

# NOT ON MY BEACH!

June 19-20, 2019

## NUPIC VENDOR CONFERENCE

Jacksonville, FL



Andy Shuttleworth, Director,  
Office of Investigations



# OI's Mission

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Responsibilities outlined in

## **Title 10 of the CFR, Part 1.36, “Office of Investigations”**

- Conduct investigations of allegations of wrongdoing
- Maintain current awareness of inquiries and inspections by other NRC offices
- Make appropriate referrals to the Department of Justice
- Liaise with other agencies and organizations, both domestic and international, to ensure the timely exchange of information of mutual interest
  - **Counterfeit, Fraudulent, and Suspect Items (CFSI)**
  - Counter Proliferation of Sensitive Technologies and Materials



# OI's Mission

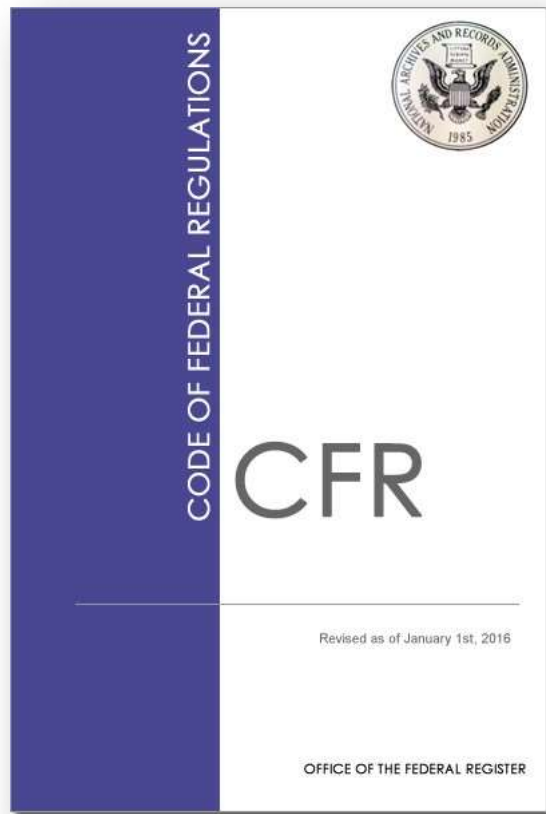
3

The OI is committed to combatting the introduction of counterfeit parts into the nuclear supply chain through strategic partnerships with internal and external stakeholders, both domestically and globally



# 10 CFR 50, APPENDIX A General Design Criteria

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*“...Systems, Structures, And Components (SSC) designs must provide **reasonable assurance** that the facility can be operated without undue risk to the health and safety of the public”*



# COMMERCIAL GRADE DEDICATION

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“An acceptance process undertaken to provide reasonable assurance that a commercial grade item to be used as a basic component will perform its intended safety function and, in this respect, is deemed equivalent to an item designed and manufactured under a 10 CFR Part 50, appendix B, quality assurance program.”

