of counterfeiting and fraud should be promoted through all levels of both internal and external supply chains. Although roles that individuals in organizations other than the supply chain play in preventing counterfeit and fraudulent items may be less intuitive, they are of significant importance and should not be overlooked. This self-assessment checklist identifies typical precautionary measures that can be implemented by various organizations.

1.2 Objective

The objective of this checklist is to provide EPRI members and their supply chain with a means to assess existing anti-counterfeiting measures and a tool to identify opportunities to improve anti-counterfeiting measures in existing processes and programs. Members will also be able to share the checklist with all tiers of their suppliers to raise awareness of the counterfeiting issue and communicate effective means to minimize risk.

1.3 Intent

This checklist is intended to be used as a vehicle to identify areas in which opportunities exist to reduce the risk associated with counterfeit and fraudulent items. Although it may not be reasonable to expect that an organization would currently be implementing every anti-counterfeiting measure identified in the checklist, it is incumbent upon each organization to evaluate the results of their self-assessment within the context of their business and their exposure to risk and take action accordingly.

1.4 Organization

Sections 2 through 10 of this checklist are organized by organizations or functions that can play important roles in minimizing the risk that counterfeit items will be procured, placed into usable inventory, or installed. Each section includes questions that can be asked to determine opportunities for improving practices, processes, and procedures to minimize exposure to counterfeit items.

Appendix A of this document includes the right answer to each question along with a brief explanation of how that answer demonstrates that actions are being taken to reduce risk.

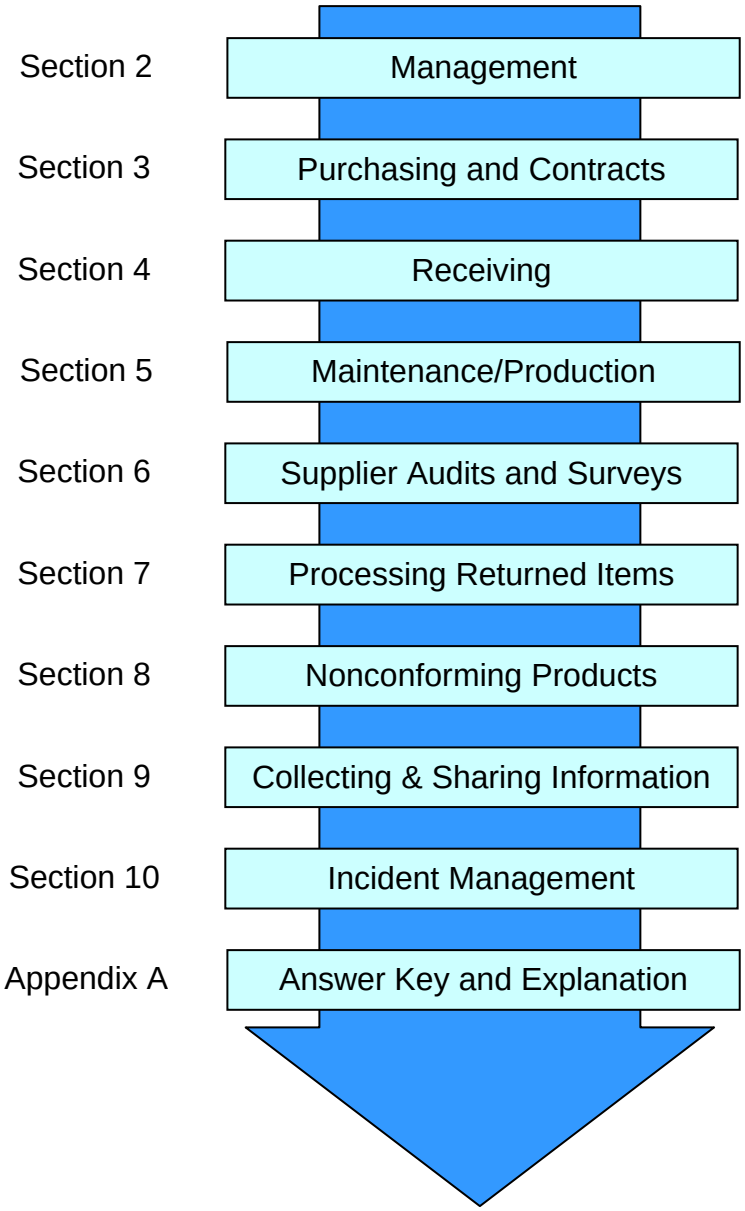

Figure 1-1
Organization of the Checklist

2
MANAGEMENT

2.1 Management Awareness and Sponsorship

2.1.1 Is an officer or person in senior management aware of the risk presented by counterfeit and fraudulent items?

2.1.2 Is an officer or person in senior management responsible for addressing the risks associated with using and/or reselling counterfeit or fraudulent items?

