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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING APPEAL BOARDS*

Alan S. Rosenthal, Chairman
Dr. John H. Buck
Michael C. Farrar
Richard S. Salzman
Dr. W. Reed Johnson
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SERVED MAY 31 1978

In the Matters of	
PHILADELPHIA ELECTRIC COMPANY et al.	Docket Nos. 50-277 50-278
(Peach Bottom Atomic Power Station, Units 2 and 3)	
METROPOLITAN EDISON COMPANY et al.	
(Three Mile Island Nuclear Station, Unit No. 2)	Docket No. 50-320
VIRGINIA ELECTRIC AND POWER COMPANY	
(North Anna Power Station, Units 1 and 2)	Docket Nos. 50-338 50-339
PUBLIC SERVICE ELECTRIC AND GAS COMPANY	
(Hope Creek Generating Station, Units 1 and 2)	Docket Nos. 50-354 50-355
FLORIDA POWER AND LIGHT COMPANY	
(St. Lucie Plant, Unit No. 2)	Docket No. 50-389
CAROLINA POWER AND LIGHT COMPANY	
(Shearon Harris Nuclear Power Plant, Units 1,2,3 and 4)	Docket Nos. 50-400 50-401 50-402 50-403

* Every Appeal Panel Member is on one or more of the Boards hearing the captioned proceedings; their collective designation is simply a convenience in issuing this joint order.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE *et al.*	)	
(Seabrook Station, Units 1 and 2)	)	Docket Nos. 50-443 50-444
KANSAS GAS AND ELECTRIC COMPANY AND KANSAS CITY POWER AND LIGHT COMPANY	)	
(Wolf Creek Generating Station, Unit No. 1)	)	Docket No. STN 50-482
NORTHERN STATES POWER COMPANY (MINNESOTA) AND NORTHERN STATES POWER COMPANY (WISCONSIN)	)	
(Tyrone Energy Park, Unit No. 1)	)	Docket No. STN 50-484
ROCHESTER GAS AND ELECTRIC CORPORATION *et al.*	)	
(Sterling Power Project Nuclear Unit No. 1)	)	Docket No. STN 50-485
DUKE POWER COMPANY	)	
(Cherokee Nuclear Station, Units 1, 2 and 3)	)	Docket Nos. STN 50-491 STN 50-492 STN 50-493
THE TOLEDO EDISON COMPANY *et al.*	)	
(Davis-Besse Nuclear Power Station, Units 2 and 3)	)	Docket Nos. 50-500 50-501
WASHINGTON PUBLIC POWER SUPPLY SYSTEM	)	
(WPPSS Nuclear Project No. 4)	)	Docket No. 50-513
TENNESSEE VALLEY AUTHORITY	)	
(Hartsville Nuclear Plant, Units 1A, 2A, 1B and 2B)	)	Docket Nos. STN 50-518 STN 50-519 STN 50-520 STN 50-521

PUBLIC SERVICE COMPANY OF INDIANA, INC.		
(Marble Hill Nuclear Generating Station, Units 1 and 2)	Docket Nos.	STN 50-546 STN 50-547
TENNESSEE VALLEY AUTHORITY		
(Phipps Bend Nuclear Plant, Units 1 and 2)	Docket Nos.	50-553 50-554
TENNESSEE VALLEY AUTHORITY		
(Yellow Creek Nuclear Power Plant, Units 1 and 2)	Docket Nos.	STN 50-566 STN 50-567

1. On April 11, 1978, the Commission amended Table S-3 of 10 CFR Part 51, entitled "Summary of Environmental Considerations for Uranium Fuel Cycle", to delete the value assigned to the emissions of radon-222 expected to occur as a result of the mining and milling of uranium. 43 Fed. Reg. 15613 (April 14, 1978). The basis for this action was that that value was incorrect. The Commission went on to state that, although the question of the correct value was under reconsideration, it had decided not to institute at this juncture a rulemaking proceeding on radon emissions. Rather, the matter was to be considered "in individual [licensing] proceedings". In this connection, the Commission directed that the radon question be entertained not merely in those proceedings in which it had been previously placed in issue (or in which a party now desired to raise it) but, as well, in all other proceedings "still pending before Licensing or Appeal Boards". The Commission went on to state that, "[w]here cases are pending before Appeal Boards, the Appeal Boards are also

directed to reopen the records to receive new evidence on radon releases and on health effects resulting from radon releases". 43 Fed. Reg. at 15615-16.

