

October 15, 2002

MEMORANDUM TO: Ledyard Marsh, Chairman
Petition Review Board

FROM: Robert Fretz, Petition Manager **/RA/**

SUBJECT: STAFF RESPONSE TO COMMENTS ON PROPOSED DIRECTOR'S
DECISION DD-02-XX

This memorandum documents the NRC staff's response to comments on the proposed Director's Decision (DD) DD-02-xx (UNPLUG Salem Campaign petition regarding security at New Jersey's nuclear power plants). The Petitioner's comments were solicited by letter dated May 16, 2002.

The Petitioner replied in a letter dated August 4, 2002. In addition, the Union of Concerned Scientists responded on behalf of the petitioner in a letter dated August 7, 2002. The licensees did not provide comments that required a response by the NRC staff. The Petitioner's comments and the NRC staff's responses are discussed in the attachment.

Attachment: As stated

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DATE	10/15/02	10/15/02	10/15/02	10/11/02	10/15/02	10/15/02

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**NRC STAFF'S RESPONSE TO COMMENTS ON
PROPOSED DIRECTOR'S DECISION DD-02-XX**

Comment By	Text	NRC Response
UNPLUG Salem	Page 8 - we disagree with the assertion that security guards can "foster an effective deterrence" against potential terrorists. David Lochbaum of the Union of Concerned Scientists has provided much information to you. The bottom line is that the events of 9/11 mean that standards for deterring terrorists have risen. You do not explain how NRC has raised those standards.	The statement referenced by the Petitioner describes how a site's security organization is part of the overall defense-in-depth approach to safeguarding nuclear facilities. The Director's Decision (DD) explains, in certain detail, how the NRC and its licensees have responded to the events of 9/11, and how security standards have been raised.
UNPLUG Salem	At the bottom of page 8 - please explain in detail what you define as a "background check". Please explain in detail what you define as "screening personnel, packages and vehicles."	Details on background checks are found in the paragraph of the DD that follows the paragraph on which the Petitioner commented. In summary, the screening of personnel and packages is performed, in part, by requiring that all workers pass through portal monitors that detect weapons and explosives. Also, vehicles are searched prior to entering the protected area.
UNPLUG Salem	On page 9, line 4, saying that you "develop information" (relating to security background investigations) gives no time parameters. How long do these checks take? How do you deal with out of country information?	<p>There are no strict time parameters associated with completing individual background checks for unescorted access to vital equipment. However, full background checks can usually be completed in 3 to 5 days.</p> <p>With respect to out-of-country information, licensees may currently grant unescorted access only to those individuals with a completed background check. Licensees shall make a best effort to obtain the required information pertaining to the applicant's employment, education, credit, criminal, and military service histories, as well as the applicant's character and reputation. Actions that constitute a "best effort" will not be a minimal attempt to collect the information needed but rather it will be determined by the circumstances and documented accordingly. If the desired source cannot be contacted or the information cannot be obtained from</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>

Comment By	Text	NRC Response
		<p>sources initially chosen, the licensee must pursue secondary sources for the essential information. The NRC staff is working to improve the access to information necessary to perform background checks. Additional interim compensatory measures (ICMs) are being considered.</p>
<p>UNPLUG Salem</p>	<p>The paragraphs following "Protection of Vital Equipment" were based on information from before 9/11. Thus what you have written on pages 9 and 10 are no longer relevant and need to be revisited in light of 9/11. The last line on page 9, "hand-held automatic weapons" must be reviewed in light of 9/11.</p>	<p>The "Protection of Vital Equipment" section referenced by the Petitioner provides background information on security requirements in existence prior to 9/11. The staff considers those requirements to remain relevant to physical security. The DD goes on to discuss additional security measures imposed by Order as a result of the events of September 11, 2001, and the DD further describes how the NRC is conducting a comprehensive review of its security and safeguards programs. This effort includes a review of the Design Basis Threat (DBT), and the weaponry that would be required to respond to the DBT.</p>
<p>UNPLUG Salem</p>	<p>On page 10: what kind of review of vehicle barriers has been done to see if they can withstand a commando attack of sufficient size to overpower the guards and then use explosives to clear the barriers away?</p>	<p>The NRC has reviewed the licensees' compliance with NRC regulations and the Orders dated February 25, 2002. The licensees are currently meeting these requirements. Details of the measures being implemented by the licensees are considered Safeguards Information. As such, this information cannot be released to the public.</p>
<p>UNPLUG Salem</p>	<p>The last line on page 10 shows how your thinking is mired in the past: "most likely terrorist acts". The whole point of 9/11 is that it is the unlikely terrorist acts we must prepare for.</p>	<p>Security regulations and requirements in place prior to September 11, 2001, were designed to protect nuclear plants against the DBT, or the "most likely terrorist acts" as determined by Federal agencies involved in threat assessment. As previously discussed, the DD also discusses those actions taken in response to the September 11, 2001, attacks.</p>