2.2 Notification of Customers

2.2.1 Do documented processes or procedures commit to the notification of applicable customers in the event that you become aware of counterfeit or fraudulent versions of your products?

2.2.2 Do documented processes or procedures commit to the notification of applicable customers in the event that you become aware that counterfeit or fraudulent items were used in the manufacture of your products or sold to your customers?

2.3 Processes and Procedures

2.3.1 Do documented processes or procedures (such as those for procurement, receipt inspection, inventory control, supplier audits, etc.) include measures for detection and/or prevention of counterfeit, fraudulent, or suspect items?

2.3.2 Do processes and procedures include review of industry experiences with counterfeit and fraudulent items?

3
PURCHASING AND CONTRACTS

3.1 Education of Procurement Staff

3.1.1 Do you periodically provide procurement staff with counterfeit and fraudulent item awareness training?

3.2 Item Purchasing Descriptions

3.2.1 Do your purchasing descriptions include more than a brief description and part number?

3.2.2 As applicable, do descriptions should include technical data such as:

a) Industry standards and specifications?
b) Tolerances?
c) References to drawings or customer specifications?
d) Revision numbers?
e) Technical details?
f) Information relative to enhanced testing and verification requirements, such as applicable characteristics, chemical and physical properties?

3.2.3 Is engineering involved in developing or reviewing purchasing descriptions and technical requirements for critical items and materials prepared?

3.3 Development of Acceptance Criteria

3.3.1 Are acceptance criteria (such as certification and receiving inspection requirements) established at the front end of the procurement process?

3.3.2 If at-risk procurements are subjected to enhanced testing and verification at receipt, are engineering or technical personnel involved in establishing the inspections, tests, and acceptance criteria?

3.4 Certification Requirements

3.4.1 Do you request certification to standards, specifications, or purchase order requirements?

3.4.2 If you request certification, are documented measures (such as audits or surveys of suppliers) established and implemented to confirm the validity of certification received?

3.5 Requirement for Licensed Manufacturers

3.5.1 If you license manufacturers to produce items you design, do you implement strict contractual control of contract manufacturers with respect to the quantity of items they are permitted to produce?

3.6 Use of Authorized Distributors

3.6.1 Do you purchase materials from original material manufacturers or approved distributors whenever possible?

3.6.2 Do your policies and procedures clearly communicate a preference for awarding procurements to original equipment and component manufacturers or distributors authorized by the original equipment or component manufacturer whenever possible?

3.6.3 Do your policies and procedures include guidance for how to conclusively determine if a distributor is authorized by the manufacturer for the type or scope of items being procured using information that was not provided by the distributor (such as direct communication with the manufacturer or consulting industry databases)?

3.6.4 Do you educate your internal procurement staff about the risks associated with buying from unauthorized distributors?

3.6.5 Do you consider procurements from an entity that is not the original manufacturer or is not authorized by the manufacturer as at-risk procurements?

3.6.6 Do you flag at-risk procurements in your information systems or procurement documents?

3.6.7 When purchasing important items on an at-risk procurement, do you subject the items to enhanced testing and verification at receipt?

3.7 Use of Unknown or Unverified Suppliers

3.7.1 Do you permit the purchase of parts and materials from unknown or unverified suppliers, such as suppliers with whom you have no previous relationship or significant experience (for example, internet-based businesses)?

3.7.2 In instances where you purchase parts and materials from unknown or unverified suppliers, do you subject them to enhanced testing and verification at receipt?

3.7.3 Do you maintain a list of “trusted suppliers” that is based upon documented requirements that include measures to develop confidence that the suppliers provide authentic items?

3.7.4 Do you maintain a list of “non-trusted” suppliers?

3.8 Identification of At-Risk Procurements

3.8.1 Are factors such as cost per unit, country or region of origin, and type of item (engineered product, commodity, and so forth) considered when determining if a procurement may be an at-risk procurement?

3.8.2 Are procurements of lifting and rigging equipment subject to enhanced inspection to verify authenticity when not purchased from a distributor authorized by the manufacturer?

3.8.3 Are personnel safety devices (such as safety glasses and shields, hardhats, and so forth) subject to enhanced inspection to verify authenticity when not purchased from a distributor authorized by the manufacturer?

3.8.4 Are tools subject to enhanced inspection to verify authenticity when not purchased from a distributor authorized by the manufacturer?

3.9 Evaluating Bids and Proposals

3.9.1 When procurements are awarded to a supplier with unusually low prices, are they considered "at-risk" procurements?

3.9.2 Is price the most heavily weighted factor in the evaluation of bids and proposals?

3.9.3 When price is unusually low, are precautions (such as those listed below, additional conversation with the supplier, and/or enhanced receiving requirements) implemented to verify that products are authentic prior to awarding the order?

a) Independent verification that the supplier is approved by the manufacturer.
b) Review to determine that the supplier has proven capabilities.
c) Verification that the supplier is willing to certify that the items are genuine.
d) Enhanced acceptance requirements are imposed.

