

PRM-73-13



# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

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OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

February 21, 2007

Annette L. Vietti-Cook  
Secretary  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Attention: Rulemakings and Adjudications Staff

Submitted via e-mail to [secy@nrc.gov](mailto:secy@nrc.gov)

Dear Ms. Vietti-Cook:

On behalf of the Union of Concerned Scientists (UCS) and pursuant to 10 CFR 2.802, I submit the enclosed petition to U.S. Nuclear Regulatory Commission (NRC) to amend 10 CFR 73, *Physical Protection of Plants and Materials*. The purpose of this petition is to provide better protection against radiological sabotage at U.S. nuclear power plants by insiders.

Sincerely,

David Lochbaum  
Director, Nuclear Safety Project

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SECY-02



# Union of Concerned Scientists

Citizens and Scientists for Environmental Solutions

## PETITION FOR RULEMAKING

This petition for rulemaking is submitted pursuant to 10 CFR 2.802 by the Union of Concerned Scientists (UCS). It is patterned after the layout and structure of an industry petition that was accepted for consideration by the NRC.<sup>1</sup> The petitioners request that the U.S. Nuclear Regulatory Commission (NRC), following notice and opportunity for comment, amend 10 CFR Part 73, *Physical Protection of Plants and Materials*, to provide better protection against radiological sabotage of U.S. nuclear power plants through improved controls over access to protected areas by individuals lacking the prescribed level of trustworthiness and reliability.

NRC's current regulations require that individuals be granted unescorted access rights to protected areas of nuclear power plants only after background checks into employment history, education history, credit history, criminal history, and military service do not raise doubts about the individual's trustworthiness and reliability. The stated purpose of this regulation is in "*providing high assurance that individuals granted unescorted access are trustworthy and reliable, and do not constitute an unreasonable risk to the health and safety of the public including a potential to commit radiological sabotage.*"<sup>2</sup>

UCS recently became aware of an industry practice that deliberately circumvents the purpose of the regulatory measures established to ensure the trustworthiness and reliability of individuals within protected areas of nuclear power plants so as to protect public health and safety. Specifically, UCS learned – and the NRC formally confirmed<sup>3</sup> – that individuals who do not meet the trustworthiness and reliability standards for unescorted access to protected areas of nuclear power plants can indeed enter protected areas under escort. Current regulations do not specify that the escort need be an armed member of the plant's security forces but could be a summer intern or a grandmother approaching retirement. Current regulations allow that intern and grandmother to each escort multiple individuals known to fall short of the trustworthiness and reliability standards into the protected area. UCS has been informed that when background checks for individuals seeking unescorted access rights uncover derogatory information that could prevent such access, these individuals are permitted to enter the protected area under escort. Technically, this practice would allow individuals known to be escaped felons or scam artists or persons on the government's terrorist list inside protected areas of nuclear power plants if escorted by an unarmed intern or grandmother.

This petition seeks to amend NRC's regulations to (a) keep all individuals known to fall short of prescribed trustworthiness and reliability standards OUTSIDE of nuclear power plant protected areas and (b) provide better protection when individuals not known to meet prescribed trustworthiness and reliability standards enter protected areas.

### I. STATEMENT OF PETITIONER'S INTEREST

UCS is a nonprofit partnership of scientists and citizens combining rigorous scientific analysis, innovative policy development, and effective citizen advocacy to achieve practical environmental solutions. UCS had 61,300 members in 2002.<sup>4</sup> UCS was an active participant in a series of public meetings conducted before 09/11 by the NRC with its external stakeholders regarding security regulations and implementing procedures for nuclear power plant reactors and their spent fuel. Among other things, those discussions produced two policy papers submitted by the NRC staff to the Commission in June 2001.<sup>5</sup> Although the NRC closed its doors to UCS and other non-industry, public stakeholders regarding security policy matters after 09/11, we continued to articulate potential problems and recommended solutions in other

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public arenas. In April and June of 2002, UCS testified before the U.S. Senate on nuclear power plant security issues. In March of 2003, UCS testified before the U.S. House on nuclear power plant security issues. UCS stands ready to resume discussions with the NRC should the agency opt to re-open its doors to stakeholders other than the nuclear industry. On September 14 2004, UCS testified before the U.S. House on nuclear plant security issues. In December 2005, UCS along with the North Carolina Waste Awareness and Reduction Network submitted allegations about security problems at the Shearon Harris nuclear plant based on information received in confidence from security officers at that plant. In September 2006, Congressman Edward Markey formally queried the NRC about concerns raised in a UCS report of security allegations at the South Texas Project based on information received in confidence from security officers at that plant. UCS clearly plays an active role in ensuring security at US nuclear power plants is effective and seamless.