Comment By	Text	NRC Response
UNPLUG Salem	<p>On page 11 you say that "NRC performed numerous onsite...assessments". You give no indication of the results of those assessments. This paragraph MUST be re-written to tell us what the results were and what improvements were made. This can be in a general sense, for example, "322 assessments were made, 120 high level and 450 low level suggestions were made." NRC should not be able to get away with an unquantifiable statement.</p> <p>In the next paragraph you discuss how NRC worked with other agencies. This is just whitewashing. Again, you provide NO quantifiable data about what improvements have been made or are in the pipeline. This section MUST be rewritten to provide us with data.</p>	<p>Results of the NRC's onsite assessment of security measures implemented by licensees following September 11, 2001, is considered safeguards information and cannot be made available to the public.</p> <p>The NRC is working closely with the Office of Homeland Security in order to help develop a National Physical Infrastructure Protection Plan. The DD describes, in limited detail, the steps that the NRC has taken to improve security at nuclear power plants. The DD also describes additional actions or areas being considered in the NRC's comprehensive security review. As previously stated, many of the details involve Safeguards Information and cannot be released to the public.</p>
UNPLUG Salem	<p>On page 12, line 9, again you really tell us nothing. Lines 10-13 should be re-written to specifically detail what improvements were made.</p>	<p>Details of specific security requirements are considered safeguards information, and cannot be made public. The NRC diligently strives to provide an appropriate level of detail to the public regarding security information.</p>
UNPLUG Salem	<p>On page 13, under "NRC Response", we disagree with the statement that "vital area barriers....are generally robust". First of all, by using the word "generally", you are implying that SOME barriers are NOT robust. The barriers that are not robust, such as the spent fuel pools at all 4 of NJ's nukes, should be listed, and NRC should admit that SOME barriers are NOT robust. Secondly, the word "robust" needs to be defined, or a more accurate word used.</p>	<p>This section was changed to clarify that vital area barriers are designed to meet the requirements of Sections 73.55(a), 73.55(c), and 73.1(a) to Title 10 of the <i>Code of Federal Regulations</i> (10 CFR).</p>
UNPLUG Salem	<p>On page 14, you say "vital area barriers at many facilities". Again, the use of the word "many" implies that SOME barriers do NOT afford sufficient protection. These lines should be rewritten to indicate which barriers do NOT protect.</p> <p>At the end of the second paragraph you refuse to say what size of bomb barriers</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>	<p>This section was changed to clarify the sentences on page 14 of the proposed DD referenced by the Petitioner.</p> <p>Details of the DBT, including the size of the land vehicle bomb, are classified and cannot be publically released.</p> <p>Regarding your concerns about Oyster</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>

Comment By	Text	NRC Response
	<p>can protect plants from. This is a use of "national security" to withhold vital information from a stakeholder. This section should be rewritten to give us more information as to what size bomb barriers will not withstand and what NRC plans to do about it.</p> <p>In the last paragraph, while we are pleased that NRC is granting our request, we disagree that this "granting" really means anything, because you have NOT demonstrated that Oyster Creek can indeed withstand the effects of an explosive device transported by a vehicle. This section should be rewritten by you to accurately demonstrate how Oyster Creek can withstand the effects.</p>	<p>Creek, all nuclear power plant licensees meet the current regulations regarding protects against the design basis vehicle bomb. The Director's Decision states that all licensees, including Oyster Creek, have increased the stand off distance of their vehicle barrier system, as required, to provide further protection following changes to the DBT as determined by the Federal government.</p>
<p>UNPLUG Salem</p>	<p>On page 15 and 16, while we are pleased that NRC again grants our request that Oyster Creek and Salem must be able to protect their water intakes from attack, nowhere on page 15 do you describe HOW this protection occurs. Page 15 must be rewritten to describe in more detail, how the intakes are, and will be, protected.</p> <p>We would also like to know what liability NRC has if, after granting our petition on intake defense without additional explanation, an attacker does succeed in penetrating the intake structure, thus causing a LOCA.</p>	<p>The Orders issued on February 25, 2002, included compensatory measures to improve the ability to detect, deter, and respond to a waterborne attack, the details of which cannot be disclosed to the public. The Orders also directed licensees to assess the vulnerability of the cooling water intake structures from water-borne attack and take certain action, as appropriate. In addition, the NRC's Orders require licensees to develop guidance and strategies to respond to an event resulting in damage to a large area of the plant due to fire and explosion. These strategies are intended to identify and utilize remaining core cooling capabilities.</p>
<p>UNPLUG Salem</p>	<p>Pages 16-18 discuss vulnerabilities to airplane attack. Professor Frank von Hippel of Princeton University, and a workgroup of students have concluded in a recent study that all 4 of NJ's nukes are indeed vulnerable to a 767-type airplane strike. Thus we reject your refusal to grant us that portion of our 2.206 and request that you review your decision.</p> <p>On page 16, you agree that nuclear plants were not designed to stop a jet impact and</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>	<p>The staff clarified the response to the Petitioner's concern regarding aircraft attack. The NRC and other Federal agencies has taken measures, as discussed in the Director's Decision, and have concluded that continued operation of the these nuclear power plants is appropriate without requiring modifications to the plants to withstand deliberate aircraft impact.</p> <p>The NRC contends that, while not</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>