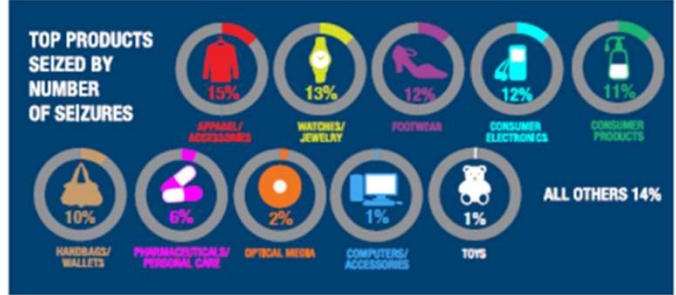
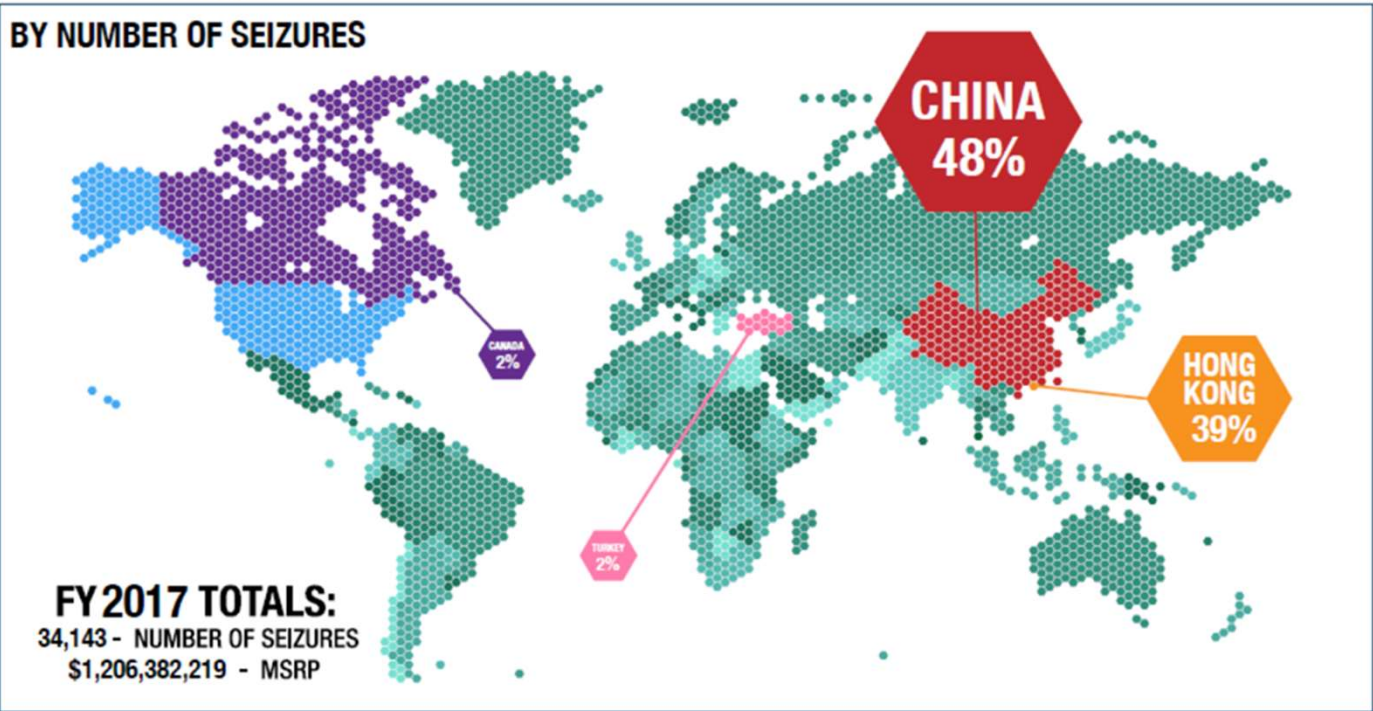
– 10 CFR 21



# Raising Awareness

## FISCAL YEAR 2017 IPR SEIZURE STATISTICS

### BY NUMBER OF SEIZURES







# I said that?

# “I thought (the counterfeit market) was all about fake Louis Vuitton purses.”

52.00 THE NATION'S NEWS

**USA TODAY**  
A GANNETT COMPANY

**DELUGE CRIPPLES SOUTH**

Part of the Beach Highway near Pensacola, Fla.

**RAINS STRAND MOTORISTS; SEVERAL ESCAPE TO ATTICS TO FLEE FLOODING, 3A**

05.01.14 THURSDAY

**26.7 INCHES**  
Amount of rain at reporting station near Pensacola packed up in 48 hours. Monday - Wednesday.

**15.6 INCHES**  
Amount of rain Pensacola received Tuesday - the city's heaviest single day on record.

**5.7 INCHES**  
Amount of rain that fell in one hour late Tuesday in Pensacola - in since in 2001, to 300-year occurrence, the National Weather Service reported.

**11.2 INCHES**  
Amount of rain Mobile, Ala., packed up Tuesday.

**STORM TOTALS AS OF 5 P.M. ET**

New Madrid, Mo., 8.5 inches  
Aurora, Mo., 8.2 inches  
Nashville, Mo., 8.0 inches  
Paducah, Mo., 3.4 inches  
Baltimore, Md., 2.4 inches  
Baltimore, Md., 10 inches of snow

**NEWSLINE**

**Toronto mayor to get treatment**  
Second video surfaces purportedly showing him smoking crack. **3A**

**U.S. economy heating up**  
First quarter weak, but jobs, spending show brighter picture. **1B**

**SAVE OUR SHOWS**  
Readers cast lifetime for ...

Top vote-getters: "Porchhood," "Nashville," "Almost Human," **1-2D**

**VOICES**

**Gap year could be best decision**  
Our education writer explains why daughter's plan to defer college is a smart move. **2A**

