

April 3, 2002

J. Lance Maybrey  
11454 Kenyon Court NE  
Blaine, MN 55449

SUBJECT: RESPONSE TO LETTER DATED NOVEMBER 6, 2001 (TAC NO. Z02003)

Dear Mr. Maybrey:

I am responding on behalf of the United States Nuclear Regulatory Commission (NRC) to your letter to Mr. Michael F. Weber, Director, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, dated November 6, 2001, regarding your various concerns over nuclear plant safety.

I apologize for my tardiness in responding; the receipt of your letter was delayed in the mail because the NRC mail was detained due to increased precautions in handling mail sent to the Federal Government.

Enclosed are the responses to your questions.

I appreciate your concerns and hope that you find this information useful. If you should have any further questions, please feel free to contact me at 301-415-1446.

Sincerely,

*/RA/*

John G. Lamb, Project Manager, Section 1  
Project Directorate III  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-305

Enclosures: As stated

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## **QUESTION 1**

1. The Central Intelligence Agency (CIA), the Center for Disease Control (CDC), the Federal Emergency Management Agency (FEMA), the Immigration and Naturalization Service (INS), and the Federal Aviation Administration (FAA) have already been accused by the press and television media since September 11<sup>th</sup>. They have been accused of cost cutting which has caused, among other reductions, the elimination or decrease in security precautions. How can you assure the American public that cutbacks have not jeopardized nuclear plant safety?

## **RESPONSE TO QUESTION 1**

NRC was formed in 1975 to regulate the various commercial and institutional uses of nuclear energy, including nuclear power plants. The agency succeeded the Atomic Energy Commission, which previously had responsibility for both developing and regulating nuclear activities. Federal research and development work for all energy sources, as well as nuclear weapons production, is now conducted by the U.S. Department of Energy.

Under its responsibility to protect public health and safety, the NRC has three principal regulatory functions: (1) establish standards and regulations; (2) issue licenses for nuclear facilities and users of nuclear materials; and (3) inspect facilities and users of nuclear materials to ensure compliance with the requirements. These regulatory functions relate to both nuclear power plants and to other uses of nuclear materials -- like nuclear medicine programs at hospitals, academic activities at educational institutions, research work, and such industrial applications as gauges and testing equipment.

NRC regulates the operation of over 100 commercial nuclear power reactors that generate electricity. It also regulates about 36 non-power reactors located primarily at universities where they are used for research, testing, and training.

NRC regulates reactor operations through a combination of regulatory requirements; licensing; safety oversight including inspection, assessment of performance and enforcement; operational experience evaluation; and regulatory support activities.

The NRC considers security at commercial nuclear facilities to be extremely important, and the requirements that nuclear plant licensees must meet in this regard are set forth in Title 10, Part 73, of the *Code of Federal Regulations* (10 CFR Part 73). These requirements apply to all nuclear facilities, regardless of whether they are run by the Government or by private or publicly held corporations. In order to ensure that licensees maintain the ability to adequately protect their facilities, the NRC conducts inspections including periodic graded exercises that assess the licensees' responses to various threats of sabotage or theft of nuclear materials. Following each inspection and exercise, licensees are required to promptly correct any noted deficiencies.

NRC has adapted a performance management approach in overseeing its own activities and its licensees. Over the last several years, NRC performance and licensee performance have continued to improve, as documented in NRC's performance reports to the U.S. Congress. NRC's budget has kept pace with this program. In fact, the NRC budget has slightly increased in the last few years. The annual NRC budget for years 2000, 2001, and 2002, are the following: \$464,913,000, \$481,825,000, and \$506,900,000 respectively.

ENCLOSURE

## **QUESTION 2**

2. The CIA and the Federal Bureau of Investigation (FBI) have been known historically to have so many uncoordinated levels of agencies involved, that they have not been able to effectively take actions to protect the American population. Recent events have confirmed this to be the case. They seem encumbered by bureaucracy and government committees, studies, and commissions. As far as the NRC is concerned, there is Nuclear Energy Institute (NEI), the Institute of Nuclear Power Operations (INPO), the U.S. Department of Energy (DOE), and the National Energy Policy Development (NEPD) Group, the U.S. Environmental Protection Agency (EPA), and the International Atomic Energy Agency (IAEA), all having overlapping missions. With so many agencies involved in nuclear power and its proliferation, is it even possible for the NRC to expeditiously implement improvements in safety at power plants?

