

5/7/79

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF)	
)	
COMMONWEALTH EDISON COMPANY)	Docket Nos. 50-237
)	50-249
Quad Cities Units 1 and 2)	50-254
and Dresden Units 2 and 3)	50-265
)	
Amendments to Facility)	
Operating License Nos.)	
DPR-19, DPR-25, DPR-29 and)	
DPR-30.)	

APPLICANT'S MOTION FOR
RECONSIDERATION OR IN THE
ALTERNATIVE FOR CLARIFICATION
AND REFERRAL

Pursuant to 10 CFR Sections 2.751a(d) and 2.718(i) Applicant, Commonwealth Edison Company, respectfully requests the Licensing Board to reconsider its April 19, 1979 Memorandum and Order following Special Prehearing Conference (hereinafter, "Order") admitting Intervenors' contentions 6 and 11 relating to the possibility of sabotage of spent fuel shipments.^{1/} We believe the admission of these contentions was based on an erroneous interpretation of the applicable regulations governing physical security of special nuclear materials. Moreover, we believe that subsequent events show that the Board's concern that the sabotage issue might

^{1/} This motion is not premature, despite the fact that the Board has not yet ruled with respect to the admission of NRDC and CBE as parties. This is because the State of Illinois has been admitted and has adopted Contentions 6 and 11 as its own.

escape consideration by anyone unless the Intervenors' contentions were admitted was unwarranted. Finally, and most importantly, even if the Board's concern about the sabotage issue "slipping through the cracks" is valid, admitting contentions 6 and 11 is not the best way to deal with the problem. The Board has a duty to invoke the procedures outlined in 10 CFR §2.758, which will ensure that the Commission is alerted promptly to the possible inadequacy of its regulations governing physical security of spent fuel shipments. See 10 CFR §2.758(d).

In the alternative, Applicant requests that the Licensing Board refer its decision on the sabotage issues to the Appeal Board for review pursuant to 10 CFR §§2.730(f) and 2.718(i). Applicant also requests that the Licensing Board make clear whether it meant to modify Contention 6 before admitting it, since the April 19 Order appears to contain limits on the scope of the sabotage inquiry which are not reflected in Contention 6 as drafted by Intervenors.

I. The Licensing Board should reconsider its decision.

The Licensing Board's Order states, and Applicant agrees, that:

Part 73 of the Commission's regulations are concerned with physical protection of shipments of special nuclear materials, and §73.6(b) specifically exempts shipments of spent fuel from coverage.

(Order, at 7). Nevertheless, the Board suggests that these regulations are "at best ambiguous." Id. at 9. The Licensing Board also suggests that while the Commission may have intended Section 73.6(b) as an exemption for spent fuel shipments from theft, it might not have meant to exempt entirely spent fuel shipments from "some degree of precaution inferior to that of Part 73 where a clear risk could be shown to individual shipments," Id. at 9. This is because, according to a preliminary report prepared for the Commission by Sandia Laboratories,^{2/} "the 'sabotage value' of spent fuel is quite high," Id. at 8, and "sabotage of a licensed cask is physically possible." Id. at 9.

But the exemption for spent fuel shipments in Section 73.6(b) is not at all ambiguous. On the contrary, the exemption is brief and almost mathematically precise. The exemption is not qualified by any distinction between the risks of theft and sabotage. The only support for distinguishing between theft and sabotage is found in the Sandia report. And it is an obvious error to use the results of a May 1978 report to explain what the Commissioners meant in 1969 when they promulgated Section 73.6(b). This attributes to the Commissioners an ability to foresee events which they have never claimed for themselves. Furthermore, it is scarcely credible, as the Board suggests, that the

^{2/} Draft Generic Environmental Assessment on Transportation of Radioactive Materials Near or Through a Large Densely Populated Area, SAND-77-1927, (May, 1978) (henceforth, "the Sandia Report").

