

*Docket File*



March 28, 1969

Docket Nos. 50-329 &  
50-330

Mr. Robert D. Allen  
Senior Vice President  
Consumers Power Company  
212 West Michigan Avenue  
Jackson, Michigan 49201

THIS DOCUMENT CONTAINS  
POOR QUALITY PAGES

Dear Mr. Allen:

During the preliminary phases of our review of the Midland Plant, we have placed principal emphasis on the evaluation of your site. The Commission's Advisory Committee on Reactor Safeguards has also considered the acceptability of the site. In addition, as a part of this review, representatives of the ACRS and the regulatory staff have visited Midland.

As a result of this review, you have been advised that the proposed site is unacceptable for use with the reactor plant design presently described in your PSAR. As I discussed with you on March 12, 1969, the features of the proposed site do not preclude constructing and operating a nuclear plant of the proposed power rating, provided that adequate engineered safety features and protective systems are included in the facility design and that the facility design is analyzed sufficiently conservatively, particularly with respect to exclusion area and low population zone. In this regard, we consider Midland to be similar in many respects to the Consolidated Edison Indian Point and the Commonwealth Edison Zion sites. On this basis, you should install, in your plant, engineered safety features at least equivalent to those incorporated in the Indian Point or Zion units. Thus, we would expect the design to include not only consequence mitigating safety equipment, such as reagent sprays and filters, but also such safety features as: means to accommodate reactor vessel movement, failed fuel detection equipment, provisions to accommodate thermal shock after a loss-of-coolant accident, penetration pressurization equipment, and equipment to handle radiolysis of



8006170959



Mr. Robert D. Allen

-2-

March 28, 1969

water after accidents and recombination of the radiolysis products.

We also expect that special attention will be given in our review to such potential problem areas as core barrel relief valves, functional testing of engineered safety features, quality assurance, inservice inspection of primary system components, accidents associated with fuel handling and storage, interactions with Low Chemical Company, and emergency and evacuation plans.

In order that we may continue our review of your proposed facility, please provide the necessary documentation of all of the foregoing topics and any others which in your judgment warrant additional emphasis in view of the above comments.

Sincerely,

[Original signed by F. Schroeder]

for

Peter A. Morris, Director  
Division of Reactor Licensing

Distribution:  
AEC Pub Doc Rm  
Docket File  
DR Reading  
RL Reading  
RPE-1 Reading  
M. M. Mann  
C. L. Henderson  
E. S. Boyd  
F. Schroeder  
L. Korablith, CO (3)  
D. R. Muller  
N. Blunt  
J. Murphy  
C. Hale

REWRITTEN

OFFICE ▶	RL:RPE-1	RL:RPE-1	RL:RP	RL	RL
SURNAME ▶	Murphy/eb Hale	Muller	Boyd	Schroeder	Morris
DATE ▶	3/27/69	3/27/69	3/28/69	3/28/69	3/28/69

As I discussed with you on March 12, 1969

Mr. Robert D. Allen  
Senior Vice President  
Consumers Power Company  
212 West Michigan Avenue  
Jackson, Michigan 49201

Dear Mr. Allen:

evaluation of

During the preliminary phases of our review of the Midland Plant, we have placed principal emphasis on the ~~demographic and related~~ ~~10 CFR Part 100 problems~~ associated with your site. The Commission's Advisory Committee on Reactor Safeguards has also considered ~~these~~ ~~problems~~. In addition, as a part of this review, representatives of the ACRS and the regulatory staff have visited Midland.

The acceptability of this site.

As a result of this review, you ~~were~~ <sup>have been</sup> advised that the proposed site is unacceptable for use with reactor plants ~~designed and~~ ~~described~~ as presently described in your PSAR. You ~~were~~ <sup>are</sup> further advised, however, that the ~~demographic~~ features of the proposed site ~~would~~ <sup>do not</sup> preclude constructing and operating a nuclear plant of the proposed power rating, provided that adequate engineered safety features and protective systems are included in the facility design and that the facility design is analyzed sufficiently conservatively, particularly with respect to exclusion area and low population zone. In this regard, you ~~should~~ <sup>will</sup> consider Midland ~~as~~ <sup>to be</sup> similar to the Consolidated Edison Indian Point and the Commonwealth Edison Zion sites. On this basis, you should install, in your plant, engineered safety features at least equivalent to those incorporated in the Indian Point or Zion units. Thus, we ~~would~~ <sup>now</sup> expect you ~~to include~~ <sup>to include</sup> in the design not only consequence mitigating safety equipment, such as reagent sprays and filters, but also such safety features as means to accommodate reactor vessel movement, failed fuel detection equipment, provisions to accommodate thermal shock after a loss-of-coolant accident, penetration pressurization equipment, and equipment to handle radiolysis of water after accidents and recombination of the radiolysis products. ~~Furthermore, we intend to include in our review each potential problem area~~

in many respects

to be

we

(91) We also expect that special attention will be given in our review to such potential problem areas

Robert D. Allen

-2-

*quality assurance*

as core barrel relief valves, functional testing of engineered safety features, inservice inspection of primary system components, accidents associated with fuel handling and storage, interactions with Dow Chemical Company, and emergency and evacuation plans.

In order that we may continue our review of your proposed facility, please provide ~~a complete discussion, as appropriate,~~ of all of the foregoing ~~areas~~ as well as any other area which in your ~~judgment must be emphasized~~ in our review in view of recent comments.

*The necessary documentation*

*topics and any others which in your judgement warrant additional emphasis in view of the above comments.*

Sincerely,

Peter A. Morris, Director  
Division of Reactor Licensing

- Distribution:
- AEC Pub. Doc. Room
- Docket File
- DR Reading
- RL Reading
- RPB-1 Reading
- M. M. Mann, DR
- C. L. Henderson, DR
- R. S. Boyd
- F. Schroeder
- L. Kornblith, CO (3)
- D. R. Muller
- N. Blunt
- J. Murphy
- C. Hale

OFFICE ▶	RL:RPB-1	RL:RPB-1	RL:RP	RL	RL
SURNAME ▶	<i>MM</i> Murphy:lg	<i>RM</i> Muller	Boyd	Schroeder	Morris
DATE ▶	2/26/69	2/25/69	2/ /69	2/ /69	2/ /69