## **II. BACKGROUND**

10 CFR Part 73 specifies the security requirements for nuclear power plants. Sections 73.55, 73.56, and 73.57 delineate access control requirements (pertinent excerpts follow):

### **§ 73.55 Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage.**

(d) *Access Requirements.* (1) The licensee shall control all points of personnel and vehicle access into a protected area. Identification and search of all individuals unless otherwise provided in this section must be made and authorization must be checked at these points. The search function for detection of firearms, explosives, and incendiary devices must be accomplished through the use of both firearms and explosive detection equipment capable of detecting those devices. The licensee shall subject all persons except bona fide Federal, State, and local law enforcement personnel on official duty to these equipment searches upon entry to a protected area. Armed security guards who are on duty and have exited the protected area may reenter the protected area without being searched for firearms. When the licensee has cause to suspect that an individual is attempting to introduce firearms, explosives, or incendiary devices into protected areas, the licensee shall conduct a physical pat-down search of that individual. Whenever firearms or explosives detection equipment at a portal is out of service or not operating satisfactorily, the licensee shall conduct a physical pat-down search of all persons who would otherwise have been subject to equipment searches. The individual responsible for the last access control function (controlling admission to the protected area) must be isolated within a bullet-resisting structure as described in paragraph (c)(6) of this section to assure his or her ability to respond or to summon assistance.

(4) All vehicles, except under emergency conditions, must be searched for items which could be used for sabotage purposes prior to entry into the protected area. Vehicle areas to be searched must include the cab, engine compartment, undercarriage, and cargo area. All vehicles, except as indicated in this paragraph, requiring entry into the protected area must be escorted by a member of the security organization while within the protected area and, to the extent practicable, must be off loaded in the protected area at a specific designated material receiving area that is not adjacent to a vital area. Escort is not required for designated licensee vehicles or licensee-owned or leased vehicles entering the protected area and driven by personnel having unescorted access. Designated licensee vehicles shall be limited in their use to onsite plant functions and shall remain in the protected area except for operational, maintenance, repair, security, and emergency purposes. The licensee shall exercise positive control over all such designated vehicles to assure that they are used only by authorized persons and for authorized purposes.

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(6) Individuals not authorized by the licensee to enter protected areas without escort shall be escorted by a watchman or other individual designated by the licensee while in a protected area and shall be badged to indicate that an escort is required. In addition, the licensee shall require that each individual register his or her name, date, time, purpose of visit, employment affiliation, citizenship, and name of the individual to be visited. The licensee shall retain the register of information for three years after the last entry in the register.

### **§ 73.56 Personnel access authorization requirements for nuclear power plants.**

b) *General performance objective and requirements.* (1) The licensee shall establish and maintain an access authorization program granting individuals unescorted access to protected and vital areas with the objective of providing high assurance that individuals granted unescorted access are trustworthy and reliable, and do not constitute an unreasonable risk to the health and safety of the public including a potential to commit radiological sabotage.

(2) Except as provided for in paragraphs (c) and (d) of this section, the unescorted access authorization program must include the following:

(i) A background investigation designed to identify past actions which are indicative of an individual's future reliability within a protected or vital area of a nuclear power reactor. As a minimum, the background investigation must verify an individual's true identity, and develop information concerning an individual's employment history, education history, credit history, criminal history, military service, and verify an individual's character and reputation.

(ii) A psychological assessment designed to evaluate the possible impact of any noted psychological characteristics which may have a bearing on trustworthiness and reliability.

