

Research

Research has always played a large part in supporting the NRC's safety mission. Throughout the past five years, changes in the threat environment and improvements in technology that allow more sophisticated analyses, have accelerated the pace of power plant research and security studies. For example, the NRC initiated a security and engineering review based on the September 11th events. The review looked at what might happen if terrorists used an aircraft to attack a nuclear power plant. The NRC also assessed the potential consequences of other types of terrorist attacks. National experts from Department of Energy (DOE) laboratories used state-of-the-art experiments and structural and fire analyses to assist the NRC.

While the details are classified, the studies confirm that the plants are robust, and the likelihood of a radioactive release affecting public health and safety is low. Another study analyzed the ability of nuclear power plants to withstand damage to, or loss of, large areas of the plant caused by a range of postulated attacks that could result in large fires and explosions. After examining a number of emergency scenarios involving operating reactors, spent fuel pools and dry-cask storage installations, the NRC has concluded that the existing planning basis used to develop nuclear power plant emergency plans remains valid and is confident that the public near those facilities can be adequately protected should an attack occur. As part of these analyses, enhancements were identified and the NRC ordered changes at nuclear power plants. Moreover, based on insights from these studies, industry best practices, and lessons-learned from the response to the attacks of September 11, 2001, additional mitigating capabilities have been put in place at all nuclear power plants.

Source: Nuclear Regulatory Commission <http://www.nrc.gov/reading-rm/doc-collections/fact-sheets/security-enhancements.html>