

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
OFFICE OF NEW REACTORS
WASHINGTON, DC 20555-0001

April 7, 2008

NRC INFORMATION NOTICE 2008-04: COUNTERFEIT PARTS SUPPLIED TO NUCLEAR
POWER PLANTS

ADDRESSEES

All holders of operating licenses for nuclear power reactors and applicants for combined license to construct nuclear power plants under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants."

PURPOSE

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice (IN) to inform addressees of the potential for counterfeit parts to enter their supply chains. Addressees should review this information and consider actions, as appropriate, to avoid similar problems. The suggestions contained within this IN are not NRC requirements; therefore, no specific action or written response is required.

DESCRIPTION OF CIRCUMSTANCES

Counterfeit Valves

In November 2007, NRC became aware that Hatch Unit 2 had discovered a counterfeit valve (5" 150# Ladish stop check valves) on the stator cooling water skid. The licensee at Hatch later determined that it had two counterfeit valves in its facility: one in the warehouse and another one installed in Unit 2, as the "B" stator cooling water pump discharge stop check valve. The valve installed on Unit 2 had been in service for 8 months as of the time of discovery. Upon discovering the counterfeit valve, the licensee began to closely monitor the performance of the valve and plans to replace it during the next refueling outage in the spring of 2009. The valve installed at Hatch Unit 2 is being used in a non-safety related system.

Counterfeit Circuit Breakers

NRC is aware that on December 27 and October 30, 2007, and November 16, 2006, the U.S. Consumer Product Safety Commission (CPSC) had announced a recall of counterfeit circuit breakers labeled as "Square D" distributed by North American Breaker Co., Inc., Connecticut Electric and Switch Co, and Scott Electric Co. Inc. The recalled circuit breakers labeled "Square D" were manufactured in China and distributed from March 2003 through April 2006, February 2005 through August 2006, and May 2005 through May 2006, respectively. The counterfeit circuit breakers can fail to trip when overloaded, posing a fire hazard to consumers.

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A licensee database search indicated that Catawba, McGuire, and Oconee nuclear power plants had purchased Square D circuit breakers during the suspected time frame. After inspecting their Square D circuit breakers, Oconee and McGuire Plants confirmed that the Square D breakers that they had purchased during the suspected time frame were genuine. Catawba Nuclear Plant, however, could not confirm the authenticity of four of its Square D circuit breakers that it had purchased during the suspected time frame. Subsequently, Catawba removed these circuit breakers from stock. The NRC is not aware that the counterfeit circuit breakers have been installed in safety-related applications. The CPSC reports are available at <http://www.cpsc.gov/cpsc/pub/prerel/prhtml08/08151.html>, <http://www.cpsc.gov/cpsc/pub/prerel/prhtml08/08054.html>, and <http://www.cpsc.gov/cpsc/pub/prerel/prhtml07/07036.html>.

BACKGROUND

Over the past two decades, the NRC has issued several generic communications to inform licensees of counterfeit or misrepresented vendor products. In March 1989, the NRC staff issued Generic Letter (GL) 89-02, "Actions to Improve the Detection of Counterfeit and Fraudulently Marketed Products" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML031140060). The GL informed licensees of program elements that are effective in detecting counterfeit or fraudulently marketed products and in assuring the quality of vendor supplied products. Additionally, in October 1989, the staff issued IN 89-70, and a supplement in April 1990, "Possible Indications of Misrepresented Vendor Products," to inform licensees of misrepresented vendor products and to provide information related to the detection of such products (ADAMS Accession No. ML031180470).

DISCUSSION

Although none of the counterfeit items described above were installed in safety-related applications, these examples demonstrate the need for licensees to remain vigilant and maintain effective quality assurance programs to reduce the potential for introduction of counterfeit parts into their supply chains.

In recent years many vendors, including foreign companies, with little to no experience in the nuclear industry have entered the market to supply parts and components for both safety and non-safety applications to nuclear power plants. It remains the licensees' responsibility to ensure that all suppliers use standards and processes that conform to US standards. Effective oversight of suppliers becomes increasingly more important as the nuclear industry begins construction of new nuclear power plants in the US.

As discussed in GL 89-02, three characteristics of effective procurement and dedication programs are (1) the involvement of engineering staff in the procurement and product acceptance process; (2) effective source inspection, receipt inspection, and testing programs; and (3) thorough, engineering-based programs for review, testing, and dedication of commercial-grade products for suitability for use in safety-related applications. Licensees may want to consider the applicability of these characteristics to their programs to reduce the likelihood of the introduction of counterfeit or fraudulent products into their plants and to assure the quality of procured vendor products.

CONTACT

This information notice requires no specific action or written response. Please direct any questions about this matter to the technical contacts listed below.

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Note: NRC generic communications may be found on the NRC public Web site,
<http://www.nrc.gov>, under Electronic Reading Room/Document Collections

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