**KENTUCKY DERBY**  
**\$6 million can't buy 'Chrome'**  
Some say owners crazy to spurn deal. **3C**

**U.S. SNAPSHOT**

**U.S. is largest foreign aid donor**

Add to your counties' general fund over \$200 million. Top five donors, in billions:

U.S.	\$31.9
Germany	\$17.9
Britain	\$14.1
Japan	\$11.8
France	\$11.4

News Operations and Business Development and Delivery (NDD) and a GANNETT COMPANY

STARS-BY-STATE 4A AMERICA'S MARKETS 2B MARKETPLACE TODAY 2B PUZZLES 4D SCREEN CHECK 4D WEATHER 6A YOUR SAY 7A

## Online buyer, beware of fakes

Dangerous counterfeit market thrives on the Web

**Joe Swartz and Elizabeth Weber**  
Los Angeles

**KNOCKOFFS BOUGHT AND SOLD ON THE INTERNET**  
Counterfeit products have become more common and their lower prices are attractive to consumers. Some examples of knockoffs and the potential damage associated with using them.

**AUTHENTIC KNOCKOFF**

**STIHL CHAIN SAW**

San Francisco - Aside from their low price, the weight-loss pills that a Texas emergency room doctor ordered online looked like the real thing until he took them and nearly died.

The blue capsules were supposed to be the over-the-counter drug but were laced with albuterol, a prescription drug the Food and Drug Administration had warned was linked to heart attacks and strokes and subsequently pulled off the market.

FDA investigators say a Chinese medical named Shengrong Zhou sold them through a midwestern U.S. Web site, where real-time retailers resold them on eBay. At least five other people were injured by the pills, according to court documents.

Not long after the case was part of a large, and growing, global trade in counterfeit products that are bought and sold online - some of them hazardous to even deadly. The anonymity of the Internet - including what's known as the "Dark Web," where the purveyors conceal their identities using encrypted communications - makes it a prime market for these goods, which endanger consumers, undercut brand names and violate law requirements.

A USA TODAY examination of a large number of knockoffs including exploding air bags that open flares and chain saws whose handles can fall off, exposing owners to 200 volts of electricity, and flameless candles that act as "pyrotechnic devices."

"I thought (the counterfeit market) was all about fake Louis Vuitton purses," says Andy Shuttleworth, intellectual property and chief for the National IPR Center. "But we've quickly learned the dangers of this stuff."

For counterfeit watches by U.S. Billionaire and Hong Kong government authorities created a splash last December. But it has hardly made a ripple in what has turned into one of the most lucrative

## Gruesome execution spurs calls for freeze

Four set for lethal injections in May

**Drew Zepko**  
USA TODAY

Opponents of the death penalty say the agonizing death of an Oklahoma inmate last week in the face of execution in America's death row is a stark warning against it.

Charles Lockett, 48, struggled violently, groaned and writhed after drugs were administered Tuesday, eye witnesses said. He tilted his head and struggled to sit up as a gurney restrained him, according to Tulsa Herald eyewitness account.

Proponents of the death penalty say that most Americans continue to support it, and that Lockett's death could be an emotional lever for opponents, courts will not necessarily be swayed to stop more executions.

Lockett was convicted of a 1990 slaying of a 17-year-old Oklahoma executive and for the 2001 slaying of a woman by gun. He is being put to death by lethal injection for two weeks pending a review of Lockett's death.

"We have to stop executions until there is a full investigation," said defense lawyer Matthew Cohen, who represents the prisoner whose execution was delayed by Lockett's case.

Richard Dieter, executive director of the non-profit Death Penalty Information Center, an opponent of executions, said additional momentum to efforts to halt lethal injections is the process is being undertaken.

Johnnie L. Moore, a member of the board of directors of the National Death Penalty Association, says governors considering suspending execution - as happened recently in Washington, Colorado and Oregon - may use Lockett's death as an "excuse" to do so. He says he doubts judges will do so because of it.

Lethal injection cases are set for May. No others are scheduled for the next several months. States have been struggling in recent years to carry out executions because of a shortage of drugs, partly because manufacturers in Europe want to block their use on condemned prisoners.

**STIHL**

Every counterfeit chain saw sold is not only a potential danger in the hands of the average homeowner, it says, it also can be sold to a law enforcement officer in our Virginia Beach police - an imposing arrest on jobs!

