



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEB 20 1991

Ms. Susan L. Hiatt
OCRE Representative
8275 Munson Road
Mentor, OH 44060

Dear Ms. Hiatt:

I am responding to your letter of January 14, 1991. In your letter, you expressed concern on behalf of the Ohio Citizens for Responsible Energy, Inc. (OCRE) regarding the possibility of an aquatic attack or sabotage of a nuclear power plant by adversaries using watercraft. You stated that nuclear power plants do not appear to take actions to restrict access to waters near the plant, even those within the Exclusion Area Boundary. You mentioned three possible modes of attack by water that you were uncertain the U.S. Nuclear Regulatory Commission (NRC) had considered:

1. Use of a boat as a platform from which to fire weapons, such as shoulder-fired rocket launchers, at the power plant;
2. Use of a boat laden with explosives as a "boat bomb;"
3. Use of divers to plant explosives in the plant's intake and/or discharge structures or close to plant structures on shore.

First, let me clarify that an exclusion area is an area surrounding the reactor from which the licensee has provided appropriate and effective arrangements, and has the authority to have people removed in case of an emergency, if necessary, to protect their health or safety. Our regulations (Part 100) permit access to the exclusion area under appropriate limitations, whether that area consists of land or water. To ensure plant security, NRC regulations require licensees to establish a protected area that is encompassed by physical barriers. All plant equipment vital to the safety of a plant are required to be located inside physical barriers within the plant's protected area. Not all nuclear power reactors have a protected area adjoining a navigable body of water. For facilities that have vital equipment located at intake and/or discharge structures, the protected area physical barriers extend to the borders of those areas, including protection from access from the water boundary of the protected area.

When the NRC reviews or inspects a nuclear power plant's physical security, it considers a number of factors, including the possibility of access to the

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protected area from bodies of water that abut the protected area perimeter. As you discussed in your letter, a number of plants are located such that a navigable body of water is adjacent to a facility. In many cases, the circulating water intake and discharge structures contain equipment necessary for generating electricity but not vital to the safe shutdown of the plant. At other nuclear power plants, intake structures are used only for occasional makeup to a closed loop cooling system. At these sites, the intake or discharge structures may be remote from the protected area. Where a facility's protected area adjoins a body of navigable water, the NRC has evaluated the possibility of divers accessing these structures with the intent of sabotage. We will be soon completing a Regulatory Effectiveness Review Program in which teams that include individuals specially trained in explosives and in barrier penetration evaluate the effectiveness of the security programs established by nuclear power licensees, including consideration of attack by divers where to date, the team felt it could be an appropriate means of attack. Based on our reviews, we consider these plants to be adequately protected against this threat.

We do not believe that the use of a boat as a platform from which to fire weapons at the power plant would result in radiological release in excess of the dose limits specified in Part 100. Licensed power reactors are required to have redundant systems for achieving safe shutdown. A hand-held weapon fired from outside the protected area would be highly unlikely to be capable of damaging sufficient systems to prevent all means of safe shutdown.

Your concern about terrorists using a boat laden with explosives as a "boat bomb" was previously considered by the Commission in SECY-89-109, "Waterborne Vehicle Bomb Issues Affecting Power Reactors." (This commission paper contains National Security Confidential material and is not publicly available.) The Commission determined that no action on that matter was needed. Recently, the Commission has received a Request for Emergency Action to implement vehicle bomb contingency plans and a petition to upgrade the Commission's design basis threat for radiological sabotage. The NRC docketed the petition as PRN-73-9 and published a notice of receipt of petition on page 3228 of the January 29, 1991, issue of the Federal Register (enclosed). We have entered your letter into the docket of this petition for further consideration of the issue of "boat bombs," and you may provide additional comments in response to the petition if you wish.

In your letter, you mentioned heightened concern of radiological sabotage resulting from the situation in the Middle East. The NRC continually reviews the threat environment associated with commercial nuclear facilities. Based on evaluation of the Intelligence Community and other relevant data concerning recent world events, we have determined that there continues to be no credible threat of terrorist actions against any NRC-licensed facility that warrants emergency action. Nevertheless, the situation resulting from activities

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in the Middle East continues to be closely monitored so that appropriate actions can be taken, if warranted.

I trust this response has satisfactorily addressed your concerns.

Sincerely,

Original signed by
Thomas E. Murley

Thomas E. Murley, Director
Office of Nuclear Reactor Regulation

Enclosure:
FR56:3228

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