## **RESPONSE TO QUESTION 2**

Yes. Like other agencies of the Federal Government, NRC strives to improve its performance by enhancing effectiveness and efficiency, including the elimination of unnecessary duplication of effort. In the area of homeland security, the Office of Homeland Security has been established to coordinate many existing federal agencies. As stated by President George W. Bush in Executive Order 13228, Section 2, dated October 8, 2001, "The mission of the Office [of Homeland Security] shall be to develop and coordinate the implementation of a comprehensive national strategy to secure the United States from terrorist threats or attacks." The President has directed Governor Tom Ridge, Director of the Office of Homeland Security, to develop the National Strategy for Homeland Security and the NRC is supporting this effort. The process by which this document is generated, however, will involve consultation with literally hundreds of people, including officials from all relevant Federal agencies, the Congress, State and local governments, as well as the best experts in private industry and at institutions of higher learning. Achieving our homeland security objectives will require hard work and a sustained investment of money and time.

You are correct in pointing out that other organizations have an interest in nuclear power plants, but those organizations do not have regulatory authority over the plants. The NRC is the sole Federal agency with the statutory regulatory authority for the safety and security of nuclear power plants. The NRC was established by the Energy Reorganization Act of 1974, as amended, Pub. L 93-438, 88 Stat. 1233 (42 U.S.C. 5801 et seq.). The Energy Reorganization Act became effective January 19, 1975 (E.O. 11834).

Your question concerned the ability of the NRC to act swiftly. Shortly after the second crash into the World Trade Center on September 11, 2001, the NRC activated its Emergency Operations Center and the NRC Regions activated their Incident Response Centers. NRC immediately issued a notice to advise our major licensees to go to the highest level of security, which we have maintained since that time. NRC has sought to maintain a steady information flow with our licensees through more than 30 threat advisories, regular communications between the NRC Regional Administrators and licensees, audits of licensee activities, and numerous interactions with various stakeholders.

NRC maintains 24-hour per day operation of the Emergency Operations Center. NRC receives a steady flow of information from the intelligence community, law enforcement, and licensees which is evaluated to determine whether additional action is warranted to protect public health and safety.

NRC also works closely with the FBI, FEMA, DOE, FAA, the military, and others in order to coordinate our activities. The NRC assigned staff to the FBI's Strategic Information Operations Center (SIOC) for three months after September 11, 2001. SIOC provided a means for Government-wide coordination and for rapid communication among Federal agencies.

NRC issued Orders on February 25, 2002, to all 104 commercial nuclear power plants to require interim compensatory security measures. Some of the requirements formalize a series of security measures that licensees had taken in response to advisories issued by the NRC in the aftermath of the September 11, 2001, terrorist attacks. Other requirements reflect additional security enhancements which have emerged from the on-going comprehensive security review.

### **QUESTION 3**

3. Danielle Brian, Executive director, Project on Government Oversight, has stated that mock terrorist attacks on tested nuclear plants were successful in 50 percent of the trials. She has publicly condemned the nuclear plant management because tests prove that sabotage and vehicles carrying bombs can penetrate nuclear plant security. She has gone as far as to indicate that mock terrorists have entered a plant and had sufficient time to detonate a bomb in a nuclear energy or nuclear weapons facility. Is this statement accurate and if so, why were these vital security failures kept away from the media until now?

### **RESPONSE TO QUESTION 3**

NRC Operational Safeguards Response Evaluations (OSREs) are not pass-fail exams. OSREs are meant to identify weaknesses that need to be corrected. The attacking force is credited with almost perfect knowledge of the plant's defenses and perfect knowledge of the plant's layout and the equipment they need to attack to try to cause a release of radioactive material from the plant. They are credited with very substantial capabilities to penetrate barriers in short periods of time. But with all these advantages to the mock terrorists in individual drills, the attacking force "succeeded" only 15 percent of the time, in 9 of 59 drills, in 15 OSREs conducted between April 2000 and August 2001. NRC makes tough evaluations of licensee security performance and then we insure that any weaknesses are promptly fixed.

