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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BUARD

In the Matter of

CONSUMERS POWER COMPANY

(Midland Plant, Units 1 and 2)

Docket Nos. 50-329 50-330 (Remand Proceeding)

OEC 11 1918

NRC STAFF RESPONSE TO COMMISSION MEMORANDUM AND ORDER DATED NOVEMBER 6, 1978 -- (REGARDING RADON)

# Introduction

In a Memorandum and Order issued in this proceeding on November 6, 1978, (Order) the Commission stated, inter alia, that "the environmental effects of radon are in issue here because the Commission has deleted the radon term from Table S-3" (Order, page 3). The Commission further stated, however, that "the generic nature of this issue leads us to conclude that the interests of the parties will best be served by structuring the Licensing Board's review of this issue in accordance with the procedure set out by the Appeal Board in ALAB-480." (Id., at page 3). Pursuant to the Order, the Secretary of the Commission on November 17, 1978, served the

<sup>1/ 43</sup> Fed. Reg. 15613 (1978)

Philadelphia Electric Company (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-480 (May 30, 1978).

radon evidentiary record and decision in the <a href="Perkins">Perkins</a> <a href="Perkins">Per

For the reasons set out below, the Staff is of the view that the Licensing Board in this proceeding need not (a) receive additional writter evidence on the radon question; and (b) need not call for a further hearing on the <u>Perkins</u> record, in the absence of an appropriate showing that the record is incomplete in some significant way. In addition, the Staff has no objections to any aspect of the <u>Perkins</u> radon proceeding.

<sup>&</sup>lt;u>Duke Power Company</u> (Perkins Nuclear Station, Units 1, 2 and 3), Docket Nos. STN 50-488, 50-489, 50-490. Reivew of that record is presently pending before the Appeal Board.

The Commission's Order provided that parties could file a memorandum with this Licensing Board addressed to two questions: (a) whether the <u>Perkins</u> evidentiary record supports the generic findings and conclusions of the <u>Perkins</u> 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 continued construction of the <u>Midland plant</u>. (A party who has filed a request to supplement the evidentiary record adduced in <u>Perkins</u> could 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.)

The first question we address in response to (a) above is whether the Perkins evidentiary record supports the generic findings and conclusions of the Perkins Licensing Board respecting radon emissions in the mining and milling process and the resultant health effects. The Staff believes that the Perkins record is adequate to support these findings. All sides to the issue were effectively represented and the Licensing Board (including Dr. Jordan, who had earlier raised the radon issue) took an active role in

In confronting this question, the party could either accept the <a href="Perkins Licensing Board's generic findings or employ his own analysis of the Perkins record">Perkins record</a>.

developing the record. We also submit that these findings are equally as applicable to the effects of the fuel cycle supporting the <u>Midland</u> facility as that supporting Perkins.

With respect to "the amount of radon emissions," the <u>Perkins Licensing Board in</u> the Partial Initial Decision (PID) dated July 14, 1978 recognized the limitations in available data and the conservative nature of estimates, for example, with respect to open pit mines (<u>Perkins PID para. 12-17</u>) and with respect to stabilization of tailings piles (<u>Perkins PID para. 31-32</u>). However, in view of the very small nature of the health effects described in the testimony accepted by the <u>Perkins Board</u>, these limitations in emission data were not of significance to the <u>Perkins Board</u>'s conclusion that radon releases and impacts therefrom are insignificant in striking the costbenefit balance for the Perkins facilities.

The validity of the <u>Perkins</u> Board findings as to generic consideration of radon emissions is also supported by the findings on this issue by the <u>Black Fox</u> Licensing Board (PID dated July 24, 1978, para. 96-125). 5/
In that proceeding, Intervenors used a different expert witness, Dr. Robert Pohl, whose general area of challenge had a somewhat different focus from that of <u>Perkins</u> Intervenors' witness and thus elicited generally more detail

Public Service Company of Oklahoma, et al. (Black Fox Station, Units 1 and and 2) Docket Nos. STN 50-556 and STN 50-557. Review of that record is also pending before the Appeal Board.

on issues of stabilization of piles and release from piles. Nonetheless, the conclusions of the <u>Black Fox Licensing Board</u> with respect to amounts of radon emission are quite similar overall to that of the <u>Perkins Board</u> and support the same conclusion that the resultant health effects are not significant in striking the cost-benefit balance.

On this basis, with due recognition to the limitations in available data and the conservative nature of various estimates, the Staff proposes that this Licensing Board adopt the findings of the <u>Perkins</u> Licensing Board on radon emissions and the resultant health effects. The <u>Perkins</u> Partial Initial Decision does have certain passages (for example, the background discussion in paragraph (1)) which are specific to the <u>Perkins</u> record. In all material respects, however, the <u>Perkins</u> Partial Initial Decision is applicable to these proceedings and should be adopted by this Board.

