

STATEMENT SUBMITTED

BY THE

UNITED STATES NUCLEAR REGULATORY COMMISSION

TO THE

SUBCOMMITTEE ON NATIONAL SECURITY, EMERGENT THREATS,
AND INTERNATIONAL RELATIONS

COMMITTEE ON GOVERNMENT REFORM

UNITED STATES HOUSE OF REPRESENTATIVES

FOR THE HEARING ON

EMERGING THREATS: ASSESSING PUBLIC SAFETY AND SECURITY MEASURES AT
NUCLEAR POWER FACILITIES

SUBMITTED BY

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REGION I

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Introduction

Good afternoon, Mr. Chairman and members of the Subcommittee. It is a pleasure to appear before you today to discuss Nuclear Regulatory Commission (NRC) actions with respect to security and emergency preparedness at nuclear power facilities and communications with local and State officials regarding these activities.

NRC's primary mission is to regulate nuclear reactors, materials and waste facilities in a manner that protects the health and safety of the public and promotes the common defense and security. Security and emergency preparedness are key elements of the "defense in depth" safety philosophy we employ for nuclear power plants. This philosophy: ensures high quality in design, construction, and operation of nuclear power plants; requires redundant safety systems that reduce the chances that malfunctions will lead to accidents; and recognizes that in spite of all these precautions, accidents could occur. That is why, for example, containment structures and other safety features are required to minimize the potential for the release of fission products off site. Through emergency planning and preparedness, additional mechanisms are in place to protect the public in the unlikely event that these barriers were to fail.

Security at Nuclear Power Plants

Security of nuclear power plants across the country -- long the subject of NRC regulatory oversight -- has been given even greater priority at NRC since the September 2001 terrorist attack. Within minutes of the attack, NRC directed the licensees for plants across the country to go to the highest level of security. While for many years, all nuclear power plants have been required to have security programs sufficient to defend against violent assaults by

well-armed, well-trained attackers, numerous additional steps have been taken since September 2001 to thwart terrorist acts. Through formal Orders, NRC has required increased security staffing, posts and patrols, installation of substantial additional physical barriers, greater stand-off distances for vehicle bombs, and more restrictive site access controls, to name only a few of these measures.

Over the past 17 months, the Commission has undertaken a comprehensive review of safeguards and security programs, in close consultation with the Department of Homeland Security and other Federal agencies and with significant involvement by State agencies. We have been working with the intelligence community and appropriate Federal agencies to assess the need to revise the design basis threats and continue to assess the need for specific additional guidance in areas such as security officer training and fatigue, taking into account experience since the September 2001 terrorist attacks.

Through audits and inspections of the security programs, NRC inspectors have confirmed that the required security enhancements have been implemented at all nuclear power facilities, including the Indian Point facility in New York and the Millstone facility in Connecticut. We have been conducting enhanced table-top security exercises at our reactor facilities and have recently begun enhanced force-on-force exercises. We will conduct force-on-force exercises on a 3-year cycle and expect the Indian Point facility to be among the first to conduct one of these exercises.

For many years, the NRC has provided and continues to pursue legislative proposals to Congress detailing specific initiatives that would further enhance security of NRC-licensed activities. These proposals address a wide spectrum of activities. One provision would authorize guards at NRC-regulated facilities to use deadly force to protect property significant to

the common defense and security. This would give guards protection from State criminal prosecution for actions taken during the performance of their official duties. Another provision would allow the Commission, in consultation with the Attorney General, to confer upon guards at NRC-designated facilities the authority to possess or use weapons that are comparable to those used by the Department of Energy's guard forces. Some State laws currently preclude private guard forces at NRC-regulated facilities from utilizing a wide range of weapons. Another provision would make it a Federal crime to bring unauthorized weapons and explosives into NRC-licensed facilities. The NRC would also make Federal prohibitions on sabotage applicable to the operation and construction of certain nuclear facilities. The NRC hopes that these and other more recently developed legislative initiatives, such as in the area of access authorization, will be enacted early in the 108th Congress.

