

ABATED ELECTRICAL TRANSFORMER HAZARDS

At Naval Station Newport, RI, Load Center One, the source of primary electrical distribution for the NAVSTA, was more than 40 years old and had transformers that did not have primary fusing. Primary fusing protects the service center from electrical current overages. The transformers overheated due to the absence of primary protection, had inoperable circuit breakers, and leaked dielectric compound. The resulting poor insulation capacity of the electrical wiring in the transformers coupled with the inability to manually trip the circuit breaker device (pictured below) due to faulty wiring put



Views of one of the aging transformers

approximately

twelve
maintenance

workers at risk of exposure to potential explosions and electrical hazards.



Circuit interrupter device (CID)

The National Electrical Code (NEC) requires an accessible mechanical means for manually tripping circuit breaker devices that is independent of the control power. Using Operation and Maintenance (O&M) funds, NAVSTA Newport replaced the electrical equipment in Load Center One with new transformers that have primary protection, operable circuit breakers that can be tripped manually, and properly insulated electrical wiring.