

JUST ANOTHER TRIP TO THE BEACH

February 12-14, 2019

EPRI JUTG

Fort Worth, TX



Andy Shuttleworth, Director,
Office of Investigations



Topics

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- ☐ The OI Mission
- ☐ Just Another Trip to the Beach
- ☐ Assessing the Risk
- ☐ Undesirable or Illegal?
- ☐ Community Watch
- ☐ A Global Supply Chain Problem
- ☐ Need More Information?

THE OI MISSION





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



I said that?

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

Andy Shuttleworth
National IPR Center

05.01.14 THURSDAY

26.7 INCHES

Amount of rain in reporting station near Pensacola peaked 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 once in 100 to 300-year occurrence, the National Weather Service reported.

11.2 INCHES

Amount of rain Mobile, Ala. picked up Tuesday.

STORM TOTALS AS OF 4 PM ET

New Madrid, Mo.: 8.5 inches

Adelphi, N.C.: 8.3 inches

Newark, N.J.: 8.0 inches

Pasadena, N.C.: 3.4 inches

Indianapolis, Ind.: 10 inches of snow

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USA TODAY

A GANNETT COMPANY

DELUGE CRIPPLES SOUTH

Part of the I-95 highway near Pensacola, Fla.

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

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 lifeline for ...

Top vote-getters: Portenhood, 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. is largest foreign aid donor

Top to poor countries overall has fallen in 2013. Top five donors, in billions:

U.S.	\$131.5
Britain	\$17.9
Germany	\$14.1
Japan	\$11.8
France	\$11.4

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Online buyer, beware of fakes

Dangerous counterfeit market thrives on the Web

Jon Swartz and Elizabeth Weir

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 dangers associated with using them.

STIHL CHAIN SAW

STIHL

Stihl, like Germany's famed maker of all-terrain vehicles, has 100,000 dealers worldwide. It says authentic copies go for \$400 to \$450. The company employs 1,000 at its Virginia Beach, Va., plant.

\$180-\$400

Legit models are sold through Stihl's official U.S. dealers.

\$60-\$120 less

In the past six years, some 70 million people have used the company's distinctive orange-high-visibility color scheme. Some have been confused and destroyed in Europe.

AIR BAGS

\$700-\$1,000

Used in conjunction with seat belts, airbags are a key safety feature. They are rapidly replacing air bags.

\$39-\$89

Federal authorities have more than 50 investigations into the sale of counterfeit air bags. The dealer device often used in small cars is more dangerous because they are cheaper to buy to build and are typically made in China. About 15,000 fake bags - many of them containing dangerous chemicals - were confiscated last year. Federal authorities say.

STORY CONTINUES ON 7A

Gruesome execution spurs calls for freeze

Four set for lethal injections in May

Chris Ziegler

CHRONICLE

Opponents of the death penalty say the agonizing death of an Oklahoma inmate from lethal injection this week will further fuel the pace of executions in America. They are calling for a moratorium on the practice.

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STATS-9Y-STATS 3A AMERICA'S MARKETS 2B MARKETPLACES TODAY 3B PUZZLES 4D SCREEN CHECK 6D WEATHER 8A YOUR SAY 7A



NATIONAL IPR CENTER

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



Intellectual Property Crime

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- Generates nearly \$1.5 trillion in illicit proceeds every year
- Over 80% of all counterfeit items seized coming into the U.S. originated from one country
- Three big drivers:
 - cyber commerce,
 - express consignment delivery,
 - just-in-time inventory
- It goes far beyond what we think we know



Aware...

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CFSI Think Strategic

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CFSI Think Strategic

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CFSI

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- Counterfeit components are prevalent in all areas of industrial technology, counterfeiting is a criminal activity and in these instances industry is the victim.
- Costs associated with counterfeits go beyond the basic fraud and cost industry in lost production, costly man hours, and repairs.
- Potential safety hazards for employees and the general public as well, in extreme cases could pose a risk to national security.
- Supply chain integrity is the goal, but effective partnership with industry is the key.



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”*



Reasonable Assurance Defined

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- *to the best possible extent provided given the situation's circumstances, the author is reasonably sure that his conclusions are free from material misstatement (but there might be some misstatements that go undetected)*
- *acknowledgment that it is not possible to assert absolutely and certainly that an event will (or will not) occur*

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JUST ANOTHER TRIP TO THE BEACH





A Matter of Perspective

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...Proximity

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...and Awareness

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Avoid Unpleasant Surprises

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Informed Decisions

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ASSESSING THE RISK





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



CFSI

Increasing Vulnerabilities

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Favorable criminal environment:

- lack of reporting
- little fear of prosecution
- low fines and sentences upon conviction
- unprecedented anonymity
- may involve alternate illicit activities

Favorable profit margins:

