

**PRM-50-83  
(72FR14713)**

**DOCKETED 06/07/07**

**Comment No. 2**

**From:** "Jones, Charlie R." <Charlie.Jones@hq.doe.gov>  
**To:** <SECY@nrc.gov>  
**Date:** Wed, Jun 6, 2007 10:34 AM  
**Subject:** PRM-50-83 Comment

Having been a member of safety system inspection teams at over a dozen commercial nuclear plant sites and studied the safe shutdown procedures at almost all the currently operating plants (Appendix R), it occurs to me that there is some basic information missing from the discussion on nuclear plant radiological release security. Overall, the tasks faced by a potential adversary seeking to take over a nuclear plant and cause a major radiological release seem to be daunting and not likely to be successfully completed even with insider help.

If the the concern is that an outside group of reasonably knowledgeable people (with some inside help) could take control of a nuclear plant, cause the release to the atmosphere of significant quantities of fission products, and thus cause the deaths of many people and the significant loss of property and real estate due to radiological contamination, it seems to me that the starting place to evaluate this possibility should be different than what I have been hearing. Perhaps my points can be made best by asking questions.

1. Regardless of the DBT numbers and expertise of presumed adversaries, what would be the minimum time period required to accomplish this kind of terrorist act at the most vulnerable time for the most vulnerable reactor?
2. At what point (if any) in that time period would we reach a point of irreversibility such that regaining control of the facility would no longer allow time to take adequate protective measures to prevent a major release of radioactive materials into the environment?
3. Assuming that the adversaries killed or incapacitated all of the plant operators on site at the time of the attack and during the efforts by authorities to regain control, how long would it take to recall the additional plant operators (and/or operators from similar plants) required to restore the plant to a safe condition such that no significant release would occur?
4. What enforcement entity and capabilities would be needed to be able to take back a nuclear plant, assuming that it was under the firm control of a well armed adversary group holding dozens of hostages?

Perhaps knowing the answers to these questions would shed some light on

what needs to be done in terms of having the local, state, and Federal authorities become involved with responding to a nuclear plant takeover. It is possible that simply requiring a rapid shutdown or scram of threatened reactors and ensuring isolation of spent nuclear fuel pools at the first sign of a nuclear site threat would afford enough delay time to allow the required timely response by the appropriate forces, forces that are not likely to be local or state.

Even expert knowledge still requires time to take control of a plant, override automatic protection and/or cause damage to sufficient amounts of equipment to result in a major radiological release. Thus, it seems that the first step would be to walk through and identify all the steps needed to accomplish these actions, identify the obstacles likely to be faced by the adversary and come up with the worst case timeline. Of course, this may have already been done, and I am just not aware of the results.

I do not know the answers to all these questions, but it seems to me that time is on our side in such an attack. Also, it seems likely that at least the FBI if not military special forces would be called on to take back a plant in the event of a major takeover. We should ensure that those folks are prepared to do so.

I think we should keep in mind that a potential adversary is likely to conclude that the direct takeover of a nuclear plant is not likely to lead to success in terms of a major radiological release. Likewise, it is likely that simply flying a large aircraft into a nuclear plant, even hitting the containment building, would do little toward causing a major release. The adverse effects are more likely to be political and emotional, potentially resulting in temporary nuclear plant shutdowns and power shortages.

While there are other ways to cause a major radiological release from a nuclear power plant, a plant takeover does not seem to me to be a useful approach and, thus, protection and reaction by local and state law enforcement for the DBT in the plant takeover scenario would not (as far as I can perceive the situation) be critical in terms of avoiding major numbers of casualties and contamination. The FBI and military response forces might be critical if adversaries actually managed to take control of a nuclear plant. Nevertheless, local and state law enforcement could reasonably be expected to do their normal law enforcement activities in scenarios involving anti-nuclear demonstrations that might result in lower levels of damage and injury.

Thus, as regards the petition, I see some value in having a Federal take-back-the-plant capability that needs to be demonstrated at some point to validate protection against a plant takeover release, at which time the need for conducting periodic exercises at different plants might become evident (or there may be no need). Nevertheless, the adversary has easier and more effective options to achieve the

[illegible]**Mail Envelope Properties** (4666C5C2.19C : 5 : 37276)

**Recipients**  
nrc.gov  
TWGWPO02.HQGWDO01  
SECY (SECY)

**Route**  
nrc.gov

<b>Options</b>	
<b>Expiration Date:</b>	None
<b>Priority:</b>	Standard
<b>ReplyRequested:</b>	No
<b>Return Notification:</b>	None

**Junk Mail Handling Evaluation Results**  
 Message is eligible for Junk Mail handling  
 This message was not classified as Junk Mail

**Junk Mail settings when this message was delivered**  
 Junk Mail handling disabled by User  
 Junk Mail handling disabled by Administrator  
 Junk List is not enabled  
 Junk Mail using personal address books is not enabled  
 Block List is not enabled