3.9.4 Are procurement staff performance and bonus incentives based entirely on cost savings?

3.10 Payment Terms

3.10.1 Do you use third-party escrow services to withhold payment until testing and verification of items received (particularly those associated with at-risk procurements or procurements from suppliers that are not on the "trusted" supplier list)?

3.11 Safeguarding Intellectual Property

Note that safeguarding intellectual property is applicable to every internal organization.

3.11.1 Are drawings, specifications, and diagrams containing information such as design and manufacturing data transmitted to external organizations prior to executing legal precautions such as nondisclosure agreements?

3.11.2 Are staff members trained to recognize intellectual property and prevent it from being transmitted to external organizations without appropriate precautions?

3.12 Procurement Schedule

3.12.1 Have you adopted realistic schedules for procuring materials and parts to eliminate or severely minimize the need to expedite purchases and possibly rely on unknown or untrusted sources?

3.13 Addressing Obsolete Items and Materials

3.13.1 Do you have documented processes and procedures in place to address replacement of obsolete items and materials?

4
RECEIVING

4.1 Education of Receiving Staff

4.1.1 Do you periodically provide receiving staff with counterfeit and fraudulent item awareness training?

4.1.2 Are receiving staff trained and provided with the guidance contained in the following documents (as applicable):

a) Appendix C of EPRI NP-6629, *Guidelines for the Procurement and Receipt of Items for Nuclear Power Plants* [4]
b) IAEA-TECDOC-1169 [6]
c) U.S. NRC Generic Letter 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products" [5]

4.2 Communication of Enhanced Verification Requirements

4.2.1 When enhanced verification is specified for at-risk or important procurements, are the requirements clearly communicated to receiving and inspection personnel?

a) Verification requirements are included in information systems or documentation that ensures that verification is performed prior to acceptance of items.
b) The required tests/inspections and acceptance criteria are available for use by personnel responsible for performing tests and inspections.

4.2.2 Do your documented policies and procedures include guidance on how to disposition items that do not appear to meet enhanced verification requirements?

4.2.3 When a suspected counterfeit or fraudulent item is identified, are the verification requirements for the affected stock code and stock codes for similar items updated to incorporate new inspection characteristics, photographs, and guidance?

4.3 Comparison of Received Items with Items Known to Be Authentic

4.3.1 Are received items examined to ensure that configuration is correct by visually comparing them (shape, color, markings, and identification, and so forth) to one or more of the following:

a) Descriptions or diagrams in supplier literature diagrams or drawings
b) Comparison to a "standard" item known to be correct

c) Comparison to a previously accepted item
d) Comparison to diagrams or drawings provided by engineering
e) Comparison to photos stored in information systems or otherwise readily available to inspection personnel

4.4 Nameplates, Labels, and Tags

4.4.1 Is the appearance of nameplates, labels, and tags checked to ensure identification and marking appear to be authentic by looking for indications of the following types of conditions that are included in Appendix C of EPRI NP-6629, *Guidelines for the Procurement and Receipt of Items for Nuclear Power Plants* [4]:

a) Identification or marking appears to have been altered.
b) Identification or marking appears to be photocopied or computer-generated reproductions.
c) Identification or marking is painted over or otherwise obscured.
d) Identification or marking is incomplete or is missing data.
e) Identification or marking is not properly affixed or secured.

4.4.2 Are received items examined to determine if obvious attempts at beautification have been made such as:

a) There is evidence of excess painting or hand painting (touch ups).
b) Stainless steel is painted.
c) Non-ferrous metals such as copper, brass, and bronze are clean and bright, indicating recent polishing.
d) There is evidence of wire brushing or sanding.

4.4.3 Are received items examined to determine if hand tool marks are evident on fasteners or other assembly parts?

4.4.4 Are received items examined to determine if parts that should be similar appear to be dissimilar (such as seven of eight bolts bearing the same markings and the eighth bearing different markings)?

4.4.5 Are received items examined to determine if there is poor fit between assembled items?

4.4.6 Are received items examined to determine if they exhibit evidence of being handmade or having work performed on them by hand such as:

a) Rough-cut gaskets
b) Shims and thin metal edges that appear to be cut or dressed by hand tools (filing, hacksaw marks, deformation characteristic of tin snips or aviation shears)

4.5 Examination of Documentation for Signs That It May Not Be Authentic

4.5.1 Is documentation examined for signs that it may not be authentic such as:

a) Ink smudges consistent with printing via ink-jet printer are present.
b) Use of correction fluid or tape is evident.
c) Inconsistencies in font sizes and types are present.
d) Signatures and initials are missing or excessively faded, indicating that they have been photocopied.
e) Signatures that are supposed to be original appear to be electronically added to the document (for example, added as an image file).
f) The name or title of the document approver cannot be determined.
g) One or more technical values are inconsistent (for example, the chemical and physical properties are not consistent with each other or with applicable specification requirements).
h) One or more technical values are not consistent with applicable code or standard requirements (for example, test results for required tests are not provided, or documentation indicates tests that are not required or applicable were performed).
i) Certification: test results: or heat, lot, or batch numbers are identical between items when variation would normally be expected.
j) Traceability from the documentation to the item received is unclear.
k) Documentation is not delivered as required in procurement documents.
l) Documentation is in an unusual format.

