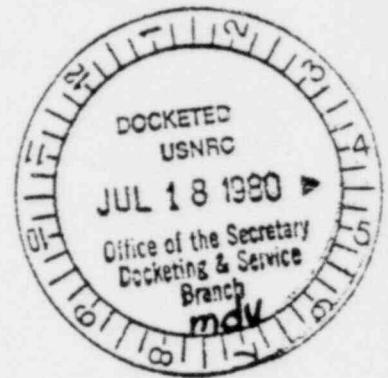




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Department of Energy  
 Washington, D.C. 20585

JUL 11 1980



MEMORANDUM FOR Mr. Samuel J. Chilk  
 Secretary  
 U.S. Nuclear Regulatory Commission  
 Washington, D.C. 20555

The Department of Energy (DOE), Office of Nuclear Waste Management, has reviewed the Nuclear Regulatory Commission (NRC) draft interim amended rule in final form on Physical Protection of Irradiated Spent Fuel in Transit. This revision to 10 CFR 73.37 was presented by NRC staff at a meeting of the Nuclear Regulatory Commission on March 31, 1980.

We understand that this amended interim rule in final form has now been revised, accepted by the Commission, and published. Our concerns regarding the initial version of this rule published in June 1979 were previously expressed in a September 20, 1979, letter from Under Secretary John M. Deutch to NRC Chairman Joseph M. Hendrie. That letter requested cooperation between our two agencies and cited the need for research and evaluation of physical protection requirements. The DOE, however, is taking this opportunity, after review of a transcript of the March 31 Commission proceedings, to discuss several specific items cited at that meeting which require clarification.

Based on the transcript of the March 31 Commission meeting, comments on specific points of the testimony are as follows:

1. It was stated (page 7, lines 1 through 5) that the Battelle testing program "will actually sabotage a spent fuel cask." It appears that this statement implies forthcoming data on which NRC may base a solid decision to modify security requirements. The Battelle study is of a more limited scope. The study will perform tests on a simulated cask section containing limited sections of irradiated fuel, in which some explosive environments of a hypothetical sabotage attack will be employed. The likely results of the study by themselves are not expected to provide definitive data as implied by the testimony. However, DOE is also pursuing further testing in this area to develop additional experimental data on the amounts of radioactive materials that may be released in postulated spent fuel cask sabotage attempts with high explosives. Together, these studies will help quantify the risks should a successful attack occur. They will thus provide a firmer basis for policy in light of the existing uncertainties in the present consequence estimates.
2. It was stated regarding the availability of the final draft of the Sandia report (the "Urban Study"), "that work, as you may well know, was done for DOE, and we don't really control the timing of it" (page 7, lines 13

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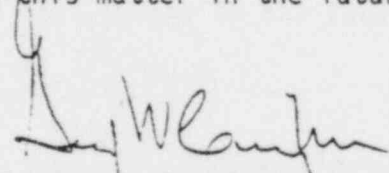
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through 15). The report is part of an NRC sponsored program. As previously outlined in the enclosure to the DOE September 10, 1979, letter to Commissioner Hendrie, the Urban Study report suggests that an attack on a spent fuel cask would be difficult to accomplish and unlikely to succeed. The Commission should be fully apprised of the status and results of that report.

3. In response to Chairman Ahearne's question about significant problems with the regulation (page 16, lines 11 and 12), it is stated that "the major problem is how do you stay on roads that are considered safe. . . ." We understand that real problems have been experienced with NRC approval of routes. An example is the recent truck shipment of spent fuel from the University of Missouri. The NRC mandated route required that the truck travel more than twice as far as in previous trips, with a considerable distance over gravel roads. At one point an incline was encountered which was too steep for the truck to negotiate, and the road was too narrow for the truck to be turned around. It had to be parked and left until a tow truck could be found to tow it up the hill. Although some improvement in the routing requirements has been made in the instant revision of the rule, the possibility of circuitous routing and of corresponding reduced safety and security continues to exist. It should be noted that the Department of Transportation (DOT) is presently developing rules for approved DOT safety routing of radioactive materials under Docket HM-164. Unnecessarily duplicative routing requirements may serve to confuse carriers and also may interfere with private competition in shipping.
4. At the meeting (pages 19 through 21), a brief discussion of rail transport and the special train issue emerges in regard to the Secretary's information paper to the Commission. Concerning rail shipments of spent fuel, the document states, "and after taking into account the experience gained during the several months the amendments have been effective. . . ." This implies adequate experience under the amended rule with rail transport. However, we know of no commercial rail shipments of spent fuel and know of very few government shipments (under the Naval Reactor Program).

In light of these comments, we trust that appropriate corrections will be made to the public record.

Nuclear Energy, as well as other cognizant DOE offices, looks forward to continuing our cooperation with NRC on this matter in the future.



George W. Cunningham  
Assistant Secretary  
for Nuclear Energy