(iii) Behavioral observation, conducted by supervisors and management personnel, designed to detect individual behavioral changes which, if left unattended, could lead to acts detrimental to the public health and safety.

(3) The licensee shall base its decision to grant, deny, revoke, or continue an unescorted access authorization on review and evaluation of all pertinent information developed.

### **§ 73.57 Requirements for criminal history checks of individuals granted unescorted access to a nuclear power facility or access to Safeguards Information by power reactor licensees.**

b) *General performance objective and requirements.* (1) Except those listed in paragraph (b)(2) of this section, each licensee subject to the provisions of this section shall fingerprint each individual who is permitted unescorted access to the nuclear power facility or access to Safeguards Information. Individuals who have unescorted access authorization on April 1, 1987 will retain such access pending licensee receipt of the results of the criminal history check on the individual's fingerprints, so long as the cards were submitted by September 28, 1987. The licensee will then review and use the information received from the Federal Bureau of Investigation (FBI), and based on the provisions contained in this rule, determine either to continue to grant or to deny further unescorted access to the facility or Safeguards Information for that individual. Individuals who do not have unescorted access or access to Safeguards Information after April 1, 1987 shall be fingerprinted by the licensee and the results of the

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criminal history records check shall be used prior to making a determination for granting unescorted access to the nuclear power facility or access to Safeguards Information.

## **III. PROPOSED ACTIONS**

Amend 10 CFR Part 73 to require:

1. When information becomes known to a licensee about an individual that would prevent that individual from gaining unescorted access to the protected area of a nuclear power plant, the licensee will implement measures to ensure the individual does not enter the protected area, whether escorted or not.
2. When sufficient information is not available to a licensee about an individual to determine whether the criteria for unescorted access are satisfied, the licensee will implement measures to allow that individual to enter the protected area only when escorted at all times by an armed member of the security force who remains in periodic communication with security supervision.

## **IV. RATIONALE FOR THE CHANGES**

Key points from the security regulations described in Section II above:

- Paragraph (b)(1) of Section 73.56 requires access control over individuals granted unescorted access rights to protected areas of nuclear power plants.
- Paragraph (b)(2)(i) of Section 73.56 requires background checks to establish trustworthiness and reliability of individuals given unescorted access rights.
- Paragraph (d)(6) of Section 73.55 allows individuals without the prescribed background checks, or by extension not meeting the trustworthiness and reliability standards established by the background checks, to enter protected areas if escorted by unarmed individuals inside or outside of the security force.
- Paragraph (d)(4) of Section 73.55 allows non-designated vehicles to enter the protected area if escorted by a member of the security force.

The first proposed action denies access to protected areas of nuclear power plants by individuals known to far short of the criteria established for trustworthiness and reliability. Protection of public health and safety is achieved when individuals who enter protected areas meet the prescribed standards for trustworthiness and reliability. When it is known that an individual fails to meet those standards, it follows that access to the protected areas must be denied. Placing a visitor's badge on that individual and having an intern or grandmother escort him or her within the protected area is simply not an appropriate compensatory measure for known trustworthiness impairment. Right now, the regulations would permit a licensee to allow individuals to enter the protected area under escort after background checks undertaken in an effort to provide them unescorted access rights revealed derogatory information like being on the government's terrorist list. The first proposed action closes that loophole.

The second proposed action better controls access to protected areas of nuclear power plants by individuals not known to meet the criteria established for trustworthiness and reliability. It is impractical to conduct background checks to establish trustworthiness and reliability of all individual entering the protected area. For example, the costs associated with the background checks represent an undue burden

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on licensees if the individual is to make a one-time entry into the protected area. Additionally, the time associated with the background checks represent an unwarranted obstacle to getting the right individual into the protected area. The second proposed action balances the idealistic approach of access denial of all individuals lacking full background checks with the practical approach of access under appropriate controls for individuals lacking full background checks. Individuals not known to meet the criteria established for trustworthiness and reliability would be permitted to enter protected areas only when escorted by armed members of the security force who are in periodic communication with security supervision. Requiring the escort to be an armed member of the security force, rather than the current requirement that the escort merely possess unescorted access rights, adequately compensates for the lack of trustworthiness and reliability assurance for these individuals. Requiring that the armed escort be in periodic communication with security supervision protects against the armed escort being over-powered and the individuals freed to conduct tampering and sabotage.