5
MAINTENANCE/PRODUCTION

This section applies to individuals in organizations that are directly involved in maintaining plant equipment (utilities) or the production, manufacture, and packaging of items (manufacturers/suppliers). Individuals that play hands-on roles in maintaining equipment or manufacturing items are often the most likely to notice an atypical difference in a part or material that could be an indication that it is not authentic.

5.1 Education of Maintenance/Production Staff

5.1.1 Do you periodically provide individuals involved in maintaining equipment, manufacturing items, or packaging and handling items with counterfeit and fraudulent item awareness training?

5.2 Pre-Job Briefings

5.2.1 Are counterfeit and fraudulent item precautions included in pre-job briefings when the work involves items that are obsolete or when counterfeit or fraudulent items similar to those being used to complete the work have been identified in the past?

5.2.2 Are workers reminded in pre-job briefings that they should always question discrepancies between installed and replacement items?

5.3 Discrepancies Between Installed and Replacement Items

5.3.1 Is work stopped until acceptability is confirmed when craftspeople or maintenance workers identify discrepancies between installed and replacement items?

6
SUPPLIER AUDITS AND SURVEYS

6.1 Education of Audit Staff

6.1.1 Do you periodically provide audit and quality assurance staff with counterfeit and fraudulent item awareness training?

6.2 Engineering Involvement in the Supplier Assessment Process

6.2.1 Is engineering involved in assessments of suppliers?

6.2.2 Is engineering involved in planning and performing assessments of suppliers to be sure that the assessments will address important aspects of the items provided, that is, characteristics necessary to ensure that the items will perform as intended?

6.3 Targeted Questions on Supplier Audit Checklists

6.3.1 Do supplier audits and audit checklists include questions to determine if the supplier is aware of and takes measures to prevent counterfeit and fraudulent items (such as those listed below)?

a) Does the supplier employ or are they familiar with authentication technologies that can be used to ensure positive identification of authentic items?
b) Does the supplier consider counterfeiting to be a problem? If so, do they dedicate resources to the problem? Do they train their staff on the issue?
c) Does the supplier provide a mechanism for customers to confirm that the supplier is authorized by the original manufacturer to distribute items being purchased (within their approved distribution network)?
d) Does the supplier accept returned merchandise? If so, is it inspected before being placed into stock for resale?
e) Does the supplier screen items and materials to ensure that they are genuine?
f) What do they do in the event that a counterfeit item is identified?
g) In the event that the supplier discovers a counterfeit item, how is the incident handled? To whom do they report the incident? Are provisions in place to quarantine the items in order to prevent comingling with acceptable inventory and to notify customers who might have been impacted?
h) Does the supplier use any sources of information to identify incidents of counterfeit items that might impact their products?
i) Does the supplier use contract manufacturers? If so, do they have contractual provisions that require proper disposal of any manufacturing overages and nonconforming items?

j) How does the supplier identify and dispose of items that are rejected at the receiving dock or as the result of quality control inspections? Are measures taken to prevent these items from being cleaned up and sold as legitimate by unscrupulous entities?

k) Does the supplier test purchased items and raw materials that are considered critical to the design and function of the products you purchase?

l) Who can be contacted and what resources can the supplier make available in the event that you have questions about an item they have manufactured or sold?

m) Would the supplier be willing to notify you in writing when items being provided were not obtained from an authorized distributor?

7
PROCESSING RETURNED ITEMS

7.1 Customer Returns

7.1.1 Do you permit customers to return unused items?

7.1.2 Do documented processes/procedures prohibit accepting quantities of returned items that are greater than the quantities originally purchased?

7.1.3 If you do permit customers to return unused items, do you screen the returned items to verify their authenticity prior to placing them into saleable inventory?

7.2 Purchase of Excess Inventory from Customers

7.2.1 Do documented processes/procedures prohibit the practice of buying excess inventory from customers?

7.2.2 If you do buy excess inventory from customers, do you subject it to enhanced testing and verification prior to placing it in saleable inventory?

8
DISPOSITION OF DEFECTIVE AND NONCONFORMING PRODUCTS

8.1 Destruction of Nonconforming Items

8.1.1 Do you have procedures and processes in place that require effective physical destruction of "seconds," defective items, damaged items, and production overruns that ensure that they cannot be recovered, represented as new product, and sold?