Comment By	Text	NRC Response
	<p>say that defense in depth affords a "measure" of protection. That line must be rewritten to define what a "measure" of protection means. On page 17 you continue to avoid to precisely define how well protected nuclear plants are. Lines 1 through 5 must be rewritten to give more information to the stakeholder.</p> <p>On page 18, line 1 should be rewritten to list at least the threat against TMI and the general threats made to nuclear plants. We STRONGLY disagree with the statement that you feel that the possibility of an airliner strike remains "acceptably low". You must rewrite that section to define what "acceptably low" means, and to define at what level "unacceptably high" begins. Any comparison of chances must be based on the formerly "acceptably low" chances of four airliners being hijacked at the same time and then crashed into buildings. If the odds of an airliner strike are at least as high as 9/11, then those odds are TOO HIGH.</p> <p>Finally, on page 18, you must detail what "additional actions" (line 11) NRC will take.</p> <p>NRC should rewrite the above section to better answer our request, and to answer it in such a way that "odds" are not the key reason for rejection.</p>	<p>specifically designed to withstand a direct aircraft impact, nuclear plants are massive structures with thick exterior walls and interior barriers of reinforced concrete. The defense-in-depth philosophy also means that critical systems have redundant systems that are physically and electrically separated from each other as part of the basic design philosophy. This provides the plant a "measure of protection" to respond to a variety of events, including an aircraft attack.</p> <p>With respect to the alleged threat to Three Mile Island (TMI) referenced by the Petitioner, the NRC assessed the July 4, 2002, threat against TMI as non-credible. The assessment was made in complete consultation with the intelligence community and law enforcement agencies, and concluded that there was no specific credible threat to attack a nuclear power plant on July 4th.</p> <p>The NRC staff provided additional information in this section to clarify actions currently underway to further protect plants from a deliberate aircraft crash. The DD also notes actions taken by other Federal agencies and Departments to preclude an aircraft attack.</p>
UNPLUG Salem	<p>On page 19, we are referring to a number of scenarios submitted by David Lochbaum, of the Union of Concerned Scientists, that show vulnerabilities of all 4 NJ nukes to multiple sabotage. On line three, we suggest that "staff considers", be replaced by "staff AGREES". By listing all the barriers the way you do on this page, you do not respond to each concern separately. Each concern raised by Mr. Lochbaum should be answered separately, because some of your answers do not apply to each specific scenario. In addition, you need to define</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>	<p>Licensees are required to develop a physical security plan necessary to protect the plant against the DBT. The DBT is based on the current threat environment, and is determined by various Federal agencies involved in threat assessment. As previously stated in the DD, the NRC staff is continually reviewing the DBT to determine whether changes to licensees' physical security plans are necessary to adequately protect nuclear power plants.</p> <p>The NRC's defense-in-depth philosophy</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>