Commissioners would have drafted the simple unambiguous exemption in Section 73.6(b) and yet have assumed that the Licensing Boards would nevertheless divine that litigation of such issues was not foreclosed. The Commission is simply not that Delphic, or that capricious where important safety issues are concerned.^{3/}

In short, the Board's Order is not a persuasive reading of the regulations as they presently exist. Instead, the Order clearly conveys the Board's concern that the AEC may have been mistaken in 1969 when it exempted spent fuel shipments from physical protection. The 1978 Sandia Report indicates that sabotage may be a real threat. The Board seems to have adopted a strained interpretation of the regulations because of its concern that unless Intervenor's contentions are admitted, "an important issue could escape consideration by anyone...." Order at 10.

Applicant agrees that if sabotage of spent fuel shipments is a realistic danger,^{4/} this is a matter for

^{3/} See, e.g. 43 Fed. Reg. 15613 (April 14, 1978), in which the Commission ordered that Radon releases be removed from Table S-3 and explicitly stated that they might be litigated in individual proceedings.

^{4/} This is not the appropriate place or time to take issue with the Sandia report. However, we note that the Board rather uncritically cited the findings of a draft report, not yet accredited by the NRC. In particular, the Board referred to maximum casualty figures based on urban environs, whereas the Dresden/Quad Cities shipments will take place along a predominantly rural route. This is not to say that the Board was wrong in looking to the Sandia report as a preliminary indication of whether a sabotage risk exists, but merely that when and if additional physical protection rules are written, these issues will have to be looked at in some detail by the decision-maker.

grave concern. However, bending the regulations to allow consideration of this issue in individual licensing proceedings is not the right solution, for three reasons. First, recent events show that the Board's fear that the Sandia report and the sabotage issue will escape the Commission's scrutiny is unwarranted. The Board noted in its Order that the Staff was then reviewing the security of spent fuel shipments. Order at 7. Subsequently, a report published several days after the Board's Order in this case was entered indicated that the Staff has submitted to the Commission proposed amendments to 10 CFR Part 73 imposing safeguards requirements on spent fuel shipments to guard against the danger of sabotage raised by the Sandia report. Nucleonics Week, Vol. 20, No. 17, April 26, 1979 at pp. 11-12 (copy attached). In a telephone conversation, representatives of the Staff informed Applicant that this report is true.^{5/} Since the Commission now has the issue of safeguards for spent fuel shipments before it, Applicant believes it is appropriate for the Board to reconsider its admission of Intervenor's Contentions 6 and 11.

Second, even if one accepts the Board's premise that sabotage is "an important issue which may escape

^{5/} The Staff told us that the amendments to Part 73 were submitted to the Commission on April 18, 1979 via a document numbered SECY 79-278. Unfortunately, internal procedures prevented them from providing a copy of this document to Applicant. We hope however that the Staff in its response to this motion will provide the Board with detailed information as to the substance and timing of these proposed amendments.

consideration by anyone" if the exemption in Section 73.6(b) is read literally, the Board has chosen the wrong remedy. 10 CFR §2.758(d) sets forth the mechanism through which the Commission can be notified immediately that the exemption from physical protection requirements for spent fuel shipments no longer appears justified. Merely admitting Intervenors' contentions in this proceeding will not necessarily accomplish this result. Moreover, there may be other licensing proceedings and even uncontested applications in which Section 73.6(b) may be applicable. If there is a real danger of sabotage, it is the duty of this Board to draw the Commission's attention to the possible deficiency in its regulations so that safeguards may be provided for all shipments of spent fuel.^{6/}

Finally, it is clear that it would be better for the Commission to deal with this sabotage issue through rulemaking than for the Licensing Board to attempt to do so in this adjudicatory proceeding. First, there is the possibility of inconsistent requirements if each licensing board in a transshipment case deals with this issue on its own.

^{6/} We might add that since the Commission already has the Staff's proposal for amendments to Part 73 before it, this is not a situation where certification in accordance with 10 CFR §2.758 would add to the Commission's burdens. And certainly the Commission would not want this Board to avoid bringing a possibly significant error in Part 73 to their attention out of a misplaced sense of delicacy. If the regulations really are not all right the Commission should be allowed to correct them.

