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(58 FR 58804)

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Jerrold G. Dewease
Vice President
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December 29, 1993

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTN: Docketing and Service Branch

Subject: Entergy Operations, Inc. Comments of Proposed Rule Change to 10CFR73,
"Malevolent Use of Vehicles at Nuclear Power Plants"

Reference: Federal Register Vol. 58, No. 212, November 4, 1993

CNRO-93/0038

Dear Sir:

The referenced Federal Register listing invited comments on the proposed 10CFR73 rule change. Entergy Operations, Inc., the licensee for Arkansas Nuclear One, Units 1 and 2, Grand Gulf Nuclear Station, and Waterford 3 Steam Electric Station has reviewed the proposed rule change and offers the following comments for your consideration.

The proposed changes would require licensees to take steps to prevent land vehicle intrusion into the protected area (PA) and preclude a land vehicle bomb detonation from preventing safe shut down of the reactor. The premise for this rulemaking is that the unauthorized intrusion at Three Mile Island (TMI) and the bombing of the World Trade Center (WTC) make such steps prudent.

Entergy Operations concurs that unauthorized intrusion into the PA under circumstances such as those at TMI is highly undesirable and is committed to taking steps to preclude a similar occurrence at our facilities. Our concerns with land vehicle intrusion are based on prudent business and industrial security considerations rather than any concern for the potential to commit successful radiological sabotage. Nuclear sites are extremely hardened targets due to their inherent design features, defense in depth, redundancy, regulated security programs, etc. This makes them extremely low probability targets for terrorist acts.

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Also, we agree it is prudent to be able to safely shutdown the plant in the event of an explosion. In fact, blast analyses are routinely performed when there is a concern for volatile mixtures (such as hydrogen) being brought to a site.

However, we question the idea that these two isolated events warrant rulemaking. Terrorist detonated a bomb, but not at a hardened target such as a nuclear facility. This event was consistent with a 1990 FBI report about the nature of terrorists and targets they attack. Also, an individual used an automobile to gain unauthorized access to a licensee's PA but the individual was not a terrorist and did not use any explosive devices. It is not clear why, based on these two events alone, such extreme measures as those proposed are necessary to make an already hardened target even more hardened.

In the proposed rule, the NRC states its conclusion that there is no indication of an actual vehicle threat against the domestic commercial nuclear industry. Based on this conclusion, and in consideration of the NRC's decision to link two these two events, our concern is that the proposed attributes are extremely severe and significantly exceed any actual event in the United States. There does not appear to be an adequate basis for the proposed measures. In fact, the proposed rule results in the licensee's inability to use much of the existing technical guidance directly due to the masses involved verses typical masses analyzed in the draft regulatory guide.

Entergy Operations is also concerned that the proposed regulatory guidance states measures should be established to periodically verify the integrity of barriers outside the PA. Passive barriers by their nature (ditches, burms, concrete, etc.) should not need any periodic inspections or the period should be on the order of several years. If a licensee were to propose some unique vehicle barrier system (VBS) for which a passive barriers did warrant inspection, no additional measures should be necessary beyond those currently employed per 10CFR73.55(c)(4) for barriers in close proximity to the existing PA barrier.

Finally, the proposed timing for licensee responses is not realistic. Licensees should be allowed at least 180 days from the issuance of the NRC's final regulatory guidance rather than 90 days from the final rule. Imposing such a short response time is not necessary based on the NRC's conclusion that no threat currently exists. Further, this could force licensees into taking unnecessary steps and performing unwarranted modifications due to the lack of time to perform in-depth analysis.

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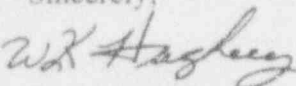
December 22, 1993

In addition to our specific comments noted above, Entergy Operations, Inc. provided input to and concurs with the comments submitted by the Nuclear Management and Resources Council (NUMARC) in regard to this request for comments.

We appreciate the opportunity to provide our comment on the proposed rule and welcome any attempts for the industry and NRC to work together for issuance of a rule that will meet the stated goals without being unduly burdensome.

Our detailed comments on the proposed rule, the backfit analysis, and draft regulatory guide are included as Attachment 1 to this letter.