9
COLLECTING AND SHARING INFORMATION ON COUNTERFEIT AND FRAUDULENT ITEMS

9.1 Documenting Suspect Items

9.1.1 Are documented internal procedures and processes in place for recording details associated with receipt of suspected counterfeit or fraudulent items?

9.2 Access to Suspected Counterfeit or Fraudulent Item Incident Information

9.2.1 Do you maintain a database or list that captures pertinent information about internal incidents involving receipt of suspected counterfeit or fraudulent items?

9.2.2 Do you maintain or have access to a database or list that captures pertinent information about incidents involving reports of suspected counterfeits of items in your industry or related to items you manufacture?

9.3 Use of Incident Data

9.3.1 When information related to an item or material you purchase is received, is it evaluated to determine if it is pertinent?

9.3.2 Are processes and procedures (eligible suppliers, receiving inspections, etc.) revised when applicable to incorporate new information received about counterfeit or fraudulent items?

9.3.3 Is information about known incidents of suspect items available and consulted during key points in the procurement process such as reviewing reorders, evaluating proposals, selecting suppliers, and receiving?

10
COUNTERFEIT AND FRAUDULENT ITEM INCIDENT MANAGEMENT

10.1 Documented Process

10.1.1 Is the process for addressing receipt of a suspect item documented, including chronological steps and responsibilities?

10.1.2 Does the process prompt collection of pertinent data about the suspect item?

10.1.3 Does the process include criteria for deciding if a suspect item should be returned to the supplier or withheld for further investigation?

10.1.4 Does the process identify agencies that should be notified or informed of the suspected counterfeit or fraudulent item?

11
REFERENCES AND BIBLIOGRAPHIES

11.1 Glossary

counterfeit item	Items that are intentionally manufactured or altered to imitate a legitimate product without legal right to do so. A counterfeit item is one that has been fabricated in imitation of something else, with purpose to defraud by passing the false copy for genuine or original, or an item copied without legal right or authority to do so.
fraudulent item	Items that are intentionally misrepresented with intent to deceive. Fraudulent items include items provided with incorrect identification or falsified/inaccurate certification. Fraudulent items also include manufacturing overages sold by entities that have acquired the legal right to manufacture a specified quantity of an item (such as an integrated circuit), but produce a larger quantity than authorized and sell the overage as legitimate inventory.
incident	A discrete event associated with the discovery of a counterfeit, fraudulent, or substandard item. An incident can involve one or many items discovered at once or over a period of time.
substandard item	An item that does not meet the intended product specification. It is possible for legitimate suppliers to unknowingly provide substandard items that were manufactured using raw materials or part-level items that were acquired from sub-tier suppliers and, for some reason, did not meet the applicable specifications.
suspect item	Items that are suspected of being counterfeit, fraudulent, or substandard.

11.2 Acronyms and Abbreviations

ADAMS	Agencywide Document Access and Management Systems
DOC	Department of Commerce
EPRI	Electric Power Research Institute
IAEA	International Atomic Energy Agency
NRC	U.S. Nuclear Regulatory Commission
SAE	Society of Automotive Engineers

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A
ANSWERS AND EXPLANATIONS

Intent

The intent of this survey is to provide questions that can be used to identify opportunities that may exist to reduce the risk of purchasing, receiving, using or unintentionally reselling counterfeit items.

The intent is not to imply that the answers to every question must agree with the answers included in this appendix or that the list of questions included in this document is inclusive of all effective ways to minimize the risk associated with counterfeit and fraudulent items. Although the answers included are based upon good practices and recommendations developed through research on this topic, it is important to recognize that exposure to counterfeit and fraudulent items may vary based upon an organization's business and products.

Each organization can carefully assess their risk and determine which controls and barriers might be most effective and practical in reducing the risk associated with counterfeit and fraudulent items. Moreover, each organization using this report can adapt the practices as necessary to accommodate the nuances associated with their business, products and facilities.

Appropriate Answers

Section 2 Management

2.1 Management Awareness and Sponsorship

2.1.1 Yes Senior and executive management should be aware of the risk presented by counterfeit and fraudulent items so they may evaluate the organization's exposure and determine what actions are appropriate to minimize risk.

2.1.2 Yes Without management awareness and support, it is unlikely that involved organizations will be able to obtain the resources they need to implement and maintain effective barriers against counterfeit and fraudulent items. An individual in management should be responsible for anti-counterfeiting efforts to avoid purchasing and reselling counterfeit items and materials as well as to protect the organization's brand.

2.2 Notification of Customers

2.2.1 Yes If an organization becomes aware that counterfeit or fraudulent versions of their products (manufactured by others) are available in the marketplace, customers should be notified so they may implement precautions against receiving and using the non-genuine items. This action may also protect the reputation of the organization should the counterfeit or fraudulent items fail.

2.2.2 Yes Customers (particularly those in mission-critical industries) should be notified as soon as possible when an organization becomes aware of the possibility that they may have inadvertently resold counterfeit or fraudulent items.