Both of these proposed actions are needed. The current regulations would allow 19 terrorists like those who carried out the 9/11 attacks, to enter the protected area of a nuclear power plant, or the protected areas of multiple nuclear power plants, escorted by unarmed interns and/or grandmothers. The terrorists could overpower their escorts, using box cutters or wrenches or 2x4s or any of the other instruments readily available on the plant sites and carry out acts of sabotage. The proposed actions provide vastly improved protection against such acts.

### **V. CONCLUSION**

The proposed amendments to 10 CFR Part 73 close a loophole in the current regulation that enable persons with known problems in their backgrounds and with uncertain backgrounds to enter protected areas of nuclear power plants. Closure of this loophole is needed to adequately protect public health and safety from radiological sabotage.

# **Petition for Rulemaking: Protection Against Radiological Sabotage of Nuclear Power Plants by Insiders**

## **Cited Sources:**

<sup>1</sup> Letter dated February 6, 2002, from Anthony R. Pietrangelo, Director – Risk & Performance Based Regulation, Nuclear Energy Institute, to Annette L. Vietti-Cook, Secretary, U.S. Nuclear Regulatory Commission.

<sup>2</sup> Paragraph (b) to §73.56, “Personnel access authorization requirements for nuclear power plants.” Accessed online on January 25, 2007, at <http://www.nrc.gov/reading-rm/doc-collections/cfr/part073/part073-0056.html>.

<sup>3</sup> Nuclear Regulatory Commission statement, “Summary of NRC’s Review of the Recent Security Issues at the South Texas Project Nuclear Power Plant,” November 27, 2006. Accessed online on January 25, 2007, at <http://www.nrc.gov/reading-rm/doc-collections/for-the-record/2006/south-texas-project.pdf>.

<sup>4</sup> Union of Concerned Scientists, Cambridge, MA, “Annual Report 2002.”

<sup>5</sup> Memo dated June 4, 2001, from William D. Travers, Executive Director for Operations, Nuclear Regulatory Commission, to the Commissioners, Nuclear Regulatory Commission, SECY-01-0100, “Policy Issues Related to Safeguards, Insurance, and Emergency Preparedness Regulations at Decommissioning Nuclear Power Plants Storing Fuel in Spent Fuel Pools,” and Memo dated June 4, 2001, from William D. Travers, Executive Director for Operations, Nuclear Regulatory Commission, to the Commissioners, Nuclear Regulatory Commission, SECY-01-0101, “Proposed Rule Changes to 10 CFR 73.55: Requirements for Physical Protection of Licensed Activities at Nuclear Power Reactors Against Radiological Sabotage; 10 CFR Part 72: Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste; and 10 CFR 50.54(p): Conditions of Licenses.”

**From:** "Dave Lochbaum" <dlochbaum@ucsusa.org>  
**To:** <SECY@nrc.gov>  
**Date:** Wed, Feb 21, 2007 10:03 AM  
**Subject:** Petition for rulemaking - known felons to remain outside nuclear plant fences

Good Day:

The attached petition is submitted electronically as provided at  
<http://www.nrc.gov/what-we-do/regulatory/rulemaking/petition-rule.html#before>

UCS became aware late last year of an unsavory practice where a nuclear power plant in Texas (not Comanche Peak) was bringing in workers for a refueling outage last fall. They did background checks on these workers to provide them with unescorted access rights to the plant. But when the background checks revealed information - like the person being a convicted felon - they could not issue unescorted access badges. So, they assigned escorts to such individuals and allowed individuals with known trustworthiness issues inside the fences.

It was legal, but wrong.

It best illegal and wrong, but not legal and right.

The attached petition seeks to close this silly loophole in the regulations by keeping persons with known trustworthiness issues outside the fences where they belong.

Thanks,

Dave Lochbaum  
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**CC:** "Roy Zimmerman" <RPZ@nrc.gov>, "Scott Burnell" <SRB3@nrc.gov>



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**Created By:** dlochbaum@ucsusa.org

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