

August 28, 1970

ACRS Members

AGENDA FOR SEPTEMBER 14, 1970 SUBCOMMITTEE MEETING ON THE MIDLAND PLANT

The meeting will be held at 1717 H Street N. W., Washington, D. C. in the first floor conference room. The tentative schedule for Monday, September 14, 1970 is:

- 8:30 AM -- Executive Session
- 9:00 AM -- Meeting with the Regulatory Staff
- 10:00 AM -- Meeting with Consumers Power Company
- 12:00 Noon -- Lunch
- 1:00 PM -- Continue meeting with Consumers Power Company
- 3:30 PM -- Caucus
- 4:30 PM -- Adjourn

Topics to be discussed include:

1. Need and bases for change in containment design pressure
2. Applicant's plans, bases, and monitoring techniques for the tertiary steam system
3. Potential licensing needs for Dow Chemical to receive tertiary steam
4. Purity of tertiary steam
5. Design of tertiary steam generators

Items may be added to or deleted from the above list at the discretion of the Subcommittee Chairman.

Original Signed by  
J. C. McKinley  
J. C. McKinley  
Staff Assistant

cc: P. Morris  
R. Boyd  
D. Muller  
J. Murphy  
M. Mann

FOIA-85-602

B/26

JCM:bjh  
September 16, 1970

Project: Midland Plant Units 1 and 2

Status: Construction Permit letter written; design modifications;  
supplemental letter requested

Background: June 18, 1970 - ACRS construction permit letter  
July 14, 1970 - Amendment No. 14 (Increase in containment  
design pressure)  
August 10, 1970 - DRL report on Amendment No. 14  
August 15, 1970 - Amendment No. 15 (Addition of reboiler  
system to provide process steam)  
September 4, 1970 - Amendment No. 16 (Additional in-  
formation on reboiler system)  
September 11, 1970 - DRAFT DRL report on reboiler system  
(Amendments No's 15 and 16)  
September 14, 1970 - Amendment No. 17 (Additional in-  
formation on reboiler system)  
September 14, 1970 - Subcommittee meeting

Following issuance of the Committee's construction permit letter the applicant revised his estimates of containment free volume and internal surface area; these changes resulted in higher calculated peak accident pressures and the applicant proposed to change the containment design pressure from 62.5 psig to 67 psig. This change would accommodate the increased calculated peak pressure and provide in excess of 10% margin.

DRL concludes that the proposed increase in the containment design pressure is acceptable; an ACRS letter is requested.

Subsequent to the Committee's construction permit letter, the applicant proposed a modification to the steam system design to further reduce the possibility of exporting radioactive process steam to Dow Chemical Company. The conceptual design (Amendments 15, 16, & 17) includes re-boilers located on Consumers Power Company property which will be used to generate process steam for export to Dow. The applicant's intent is to provide a physical barrier between the secondary steam and the process steam. He proposes that the activity in the process steam be limited to less than the background values of Lake Huron water.

DRL concludes that the proposed design criteria are satisfactory and Requests an ACRS letter.

\*\*\*\*\*

OFFICE ▶					
SURNAME ▶					
DATE ▶					

EXCERPT FROM SUMMARY  
125TH ACRS MEETING  
SEPTEMBER 17-19, 1970

SPECIAL PROJECTS

3. Midland Plant Units 1 and 2 - The Committee reviewed proposed changes to: (1) Increase the containment design pressure from 60 psig to 67 psig, and (2) install tertiary heat exchangers in the Midland Plant. A report was provided the Commission. Items discussed included:

- a. Export Steam - The applicant now proposes to use the steam from the secondary side of the main steam generators in a system of shell and tube reboilers to generate tertiary steam for export to Dow. He expects that the tertiary steam delivered to Dow will contain no more radioactivity than the treated (demineralized) make-up water from Lake Huron. If detectible leakage in the reboilers occurs, corrective action will be taken in the plant or delivery of export steam will be terminated.

The Regulatory Staff was satisfied with the applicant's proposal.

The Committee noted in its report that the detailed procedures for monitoring and control of the reboiler system should be developed in a manner satisfactory to the Staff during construction. The Committee wishes to be kept informed.

- b. Containment - The Regulatory Staff reported that they are satisfied with the revised containment design and the increased calculated peak containment pressure, due to a LOCA, from 60 psig to 67 psig.

The Committee noted in its report that these changes are satisfactory.



058  
EXCERPT FROM SUMMARY  
127TH ACRS MEETING  
NOVEMBER 12-14, 1970

MEETING WITH DIVISION OF REACTOR LICENSING

Meeting with the Division of Reactor Licensing

1. Midland - Diverse Signals for Reactor Trip - DRL reported that they intend to consider a flux-flow comparator, low primary system flow, or an additional high containment pressure signal as a second means of reactor trip, should the applicant demonstrate to the Staff that such a signal would be acceptable. The Staff wished to know if this is acceptable in view of the ACRS recommendation regarding use of high containment pressure as the second signal (see ACRS report dated June 18, 1970).

The Committee concluded that the Staff position is acceptable.  
(Dr. Morris has been informed of this Committee conclusion.)

FOIA-85-602

B/29