We first took note of these instructions in an opinion issued on April 19 in the Hartsville proceeding.[1] Because that proceeding remained before the Licensing Board on another issue, we ordered that Board to reopen the record to "receive written evidence on radon releases and the health effects resulting therefrom. Whether or not a hearing is required in connection with that evidence will be for the Licensing Board to determine in the first instance". 7 NRC at ___ (slip opinion, p. 9).[2]

1/ Tennessee Valley Authority (Hartsville Nuclear Plant, Units 1A, 2A, 1B, 2B), ALAB-467, 7 NRC ___.

2/ This course was presaged by what we had done some three weeks earlier in Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit No. 2), ALAB-465, 7 NRC ___ (March 27, 1978). In that case, the Commission had directed us to review the Licensing Board's initial decision authorizing the issuance of an operating license as though Table S-3 contained no value for radon emissions at all. CLI-78-3, 7 NRC ___ (March 2, 1978). After exploring with the parties how that direction might be best carried out, we remanded the radon issue to the Licensing Board with instructions "to reopen the record to receive new evidence, to hold such further hearings as may be required and to render a supplemental initial decision". ALAB-465, 7 NRC at ___ (slip opinion, p. 3). See also Northern States Power Co. (Tyrone Energy Park, Unit 1), ALAB-464, 7 NRC ___ (March 17, 1978).

Shortly after ALAB-467 was issued, the NRC staff moved us to consolidate a total of 17 proceedings for the limited purpose of receiving new evidence and making a decision regarding the environmental impact of radon releases in the uranium fuel cycle. Aspects of each of these proceedings were said to be then pending before an appeal board; the motion did not encompass any proceeding in which the Licensing Board had not as yet rendered its decision on the issuance of a construction permit, limited work authorization or operating license.[3/] The justification offered by the staff for seeking consolidation was that the "public interest" would be served. By way of elaboration, we were told (motion, pp. 4-6; footnote omitted):

> Since the question of radon impacts is general and totally unrelated to the particular situations of particular reactors, there would be no real advantage to having the issue addressed by the Licensing Boards which received the evidence on the other issues in the proceedings. The Appeal Board need not involve itself in drawing up detailed cost-benefit balances in close cases. It could reasonably limit its

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3/ Included, however, were Hartsville, supra fn. 1, and Three Mile Island, supra fn. 2 -- despite the earlier remand of the radon issue to the Licensing Board in each of those cases. Not included was Washington Public Power Supply System (WPPSS Nuclear Project, Nos. 3 and 5), Docket Nos. STN 50-508, 50-509, which case is pending before us for review on our own motion, because the staff feels that it is not necessary to reopen that proceeding.

function to making an initial determination of whether the effects of radiation from radon could be substantial enough to affect the cost-benefit balances or determinations on the health effects of the nuclear fuel cycle. Cf. Vermont Yankee Nuclear Power Corp., et al. (Vermont Yankee Nuclear Power Station), CLI-77-10, 5 NRC 717 (1977); ALAB-392, 5 NRC 767 (1977). If the radon impacts are determined to be very small, there would be no need to have the particularized redeterminations of the cost-benefit balance made by the individual Licensing Boards. Cf. Public Service Electric and Gas Co., et al. (Salem Nuclear Generating Station, Units 1 and 2), ALAB-426, 6 NRC 206 (1977).

Should there be no consolidation, the Staff's testimony would be essentially the same in each proceeding. Presenting it one time would be more efficient and less expensive. Because of conflicting demands on the time of a limited number of Staff witnesses, scheduling these witnesses in many separate proceedings would inevitably mean substantial delays in reaching the issue in many proceedings. Similarly, we think it likely that a good deal of rebuttal evidence would be duplicated from one proceeding to another. Consolidation could thus speed up the consideration of the radon-related issues and conserve the resources of all parties.

Consolidation would also be generally fair to Applicants and Intervenors. Those trying the third or fourth cases involving these issues would not be faced with the effects of those issues having been determined previously in other proceedings. Although the effects of the earlier decisions would not be binding, there is no gainsaying that the earlier public decision would affect later cases. Conversely, if early decisions on the radon releases had no effect on later decisions, the likelihood of inconsistent decisions would be increased. This result too should be avoided.