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	<p>"other barriers" (bullet point 6), as "other barriers" means nothing.</p> <p>While we are pleased that you have granted our request, without additional information from NRC it is not clear what you are granting. We totally disagree with you that reliance on defense-in-depth can be used, as it is on pages 19-20, as a catch-all to cover inadequacies in design and safety. We request that you more deeply explain how NJ's 4 nukes are protected against multiple attacks or fires.</p>	<p>toward protecting nuclear power plants provides multiple barriers to deter potential terrorist attacks. This approach reduces the likelihood that one or more terrorists could be successful at inflicting damage to a nuclear plant's safety systems. A discussion of specific scenarios with respect to the DBT and defense-in-depth barriers is considered safeguards information, and may not be provided to the public.</p> <p>The opening paragraph to the NRC's response was modified to clarify and enhance the staff's intended response. The staff clarified what was intended by "other barriers."</p>
UNPLUG Salem	<p>As to your response on page 20 to Salem's bogus fire wraps, we demand more than just your "belief" (line 8) that defense-in-depth is adequate. Using the word "belief" on a science test essay would get you an F. We demand detailed proof of why you "believe" that NRC's deal with PSEG that allowed PSEG to not replace much of its bogus safe-shutdown cable wraps will not lead to safety problems IN CONJUNCTION WITH a terrorist attack and/or fire in two or more places at the same time at Salem Units 1 or 2.</p>	<p>The NRC staff considered the concerns raised by the Petitioner in its response, and believes that its response is adequate.</p>
UNPLUG Salem	<p>On page 21, line 5, please change that line to read that the "requests....are PARTIALLY based..." Then add that we have concerns based on the security of any dry cask system, including concerns that the dry cask is above-ground instead of buried.</p>	<p>The Petitioner requested that his concerns on dry cask storage at Oyster Creek be clarified. These concerns were incorporated into the DD.</p>

Comment By	Text	NRC Response
UNPLUG Salem	<p>Your "NRC Response" that follows is unacceptable because it is merely a repeat of your standard response about nuclear plants in general. The spent fuel pools at Hope Creek and Oyster Creek are above ground and thus subject to a loss of water accident. The pools at Salem Units 1 and 2 are covered by a building, "no stronger than a K-Mart (Lochbaum)." By using the word "typically" in line 16 you avoid being specific about NJ's four nukes. Rewrite line 16 and specify the strengths and weaknesses of the four spent fuel pools in NJ.</p> <p>On line 17 (last paragraph), the use of the word "certain" avoids the issue. Exactly how much of a level of protection is there. Rewrite that line to be accurate.</p>	<p>The staff's response was clarified to emphasize that the continued operation of nuclear power plants, which includes the storage of spent fuel, is based on the actions taken by the Federal government following the events of September 11. The storage of spent fuel is afforded the same physical protection as the nuclear power plant. In view of the current intelligence information, enhancements to security at nuclear plants, and improvements in aviation security, the NRC concludes that nuclear plants are safe to operate, regardless of their specific design.</p> <p>In this regard, while the NRC acknowledges that nuclear power plants were not specifically designed to withstand the impact of a large commercial airplane, the hardened design and defense-in-depth design philosophy of nuclear power plants, including the spent fuel pools, could mitigate the effects of a deliberate aircraft impacts. While spent fuel storage poses a lesser immediate risk to the public health compared to an operating reactor and safety due to its lower decay heat rate, the staff recognizes that additional requirements beyond those provided by existing regulations and the ICMs may be warranted. The NRC's comprehensive security and safeguards review includes specific studies on the impacts of aircraft on nuclear power plant facilities. The results of this study are not yet available. Based on the results of the study, additional requirements may be considered.</p>

Comment By	Text	NRC Response
UNPLUG Salem	<p>On page 22, we vehemently disagree with your statement that threat advisories adequately safeguard spent fuel pools. Those remarks are totally wrong and must be eliminated from your response. Your denial of our request that spent fuel storage facilities be made capable of withstanding a crash is one of the more indefensible parts of this document. We suggest that your staff revisit this part of your analysis because the spent fuel pools are some of the most vulnerable parts of a nuclear plant. Your refusal to strengthen the fuel pools is inexcusable.</p>	<p>The staff has clarified the response regarding the storage of spent fuel at nuclear power plants. See the response to the previous UNPLUG Salem response.</p>
UNPLUG Salem	<p>We disagree with your denial, on page 23, of our request for an adjudicatory hearing on the dry cask storage at oyster Creek. Your response is based mostly on procedural grounds. The NRC has the ability to overcome procedural concerns if this action is in the public interest. The safety of the public is the paramount issue.</p> <p>On pages 23 and 24, we disagree with your denial of our request to halt and reverse all dry cask permits. The bottom line is that the dry casks were built within 400 feet of Route 9 and are basically indefensible against a concerted terrorist attack. The requirements you raise on page 23 as part of 10 CFR 73.51 have been made irrelevant by 9/11. None of your requirements stops a rocket attack. In addition, in the third line from the bottom, you again use the word "robust". Please remove that word and use terms that define exactly how well a cask is defensible.</p>	<p>As stated in the DD, AmerGen has been granted a general license under the provisions of 10 CFR Part 72 to operate an ISFSI at the Oyster Creek reactor site. The licensee will be using dry storage cask designs that the NRC has already approved for use. Because there are no pending licensing or other agency actions before the NRC, there is no process available to the Petitioner for which an adjudicatory hearing might be appropriate.</p> <p>ISFSI security requirements are outlined in 10 CFR 73.51, "Requirements for the Physical Protection of Stored Spent Nuclear Fuel and High-level Radioactive Waste." The NRC staff is currently evaluating whether additional measures should be taken to enhance ISFSI security. As previously stated, the NRC's comprehensive review of security requirements includes the potential consequences of terrorist attacks using various explosives or heat-producing devices on spent nuclear fuel dry casks at ISFSIs. If the NRC determines that additional or revised safety or physical protection actions or requirements need to be taken at ISFSIs, the NRC will take appropriate actions to implement those measures.</p> <p>Additional information on ISFSI design requirements was added to the DD to clarify the staff's response.</p>