Radiological Emergency Planning and Preparedness

As noted earlier, emergency planning is one tier in the NRC's "defense in depth" safety philosophy. The overall objective of emergency response planning is to assure that, in the event of an accident at the facility, radiation doses to persons off site would be below doses that could result in acute or long term health effects. Following the accident at Three Mile Island in 1979, the NRC determined that improved emergency planning by Federal, State and local governments was needed to respond to possible reactor accidents. In addition, President Carter, in December 1979, directed that the Federal Emergency Management Agency (FEMA) take the lead in initially reviewing and assessing offsite planning and response and in assisting State and local governments, while NRC reviews and assesses the licensee's onsite planning and response. The NRC reviews FEMA findings on offsite planning and, in conjunction with its own onsite findings, makes a determination on the overall state of emergency preparedness prior to issuing licenses and in continuing oversight of operating reactors.

To compel improvement, NRC issued new regulations that establish planning standards and define the responsibilities of plant operators, as well as State and local organizations involved in emergency response. These regulations as well as published guidance have been developed over many years with input from all major stakeholders.

For planning purposes, we define two planning zones around nuclear power plant sites. The first is an emergency planning zone covering an area of about 10 miles in all directions around nuclear power plants where the greatest potential for radiological effects from a release exists. Protective actions for members of the public in this zone could involve evacuation or sheltering. Consideration of these protective actions is prompted at very low projected dose levels. They are also doses far below a level that would lead to long term or appreciable health effects. A second extended planning zone of about 50 miles is also established around each plant to deal with potential lower-level, long-term risks primarily due to exposure from ingestion of contaminated food and water.

It is not likely that protective actions would need to be taken for the entire 10-mile emergency planning zone, even for a significant release. A radioactive plume from a nuclear power plant does not move in all directions at once, but travels in the general direction to which the wind is blowing. As a result, only a small fraction of the population in the emergency planning zone would be in the pathway of the plume.

Each licensee has its own onsite emergency plan, and State and local governments have detailed plans for both the 10 and 50-mile emergency planning zones. These emergency response plans are multifaceted and perform a number of functions -- joint NRC-FEMA guidance identifies some 16 planning standards that are to be addressed. Emergency planning provides: defined roles for emergency responders; a framework for monitoring and assessing

conditions onsite and offsite; mechanisms for communication of key information between onsite and offsite officials; and preestablished criteria and guidelines for making prompt decisions on protective actions such as evacuation and sheltering. State and local emergency response plans contain the procedures for implementing protective actions for the public.

Emergency planning is a dynamic process. Emergency response plans are tested in frequent small-scale drills and periodic full-scale emergency exercises that simulate serious reactor accidents. The plans and their implementation are periodically reviewed to confirm that they are being adequately maintained and address changing circumstances appropriate to any given site. NRC's February 2002 security Orders specifically required licensees to enhance their emergency response plans as appropriate in light of the current threat environment. Licensees were required to ensure that emergency response plans appropriately recognized the potential for security threats and that response actions were compatible with enhanced security measures.

If FEMA, in its role as the lead Agency for assessing offsite planning and response, finds that offsite plans or preparedness are not adequate, FEMA, by its process, will inform the Governor of the State and the NRC. The NRC will then work with the reactor licensee and, in conjunction with FEMA and with State and local jurisdictions as appropriate, to address the identified deficiencies. Ultimately, we will take into account information provided by FEMA as well as others in making final determinations.