2.3 Processes and Procedures

2.3.1 Yes Measures for detection and prevention of counterfeit and fraudulent items should be documented in written instructions such as procedures to the extent necessary to ensure that staff members know when to implement the measures and have enough guidance to implement them consistently and correctly.

2.3.2 Yes Whenever possible, processes and procedures should include provisions for review of available industry data and experience involving counterfeit and fraudulent items.

Section 3 Purchasing and Contracts

3.1 Education of Procurement Staff

3.1.1 Yes Procurement staff should be trained in the issue of counterfeit items and should be updated on a regular basis and when incidents of counterfeit items that have been received or otherwise might impact the organization are reported.

3.2 Item Purchasing Descriptions

3.2.1 Yes Purchasing descriptions should go beyond manufacturer and part number. Part number does not always change when changes are made to an item. Complete descriptions should be included.

3.2.2 Yes Descriptions should be comprehensive enough for a supplier to determine if they are providing the correct item. Detail in the description should be consistent with the importance or criticality of the item procured and should capture its important attributes, including applicable specifications.

3.2.3 Yes Engineering or technical staff should be involved in the development of purchasing descriptions and technical requirement to ensure that they communicate all applicable design requirements. Engineering also can establish corresponding acceptance criteria for the items at this time.

3.3 Development of Acceptance Criteria

3.3.1 Yes Acceptance criteria should be established at the front end of the procurement process and should be based upon applicable design and technical requirements.

3.3.2 Yes Acceptance criteria for items should be established by engineering or technical staff and should be commensurate with the importance or criticality of the items being procured.

3.4 Certification Requirements

3.4.1 Yes Requesting certification to standards, specifications, or other important characteristic specified in purchase order requirements can be an effective way of reinforcing the importance of the requirements, ensuring that the supplier has considered the requirements, and verifying that the supplier is aware of the requirement.

3.4.2 Yes Certification alone is not sufficient to accept an item. When certification is relied upon to accept items, activities commensurate with the importance or criticality of the item should be implemented to establish the validity of the certification. Examples of these types of activities include:

- Audits or surveys of suppliers
- Independent verification that requirements certified to are met

3.5 Requirements for Licensed Manufacturers

3.5.1 Yes It is possible that contract manufacturers with access to design and manufacturing information for an item may knowingly or unknowingly make manufacturing overages available in the marketplace or provide items directly to the marketplace without the knowledge or controls implemented by the contracting organization. Terms and conditions for contract manufacturers should address authorized production quantities and disposition of overages.

3.6 Use of Authorized Distributors

3.6.1 Yes Respondents to the U.S. Department of Commerce survey on counterfeit electronics in the military supply chain indicated that purchasing directly from original manufacturers or their approved distributors is the most effective measure that can be taken to avoid counterfeit and fraudulent items.

3.6.2 Yes See 3.6.1.

3.6.3 Yes Independent means should be used to verify that a supplier who indicates they are authorized by the manufacturer is currently authorized for the scope or type of items they are providing.

3.6.4 Yes Unauthorized distributors may not purchase directly from the manufacturer and may not have access to current information from the manufacturer about known counterfeits, changes in logos or marking, and means by which authenticity can be verified. Authorization should be a factor considered (in addition to per unit cost) when selecting suppliers. Risk of introducing counterfeit or fraudulent items is greater when purchasing from unauthorized distributors.

3.6.5 Yes Procurements from entities not authorized by the manufacturer should be recognized as at-risk procurements.

3.6.6 Yes At-risk procurements should be identified so that staff involved in the procurement can implement enhanced testing and verification when appropriate.

3.6.7 Yes At-risk items should be subjected to enhanced testing and verification commensurate with their importance or criticality.

3.7 Use of Unknown or Unverified Suppliers

3.7.1 No It is not advisable to purchase from unknown suppliers whose capabilities have not been established (such as internet-based suppliers).

3.7.2 Yes In instances (such as expedited orders or orders for obsolete items) where items are purchased from unknown/unverified suppliers, the procurements should be identified as at-risk and subject to enhanced testing and verification commensurate with their importance or criticality.

3.7.3 Yes A list of approved (trusted) suppliers can be maintained to facilitate proposal evaluation and award processes.

3.7.4 Yes A list of “non-trusted” suppliers can also be maintained that identifies suppliers who are considered “high-risk” based upon previous experience.

3.8 Identification of At-Risk Procurements

3.8.1 Yes Risk factors such as country or region of origin, cost per unit, and type of item can be used to identify at-risk procurements as identified in the U.S. Department of Commerce survey titled ” Defense Industrial Base Assessment: Counterfeit Electronics” [7].

3.8.2 Yes Multiple incidents of suspected counterfeit lifting and rigging equipment have been reported.

3.8.3 Yes In the interest of personnel safety, personnel safety devices that are not purchased from entities authorized by the original manufacturer should be identified as at-risk procurements subject to enhanced testing and inspection to verify authenticity.