The NRC places a high priority on keeping the public informed of its work and nuclear safety. The NRC maintains a website ([www.nrc.gov](http://www.nrc.gov)) with extensive public information on a wide range of topics. On-line viewing of official NRC documents is also available, including access to incoming and outgoing correspondence, safety and licensing documents, and technical reports. For those without access to the Internet, the NRC maintains a Public Document Room (PDR) at our Rockville, Maryland, headquarters (1-800-368-5642). PDR staff are available by phone, email or in person to assist the public in finding documents.

#### **QUESTION 4**

4. According to nuclear expert, Dr. Bergeron, his study of the ice condenser plant method predicts "a high likelihood of failing in the event of a serious accident, leaving the public completely unprotected against the kind of massive release of radioactivity that occurred at Chernobyl." Are the more vulnerable ice condenser nuclear power plants being replaced with less vulnerable safety mechanisms?

#### **RESPONSE TO QUESTION 4**

I understand your concern that the susceptibility of ice condenser containments (ICCs) to early failure from hydrogen combustion during a severe accident. I want to emphasize that plants with ICCs meet NRC design-basis requirements. Severe accident studies evaluate low probability hypothetical accidents beyond the design-basis to gain additional insights into a specific plant's design features. In your letter, you make no direct reference, but I believe you are referring to a severe accident study released by Sandia National Laboratories, "Assessment of the DCH [Direct Containment Heating] Issue for Plants with Ice Condenser Containments" (NUREG/CR-6427). The study was performed, as part of the NRC Office of Nuclear Regulatory Research's program, to resolve certain severe accident phenomena that were identified in risk analyses as potentially significant. The study concluded that ICC plants are more vulnerable to early containment failure than large dry containments, but that this vulnerability is not due to DCH; rather, it is attributable to hydrogen combustion phenomena during station blackout events.

Even though the vulnerability of ICC plants was judged to be higher for particular severe accident sequences, the overall safety of the plants remains adequate considering the probabilities of these events in the context of the NRC's safety goals. The key finding of the report was that early containment failure in ICC plants is dominated by hydrogen combustion which largely depends on plant-specific probabilities for station blackout. ICC plants have igniter systems for hydrogen control and these systems are not operable during station blackout events. The NRC staff regarded the need to evaluate the functionality of hydrogen igniters during station blackout at ICC plants through the generic safety issue program. The NRC staff informed the Commission of our intention to perform such an evaluation consistent with the policy discussion on backfit considerations in SECY-00-0198.

#### **QUESTION 5**

5. I have been trying to find answers to many other questions relative to the safety of nuclear plants. Particularly how solid a nuclear plant might be should an airplane be flown directly into a plant. I found the answer, or the quasi-answer, which the NRC is providing to the public. However, in my search I also found that there are over 100,000 websites with information about nuclear plants. There are literally hundreds of sites with very detailed information on specific plants, problems and weaknesses within plants, and plants that have been fined for negligent safety violations. Why has the NRC allowed websites on the Internet with detailed information on nuclear power plants that could be utilized by America's enemies against us?

## **RESPONSE TO QUESTION 5**

As explained in the answer to question 3, the NRC places high priority on keeping the public informed about its work and about nuclear safety.

In the aftermath of the terrorist attacks of September 11, 2001, the NRC (in support of its mission to ensure adequate protection of the public health and safety, promote the common defense and security, and protect the environment in the civilian use of nuclear fuels and materials) limited the availability and access to certain information regarding licensed activities. Accordingly, some information and documents, previously posted on the web or available through the NRC Agencywide Documents Access and Management System (ADAMS), the Bibliographic Retrieval System (BRS), or the NRC Public Document Room (PDR), were not accessible to the public. The NRC review of our website was similar to other reviews by many government agencies as part of an ongoing effort to thwart any potential information-gathering activities by terrorists. Our review of the remaining materials is proceeding in a deliberate and systematic manner. We will continue to restore material to the website that is deemed appropriate.

Where it comes to our attention that others' websites contain sensitive material, the NRC staff has requested the information be removed. However, NRC does not generally have the authority to prohibit posting information on websites, except for certain highly sensitive information.