Mr. David Lochbaum
Union of Concerned Scientists
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Washington, D.C. 20006-3919

SUBJECT: PETITION FOR RULEMAKING PRM-50-80: BETTER PROTECTION OF U.S. NUCLEAR POWER PLANTS AGAINST RADIOLOGICAL SABOTAGE

Dear Mr. Lochbaum:

I am responding to your letter dated April 28, 2003, in which you submitted a petition for rulemaking (PRM) requesting that the U.S. Nuclear Regulatory Commission (NRC) amend its regulations to better protect nuclear power plants against radiological sabotage. The petition proposed two rulemaking actions. The first proposed action requested that 10 CFR 50.54(p), "Conditions of licenses," and 10 CFR 50.59, "Changes, tests, and experiments," be revised to require licensees to evaluate whether proposed changes, tests, and experiments cause protection against radiological sabotage to be decreased and, if so, that such actions only be conducted with prior NRC approval. The second proposed action requested that 10 CFR Part 50 be amended to require licensees to evaluate their facilities against specified aerial hazards and make necessary changes to provide reasonable assurance that the ability of the facility to reach and maintain safe shutdown will not be compromised by an accidental or intentional aerial assault.

You also requested, in accordance with 10 CFR 2.802(d), that the Commission suspend the Diablo Canyon Independent Spent Fuel Storage Installation proceeding during the NRC's consideration of PRM-50-80. As you are aware, that request was denied by Commission Memorandum and Order CLI-03-04, dated May 16, 2003.

Your petition was published in the *Federal Register* for comment on June 16, 2003. Four comments were received opposing the petition. No comments were received supporting the petition.

We received the following comments on the first proposed action: (1) that 10 CFR 50.59 and 50.54(p) are necessarily different; (2) industry guidance on performing 10 CFR 50.59 evaluations (NEI 96-07, "Guidelines for 10 CFR 50.59 Evaluations") already requires all applicable regulations to be considered for changes, tests, and experiments, and that a required dual review of all changes is unnecessary; (3) there are already requirements for sabotage, including the recent orders and security requirements in both Part 73 and Part 50; and (4) there is no direct correlation between security plan effectiveness and plant condition.

We received the following comments on the second proposed action: (1) one commenter opposed inclusion of general aviation aircraft in the design basis threat (DBT) given the current flight restrictions near nuclear power plants and the actions taken by Federal and industry

airport and aircraft security organizations; (2) general aviation aircraft are not a significant threat to nuclear power plants; (3) industry and government have already studied the effect of a large airborne object and concluded there would be no massive releases from such an event; (4) nuclear power plants already have diverse, divided trains and shutdown capability; (5) NRC would promulgate any regulations needed, based on ongoing vulnerability studies at Sandia National Laboratory; (6) the Federal Government, not the licensee, is responsible for protection of nuclear power plants from aircraft attacks; and (7) extensive aircraft impact analyses are not justified, given an industry study of the risk from an armed terrorist ground attack that concluded there would be noncatastrophic consequences.

We have decided to consider rulemaking in response to the first proposed action that would, if adopted as a final rule, essentially grant the requested action. The NRC's interoffice Safety/Security Interface Advisory Panel will advise the staff on the most effective and efficient method to integrate this rulemaking with other ongoing safety/security actions. In reviewing the first proposed action and the relevant regulations, we determined that the requested rulemaking could help maintain safety and security. In making our determination to consider rulemaking for the first proposed action, we noted that nuclear power plant licensees are currently required to address the continued safety of the plant with regards to any change, test, or experiment (10 CFR 50.59), and also to ". . . establish, maintain, and follow an NRC-approved safeguards contingency plan for responding to threats, thefts, and radiological sabotage . . ." (10 CFR 73.55(h)(1)). Further, licensees are required to ". . . establish and maintain an onsite physical protection system and security organization that will have as its objective to provide high assurance that activities involving special nuclear material are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety . . ." (10 CFR 73.55(a)), and ". . . may make no change which would decrease the effectiveness of a security plan . . ." (10 CFR 50.54(p)(1)). However, the issue described in the first proposed action is not specified in a single comprehensive regulation.

We evaluated the second proposed action and determined that 10 CFR Part 50 should not be amended to require licensees to evaluate their facilities against specified aerial threats or hazards. However, the NRC staff plans to amend 10 CFR Part 73 to require nuclear power plant licensees to implement specific security enhancements and/or measures to mitigate the potential consequences of a successful attack on a nuclear power plant in a manner that incorporates the full scope of the revised DBT issued by Order on April 29, 2003.

This determination was based, in part, on the results of assessments conducted by the NRC after the September 11, 2001, attacks in New York and on the Pentagon. These assessments considered the potential for and consequences of terrorists targeting a nuclear power plant for aircraft attack, the physical effects of such a strike, and compounding factors such as meteorology that would affect the impact of potential radioactive releases. As a result of these preliminary assessments, the NRC required that nuclear power plant licensees implement interim enhancements to mitigate potential consequences in the unlikely event of a successful attack on a nuclear power plant.

As part of a comprehensive review of security for NRC-licensed facilities, the NRC conducted detailed site-specific engineering studies of a limited number of nuclear power plants to assess potential vulnerabilities of deliberate attacks involving large commercial aircraft. In conducting these studies, the NRC drew on national experts from several Department of Energy laboratories using state-of-the-art structural and fire analyses. For the facilities analyzed, the

vulnerability studies confirm that the likelihood of damaging the reactor core and releasing radioactivity that could affect public health and safety is low. Even in the unlikely event of a radiological release due to terrorist use of a large aircraft, there would be time to implement mitigating actions and offsite emergency plans such that the NRC's emergency planning basis remains valid.

Additional site-specific studies of operating nuclear power plants are underway or being planned to determine the need, if any, for additional mitigating capability on a site-specific basis. Furthermore, the NRC staff will continue to review intelligence and threat reporting to recommend any appropriate modifications to the DBT.

Further details are discussed in the enclosed notice, Petition for Rulemaking, Partial denial, that will be published in the *Federal Register.*

Sincerely,

Annette L. Vietti-Cook
Secretary of the Commission

cc: San Luis Obispo Mothers for Peace
P.O. Box 164
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Enclosure:
Federal Register Notice: Petition for Rulemaking, Partial denial.