3.8.4 Yes In the interest of personnel safety, tools that are not purchased from entities authorized by the original manufacturer should be identified as at-risk procurements subject to enhanced testing and inspection to verify authenticity. Multiple incidents of counterfeit tools have been reported.

3.9 Evaluating Bids and Proposals

3.9.1 Yes Data presented in the U.S. Department of Commerce survey titled "Defense Industrial Base Assessment: Counterfeit Electronics" [7] indicate that electronic items priced between $0.11 and $500.00 are most likely to be targeted by counterfeiters. Low-cost, high-volume items are likely targeted as the opportunity for sales is high, and the perceived probability of getting caught is low since low-cost items are less likely to be subjected to verification testing and inspection.

3.9.2 No The most heavily weighted factor or factors used to evaluate bids and proposals should be directly related to the product's ability to perform its function. Price is an important consideration, but it should not be used as the sole criterion.

3.9.3 Yes Low-cost, high-volume items are likely targeted as the opportunity for sales is high, and the perceived probability of getting caught is low since low-cost items are less likely to be subjected to verification testing and inspection.

3.9.4 No Performance incentives for buyers should not be based entirely upon savings per unit. Although cost savings are important, incentives should be balanced with other criteria related to acceptability and performance of the items procured.

3.10 Payment Terms

3.10.1 Yes Use of third-party escrow services that withhold payment until acceptable testing and verification results are received is an effective incentive for suppliers (particularly at-risk procurement suppliers) to implement anti-counterfeiting measures of their own.

3.11 Safeguarding Intellectual Property

3.11.1 No Intellectual property should not be transmitted to external organizations prior to executing appropriate legal agreements. Design documents and drawings can be used by counterfeiters to produce look-alike imitations that do not necessarily meet all design requirements.

3.11.2 Yes Staff should be trained to recognize intellectual property to prevent it from inadvertently being transmitted without appropriate precautions.

3.12 Procurement Schedule

3.12.1 Yes Schedules (such as maintenance and manufacturing schedules) that provide supply chain organizations with adequate lead time to procure necessary items should be implemented. It is likely that expedited procurements will be awarded to new or previously unused suppliers.

3.13 Addressing Obsolete Items and Materials

3.13.1 Yes Processes and procedures should be in place to ensure that obsolete item replacements proposed by suppliers are evaluated for acceptability. In addition, processes and procedures should be in place to develop and qualify replacement items and sources for known obsolete items.

Section 4 Receiving

4.1 Education of Receiving Staff

4.1.1 Yes Receiving staff should be trained on the topic of counterfeit items and should be updated on a regular basis and advised when incidents of counterfeit items that have been received or otherwise might impact the organization are reported.

4.1.2 Yes Receiving staff should be trained and provided with the guidance and information contained in the references listed.

4.2 Communication of Enhanced Verification Requirements

4.2.1 Yes It is important that enhanced testing and inspection requirements developed to address at-risk procurements are clearly communicated to receiving personnel to ensure that the requirements will be imposed on the items when they are received.

4.2.2 Yes Documented processes and procedures should include guidance for how receiving staff should segregate and report receipts of suspected counterfeit and fraudulent items.

4.2.3 Yes When a suspected counterfeit or fraudulent item is identified, the stock code or stock keeping unit (SKU) for that item (and similar items as applicable) should be updated to include information that can be used in future inspections of that item.

4.3 Comparison of Received Items with Items Known to Be Authentic

4.3.1 Yes Comparing received items with items know to be authentic can be an effective way to recognize differences that could indicate received items are not authentic.

4.4 Nameplates, Labels, and Tags

4.4.1 Yes Careful examination of nameplates, labels, and tags is an effective way to find indications that items may not be authentic. Anomalies in nameplates, labels, and tags can indicate that items are not authentic.

4.4.2 Yes Obvious attempts at beautification can be an indication that items are not authentic.

4.4.3 Yes Evidence of hand tool marks on fasteners and other parts of an assembly can be an indication that items are not authentic.

4.4.4 Yes The use of dissimilar parts in the same application can be an indication that items are not authentic.

4.4.5 Yes Poor fit between assembled items can be an indication that items are not authentic.

4.4.6 Yes Evidence of being handmade can be an indication that items are not authentic.

4.5 Examination of Documentation for Signs That It May Not Be Authentic

4.5.1 Yes Signs that documentation is not authentic can be an indication that items are not authentic.

Section 5 Maintenance/Production

5.1 Education of Maintenance/Production Staff

5.1.1 Yes Individuals who are involved in maintaining or manufacturing should be provided with counterfeit and fraudulent item awareness training on a periodic basis and when new information is obtained regarding incidents involving the types of items they use.

5.2 Pre-Job Briefings

5.2.1 Yes Counterfeit and fraudulent item precautions should be discussed prior to starting work on a new work task or manufacturing activity.