Comment By	Text	NRC Response
UNPLUG Salem	<p>Pages 24 and 25 discuss our concerns over complete loss of power, as that would be one way for a terrorist to cause a LOCA and/or meltdown. Because Salem is isolated on Artificial Island, which has only one road to the plant, and because determined terrorists could defend that road for an unknown amount of time, your SBO evaluation of 4 hours is flawed. Again, 9/11 changed everything, including your "engineering evaluation". The SBO should be refigured based on the assumption that terrorists with heavy weapons have cut all incoming power lines to the plant and have damaged the diesel generators. We feel that a four-hour battery backup is not sufficient.</p> <p>We disagree with your analysis in paragraph 2 on page 25, because of your assumption on line 15 ("Provided that"). We feel that this assumption of control of replenishment of water and sufficient battery power can be overcome by terrorists under certain conditions.</p>	<p>As stated in the DD, the DBT is determined in joint consultation with intelligence community and is constantly reassessed. Current security requirements for nuclear power plant licensees are based on this DBT. You provide no basis other than speculation that the DBT should be revised to reflect your postulated scenario.</p> <p>The NRC staff is reassessing the current DBT as part of the comprehensive review, and will make conforming changes to licensee security requirements, if required.</p>
UNPLUG Salem	<p>On page 25, third paragraph, change the word "considers" to "agrees".</p> <p>While we appreciate that you partially grant our request, we urge you to rewrite this section to more accurately reflect the true post-9/11 realities.</p>	<p>The staff has clarified this section of the DD. See the previous NRC comment responses above.</p>
UNPLUG Salem	<p>Pages 26-30 deal with our concerns about OSRE. While we appreciate that you have partially granted our requests, your partial granting does not go far enough. We do not think that NRC should be allowed to wait until reviews are done or until Congress issues specific orders on OSRE. In light of 9/11, OSRE is the one program that should be expanded by NRC, not eliminated. Thus we urge that the responses on page 26-30 be rewritten in light of 9/11.</p> <p>Your excuse on page 28, line 11 that other industries do not have comparable testing</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>	<p>Following the terrorist attacks, force-on-force exercise activities were temporarily postponed because, in the heightened threat environment, the conduct of exercises would be a significant distraction to security forces. In addition, the NRC had diverted its limited security inspection resources to staff response centers and to monitor and evaluate the licensees' heightened security posture. Moreover, the NRC believed that it would be imprudent and inefficient to conduct exercises using performance criteria based on a pre-September 11 threat while at the</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>

Comment By	Text	NRC Response
	<p>is irrelevant and should be excised from your response. What matters is what NRC does, not what other agencies do.</p> <p>We totally disagree with your assertion in line 16 that the industry can assume accepting that assertion, you are placing peoples' lives in jeopardy. There must be an independent agency, in light of 9/11, to test nuke plant security.</p>	<p>same time defenses were being upgraded. The NRC recognizes, however, that force-on-force drills are an important means to assess security readiness. The NRC has recently reinitiated OSRE drills by initially exercising the table top component of these exercises. For the first time, these drills involve a wide array of Federal, State and local law enforcement and emergency planning officials. The NRC expects to expand the exercises to include a force-on-force component at the beginning of next year. Full security performance reviews, including force-on-force exercises, are planned for each nuclear power plant on a 3-year cycle instead of the 8-year cycle that had been used prior to September 11, 2001.</p>
<p>UNPLUG Salem</p>	<p>Pages 30 and 31 deal with items you consider to be "rulemaking". We appreciate your partial granting of these requests. However, you do not detail which parts you have granted and which you have not. We request that the response be more detailed in this area and explain which requests were included and which were not, and why.</p>	<p>The Petitioner requested that the NRC order security enhancements with respect to the current DBT, access authorization requirements, and facility changes. These recommendations cover a broad spectrum of security-related issues currently being addressed by the NRC's comprehensive review of the agency's security and safeguards programs. As of this date, the review has not been completed.</p> <p>The Petitioner is one of many persons who have called for changes to the current DBT outlined in 10 CFR Part 73. Changes to DBT regulatory requirements may involve rulemaking. As stated in the DD, the NRC is currently conducting research to provide information that would be needed to support potential changes to DBT requirements. Furthermore, other changes requested by the Petitioner are included within the scope of the NRC's comprehensive security programs review. Since this review has not been completed, the staff is unable to determine at this time whether the changes requested by the Petitioner will eventually be incorporated</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>

