



# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

## Testimony on Nuclear Plant Security before the House Subcommittee on Oversight and Investigations

On behalf of the Union of Concerned Scientists (UCS), it is my pleasure to appear before this Subcommittee. My name is David Lochbaum. After obtaining a degree in nuclear engineering from The University of Tennessee in 1979, I spent more than 17 years in the commercial nuclear power industry, mostly at operating nuclear power plants in Georgia, Alabama, Mississippi, Kansas, New Jersey, Pennsylvania, Ohio, and Connecticut. I have been the nuclear safety engineer for UCS since October 1996. UCS, established in 1969 as a non-profit, public interest group, seeks to ensure that people have clean air, energy and transportation, as well as food that are produced in a safe and sustainable manner. UCS has worked on nuclear plant safety issues for nearly 30 years.

### OVERVIEW OF TESTIMONY

In the near future, the Nuclear Regulatory Commission (NRC) will finalize a revised design basis threat (DBT) level based on the results from its top-to-bottom review of nuclear plant security after the September 11 tragedies. Public health and safety will be better protected by ensuring that potential threats on both sides of the DBT line are properly defended than by attaining the “Goldilocks” DBT level where the line is not too high, not too low, but just right. The NRC should evaluate protection up to the DBT level using force-on-force security tests conducted at each plant once every three years. The Department of Homeland Security should evaluate protection above the DBT level periodically using an approach comparable to that currently applied by the Federal Emergency Management Agency (FEMA) for emergency planning. Literally thousands of American lives depend on adequately defending both sides of the DBT line. Not a single life depends on getting the DBT line in the right spot. The Congress should compel the NRC and the Department of Homeland Security to evaluate security readiness at nuclear plants as expeditiously as possible.

The NRC must re-admit public stakeholders into nuclear plant security policy discussions. The agency claims that terrorism and sabotage are so speculative that the issues can be excluded from licensing considerations for spent fuel storage expansion and construction of new nuclear facilities. At the same time, the NRC claims that acts of terrorism and sabotage are so real that they have excluded the public from security policy discussions. As a minimum, the NRC must receive input from public stakeholders on security policy issues.

### PROTECTING AMERICANS FROM NUCLEAR PLANT ATTACKS TO THE DESIGN BASIS THREAT (DBT) LEVEL, AND BEYOND

One of the important issues before this Subcommittee today is the appropriate DBT level in the post-09/11 world. The DBT defines the size and capability of potential attackers that nuclear power plant owners must protect against. The federal government provides protection against attacks above the DBT level per the “enemies of the state” provision.<sup>1</sup>

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<sup>1</sup> §50.13, “Attacks and destructive acts by enemies of the United States and defense activities,” of Title 10 of the Code of Federal Regulations, September 26, 1967.

The key to protecting millions of Americans from radiological sabotage of nuclear power plants is not drawing the DBT line in the right place. The key is ensuring that there are no shortfalls in the protection provided by nuclear plant owners up to the DBT level and in the security measures taken by the federal government above it. When both sides of the DBT line are adequately secure, the actual placement of the line has negligible consequence on public health and safety. Conversely, when either side of the DBT line is inadequately secure, placement of the line at the absolutely correct spot fails to properly protect American lives. This Subcommittee should therefore focus on ensuring that both sides of the DBT line are adequately protected.

The NRC can determine adequate protection up to the DBT line by conducting force-on-force security tests at each nuclear plant site at least once every three years.<sup>2</sup> The NRC began force-on-force security tests under its Operational Safeguards Response Evaluation (OSRE) program in 1991. Each OSRE featured simulated attacks by small groups of mock intruders, sometimes as small as a single person and often at the DBT level. These simulated attacks determined whether all the elements of the security program (i.e., intrusion detection devices, locked doors, armed responders, etc.) fit together as intended or if seams existed that bad guys might try to exploit.

On September 10, 2001, the NRC had plans for force-on-force security tests at fourteen (14) nuclear power plants in the upcoming year. All tests were cancelled following the tragic events of 09/11. The NRC conducted no force-on-force tests during 2002. The NRC has just recently reinstated a modified OSRE program at four plant sites. The NRC indicated it might test each plant site about once every three years when the OSRE program is fully resumed. Whether by legislation or other means, the Congress should make sure that NRC carries out its stated plans to meaningfully test nuclear plant security on a routine basis.