Also, Commonwealth Edison's transshipment proposal is designed in large part to meet a short-term spent fuel storage space shortage at its generating stations pending construction and operation of a federal storage facility or implementation of some other government plan for the long-term disposition of spent fuel. In this context, the delay inherent in addressing sabotage in the licensing hearings rather than through rulemaking may be equivalent to denial. Moreover, the decision as to what safeguards should be required is without doubt a legislative judgment, rather than an adjudicatory fact. No one can conclusively establish that the threat postulated in Contention 6: "3 insiders and 15 outsiders, the latter armed with sophisticated rapid fire automatic weapons, explosives, large shell mortars and armored vehicles," is or is not the threat which must be met. Rather, safeguards are developed by considering a broad spectrum of threats, probabilities, consequences and costs, and weighing each set of considerations against the others. This is a uniquely legislative task. Indeed, Applicant believes that the Board has not fully come to grips with the substantial difficulties of addressing sabotage of spent fuel in an adjudicatory proceeding, as is evidenced by the rather vague and confusing limits on the scope of inquiry suggested in its Order. This is discussed below in Part II of this motion.^{7/}

^{7/} One other point deserves mention. At oral argument in this proceeding, counsel for the State of Illinois and for CBE and NRDC suggested that 10 CFR §73.1(b)(4) gives the Board the authority to impose additional security procedures in this case. (Tr. at 64, 66). But this citation is inapposite since the additional safeguards are clearly limited to those necessary to protect "classified materials," i.e., secret documents. Applicant proposes to ship spent fuel, not classified materials.

II. The Licensing Board should clarify the form in which it meant to admit Contention 6.

The Board's Order states, at page 9:

Contention 6 as presently written asserts that the Licensee is required at least to furnish some information relating to sabotage or hijacking of shipments.... It is entirely possible that when the Commission exempted spent fuel shipments from physical protection under Part 73, the Commission assumed that licensing boards in individual proceedings might require some degree of precaution inferior to that of Part 73 where a clear risk could be shown to individual shipments.

(emphasis added). But Contention 6 does not only ask the Licensee "to furnish some information." Instead, it states:

Applicant has failed to disclose any information sufficient to determine whether shipment of spent fuel between the plant sites will be vulnerable to sabotage, hijacking or other malevolent acts and whether this represents a serious risk to public health and safety.

a. A credible threat of an attack against such a shipment would be 3 insiders and 15 outsiders, the latter armed with sophisticated rapid fire automatic weapons, explosives, large shell mortars and armored vehicles.

b. There is no known basis for assuring detection of a threat of this size until it has materialized.

c. Unless applicant is taking safety precautions far beyond those routinely used in the nuclear industry, it will be unable to prevent a malevolent act involving spent fuel in transit.

d. A successful malevolent act directed against a spent fuel shipment could expose thousands of persons to fatal levels of radiation, could severely pollute water supplies and land areas, force long-term evacuation of major areas and create a threat of all these events unless certain unacceptable political and/or other demands are met.

Subsections 6(a) and 6(b) postulate a threat in excess of any considered in Part 73. Subsection 6(c) also seems to mount a general challenge to the adequacy of Part 73 safeguards and to the safety precautions routinely used in the nuclear industry. Only the first paragraph of Contention 6 and subsection (d) are consistent with the reasoning in the Board's Order. Accordingly, Applicant requests that this Board even if it is unwilling to reconsider its Order, strike subsections 6(a), 6(b), and 6(c) so that the admitted Contention 6 is consistent with the Order.

Also, the Board's Order suggests that additional safeguards may be imposed "where a clear risk could be shown to individual shipments." Order at 9. This seems to indicate some sort of threshold requirement for Intervenors to come forward with their reasons for believing that the threat hypothesized in Contention 6 is real. This should be made explicit, since otherwise the Applicant will have the impossible burden of proving a negative; i.e. that no such threat exists.