**Scott Tilley**  
Sah general counsel

Federal authorities have more than 70,000 copies with the company's distinctive orange and blue colors, which have been confiscated and destroyed in Europe.

**STIHL**

Legit models are sold through both official U.S. dealers.

**\$180-\$400**  
(retail price)

**\$60-\$120 less**

**AIR BAGS**

They feel and look OK, but there are many things they can be dangerous. They can be dangerous chemicals that can melt and fly in metal. That's not your intention."

**Douglas Campbell**  
Administrative Safety Council

**\$700-\$1,000**

Federal investigators have more than 50 investigations into the sale of thousands of counterfeit air bags. The defective devices often fail to protect occupants in a crash.

**\$39-\$89**

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**STORY CONTINUES ON 7A**



# CFSI Think Strategic

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# NATIONAL IPR CENTER



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# Increasing CFSI Vulnerabilities

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## **Internal:**

- Mergers & Acquisitions
- Personnel changes
- Cost drivers
- Obsolescence
- Changes in manufacturing technology
- IP theft

## **External:**

- Sourcing changes
  - global supply chain, diminishing suppliers, distribution issues
- eCommerce ← **bogus websites**
- Global supply & demand
- Cyber security & supply chain risk management (SCRM)
- Changing norms ← **what's "good enough"**

# RESOURCES, ALLIES, and INFORMATION SHARING





# CFSI - A Proactive Approach

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- ❖ **Partnership with industry to fight CFSI**
  - Get ahead of the problem before it becomes a problem
  - Education and awareness at the right levels throughout industry
  - What to do to prevent CFSI from entering the supply chain
  - What to do when CFSI is detected
  
- ❖ **Partnership world-wide**
  - Promoting increased CFSI reporting in IAEA/IRS
  - National Intellectual Property Rights Coordination Center
  - Exchanging and sharing information and best practices
  - Building tools to connect industry with OEM and associations





# Collaboration

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The power of the crowd



# I Can't Make This Stuff Up

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**02/2019** - (distributor) delivered 225 suspect CFSI pieces of Timken p/n 17118-902A2 [*Tapered Roller Bearing with Cone Spacer*] to (fabricator).

***Timken has 15 Rollers***

***vs.***

***suspects have 17 Rollers***

- Timken has no record of ever producing this bearing with 17 rollers.
- bearings and the cone are marked as Timken Corporation
- Timken reported that the symbol between the 17118 and USA is the wrong manufacturing facility
- Timken does not make the 17118-902A2 Tapered Roller Bearing with Cone Spacer at that location
- No date code - date codes are standard with all Timken products
- The markings around the front face of the cup are incorrect.





# I Can't Make This Stuff Up

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- Timken confirms all 225 pieces are counterfeit
- (fabricator) quarantined items & replacement bearings were re-ordered
- (distributor) states in response letter back to the (fabricator):
  - *“The reason why I choose supplier outside of USA is time frame of the order.”*
  - *“...checked all Timken supplier and couldn't find any unit delivery less than 6-8 mos.”*
  - *“As the shipment was approved by your company I didn't question the following shipment.”*
  - *“After I received your reject report. I tried to contact “Aces Bearing” by phone and email but didn't get any response from them.”*
  - *“Your order is first time business with “Aces Bearing”. (Distributor) is in business more than 14 years and it was happened first time.”*
- (distributor) has yet to acknowledge shipment of counterfeit parts
  - *Fed program requires a response within 15 days after notification*



# I Can't Make This Stuff Up

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REDACTED

sales@ REDACTED 00 REDACTED

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Home About Us FAG Bearing INA Bearing TIMKEN Bearing NSK Bearing News Contact Us Search...

**LOCAL LARGE-SCALE IMPORT BEARING DISTRIBUTOR**  
**WITH THE HIGHEST REPUTATION IN THE INDUSTRY**  
SPECIFICALLY FOR THE WORLD BRAND BEARINGS

REDACTED



# I Can't Make This Stuff Up

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## About Us

... devotes to providing our customers with the world's leading brand bearings, which are of superior quality and served in most industries market. Our mass stock enable us to provide quick delivery to meet your requirement in time. Also, we have many professional and technical personnel and related advanced equipment. The bearings we offered will be strictly identified before being delivered, which may undergo the examination of their quality, capability, and cost performance. For the bearings and other transmission components you demanded, we always here to serve you with convenient supply, technical support and solutions. has mass stock of bearings, and we work at full stretch to make your machine running smoothly.