Comment By	Text	NRC Response
		<p>into regulatory requirements. As a result, the Petitioner should consider that his request has been partially granted to the extent that the Petitioner's recommendations are included within the scope of the NRC's review.</p>
<p>UNPLUG Salem</p>	<p>Pages 31 to 33 deal with KI. We request that your response be rewritten to read "NRC supports KI distribution in the 50 mile EPZ zone."</p>	<p>As stated in the DD, the NRC support revised its regulations to permit States and tribes within a 10-mile emergency planning radius of a nuclear plant to consider including KI as a protective measure to supplement sheltering and evaluation. The NRC does not support KI distribution in the 50 mile EPZ zone</p>
<p>UNPLUG Salem</p>	<p>Pages 33 to 37 deal with how stakeholder organizations can be allowed to observe emergency planning exercises and be integrated into the emergency planning system. We oppose your denial of our request because it is based on poor logic. You deny us the ability to participate because we presently do not participate. That makes no sense at all. NRC has the ability to work out a framework that would allow access to emergency preparedness exercises by stakeholder groups. In light of 9/11, citizen groups would be a tremendous additional resource to emergency planners, both as a source of ideas and as a source of volunteers.</p>	<p>Denial of the Petitioner's request is based on the staff's conclusion that allowing non-participating individuals or groups to observe EP drills would not contribute to the stated purpose of the drills and exercises. Furthermore, the NRC lacks the authority to direct a State or local government agency to permit citizen groups to participate in emergency response drills or exercises.</p>
<p>UNPLUG Salem</p>	<p>Finally, on page 38, while we appreciate your partial granting of our request, overall, your responses do not go far enough and are often evasive and at times not logical. We urge that you incorporate the changes requested in this letter into your final document.</p>	<p>See the previous response regarding the completeness of the response to the Petitioners' request to participate in EP drills.</p>

Comment By	Text	NRC Response
UCS	<p>First, I frankly do not understand why Mr. Samuel J. Collins rather than Mr. Roy P. Zimmerman is the director making the decision in this matter. Your letter transmitting the proposed Director's Decision is dated May 16, 2002, or nearly six weeks after the Nuclear Regulatory Commission created the Office of Nuclear Security and Incident Response (NSIR) on April 7, 2002. Mr. Collins is the Director of the Office of Nuclear Reactor Regulation (NRR). When Mr. Cohen submitted his petition in September 2001, NRR had responsibility for nuclear plant security. Mr. Glenn M. Tracy and his staff within NRR handled this responsibility. But Mr. Tracy and the majority of his staff moved to NSIR when the NRC reconfigured how it handles nuclear plant security.</p> <p>The last bullet on page 6 and the first seven bullets on page 7 cover various requirements for nuclear plant security - all of which are under the purview of the NRC's Office of Nuclear Security and Incident Response and NOT the NRC's Office of Nuclear Reactor Regulation. This is relevant because the wrong Director is attempting to decline Mr. Cohen's petition.</p>	<p>The Office of Nuclear Security and Incident Response (NSIR) has assisted NRR in preparation of the DD, and members of the NSIR staff have reviewed and concurred on the DD. The DD represents the NRC's position on security issues raised by the Petitioner.</p>
UCS	<p>Since the NRC began checking physical protection capability with force-on-force tests in 1991, more than 300 force-on-force exercises have been conducted by the NRC at US nuclear power plants. None, repeat NONE, of these exercises has targeted spent fuel, whether in wet-pool storage or in dry casks. All of the exercises targeted the irradiated fuel in the reactor. Consequently, the capability of all the required physical protection features to adequately defend against sabotage of spent fuel has never been demonstrated. This is relevant because Mr. Cohen's petition specifically sought to compensate for this shortcoming.</p>	<p>The NRC recognizes that force-on-force drills are an important means to assess security readiness. The NRC has recently reinitiated OSRE drills by initially exercising the table top component of these exercises. For the first time, these drills involve a wide array of Federal, State, and local law enforcement and emergency planning officials. The NRC expects to expand the exercises to include a force-on-force component at the beginning of next year. Full security performance reviews, including force-on-force exercises, will be carried out at each nuclear power plant on a 3-year cycle instead of the 8-year cycle that had been used prior to September 11, 2001. These exercises may include spent fuel pools as a part of test scenarios.</p>