III. The Licensing Board should refer the sabotage issues to the Appeal Board.

In the event the Board declines to reconsider its Order admitting contentions 6 and 11, Applicant requests that Board refer the ruling to the Appeal Board pursuant to 10 CFR §§2.718(i) and 2.730(f).^{8/} The standards for such

^{8/} Applicant's first preference is that the Board apply the procedures set forth in 10 CFR § 2.758, including if necessary certification to the Commission pursuant to Section 2.758(d).

referrals are set forth in Public Service Company of Indiana, Inc., (Marble Hill Nuclear Generating Station, Units 1 and 2), ALAB 405, 5 NRC 1190, 1191 (1977). Admittedly, the Appeal Board does not favor interlocutory review and will accept such referrals only where the Licensing Board's ruling either (1) threatens the party adversely affected by it with immediate and irreparable impact which, as a practical matter, cannot be alleviated by a later appeal or (2) affects the basic structure of the proceeding in a pervasive or unusual manner.

Applicant believes that the Licensing Board's ruling will radically affect the future course of these proceedings.^{9/} As stated previously, considering sabotage will require the Licensing Board and the parties to address complicated issues of fact and policy concerning risks, consequences, and costs rather than narrow issues of adjudicative fact. There are no clear standards to guide the Licensing Board in such an inquiry. It is probable that access to proprietary and even classified documents may be necessary to adequately assess the risks of sabotage.^{10/} Moreover,

9/ The addition of the sabotage issues will, of course, result in significant delay, and time lost is irreparable injury. This is particularly true in these circumstances where much of the usefulness of the proposed transshipment is based on its availability to mitigate short term storage problems. Applicant feels, however, that the need for Appeal Board guidance is even more compelling when expressed in terms of the unusual and pervasive effect of the Licensing Board's order.

10/ It is our understanding, which perhaps the Staff can confirm, that some of the documents underlying the Commission's recent decision to "upgrade" Part 73 are classified and have never been made public.

as discussed previously, there is a substantial public interest in seeing that the Appeal Board and other Licensing Boards are alerted to a possible deficiency or at least ambiguity in the Commission's regulations governing physical protection of special nuclear material. This is not the first or the last application to ship spent fuel. Finally, referral to the Appeal Board is appropriate because what is involved here is a simple matter of interpreting the regulations rather than a mixed question of fact and law. See Offshore Power Systems (Floating Nuclear Power Plants, ALAB-517, 2 CCH Nuclear Regulation Reports ¶ 30,354 (January 4, 1979)).

For the reasons stated, Applicant requests that the Licensing Board reconsider its ruling on sabotage issues and invoke the procedures in 10 CFR §2.758 which are designed to handle perceived inadequacies in the Commission's regulations. In the alternative, Applicant requests that the Board clarify its April 19, 1978 order and refer the sabotage issues to the Appeal Board.

Respectfully submitted,

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contained. Tests showed later that there was no significant increase in the level of radiation beyond 2-3 km from the plant. The minister also told Michel that there had been a series of fires at nuclear plants, although they were not directly connected with the reactors. They apparently were caused by such things as oil spills and did not result in radioactivity danger.

Other sources in Moscow later said the Soviets appear to have had several other accidents at their nuclear facilities, none of them serious. About 10 years ago the heat shield at one of the pressurized water reactors at Novovoronezh vibrated so violently that it became detached. More recently, the 440-Mw PWR is believed to have suffered damage from an earthquake.

Neporozhniy told Michel that the Three Mile Island mishap is leading the Soviets to take a closer look at safety procedures, but that they still intend to press ahead with their nuclear power program. The minister maintained that the design of the newest Soviet reactors is safer than that of the Babcock & Wilcox unit at Harrisburg, Pa. The standard graphite-and-water 1,000-Mw unit has four horizontal steam generators compared with the two vertical units in the American stations, which the minister said gives them a 90-min safety margin because gravity and convection continue to naturally circulate coolant around the loop.