The motion went on to indicate (at pp. 6-7) that, "[a]s a first step", the staff proposes to tender five affidavits which purportedly establish (1) that the environmental impact of radon releases in the uranium mining and milling process are so insignificant that the cost/benefit balance for no facility would be "substantially affected"; and (2) "that after the radon impacts are considered, a wide gap still exists between the projected health effects of the uranium and coal fuel cycles". The staff recognized, however, that at least some parties in one or more of the individual cases might wish to controvert that evidence. The motion concluded on this note (p. 8):

> We respectfully request that the Appeal Board order the consolidation of the above-captioned proceedings for the purpose of dealing with the radon issue. A conference of parties to the consolidated proceeding should be held with the Appeal Board members involved to discuss procedures for the consolidated hearing, including methods of efficiently and expeditiously handling discovery, submission of written testimony, identification of Board questions, and cross-examination. We would suggest that such a conference be held in the near future at a location as reasonably convenient as possible to all parties who indicate an interest in participating.

To put it mildly, the motion was not well received by other parties. The applicants in all but one of the

17 proceedings were heard from; without exception, the response took the form of an unqualified opposition to consolidation. In only three proceedings did intervenors reply to the motion; each of those responses likewise expressed the view that it should be denied.

The reasons advanced were not precisely the same in each instance. We need not rehearse them all here. Some of the more frequently expressed objections of applicants were that consolidation (1) would be inconsistent with the Commission's apparent decision that the radon issue should not be treated generically at this time; (2) would be inefficient and time-consuming and, additionally, would pose serious logistical problems; and (3) would impose unwarranted burdens upon those applicants who are not confronted with a contest on the radon issue (i.e., an applicant in a proceeding in which the issue has not been placed in controversy should not have to participate in a dispute between parties to other proceedings).[4/] For their part,

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4/ Some of the applicants went so far as to assert that the April 11 order does not apply to their proceedings. We summarily reject those assertions. They rest on the theory that the Commission intended the order to extend only to those proceedings in which NEPA issues still remain open (i.e., have not received final disposition within the Commission). But the direction that the record be reopened in "cases * * * pending before Appeal Boards" was without any such qualification, express or implied. To the contrary, it clearly
(FOOTNOTE CONTINUED ON NEXT PAGE)

the responding intervenors believe, inter alia, that consolidation would be financially burdensome to them.[5/]

2. We are satisfied that the Commission's April 11 order neither explicitly nor implicitly precludes the relief which the staff seeks. Although electing not to initiate now a rulemaking proceeding on the radon issue, but instead to call for a reopening of the record in each individual pending case, the Commission left to the discretion of the various appeal and licensing boards both how the reopening was to be accomplished and how the "new evidence on radon releases and on health effects resulting from radon releases" was then to be treated. More specifically, the Commission did not purport to suspend

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4/ (FOOTNOTE CONTINUED FROM PREVIOUS PAGE) appears from the terms of the Commission's order that it wishes the radon question to be reexamined in every pending proceeding in which the now-repudiated value for radon emissions assigned in Table S-3 had been employed.

5/ There is sharp disagreement between applicants and intervenors as to the adequacy of the affidavits identified in the staff's motion. We need not, of course, address that controversy at this time. As already noted, the staff recognizes that, were the proceedings to be consolidated, an opportunity would still have to be provided other parties to challenge the content or sufficiency of the affidavits.

the operation of 10 CFR 2.716, which expressly authorizes it (and thus us as its delegate) to "consolidate for hearing or for other purposes two or more proceedings" on a finding "that such action will be conducive to the proper dispatch of its business and to the ends of justice".[6/]

We are nonetheless constrained to observe that the staff's motion is a source of some puzzlement. The April 11 order was not issued by the Commission sua sponte. Rather, that order represented the adoption of a staff recommendation (in the Commission's words) "that Table S-3 be amended to remove the value for radon releases and that the subject of radon releases and associated health effects be declared litigable in all individual licensing proceedings". See Three Mile Island, CLI-78-3, supra fn. 2, 7 NRC at ___ (slip opinion, p. 3). When it made that recommendation, the staff presumably was just as aware as it is now of each of the considerations which, according to its consolidation motion, militate against case-by-case treatment of what is beyond dispute a truly generic issue. One thus

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6/ Effective May 26, 1978, Section 2.716 was amended to confer this authority on "presiding officers" (i.e., licensing boards) as well. 43 Fed. Reg. 17798, 17802 (April 26, 1978).

might reasonably ask why these considerations did not prompt the staff to recommend a rulemaking proceeding to amend Table S-3. Alternatively, once it had focused upon the manifest difficulties attendant upon having many adjudicatory boards independently hear and decide the same generic issue, why did the staff not then bring those difficulties to the Commission's attention with a request for a modification of the directives set forth in the April 11 order?