In response to (b) above we discuss the question of whether the radon emissions and resultant health effects as established in the  $\underline{Perkins}$  record are such as to tip the NEPA balance against continued construction of the Midland facility. The  $\underline{Perkins}$  record demonstrates that the increase in natural background radiation associated with the mining and milling of an annual fuel requirement ("AFR") is so small, particularly in view of fluctuations in natural background radiation, as to be completely undetectable. ( $\underline{Perkins}$  PID para. 51). Based upon its review of the evidence

See ALAB-60, 5 AEC 261 (1972); See also Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 535, fn. 14 at p. 536-537 (1978). The S-3 rule was not in existence at the time this case was initially decided.

adduced, the <u>Perkins</u> Licensing Board concluded that there would be only a very minimal resulting impact on health effects. (<u>Perkins</u> PID para.

49). There was ample basis for the <u>Perkins</u> Licensing Board's conclusion, therefore, that the impact of the incremental radon is not significant. (<u>Perkins</u> PID para. 51). This very small incremental impact could not tip the cost-benefit balance against continued contstuction of the Midland facility unless the record in this proceeding indicated that the costs and benefits were virtually in equipoise. The Licensing Board, the Appeal Board, and the Commission in this proceeding have previously found, however, a clear need for the facility. (LBP-77-57, paras 71 and 72, 6 NRC 482, at 498; ALAB-458, 7 NRC 155, at 166-167; Order, p. 5.) Given a clear case of need, the cost-benefit balance in these proceedings would not be tipped by the tiny increments associated with radon release from the uranium fuel cycle. 7/

<sup>7/</sup> In ALAB-509, dated December 1, 1978, the Appeal Board asked for additional briefs on this matter.

## Conclusion

For the reasons set forth above, we request the Licensing Board to adopt the findings of the <u>Perkins</u> Licensing Board on radon emissions and resultant health effects. Based upon a consideration of the level of incremental impacts involved and the cost-benefit balance in this case, we further request the Licensing Board to find that the balance is not tipped against continued construction of the Midland facility.

Respectfully submitted,

Bernard M. Bordenick Counsel for NRC Staff

Dated at Bethesda, Maryland this 8th day of December, 1978.

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(Midland Plant, Units 1 and 2)

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## NOTICE OF APPEARANCE

Notice is hereby given that the undersigned attorney herewith enters an appearance in the captioned matter. In accordance with \$2.713(a), 10 CFR Part 2, the following information is provided.

Name	- Bernard M. Bordenick
Address	- U.S. Nuclear Regulatory Commission Office of the Executive Legal Director Washington, D. C. 20555
Telephone Number	- Area Code 301 - 492-8674 (or IDS Code 179 - Ext. 7474)
Admissions	- U.S. Court of Appeals for the District of Columbia Circuit
	- District of Columbia Court of Appeals
Name of Party	- NRC Staff U.S. Nuclear Regulatory Commission Washington, D. C. 20555

Bernard M. Bordenick Counsel for NRC Staff

Bernard on Barderich

Dated at Bethesda, Maryland this 8th day of December, 1978.

#### UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

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CONSUMERS POWER COMPANY (	Docket Nos. 50-329
(Midland Plant, Units 1 and 2)	50-330 (Remand Proceeding)

## CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF RESPONSE TO COMMISSION MEMORANDUM AND ORDER DATED NOVEMBER 6, 1978 -- REGARDING RADON" and "NOTICE OF APPEARANCE OF BERNARD M. BORDENICK" dated December 8, 1978, in the above-captioned proceeding, have been served on the following by deposit in the United States mail, first class, or, as indicated by an asterisk, through deposit in the Nuclear Regulatory Commission's internal mail system, this 8th day of December, 1978.

- \* Marshall E. Miller, Esq.
  Atomic Safety and Licensing Board
  U. S. Nuclear Regulatory Commission
  Washington, D. C. 20555
- \* Dr. J. Venn Leeds, Jr. Atomic Safety and Licensing Board 10807 Atwell Houston, Texas 77096
- \* Dr. Emmeth A. Luebke Atomic Safety and Licensing Board U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Judd L. Bacon, Esq. Legal Department Consumers Power Company 212 West Michigan Avenue Jackson, Michigan 49201

Norton Hatlie, Esq. Attorney-at-Law P.O. Box 103 Navarre, Minnesota 55392 Ms. Mary Sinclair 5711 Summerset Street Midland, Michigan 48640

Harold F. Reis, Esq.
Robert Lowenstein, Esq.
Lowenstein, Newman, Reis and
Axelrad
1025 Connecticut Avenue
Washington, D. C. 20036

L. F. Nute The Dow Chemical Company P.O. Box 271 Midland, Michigan 48640

Mr. Steve Gadler 2120 Carter Avenue St. Paul, Minnesota 55108

\* Docketing and Service Section Office of the Secretary U. S. Nuclear Regulatory Commission Washington, D. C. 20555 Michael I. Miller, Esq. Ronald G. Zamarin, Esq. Martha E. Gibbs, Esq. Caryl A. Bartelman, Esq. Isham, Lincoln & Beale One First National Plaza 42nd Floor Chicago, Illinois 60603

- \* Atomic Safety and Licensing Board Panel U.S. Nuclear Regulatory Commission Washington, D. C. 20555
- \* Atomic Safety and Licensing
  Appeal Panel
  U.S. Nuclear Regulatory Commission
  Washington, D. C. 20555

William J. Olmstead Counsel for NRC Staff