The minister also indicated that the Russians plan to build nuclear plants nearer to, rather than farther away from, cities and populated areas. He told Michel they will be put no closer than 10 km from cities and that the land between them and the cities will be under the power authorities' control. Western sources in Moscow say most existing Soviet nuclear plants appear to be at least 30 km from centers of population. At present, the Soviets have about 30 reactors in operation for a total of some 9,000-Mw of capacity. In the past, officials have said they plan to increase this to 100,000 Mw by 1992, a goal that western sources consider is beyond their reach in that period.

THE GENERAL ACCOUNTING OFFICE WILL PROBE THE THREE MILE ISLAND ACCIDENT at the request of Rep. John Dingell (D-Mich.), chairman of the House energy & power subcommittee. The six-month investigation will focus on whether safety considerations were compromised to facilitate licensing of the plant, the adequacy of the federal response to the accident, operator training, application of regulatory standards and implications of the accident for other operating reactors.

Commenting on the necessity for the GAO inquiry, Dingell said, "While I am aware that the NRC will conduct its own investigation of this accident, any agency's investigation of itself must inevitably be subject to question. Further, the investigation to be conducted by the recently appointed presidential commission is to be confined to just the Three Mile Island accident and, therefore, is too limited in scope to be useful in evaluating the implications of this incident on the future use of nuclear energy. The presidential commission also lacks the expertise needed to conduct a comprehensive analysis of this accident."

That final statement also applies to various congressional committees considering hearings and inquiries into Three Mile Island, according to congressional staff sources who said the situation would be better left in the hands of GAO alone.

Dingell also plans to review the Price-Anderson Act, focusing on whether the \$560-million liability limit for nuclear accidents should be increased or eliminated completely. Dingell's subcommittee will hold hearings this summer to determine the cost, to utilities, of obtaining nuclear plant insurance from the private sector.

NRC STAFF PROPOSES SAFEGUARDS RESTRICTIONS FOR SPENT FUEL SHIPMENTS

NRC commissioners have tentatively decided to consider next month safeguards restrictions on spent fuel shipments — restrictions proposed by the staff just last week. The impetus for the staff proposals was a Sandia Laboratories report on environmental impacts of nuclear shipments in urban areas (SAN77-1927) issued last May. The report concluded that a severe accident with radiological releases was extremely unlikely but nevertheless described potential consequences of such an accident.

Some spent fuel shippers are lashing out at Sandia for doing the kinds of testing and analyses that encourage regulatory action such as is being taken by the NRC staff. "It's almost sort of self-defeating," said one source last week at a Sandia-sponsored transportation seminar in Albuquerque, N.M. (A Sandia official said that the report had been misinterpreted by the NRC staff). At the same time, shippers are warning that the proposed safeguards will unnecessarily restrict spent fuel shipments, further hampering the already problem-plagued transportation aspect of the nuclear fuel cycle.

The NRC staff is proposing to amend 10 CFR part 73 to require the following safeguards restrictions for all power reactor and non-DOE research reactor spent fuel shipments made in the U.S.:

— **routing** — that shippers avoid, "where practicable," routes near large population areas and that they be required to obtain NRC approval for routes they plan to use. State police must also be notified. The staff has not defined a large population area but expects to soon. "If it is not practicable to avoid a large popula-

tion area, then other measures might be required" such as a local police escort, says one NRC source.

— escorts — that unarmed escorts accompany shipments. For truck shipments this means, besides the driver, at least one escort for the vehicle and two escorts if another vehicle is used. For trains, at least two escorts are required to ride in view of, or on, the cask car.

— training — that escorts and/or drivers be trained to handle sabotage. This will be subject to NRC inspection.

— immobilization of vehicle — that truck shippers adopt one of several methods available for immobilizing either the tractor or trailer to prevent a shipment being hijacked.