The OSRE program can evaluate security readiness up to the DBT level, but it provides no measure of the protection against “enemies of the state” for which the federal government is responsible. The current emergency planning regulations for nuclear power plant disasters serve as the best model for how protection against enemies of the state should be evaluated.

Adequate emergency planning requires the integrated efforts of the plant owner along with local and state authorities. Lines of communication must be established, training must be provided, and decision-making for application of resources must be clearly understood. By regulation, emergency planning is evaluated at each nuclear plant site at least once every two years in full participation exercises.<sup>3</sup> The NRC assesses how well the plant owner meets his responsibilities. The Federal Emergency Management Agency (FEMA) assesses how well the local and state entities meet their responsibilities.

The emergency planning concept should be used to evaluate protection against attacks larger than the DBT level. The actions taken by the federal government to protect the Wolf Creek nuclear plant in Kansas from enemies of the state are different than the actions taken to protect nuclear plants in Florida. The Coast Guard and Navy would not have a role to play at Wolf Creek as they would at nuclear plants situated on America’s shores. The Department of Homeland Security should assess how well federal entities meet their responsibilities using periodic full participation exercises at all nuclear plant sites.<sup>4</sup>

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<sup>2</sup> UCS endorses the three year testing frequency for two reasons: (a) the NRC says it can support this frequency and (b) the NRC’s Reactor Oversight Process is based upon a three year period for all other inspection areas.

<sup>3</sup> 10 CFR 50, Appendix E and 44 CFR 350.9 paragraph (c)(1).

<sup>4</sup> It may not be necessary to conduct an exercise for each nuclear plant site once every two years, as is currently done for emergency planning. When the same federal entities are involved in the protection for several nuclear plant sites, it may be adequate for Homeland Security to assess that grouping of entities in full participation exercises conducted at the individual sites on a rotating basis.

Protection against enemies of the state has two components. When intelligence gathering and assessment identifies a credible pending threat against one or more nuclear plants, federal resources must be deployed to thwart the attack. When an attack precedes its warning, federal resources must be deployed in response. Periodic full participation exercises would allow the Department of Homeland Security to assess the readiness of various federal entities in successfully discharging their protection and response functions.

UCS is only aware of one full participation exercise involving federal entities responding to a simulated nuclear power plant attack. A major counter-terrorism exercise initiated by the Federal Bureau of Investigation (FBI) was conducted on May 16, 2001, at the Palo Verde Nuclear Generating Station. This exercise of federal capabilities against enemies of the state involved the plant's owner, the NRC, and other local, state, and federal entities.<sup>5</sup> The March 1979 reactor accident at the Three Mile Island nuclear plant clearly demonstrated how chaos and bureaucratic mayhem reign when responses to major disasters are ad hoc rather than pre-planned. The ability of the federal government to cope with nuclear plant threats above the DBT level appears no better today than its ability to respond to nuclear plant accidents in February 1979. Whether by legislation or other means, the Congress should make sure the Department of Homeland Security conducts full participation exercises at all nuclear plant sites to verify that the federal government can provide adequate protection against assaults above the DBT level.

If the NRC assessed the capability of plant owners to defend against attacks up to the DBT level via force-on-force tests every three years and the Department of Homeland Security assessed the capability of the federal government to defend against larger attacks via periodic full participation exercises, the American people would have confidence that they were adequately protected from acts of malice at nuclear power plants whether the DBT level was too high, too low, or just right. The Congress should take steps to provide Americans that confidence level as soon as possible.