## Vision & Mission

In the face of a more challenging era, many tough issues emerges, including the specialization of requirements and technological breakthroughs in industrial society worldwide. We endeavor to achieve our dream as a multi-functional speciality trading company that widely contributes to industrial society, provide our customers with high-functionality products and respond quickly to changes in the times. Customers are always our first priority. They are the reason why we are here. We endeavor...  
To keep in touch with Quality bearings producer.  
To provide customers with demanded products.  
To make fast, competent and Customer-friendly supply and delivery service.  
To offer customers with Quality products of competitive cost.

## Our Partners



# Counterfeit Example from Unauthorized Sources – Gray Market

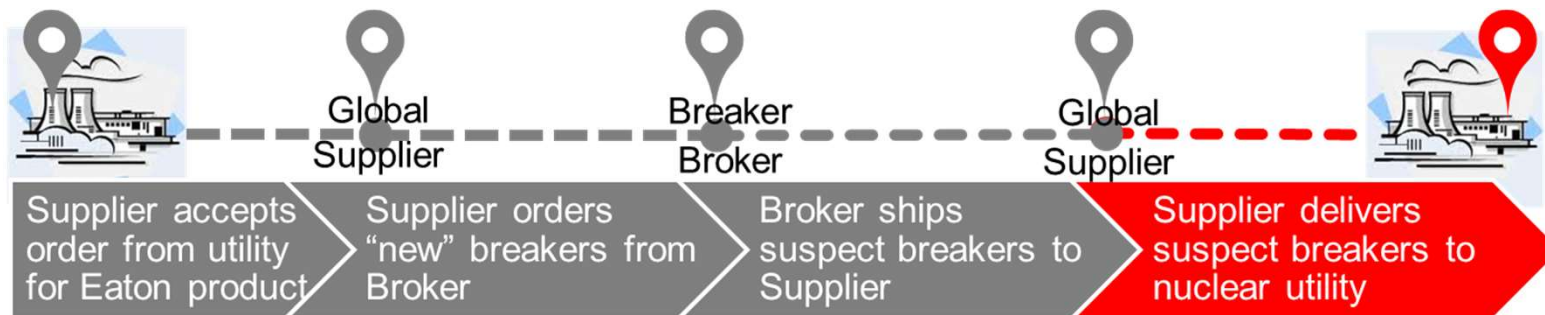
## Destination: Counterfeit

Start: Global Supplier

Points of Interest: Breaker Broker

End: Nuclear Utility Operator

- Well known Global Supplier sells (5) counterfeit EATON MCCBs to Nuclear Utility for commercial grade dedication (safety applications)
- Supplier provides their own packing slip with “certificate of conformance” for new products



Supplier accepts order from utility for Eaton product

Supplier orders "new" breakers from Broker

Broker ships suspect breakers to Supplier

Supplier delivers suspect breakers to nuclear utility

Nuclear utility places order with unauthorized reseller

Service Group places order for NEW breakers with Breaker Broker

Broker ships altered, suspect, and counterfeit breakers

Supplier repacks and ships suspect / counterfeit breakers

Nuclear utility dedication requires authentication

Counterfeit- breaker fails Eaton authentication


Eaton testing identifies breaker of unknown origin

Law enforcement action initiated – case ongoing

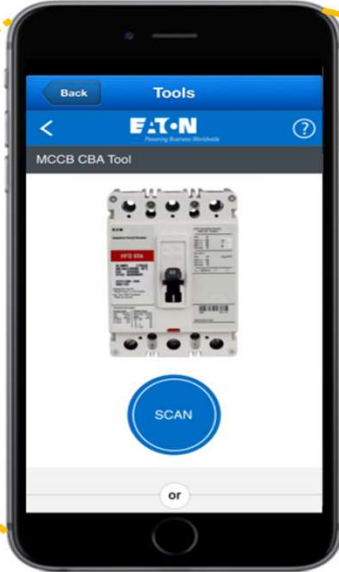


# Eaton's PowerEdge | Tools Molded Case Circuit Breaker Tool

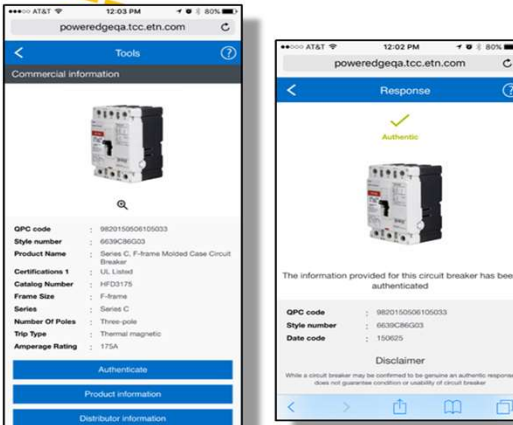
Scan MCCB QPC Code (Serial #)