Although we have not paused to solicit the staff's answers to these questions, the only possible explanation which comes to mind is that the staff's reanalysis of the radon matter has not as yet reached the point at which the staff might be ready to offer its final views on how Table S-3 should be revised with regard to radon emissions. It would appear from the consolidation motion, however, that the reanalysis has progressed at least far enough that the staff is now quite prepared to assert that it should be used to determine the appropriate licensing action with regard to a substantial number of nuclear facilities -- not merely the 17 covered by the motion but also several others under licensing board scrutiny. In view of this level of confidence, we fail to understand the reticence

of the staff to employ its present thinking on the subject as a foundation for a proposed interim revision to Table S-3. Stated otherwise, what is a sufficient evaluation (as the staff sees it) for the purposes of two dozen or so pending proceedings ought to be no less satisfactory for the relatively few additional proceedings to which an interim rule might apply.

All things considered, there is scant cause to lend a sympathetic ear to the staff's concerns regarding the additional burdens to which it may be subjected in the absence of consolidation. Apart from that, there is much to be said for the consensus of the responding parties that consolidation (along the lines proposed by the staff) would be unworkable and, as to many (if not all) of those parties, unfair. Indeed, the validity of the objections to this effect seems to us to be sufficiently self-evident to require no further discussion.

At the same time, however, we cannot allow our dissatisfaction with the staff's handling of this matter to obscure that there is little to be said for calling upon 17 different licensing boards to hear and decide this

generic issue independently.[7] Because of this, we have resisted the natural temptation simply to deny the consolidation motion and to leave it to the staff to seek, if so inclined, relief of some kind from the Commission itself. Instead, we have undertaken to search on our own for some alternative solution to the problem (within the framework of the April 11 order) which would be both feasible and fair to all concerned. We conclude that there is such a solution. Although by no means perfect (we doubt that any flawless procedure for dealing with this situation could be devised), it seems to us to be a reasonable accommodation of the competing interests which either have specifically been brought to our attention or have occurred to us.

The Licensing Board in the Perkins construction permit proceeding[8] has recently held an evidentiary hearing on

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7/ "[I]t would be absurd that the issue of the environmental effect of uranium mining in Wyoming should have to be separately considered on every application to construct nuclear plants from Maine to California. Rather the idea that a licensing agency should endeavor to identify environmental issues common to many applications and handle them in 'generic' proceedings would seem to benefit all parties, particularly the poorly-financed environmental groups." Ecology Action v. AEC, 492 F.2d 998, 1002 (2nd Cir. 1974) (per Friendly, C. J.).

8/ Duke Power Co. (Perkins Nuclear Station, Units 1, 2 and 3), Docket Nos. STN 50-488, 50-489, 50-490.

the radon question and, as we understand it, will shortly be receiving additional testimony in deposition form. One of the members of the Board is Dr. Walter H. Jordan. In its April 11 order, the Commission made direct reference to a memorandum written by Dr. Jordan last fall, in which he raised questions regarding the accuracy of the value then assigned to radon in Table S-3. Also involved in the Perkins hearing is Dr. Chauncey R. Kepford. In the capacity of a technical interrogator for the intervenors, he cross-examined the witnesses for the staff and the applicant.[9/] Dr. Kepford has been an active participant in the Three Mile Island proceeding, in which he represents two intervenor organizations. He was an early and outspoken critic of the treatment formerly given radon emissions in Table S-3 and has evinced a good measure of skepticism respecting the validity of the staff's new analysis.

We have not, of course, evaluated the content of the Perkins record -- even to the extent that it has already been developed. It is at least possible, however, that, once that record is complete, there will be general agreement that it reflects a full and fair ventilation of all

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9/ Moreover, it is his testimony that will be furnished to the Board by way of deposition.

facets of the radon inquiry. This possibility would appear to be enhanced by the presence of Drs. Jordan and Kepford. In this connection, a preliminary look at the transcript of the two-day hearing discloses that Dr. Jordan was not merely a passive observer. As was his right -- indeed his manifest duty in the full discharge of his responsibilities as a technical member of the Licensing Board -- he interrogated the witnesses himself on aspects of the radon inquiry which appeared to him to warrant further exploration.

In the circumstances, the Perkins record (when complete) should be sufficient to serve as the base point for the examination of the radon issue in the 17 other proceedings to which the staff motion relates. This is not to say, of course, that every party to each of those proceedings will necessarily concur that that record is satisfactory in every particular. No matter how thorough may have been the treatment of the radon issue in Perkins, one or more of the parties to other cases nonetheless may conclude that there were stones left unturned; i.e., that portions of the staff's new analysis were not adequately tested or that there is available evidence bearing upon the issue beyond that presented to the Perkins Board.