Sincerely,

 for J. G. DEWEASE
Jerrold G. Dewease

JGD/jkw
attachment

cc:

Mr. R. P. Barkhurst
Mr. R. F. Burski
Mr. C. R. Hutchinson
Mr. W. K. Hughey
Mr. L. W. Laughlin
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Entergy Operations Comments on NRC Proposed Rule for Malevolent Use of Vehicles

GENERAL

Entergy Operations questions the need for rulemaking in this area based solely on two isolated events. Most experts agree that nuclear sites are extremely low probability targets for terrorist acts due to their inherent hardened security characteristics. We believe there is little if anything to be gained by taking an already extremely hardened target and mandating additional hardening measures. Entergy Operations does not take issue with the basic premise of installing vehicle barrier systems (VBS) for prudent industrial security reasons. However, we believe the probability for land vehicles or massive explosives to cause successful radiological sabotage is remote enough to be considered negligible. Our basis is the same as that cited by the NRC for backfit considerations related to adequate protection.

Should the NRC determine to move forward with this rulemaking, our primary concern is that the proposed rulemaking is extreme and unnecessarily burdensome with little, if any safety benefit. We also believe that if rulemaking proceeds, establishing an adequate, reasonable criteria for such systems is essential so that costs are commensurate with expected safety benefit.

The current proposed attributes (vehicle weight, speed, explosive quantity, etc.) do not appear to be consistent with the recent events that were precursors to this rulemaking. Also, this proposed rule does not appear to be consistent with government findings to date in this area, including findings of the NRC. In 1991, NRC staff notes related to denial of a petition on this topic showed:

- No bombings directed against a nuclear activity worldwide.
- One truck bomb in the U.S. since 1970 (now two including the World Trade Center).
- No others in the Western Hemisphere.
- No others in areas outside of civil unrest.

The recent TMI & WTC events are consistent with the above, the bombing was not at a nuclear facility, and the vehicle intrusion was not a terrorist act. Similarly, both these events bear out the findings of a 1990 FBI report which stated: *"Terrorist carefully assess which targets are most vulnerable . . . They select operations that pose a minimum of risk with a maximum chance of success."*

It is not clear why an isolated bombing of a highly assessable soft target in a city that FBI data indicates approximately 40% of all terrorist activities against the United States occur nor the

isolated intrusion at TMI warrants such extreme action on part of the NRC generically for the entire nuclear industry.

PROPOSED ATTRIBUTES

While the vehicle weight & speed are not in and of themselves excessive, coupling vehicle weight and speed with explosive weight is excessive and unreasonable. While we understand the basic premise for coupling the two events, that is, vehicles were involved in both events, there does not appear to be a valid basis for considering bombs other than in parked cars. Any VBS would be a significant deterrent to attempting to ram a barrier at high speeds with massive explosives in a vehicle. As discussed above, this coupling is not consistent with the recent events in question, experience to date, nor expert studies in this area such as those by the FBI.

An attempt to use an explosive during a high speed penetration of a VBS would constitute a "suicide mission." Such an attempt would maximize risk and minimize the potential for success which is completely contrary to FBI studies on terrorist behavior. The recent intrusion at TMI tends to reaffirm historical events at nuclear power plants where perpetrators represent special interest groups opposed to nuclear power or those with some motive other than terrorism. None of these groups are representative of the current Design Basis Threat (DBT).

Coupling becomes significant for several reasons. Due to the proposed mass of the explosive charge, coupling significantly increases overall kinetic energy for barrier design. Further, coupling makes much if not most of the currently available technical data inadequate due to the proposed masses verses masses typically considered. Finally, coupling will affect a significant portion of licensees when determining safe stand off distances with little or no demonstrated increase in safety benefit. Therefore we strongly recommend that any consideration of explosives be limited to quantities in a parked vehicle, in a scenario similar to that which actually occurred at the WTC..

The amount of explosives in question is also extreme with no apparent basis. We strongly recommend that the amount explosives considered be limited to those previously detonated in the United States.