Unique serial number



Resulting Scan



Provides product specific information and enables authentication

<http://poweredge.eaton.com/mccbtool/html/index.html>

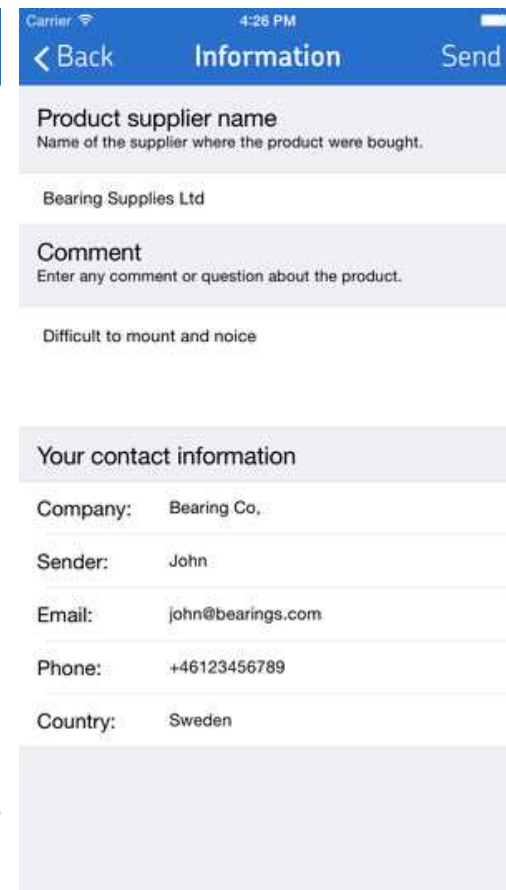
Tom Grace  
Manager, Brand Protection  
Eaton  
1000 Cherrington Parkway  
Moon Township, PA 15108  
[tomagrace@eaton.com](mailto:tomagrace@eaton.com)  
412-893-3814

[report\\_fakes@eaton.com](mailto:report_fakes@eaton.com)



# SKF Authentication App

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# CFSI – Your Role

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- Counterfeiting is a **crime** and the industry is the **victim**
- The choice is yours - **choose wisely**
  - recognize **reluctance** to acknowledge & combat CFSI
  - Stress **due diligence**
- Collaboration is **critical**
- Encourage efforts **beyond** what's required
  - **expose** threats vs. hiding or ignoring them
  - **flush out** bad actors, report their presence and keep them out of the equation
  - **eliminate risks** from the supply chain wherever and whenever possible
  - **question** erratic or unusual component failures

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## NEED MORE INFORMATION?





# CFSI – NRC Resources

ABOUT NRC

- The Commission
- Organization & Functions
- Governing Legislation
- Plans, Budget, & Performance
- Locations
- History
- Values
- Commission Direction-Setting & Policymaking Activities
- Radiation Protection
- Fire Protection
- Safety Culture
- How We Regulate
- Emergency Preparedness & Response
- Counterfeit, Fraudulent, and Suspect Items**
- Public Affairs
- Congressional Affairs
- International Programs
- State & Tribal Programs
- Alternative Dispute Resolution Programs
- Civil Rights
- About the NRC & Your Community
- Contact Us
- Career Opportunities
- Contracting Opportunities
- Grant Opportunities



Home > About NRC > Counterfeit, Fraudulent, and Suspect Items

## Counterfeit, Fraudulent, and Suspect Items

The NRC requires U.S. nuclear power plants to use only those products and services exhibiting the highest quality in agency-regulated activities. This has always been a cornerstone in the NRC's mission of protecting public health and safety, promoting the common defense and security, and protecting the environment during the civilian use of radioactive materials. Vendors, suppliers and nuclear power plants must verify the quality of items destined for safety-related functions in NRC-regulated activities. Verification includes extensive inspections of an item's critical physical characteristics, combined with rigorous performance testing, to provide reasonable assurance that parts will perform their intended safety functions when required to do so.