Comment By	Text	NRC Response
UCS	<p>The second bullet on page 7 implies that the screening of personnel and vehicles prior to permitting access to the protected area of a nuclear plant is sufficient to prevent explosives and incendiaries within the facility. Not true. There are plenty of such materials readily available within the facility. For example, on January 7, 1989, workers at the HB Robinson nuclear power plant in South Carolina responded to a number of small fires. It turns out that the fires were caused by workers accidentally connecting the hydrogen supply system to the plant's instrument and service air systems. These systems carried hydrogen gas throughout the plant, causing flammable concentrations in the turbine building, auxiliary building, and reactor containment structure. This is relevant because an insider or small band of outsiders could intentionally do what workers accidentally did at Robinson, and provide ignition sources once the hydrogen concentrations reached flammable mixtures.</p>	<p>As previously stated, the threat advisories and Orders dated February 25, 2002, required that licensees take ICMs to enhance security. The staff recognizes that further research and evaluation is needed with respect to certain concerns before any changes to NRC security regulations or requirement are made. This effort is currently in progress. As stated in the DD, if the NRC determines that additional or revised safety or physical protection actions or requirements need to be taken, the NRC will take appropriate actions to implement those measures.</p>
UCS	<p>The third bullet on page 7 implies that background checks and other measures to control which workers access which parts of nuclear power plants are sufficient to prevent insider sabotage. Not true. The Central Intelligence Agency and the Federal Bureau of Investigation had even more extensive measures, including periodic polygraphing of personnel, yet these federal agencies were unable to prevent Aldrich Ames and Robert Hansen from compromising national security from the inside. The NRC does not polygraph nuclear plant workers and therefore cannot pretend to have more effective protection than agencies that do. This is relevant because Mr. Cohen's petition specifically sought to provide additional barriers that insiders would have to defeat before the public would be harmed.</p>	<p>The third bullet on page 7 of the proposed DD generally discusses the access requirements for nuclear power plant licensees. These requirements are part of a more comprehensive defense-in-depth approach to physical plant security that is outlined on the rule. If further measures to prevent insider sabotage are identified following the staff's comprehensive security review, the NRC will take additional regulatory actions, as necessary.</p>

Comment By	Text	NRC Response
UCS	<p>The first paragraph on page 18 provides the NRC's judgment, based in large part of the absence of "specific credible threats against any NRC-licensed facility since September 11, 2001," that "the probability of terrorists using a large airliner to successfully damage a nuclear power plant remains acceptability low." UCS questions the NRC's judgment on two points. First, the Bush administration repeatedly stated that there were no specific credible threats against the World Trade Center or the Pentagon prior to September 11, 2001. The lack of "specific credible threats" therefore may be true, but it's hardly relevant. Second, the NRC concedes that US nuclear power plants were not specifically designed to withstand aircraft crashes. From 1980 to 1983, I worked at the Browns Ferry Nuclear Plant in Alabama. In 1975, a worker checking for air leaks with a candle in the room beneath the control room accidentally started a fire that burned out of control for nearly six hours, disabling virtually all of the emergency core cooling systems on Unit 1 and many of those systems on Unit 2. While many fire protection upgrades have been made since the Browns Ferry fire, the NRC staff seems to have discounted the potential for a large aircraft laden with jet fuel to do more damage to defense-in-depth than one worker with one candle. This is relevant because Mr. Cohen's petition sought to address these shortcomings pro-actively, whereas the NRC's position would wait until after a plant was attacked and then "close the barn door."</p>	<p>Fire protection regulations and requirements have been greatly enhanced since the 1975 Browns Ferry fire. Since 1975, the NRC also amended its regulations to require that licensees be able to cope with a complete loss of power (Station Blackout). As stated in the DD, the NRC is continuing a major research and engineering effort at the Sandia National Laboratory to evaluate the vulnerabilities and potential effects of a large commercial aircraft impacting a nuclear facility. This effort includes a careful consideration of additional mitigative measures necessary to further protect nuclear facilities from a deliberate aircraft crash. The final results from that analysis are not yet available. Based on the results stemming from this review, the Commission may take additional actions to protect nuclear power plants from this threat if deemed necessary.</p> <p>Also, the Commission has directed licensees to develop specific guidance and strategies to respond to an event resulting in damage to large areas of the plant due to explosions or fire. Strategies now in place or being developed by licensees to address mitigation of explosions or fires will assist those responsible for responding in the unlikely event that saboteurs could inflict damage to equipment necessary to maintain and/or restore reactor core, containment, and spent fuel cooling.</p>
UCS	<p>The last paragraph on page 19 provides the NRC's dismissal of Mr. Cohen's concerns about fires in multiple rooms. The NRC relies in part on access screening, which is insufficient because of the HB Robinson hydrogen near-miss described earlier. The NRC additionally relies on the saboteurs being unable to prevent "these fire mitigation systems, fire</p> <p>(CONTINUED ON FOLLOWING PAGE)</p>	<p>See the NRC's response to the previous comment submitted by UCS.</p>