- high profit potential
- low capital and labor costs
- access to sub-suppliers
- easily distributed via the internet
- no research & development costs
- no advertising costs

Favorable market conditions:

- obsolescence ← Aging operating units
- advancing technology ← Digital I&C, CAD software, 3D Printing, etc.
- global supply chain ← 58 nuclear plants under construction worldwide
- diminishing suppliers (10 CFR 50, Appendix B) ← More CGDs
- new norms ← high in-service failures

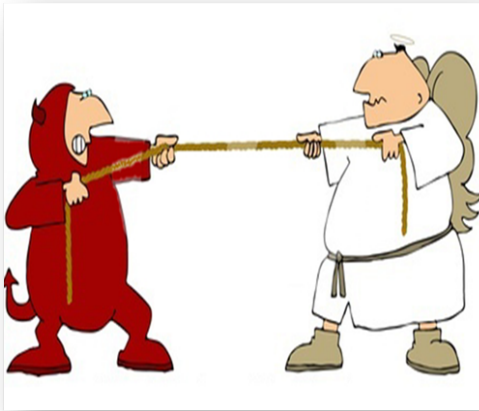
UNDESIRABLE or ILLEGAL?





Poor Performance vs. Wrongdoing

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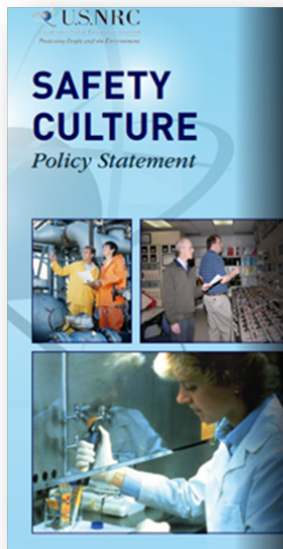


*Poor performance by a vendor resulting in a nonconformance, while **undesirable**, can be managed by effective customer oversight.*

*Intentionally misrepresenting equipment, parts or materials **is illegal** and must be dealt with appropriately*



Nuclear Safety Culture



NUREG/BR-0500
- ML15062A478

The NRC's Safety Culture policy statement, "applies to all licensees, certificate holders, permit holders, authorization holders, holders of quality assurance program approvals, vendors and suppliers of safety-related components, and applicants for a license, certificate, permit, authorization, or quality assurance program approval subject to NRC authority."

- NUREG/BR-0500, Rev. 3

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COMMUNITY WATCH





CFSI – Your Role

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- CFSI has nothing to do with Licensee
- Encourage reporting beyond what is required
 - Hiding or ignoring the threat vs exposing those who are a threat
 - Flush out who is doing it, where it is coming from
 - Keeping bad actors from reestablishing
- Recognize reluctance, public reporting vs public opinion

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A GLOBAL SUPPLY CHAIN PROBLEM





Nuclear Energy Agency: MDEP

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Multinational Design Evaluation Programme
Common Position
CP-VICWG-04 – Public Use



Date: 23/10/2018
Version 0

Multinational Design Evaluation Programme Common Position CP-VICWG-04

10/23/2018

MDEP Common Position CP-VICWG-04

Related to: Vendor Inspection Cooperation Working Group activities

**Common Position on Counterfeit, Fraudulent, and
Suspect Items Procedures and Policies**

Participation

Regulators involved in the VICWG working group discussions:	ASN, CNSC, KINS, NRA, NNR, NRC, ONR, STUK
Regulators which support the present common position	
Regulators with no objection:	
Regulators which disagree:	
Compatible with existing documents:	related IAEA TECDOC 1169 Revision 1 (Draft) NEA/CNRA/WGOE report R2011-9 NEA/CNRA/WGOE Process for sharing of NCFSI-related information and associated template

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-neo.org/mdep/common-positions/cp-vicwg-04.pdf>

available for public use



Nuclear Energy Agency: MDEP

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Multinational Design Evaluation Programme
Common Position
CP-VICWG-04 – Public Use



Date: 23/10/2018
Version 0

CP-VICWG-04 General Topics:

MDEP Common Position CP-VICWG-04

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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-neo.org/mdep/common-positions/cp-vicwg-04.pdf>
available for public use



CFSI - NRC Proactive Approach

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Partnering 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**

- National Intellectual Property Rights Coordination Center
- Exchanging and sharing information and best practices
- Building tools to connect industry with OEM and associations

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NEED MORE INFORMATION?



FOR MORE INFORMATION...

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U.S. NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

NUCLEAR REACTORS | NUCLEAR MATERIALS | RADIOACTIVE WASTE | NUCLEAR SECURITY | PUBLIC MEETINGS & INVOLVEMENT | NRC LIBRARY | ABOUT NRC

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) and International Atomic Energy Agency (IAEA) 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 (NIPRCC) (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.

To Report IP Theft
Click Here

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

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