Each of the various NRC-regulated industry sectors use similar regulatory language to meet the highest quality assurance standards for the products and services employed in NRC-regulated activities. The NRC advocates a proactive approach to detect and prevent the intrusion of counterfeit, fraudulent, and suspect items (CFSI) into agency-regulated equipment, components, systems, and structures. The NRC routinely interacts with regulated companies, other federal agencies, international organizations, industry trade associations (nuclear & industrial), and academia to stay abreast of emerging CFSI trends.

The NRC inspection staff works with these outside organizations in order to evaluate vulnerabilities in procurement processes and to share best practices for the prevention of CFSI in the supply chain. The NRC holds periodic public workshops to provide information and updates on CFSI issues and to solicit industry feedback and lessons learned. Finally, the NRC participates in Nuclear Energy Agency (NEA) [\(ENR\)](#) and International Atomic Energy Agency (IAEA) [\(ENR\)](#) meetings to share CFSI information and lessons learned with foreign regulators.

- Guidance Documents and Background Information
- Safety Culture Policy Statement
- Public Presentations

The National Intellectual Property Rights Coordination Center [\(ENR\)](#) (IPR Center) stands at the forefront of the United States Government's response to global intellectual property (IP) theft and enforcement of its international trade laws. The mission of the IPR Center is to ensure national security by protecting the public's health and safety, the U.S. economy, and our war fighters, and to stop predatory and unfair trade practices that threaten the global economy. To accomplish this goal, the IPR Center brings together 23 partner agencies, including the NRC, in a task-force setting. The task force structure enables the IPR Center to effectively leverage the resources, skills, and authorities of each partner and provide a comprehensive response to IP theft.

To report violations of intellectual property rights, including counterfeiting and piracy, to the National IPR Coordination Center, visit the IPR website. [\(ENR\)](#)



Page Last Reviewed/Updated Thursday, November 15, 2018

<https://www.nrc.gov/about-nrc/cfsi.html>

<https://www.iprcenter.gov>  
**1-866-DHS-2-ICE**

**Dan Pasquale, Office of Investigations**  
**Sr. Reactor Systems Engineer**  
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**Daniel.Pasquale@nrc.gov**



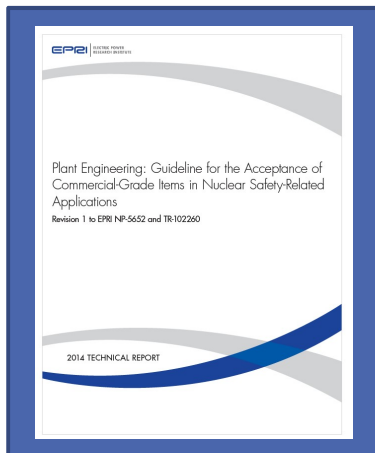
# EPRI GUIDANCE

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Plant Support Engineering: Counterfeit and Fraudulent Items - Mitigating the Increasing Risk, Revision 1 of 1019163 **300200276**

Plant Support Engineering: Counterfeit and Fraudulent Items - *A Self Assessment Checklist* **1021493**

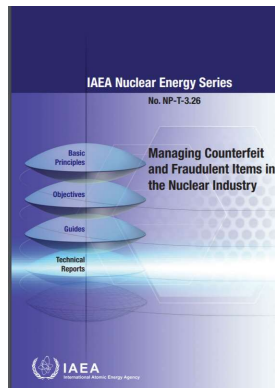


Plant Engineering: Guideline for the Acceptance of Commercial-Grade Items in Nuclear Safety-Related Applications - Revision 1 to EPRI NP-5652 and TR-102260 **3002002982**