— communications — that communications equipment be a part of each shipment so that the driver/escorts are constantly in touch with a central location.

— advance notification — that NRC approval for safeguards on spent fuel shipments be obtained seven days prior to a shipment. "Of course all arrangements will have to be made well in advance of that," says one NRC source.

According to the staff source, the main objective of the proposed safeguards is to prevent terrorists from attacking a spent fuel shipment with high explosives and exposing a large urban area to radionuclides released in aerosol form.

"We can't say these requirements are absolutely essential but we feel they are prudent," says the source. The shippers do not agree. "There is absolutely nothing to substantiate these," says one shipper. He claims that a spent fuel cask would, in fact, be one of the least likely targets to sabotage because it is massive, very difficult to penetrate, and would not be any more disruptive to an urban area than gasoline storage tanks, and other types of nonnuclear explosive materials that are easier to gain access to. Another shipper, also highly critical of the proposed requirements, says they could hamper AFR (away-from-reactor) storage shipments in the future.

NRC's safeguards division wants the proposals adopted soon. There appears to be some dispute among staff members as to whether they should be issued as effective immediately if approved, but one source says that the 1-2-year routine rulemaking procedure will surely be circumvented. The amendment would be issued as interim until NRC completes a 1-2-year research program to confirm the Sandia study conclusions on impacts. NRC would enforce requirements, the source says, through part 50 and part 70 licenses. Currently NRC requires safeguards for highly enriched uranium and plutonium. The commission's authority to impose safeguards, the source says, is clear. — Lynn Stevens

NEITHER COSTS NOR LONG-TERM RISKS DIFFER ENOUGH TO MAKE ONE WASTE DISPOSAL technique preferable to another, according to DOE's draft environmental impact statement on commercial waste management. The state of technology is the "major decision factor," the draft concludes, "and the geologic disposal option has an edge."

On how best to exploit that edge, however, the draft statement appears to be self-contradictory. The Interagency Review Group on Waste Management recommended that the President choose between early establishment of a repository in salt — with research on other media accelerated — and postponement of a repository decision until the set of potential sites covers a broader range of geologic environments (NW, 19 Oct '78, 1).

The Atomic Industrial Forum has urged the President to choose the first alternative (NW, 5 Apr, 12), a choice which would reflect "the government's conviction that wastes will be disposed of with no significant risk to the public." The draft statement, which bills itself as the final necessary element for adopting a technical strategy for waste disposal, says first that timing of repository operation is not "significant." But later the draft acknowledges the possibility that delay will evoke logistic problems which might hamper the "minimization" of "human and environmental" risk.

BRITISH NUCLEAR FUELS LTD. HAS SUFFERED ANOTHER MAJOR LEAK AT ITS WINDSCALE, northwest England, works involving about 10 cu meters of dilute, highly active waste containing an estimated 30,000 - 40,000 curies of activity. The leak, into the ground inside BNFL's site, was first reported by BNFL to Britain's Nuclear Installations Inspectorate and to the government Departments of Energy and the Environment in mid-March. But it was only last week quantified by the company as involving an estimated "few tens of thousands of curies" at a meeting of BNFL's local liaison committee for Windscale through which BNFL informs local representatives about its activities. This week a BNFL spokesman identified the amount more closely as being "about 30,000 but it might be 40,000" curies.

Responding this week to questions about the incident from British Friends of the Earth, Secretary of State for Energy Anthony Wedgwood Benn revealed in a statement that the source of the leak appears to be a steel-lined sump in a building containing tanks that temporarily hold dilute highly active waste prior to concentration by evaporation and final storage in long-term storage tanks. The leak first showed up as contamina-

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CERTIFICATE OF SERVICE

I, Philip Steptoe, hereby certify that a copy of
APPLICANT'S MOTION FOR RECONSIDERATION OR IN THE ALTERNATIVE FOR
CLARIFICATION AND REFERRAL has been served upon the following
by deposit in the United States mail, first class, this 7th day
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