Comment By	Text	NRC Response
	<p>brigade personnel, and plant operators from responding to and/or extinguishing the fires in a timely manner." There are numerous flaws in this NRC position, including:</p> <ul style="list-style-type: none">- Ten years ago this month, Hurricane Andrew inflicted considerable damage on the Turkey Point nuclear plant in southern Florida. The plant's fire protection system was severely damaged when a tower collapsed onto the primary storage tank (500,000 gallons) and the secondary storage tank (750,000 gallons). The plant's fire sprinkler system did not have water to use in event of fire until workers jury-rigged a temporary line to the screen-wash pump. The two tanks were located side by side outside the plant - convenient for destruction by saboteurs.- Five years ago, oil used to cool the main transformer at the Pilgrim nuclear plant in Massachusetts flowed into the reactor building through a bus duct and pooled on the floor of the switchgear rooms. While this flammable oil did not catch fire, the NRC determined that Pilgrim faced a total loss of AC and DC power (i.e., worse than station blackout) had it ignited. The fire hazards analyses are based on installed combustibility loadings - saboteurs can significantly alter those loadings.- Attacks on nuclear plants may directly or indirectly impair the capability of the plant's fire brigade. For example, an aircraft crashing into the facility is obviously hazardous to personnel. A ground attack could also be detrimental to plant workers considering they are not bullet-proof. Even if fire brigade members survive the initial assault, their freedom to move about the facility to fight the fire could be slowed. <p>Thus, it is rather cavalier for the NRC to dismiss Mr. Cohen's security concerns without specifically addressing his concerns for the potential scenarios.</p>	

Comment By	Text	NRC Response
UCS	<p>Pages 27 to 30 contain the NRC's response to Mr. Cohen's petition calling for increased force-on-force testing by the NRC. Missing from the NRC's response is this fact - on September 10, 2001, the NRC had plans for fourteen (14) force-on-force security tests at US nuclear power plants during Fiscal Year 2002, six Operational Safeguards Readiness Evaluations (OSREs) by NRC and eight Safeguards Performance Assessments (SPAs) by licensees. No force-on-force security test has been conducted since September 11, 2001. Thus, a measure thought prudent when America was at peace was discarded by NRC now that America has declared war on terrorism (and vice-versa). Rather than show off it's mathematical prowess (page 28), the NRC should conduct force-on-force tests as requested by Mr. Cohen.</p>	<p>The NRC recognizes that force-on-force drills are an important means to assess security readiness. The NRC has recently reinitiated OSRE drills by initially exercising the table top component of these exercises. For the first time, these drills involve a wide array of Federal, State, and local law enforcement and emergency planning officials. The NRC expects to expand the exercises to include a force-on-force component at the beginning of next year. Full security performance reviews, including force-on-force exercises, will be carried out at each nuclear power plant on a 3-year cycle instead of the 8-year cycle that had been used prior to September 11, 2001.</p>
UCS	<p>On page 28, the NRC describes the rigor of its currently-abandoned force-on-force security tests and states "The NRC staff is not aware of any comparable performance testing of security measures for any other type of commercial industrial facilities." So what? Is the NRC staff aware of any other type of commercial industrial facilities that are so hazardous that they require federal liability protection, as the nuclear industry does under the Price-Anderson Act? If so, then the disparity in security testing rigor would be relevant. If not, the point is pointless. The NRC talks a lot about providing protection commensurate with the risk. The fact that nuclear power plants are the most hazardous commercial industrial facilities in the US of A clearly warrant their getting more than K-Mart security protection.</p>	<p>When Congress first authorized the civilian use of atomic power through the Atomic Energy Act of 1954, it understood the inherent need for strict security measures at commercial nuclear power plants. NRC regulations have ensured that these are among the most hardened and secure industrial facilities in our nation. The NRC will continue to ensure that nuclear power plants are adequately protected.</p>