



**RIC 2012
Domestic and International
Supply Chain Oversight**

Enhancing the Integrity of the Supply Chain

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March 13, 2012



Topic Areas

- Nuclear Supply Chain
- Increased Attention on Counterfeit, Fraudulent, and Suspect Items (CFSI)
- Current Factors
- NRC Activities

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Nuclear Supply Chain

- The nuclear supply chain is increasingly global.
- The integrity of the supply chain is a fundamental element of an effective quality assurance program for NRC-licensed facilities and their suppliers.



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Nuclear Supply Chain (cont'd)

Characteristics of effective procurement and dedication:

1. Involvement of engineering staff in the procurement and product acceptance processes
2. Effective source & receipt inspection, and testing programs
3. Thorough, engineering-based programs for review, testing, and dedication of commercial-grade items

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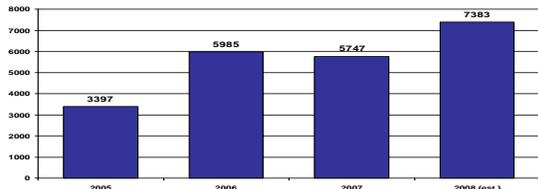
Nuclear Supply Chain (cont'd)

- Little or no significant counterfeit activity in commercial nuclear industry since NRC's issuance of guidance documents in 1990's.
- Other industries have seen an increase in Counterfeit, Fraudulent, and Suspect Items (CFSI) activity in recent years.

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Increased Attention on CFSI



Total Counterfeit Incidents – Original Component Manufacturers, Distributors, Board Assemblers – 2005 to 2008 (Courtesy U.S. Department of Commerce)

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Increased Attention on CFSI (cont'd)

- Historic increase in counterfeit electronic incidents
- Supply chain globalization
- Industry-wide migration to digital technology
- Advanced Counterfeiting Technology

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Current Factors

1. Material shortages (Increased opportunity/threat)
2. Diminishing Appendix B suppliers
3. Global supply chain
4. Advancing technology
5. High in-service failure rates (non-nuclear)
6. Lack of reporting

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Current Factors

Industry Migration to Digital I&C

U.S. Operating Reactors

- 100% of *license renewal applicants* are expected to migrate to Digital I&C for safety systems
- 1/3 of operating plants have already migrated for some safety systems

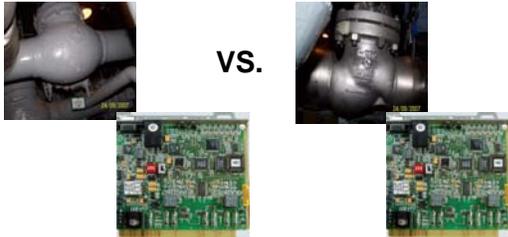
U.S. New Reactors

- 100% of all new reactor designs have Digital I&C Systems

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Current Factors

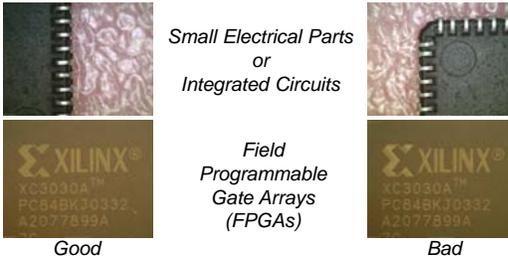
Threat: Past and Present Threat



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Current Factors

Advanced Counterfeiting Technology



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NRC Activities

- Developing the NRC's CFSI Community
 - Continuing to Enhance the NRC Inspection Process
 - Issuance of Information Notice 2008-04
 - Issuance of SECY-11-0154
- Working with the Nuclear Community
 - Sharing Information
 - Working with NUPIC to Revise Audit Checklists
 - Working with EPRI Technical Advisory Group
- Cooperating with U.S. Government Agencies
- International Activities

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NRC Activities - Commission Paper

- Development of NRC's CFSI Response Strategy
 - Agencywide plan to monitor and evaluate CFSI
- Assessment of key areas:
 - Supply Chain Oversight
 - Communications
 - Agency Response Protocols
 - Malicious Products
- Continuing Activities



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NRC Activities - NEA Working Group

- NEA/CNRA created Task Force on CFSI
- Objective is to identify commendable practices:
 - Foster informed and engaged supply chain
 - Implement effective licensee processes and controls
 - Ensure regulatory oversight of licensees' approaches
 - Identify mechanisms or approaches for collecting and sharing experience

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Questions

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