Obviously, non-participants in Perkins cannot be held bound by the record adduced in that proceeding. At the same time, however, it would be to no party's advantage to insist that the radon issue be relitigated from the starting line in his own case, so long as he were given an opportunity in his proceeding to supplement, contradict or object to anything in the Perkins record. In our view, this is a fair and appropriate procedure.

In short, the use of Perkins as the "lead case" on this generic issue would (1) obviate the need for the rehearsal of the basic staff evidence in 17 different proceedings (at large cost in time and effort); but yet (2) not foreclose the further pursuit of the issue by a litigant in one of those proceedings who might believe it warranted. To this end, in lieu of the consolidation of the 17 proceedings sought by the staff, we hereby direct the following:

1. Each appeal board assigned to one of the 17 proceedings will either reassume or retain jurisdiction over the radon issue in that proceeding. The remand of the issue to the Three Mile Island and Hartsville Licensing Boards in ALAB-465 and ALAB-467, respectively, is vacated. Also withdrawn is so much of ALAB-464, supra, as indicated

that, in certain circumstances, the Tyrone Licensing Board should reopen the record on the issue.

2. Within 10 days after the evidentiary record on the radon issue is closed in Perkins, a copy of that record shall be served upon every party to each of the 17 proceedings.[10/] It shall be the responsibility of the NRC staff to insure that such service is accomplished. Further, the record in each of the 17 proceedings shall be deemed automatically reopened for the receipt of the evidence so served.

3. Within 14 days after his receipt of the Perkins evidentiary record, any such party may request in writing that the appeal board assigned to the particular proceeding (a) receive additional written evidence on the radon question; (b) call for a further hearing on the Perkins record; or (c) consider objections to any aspect of the Perkins radon proceeding. The request shall set forth with specificity the respects in which the Perkins record is deemed to be incomplete, inaccurate, or objectionable, as well as precisely how such defects should be remedied.

10/ As used herein, the term "party" shall be deemed to include a participant under 10 CFR 2.715(c).

Responses to such requests may be filed by any other party to the proceeding within 10 days thereafter.

4. When rendered, the Licensing Board's decision on the radon question in Perkins shall be served on every party to each of the 17 proceedings (the staff shall see to it that this service is accomplished). Within 14 days following that service, a party may file a memorandum with the appropriate appeal board addressed to two questions: (a) whether the Perkins evidentiary record supports the generic findings and conclusions of the Licensing Board respecting the amount of the radon emissions in the mining and milling process and resultant health effects; and (b) whether the radon emissions and resultant health effects are such as to tip the NEPA balance against construction (or operation) of the particular facility in question.[11] (A party who has earlier filed a request to supplement in his proceeding the evidentiary record adduced in Perkins might, of course, choose to defer the submission of a memorandum on these two questions pending the outcome of his request and any supplementation of the record which may be ordered.)

11/ In confronting this question, the party could either accept the Perkins Licensing Board's generic findings or employ his own analysis of the Perkins record (presumably set forth in response to the first question).

5. Each appeal board will deal with the radon question independently. The manner and timing of the disposition obviously will depend upon, inter alia, whether, in the specific proceeding, there are (a) requests to supplement the record developed in Perkins; or (2) challenges to the Perkins findings.

We repeat our acknowledgment that the procedure outlined above is not free of all possible criticism -- indeed, it too has some cumbersome features. In none of the 17 cases, however, has a party suggested an alternative procedure which commends itself as being more efficient and no less equitable. That being so, we go this route.

It is so ORDERED.

FOR THE APPEAL BOARDS

Margaret E. Du Flo
Secretary to the
Appeal Boards

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY, ET AL.	)	Docket No.(s) 50-320
	)	
	)	
(Three Mile Island Unit No. 2)	)	
	)	
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CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document(s)* upon each person designated on the official service list compiled by the Office of the Secretary of the Commission in this proceeding in accordance with the requirements of Section 2.712 of 10 CFR Part 2 - Rules of Practice, of the Nuclear Regulatory Commission's Rules and Regulations.

Dated at Washington, D.C. this
31st day of May 1978.

Peggy T. Dunning
Office of the Secretary of the Commission

* Served also on Related Cases

52-084

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
METROPOLITAN EDISON COMPANY, ET AL.	)	Docket No. 50-320 -OL
	)	
(Three Mile Island Unit No. 2)	)	

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