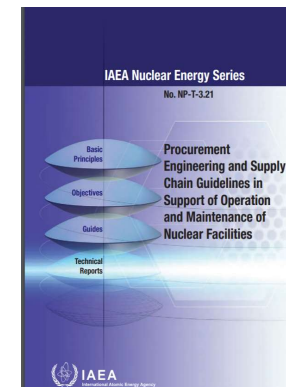
# NUCLEAR ENERGY SERIES

25



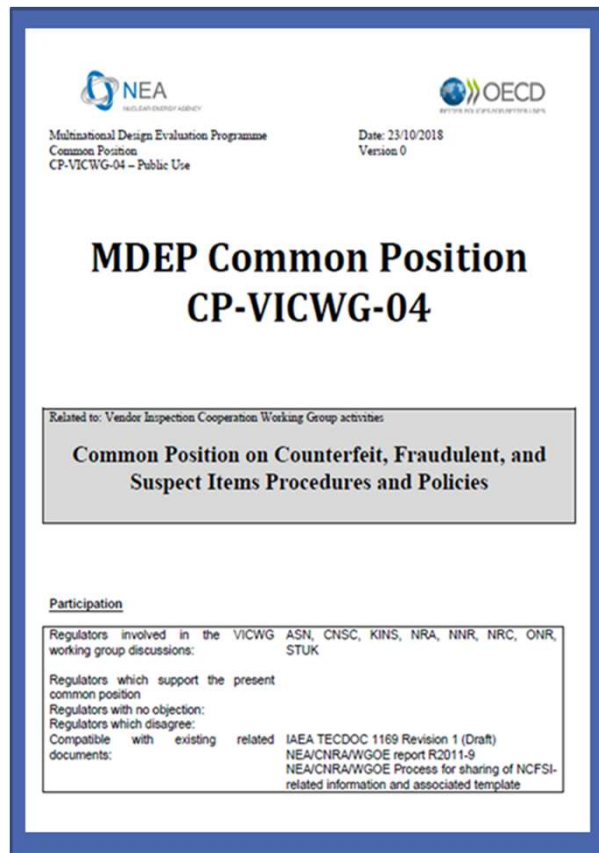
## Managing Counterfeit and Fraudulent Items in the Nuclear Industry - **NP-T-3.26**

## Procurement Engineering and Supply Chain Guidelines in Support of Operation and Maintenance of Nuclear Facilities - **NP-T-3.21**



# Nuclear Energy Agency: MDEP

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## Multinational Design Evaluation Programme Common Position CP-VICWG-04

**10/23/2018**

### Vendor Inspection Co-operation Working Group (VICWG)

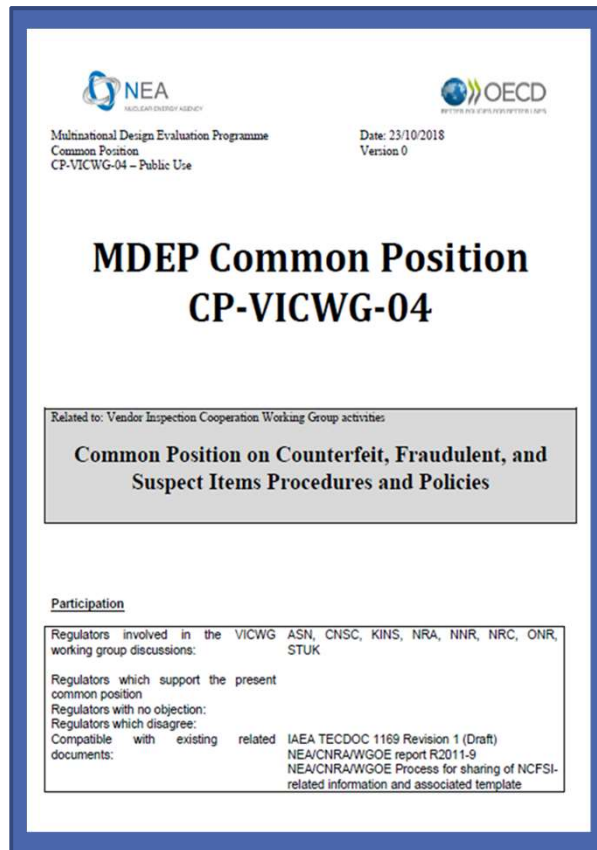
1. ASN – *France*
2. CNSC – *Canada*
3. KINS – *South Korea*
4. NRA – *Japan*
5. NNR – *South Africa*
6. NRC – *United States*
7. ONR – *United Kingdom*
8. STUK – *Finland*

<https://www.oecd-nea.org/mdep/common-positions/cp-vicwg-04.pdf>

*available for public use*



# Nuclear Energy Agency: MDEP



## CP-VICWG-04 General Topics:

1. Information & notification in the case of irregularities (including **safety culture** )
2. Testing and materials (including **sharing CFSI** information)
3. Inspection of licensees, suppliers, and external parties (including identification of **“at-risk”** procurements)
4. Control of commercial products used in safety-related applications (including **quarantining** of suspected items)
5. Enforcement (including **response protocols & collaboration with Law Enforcement**)
6. **Effective CFSI training for all level of participation**

<https://www.oecd-nea.org/mdep/common-positions/cp-vicwg-04.pdf>  
*available for public use*