The NRC recently received a copy of a draft report prepared by James Lee Witt Associates, LLC, at the request of New York State Governor Pataki regarding emergency preparedness at the Indian Point Energy Center. The matters addressed in the draft report in large measure relate to offsite planning and preparedness, which falls primarily under FEMA's

authority. While any judgment as to the overall state of emergency planning and preparedness is for the NRC to reach, in keeping with the longstanding memorandum of understanding between FEMA and the NRC, we look initially to FEMA for its views on the draft report relating to offsite preparedness. On February 21, 2003, FEMA issued its report on the September 2002 emergency preparedness exercise at Indian Point which addresses a variety of planning issues including FEMA's conclusions regarding concerns raised by Witt Associates. We are now reviewing this FEMA report and will closely monitor steps being taken in the coming months by FEMA, the State, counties, and plant operator, Entergy, to address these concerns.

One of the issues raised in the Witt report involved emergency response in the event of a terrorist attack. Emergency plans are intentionally written to be broad and flexible in order to provide for responses to a wide spectrum of events, including those involving rapid, large releases of radioactivity. Necessary protective actions and offsite response are not predicated on the specific cause of an event. Nor do they consider the probability of a given accident sequence. Rather, emergency planning assumes the improbable has already occurred and develops a response to address the consequences of potential releases. Whether releases from the plant occur as a result of terrorist acts or equipment malfunctions, emergency plans provide an effective framework for decision making and response. Preliminary results from our vulnerability studies do not indicate an increased source term or quicker release from terrorist-initiated events than is already addressed by the emergency planning basis required by NRC regulations.

Following the February 2000 steam generator tube failure event at Indian Point 2, the General Accounting Office conducted an audit of emergency response issues associated with the plant. In its report, the GAO recommended that the NRC assess its position of generally communicating with State officials during non-emergency situations given that the responsibility

for responding to radiological emergencies at a large percentage of the Nation's nuclear power plants rests with an entity other than the State. Our assessment of NRC communication practices concluded that existing practices are generally adequate and the level of interaction and communication needed between the NRC and local officials is a site specific variable. To further enhance the availability of NRC staff to local officials and members of the public, the NRC has revised inspection guidance for regional management to consider the site specific needs for contacts with the members of the public and offsite officials.

In the case of Indian Point, over the past several years the NRC has had extensive interactions with local officials regarding developments at that site. The NRC has briefed local officials on important plant events and NRC actions on a continuing basis. The NRC routinely holds meetings in the local area which are open to public observation and provide opportunities for comments and questions from the local public. Local officials or their staffs attend these meetings. On a number of occasions the NRC conducted pre-meeting briefings for local officials to facilitate information exchange. The NRC also consistently provides early notifications to Congressional, State and local officials of any significant site activity or significant correspondence with the licensee.

The NRC has expanded our outreach efforts for county officials who have vital roles in emergency response for Indian Point. We have, for example, participated in a number of meetings and have frequently communicated with and supported county officials responsible for emergency planning on topics such as potassium iodide, bus resources, exercise conduct, and dose assessment.

For several years, we have maintained a heightened level of oversight of Indian Point 2, especially since the February 2000 steam generator tube failure event. The concerns from that

event were principally associated with plant equipment problems, but, as noted in the GAO report, several emergency response issues also surfaced. We have closely monitored the station's improvement programs through expanded inspection efforts. In August 2001, after evaluating the licensee's performance during an emergency exercise, we concluded that the most significant of past weaknesses in the onsite emergency preparedness program had been substantially addressed. However, much work remains to be done at the station, and we have maintained heightened oversight of the plant. The most recent emergency exercise at Indian Point occurred on September 24, 2002. This biennial full-participation exercise reflected positively on the Entergy management team and the ability of the emergency response organization to effectively implement the onsite emergency preparedness program. While some areas for improvement were identified, we judged the overall licensee performance to be satisfactory.

Conclusion

In short, we have a comprehensive and aggressive security program. Nuclear facilities had very significant security before September 11th and that security has been greatly strengthened in the aftermath of the attacks. Furthermore, the NRC will continue to work with FEMA and other Federal agencies, as well as licensees, State and local officials, in ongoing efforts to strengthen emergency planning and preparedness.

This concludes my remarks. I look forward to answering any questions you may have.