SAFETY SIGNIFICANCE

The NRC's previous denial of a petition to require VBS concluded that "*the [VBS] would not provide a substantial increase in the overall protection of public health and safety. Cost was not a deciding factor.*" The NRC's backfit analysis for the proposed rule concludes that it would provide a substantial increase in overall protection of the public health and safety. Citing the TMI event, the NRC states "*some aspects . . . could present some challenges not previously*

considered." While we agree with the basic conclusion, we reject the notion that this means a VBS would provide a significant safety benefit to public health and safety. Our reasoning is the same as cited by NRC in rejecting VBS for backfit consideration under adequate protection in SECY 93-166. Specifically, a perpetrator would still have: 1) to leave the vehicle; 2) reach one or more vital areas which are typically reinforced concrete walls and locked, alarmed doors; 3) create a reactor transient or loss of coolant accident; 4) disable sufficient safety systems to prevent reactor safe shutdown; 5) cause a breach of containment; and 6) accomplish all of this without intervention by the licensee's armed responding security officers.

We agree with conclusion 6.1 - *Safety Significance of the Event* of NUREG-1485, "Unauthorized Forced Entry into the Protected Area at three Mile Island Unit 1 on February 7, 1993" which states: "The event resulted in no actual adverse reactor safety consequences **and was of minimal safety significance.**" (emphasis added).

The backfit analysis for vehicle bombs states: "although a vehicle bomb attack at a nuclear power plant is not reasonably to be expected, it is somewhat more likely to develop without advance indications than staff previously believed." Here again, we agree that this is not a reasonable expectation. The hypothesis that there may be little advanced warning does not support the subjective conclusion that the proposed measures will result in a substantial increase in protection of the public health and safety. Linking these two events to consider anything beyond a parked car bomb is unreasonable and unnecessary based on discussions above.

BACKFIT ANALYSIS

Entergy Operations has reviewed and concurs with the comments submitted by NUBARG on this topic. Essential comments we wish to reinforce for backfit analysis of the rule are the same as those discussed for Section 2.2 of the Draft Regulatory Guide below.

DRAFT REGULATORY GUIDE DG-5006

Section 1.1 Passive Barriers:

This section states that measures should be established to periodically verify the integrity of passive barriers outside the protected area. Passive barriers by their nature (ditches, berms, concrete filled embedded poles, etc.) do not require inspection or the period would be on the order of several years. If a licensee installs a unique passive barrier that should need periodic inspection, it should be addressed specifically under the NRC's review of that licensee's proposed VBS. It would be expected that even for those cases, inspections currently required by 10CFR73.55(c)(4) of areas within the protected area would be more than adequate to assure the integrity of such passive barriers in close proximity and thus no further steps necessary.

Section 1.2 Active Barriers:

This section states that operational design features of active barriers should be capable of allowing access to authorized vehicles while preventing access to unauthorized vehicles. The purpose of this sentence is not clear. It may be more appropriate in defining an active barrier. In order to prevent any confusion during subsequent inspections, the regulatory guide should be explicit that dual active barriers such as a "sally port" are not required. Any attempt by an unauthorized vehicle to gain access while licensee was in-processing an authorized vehicle would be effectively addressed by presence of the authorized vehicle, the in-processing personnel involved, and good security practices.

Section 2.2 Alternative Measures To Protect Against Explosives:

This section requires licensees to submit a quantitative analysis to justify that the cost of plant specific measures are not justified by the added protection afforded. This will be difficult, if not impossible. In fact, the NRC does not include any quantitative basis to support a substantial increase in public health and safety. In effect, for these cases, the NRC appears to require licensees to perform a backfit analysis to justify not installing NRC proposed measures. This is significant as NRC estimates, which may be low, are that up to 20% of the current licensees may not have adequate stand off distances afforded by VBS systems alone.

SCHEDULE CONSIDERATIONS

It is our understanding that guidance on design and placement of barriers will not be available until sometime in early 1994. Further NRC estimates are up to 20% of the industry may require measures beyond a VBS system alone. Most if not all of these licensees will need to perform in-depth analysis to determine what the most prudent, cost effective measures are for such circumstances including consideration of the essential elements of 10CFR50.109. This task will be even more difficult in light of the NRC's somewhat subjective assessment that these measures result in a substantive increase in public health and safety. Further, since the precursors to this proposed rule occurred almost a year ago, we do not expect much to be gained by putting licensees in a position that could lead to unnecessarily conservative approaches driven by schedule rather than by prudent business decisions with sound technical justification. Therefore, we strongly recommend licensees be allowed at least 180 days from the issuance of the final guidance on barrier design and placement.