#### **RE-ADMITTING PUBLIC STAKEHOLDERS INTO THE MOST VITAL PUBLIC POLICY DECISION OF THE NEW MILLENNIUM**

UCS has persistently attempted in good faith to interface with the NRC on this very important policy issue since 09/11, but we have been "locked out" by the agency time and again. We recognize that the events of 09/11 forced a reconsideration of information that can be openly discussed. The record shows we supported the NRC's reconsideration from the beginning. For example, an NRC security manager left me a voice-mail message on the evening of Friday, September 28, 2001. He reported that a document provided to me by a member of his staff during a public meeting on September 5, 2001, was now considered sensitive material. He asked that it be returned. When I received his message on Monday morning, I promptly complied with his request without question.<sup>6</sup>

But we did not rest with merely returning a single document. Realizing that our files contained literally thousands of documents obtained legally from the NRC prior to 09/11 and that some of these documents might be reclassified, we asked the NRC to let us know when they deemed certain documents or classes

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<sup>5</sup> Letter dated July 20, 2001, from Dr. Richard A. Meserve, Chairman, Nuclear Regulatory Commission, to Joseph I. Lieberman, Chairman, Subcommittee on Clean Air, Wetlands, Private Property and Nuclear Safety, Subcommittee on Environment and Public Works, United States Senate, page 3, and Testimony on March 22, 2002, by Ray P. Churay, Assistant Special Agent in Charge – Phoenix Division, Federal Bureau of Investigation, before the Subcommittee on Government Efficiency, Financial Management and Intergovernmental Relations, Subcommittee on Government Reform, United States House.

<sup>6</sup> Letter dated October 1, 2001, from David A. Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists, to Glenn M. Tracy, Chief – Operator Licensing, Human Performance and Plant Support Branch, Nuclear Regulatory Commission, "Return of Requested Information."

of documents to be no longer publicly available.<sup>7</sup> We wanted to make sure that we were not disseminating “old” documents and information extracted from “old” documents that the NRC no longer wanted in the public arena. But the NRC elected not to provide us that guidance.<sup>8</sup>

In fact, our concern about excessive public availability of some plant security information pre-dated 09/11. In May 2001, I found details about security upgrades at the Waterford nuclear plant in Louisiana on ADAMS, the NRC’s online electronic library. The information provided details on the nature and location of upgrades to physical barriers (including pictures and specifications) and security guard response locations (including plant lay-out drawings showing guard initial and final positions). I immediately contacted the NRC to question the public availability of this information. Their Region IV office, responsible for the Waterford plant, looked into the matter and decided the information was suitable for public consumption. I disagreed and appealed their decision to NRC headquarters. Upon reconsideration, the NRC agreed with me and removed this security information from the public arena.

Recognizing that the NRC needed time to redraw the line between that information which could be openly discussed and that information which needed to be withheld but having security concerns that we felt the agency needed to understand as they made policy decisions, UCS and the Nuclear Control Institute (NCI) proposed that the NRC, on an interim basis, conduct meetings with the public on security issues similar to those held by their Advisory Subcommittee on Reactor Safeguards (ACRS).<sup>9</sup> The ACRS holds public meetings where they hear presentations from NRC staff, industry representatives, and/or public interest group representatives. The information flow is largely one-way, from the presenters to the ACRS members. The presenters cannot question the ACRS members or otherwise extract information from them. The ACRS members have no obligation to express agreement or disagreement with the presenters during the public meetings. The ACRS members gather the information and consider it when forming their conclusions. UCS and NCI felt the NRC could use this meeting convention to listen to concerns from public stakeholders without undue concern about divulging safeguards/sensitive information. But the NRC denied our proposal.<sup>10</sup>

Understanding that the NRC’s hands may very well be tied until it formally decides where the redrawn line is positioned and that UCS has the right to conduct our own meetings in the public arena, we invited the NRC to attend a meeting we would convene on nuclear plant security.<sup>11</sup> We invited the NRC to participate in this meeting to the extent they were comfortable, but as a minimum we hoped they would attend and listen to the concerns expressed by UCS and other non-government organizations. But the NRC declined to attend in any capacity.<sup>12</sup>

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<sup>7</sup> Letter dated October 11, 2001, from David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists, to David B. Matthews, Nuclear Regulatory Commission, “UCS Policy on Information Formerly Available from the Nuclear Regulatory Commission.”

<sup>8</sup> Letter dated November 1, 2001, from Patricia G. Norry, Deputy Executive Director for Management Services, Nuclear Regulatory Commission, to David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists.