5.2.2 Yes Workers should be reminded that every worker has a responsibility to notify management if they have reason to suspect that a counterfeit or fraudulent item is involved.

5.3 Discrepancies Between Installed and Replacement Items

5.3.1 Yes When a suspected counterfeit or fraudulent item is identified, work involving that item should be stopped until acceptability of the item is confirmed.

Section 6 Supplier Audits and Surveys

6.1 Education of Audit Staff

6.1.1 Yes Audit staff should be trained on the topic of counterfeit items and should be updated on a regular basis and advised when incidents of counterfeit items that have been received or otherwise might impact the organization are reported.

6.2 Engineering Involvement in the Supplier Assessment Process

6.2.1 Yes Engineering participation in the planning and execution of the supplier audit and survey processes helps the assessment team develop targeted questions that are related to the important characteristics and functions of the scope of items procured from the supplier.

6.2.2 Yes Refer to 6.2.1.

6.3 Targeted Questions on Supplier Audit Checklists

6.3.1 Yes Including questions that address precautions that can be taken against counterfeit and fraudulent items raises supplier awareness of the issues and can provide insight into the types of enhanced testing and inspection that may be necessary for items procured from the supplier.

Section 7 Processing Returned Items

7.1 Customer Returns

7.1.1 No Any unused items are not accepted for return unless they are 100% inspected to verify authenticity.

Prior to being placed in usable inventory, returned items should be physically inspected (that is, the item must be inspected, not just the packaging and identification) to ensure that they are complete, are authentic, and have not been used.

7.1.2 Yes A policy of refusing returns of items in quantities greater than those originally purchased by the customer should be in place to prevent items that may have originated outside your organization from being placed into your inventory and possibly used or resold.

7.1.3 Yes All returned items should be screened for authenticity prior to being placed in saleable or usable inventory.

7.2 Purchase of Excess Inventory from Customers

7.2.1 Yes Buying excess inventory from customers is prohibited unless the excess inventory returned is 100% inspected to verify authenticity.

7.2.2 Yes If excess inventory is purchased from a customer, it should be subjected to enhanced testing and verification to prevent items that may have originated outside your organization from being placed into your inventory and possibly used or resold.

Section 8 Disposition of Defective and Nonconforming Products

8.1 Destruction of Nonconforming Items

8.1.1 Yes Defective items, production overruns, and damaged items should be destroyed to prevent them from being scavenged and resold as authentic, conforming products.

Section 9 Collecting and Sharing Information on Counterfeit and Fraudulent Items

9.1 Documenting Suspect Items

9.1.1 Yes Documented procedures and processes should be in place to ensure that incidents involving receipt of items suspected of being counterfeit or fraudulent are documented and used to avoid similar incidents in the future.

9.2 Access to Suspected Counterfeit or Fraudulent Item Incident Information

9.2.1 Yes A database or list of internal incidents involving suspected counterfeit or fraudulent items should be maintained and made available to procurement, engineering, and receiving staff for use in preventing similar incidents in the future.

9.2.2 Yes Ideally, procurement, engineering, and receiving staff should have access to available industry data involving similar items. These data may also be used to prevent similar incidents in the future.

9.3 Use of Incident Data

9.3.1 Yes When data about an incident of counterfeiting or fraud involving an item or material you purchase are received, the data should be evaluated to determine if there is an opportunity to enhance your procurement of the affected item.

9.3.2 Yes When it is determined that new information received about counterfeit or fraudulent items can be used to enhance your anticounterfeiting measures, the resulting changes should be documented in your processes and procedures.

9.3.3 Yes Available data about counterfeit and fraudulent items should be consulted at key points in the procurement process to ensure that any new, applicable information or data are reviewed prior to completing key steps such as developing purchase descriptions, selecting suppliers, and receiving.

Section 10 Counterfeit and Fraudulent Item Incident Management

10.1 Documented Process

10.1.1 Yes The steps that should be taken and notifications that should be made when an item suspected of being counterfeit or fraudulent is received should be documented to ensure that they can be properly followed.

10.1.2 Yes The process should prompt collection of data so that the information may be added to applicable internal and external databases and shared.

10.1.3 Yes Authorities responsible for fighting counterfeiting and fraud can be frustrated when suspect items are routinely returned to the supplier in exchange for authentic replacements. In effect, returning counterfeit or fraudulent items may be viewed as returning criminal evidence to the perpetrator. Therefore, the process for addressing the receipt of suspect items should include careful consideration for determining if the suspect items should be returned to the supplier or retained for further investigation.

10.1.4 Yes The process should identify agencies that should be notified or informed of the suspected counterfeit or fraudulent item.

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Electric Power Research Institute
3420 Hillview Avenue, Palo Alto, California 94304-1338 • PO Box 10412, Palo Alto, California 94303-0813 • USA
800.313.3774 • 650.855.2121 • askepri@epri.com • www.epri.com