<sup>9</sup> Letter dated June 10, 2002, from Edwin S. Lyman, President, Nuclear Control Institute, and David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists, to Chairman Richard A. Meserve, Commissioner Nils J. Diaz, Commissioner Greta J. Dicus, Commission Edward McGaffigan, Jr., and Commissioner Jeffrey S. Merrifield, Nuclear Regulatory Commission, “Request for Resumption of Public Meetings on Security.”

<sup>10</sup> Letter dated July 19, 2002, from Richard A. Meserve, Chairman, Nuclear Regulatory Commission, to David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists.

<sup>11</sup> Letter dated October 7, 2002, from Howard Ris, President, Union of Concerned Scientists, to Dr. Richard A. Meserve, Chairman, Nuclear Regulatory Commission.

<sup>12</sup> Letter dated January 8, 2003, from Richard A. Meserve, Chairman, Nuclear Regulatory Commission, to Howard Ris, President, Union of Concerned Scientists.

The NRC refused our invitation “because of the sensitive nature of the subject matter, we will consider meetings on security with appropriately cleared individuals on a case-by-case basis.” This rationale baffled us, because we know that NRC had accepted several invitations to have their security personnel address meetings of the American Nuclear Society (ANS) and the Institute for Nuclear Power Operations (INPO).<sup>13</sup> I know for certain that not every member of ANS attending these meetings had appropriate clearance. So, it appears that the NRC hides behind this screen only when it wants to avoid meetings with groups like UCS. The NRC has clearly divided public stakeholders into two camps: those it will engage and those it will refuse to engage. We are not asking to be transferred to the other camp. We want the NRC to treat all public stakeholders fairly by only having one camp.

Our most recent attempt to interface with the NRC on security was our proposal to have Mr. Paul Blanch represent UCS in security meetings with the NRC.<sup>14</sup> Mr. Blanch obtained a safeguards clearance after 09/11 for work he was performing at the Indian Point nuclear plant in New York. Mr. Blanch, familiar with UCS’s concerns about nuclear plant security, graciously agreed to represent UCS in NRC security meetings. But the NRC denied this request.<sup>15</sup> The NRC said that Mr. Blanch had a “need to know” while working at Indian Point, he lacked that “need to know” if working with UCS.

A careful examination of the numerous proposals UCS made to NRC clearly shows that UCS is not seeking equal access to information or equal time with NRC. We recognize and fully support the need for NRC to meet behind closed doors with plant owners to discuss sensitive details of security requirements and their implementation. We merely seek an opportunity to articulate our concerns about nuclear plant security to the NRC so the agency can give them due consideration when making policy decisions. The NRC’s continued rejection of our proposals and their inability to offer even a single counter-proposal in the 18 months since 09/11 sends us a strong message that the agency has no genuine interest in allowing our involvement in what very well may be the most important public policy issue of this new millennium.

UCS would greatly appreciate it if this Subcommittee would encourage the NRC the re-engage public stakeholders on security policy matters. The NRC’s dismissal of contentions about terrorism and sabotage from its formal licensing proceedings is based, in part, on its ongoing efforts to upgrade security. The net effect of the agency’s actions are to exclude the public from intervening on security issues in specific licensing cases and also to exclude the public from participating, even in the limited capacity of merely expressing concerns, in security policy discussions. As an absolute minimum, the NRC must listen to and understand concerns by all interested public stakeholders so the agency has benefit of these perspectives while making policy decisions.

On behalf of UCS, I wish to thank the Subcommittee for conducting this hearing on nuclear plant security and for considering our views on the matter.

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<sup>13</sup> Letter dated November 5, 2002, from Glenn M. Tracy, Director – Division of Nuclear Security, Nuclear Regulatory Commission, to David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists.

<sup>14</sup> Letter dated January 24, 2003, from David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists, to Roy P. Zimmerman, Director – Office of Nuclear Security and Incident Response, Nuclear Regulatory Commission.

<sup>15</sup> Letter dated February 23, 2003, from Roy P. Zimmerman, Director – Office of Nuclear Security and Incident Response, Nuclear Regulatory Commission, to David Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists.

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