

Roger S. Boyd, Assistant Director
for Reactor Projects, DRL

December 5, 1967

THRU: D. F. Knuth, Chief, RPB #5, DRL /S/
R. G. Smith - V. Benaroya
DRS - DRL

**MEETING WITH WISCONSIN PUBLIC SERVICE CORPORATION - KEWAUNEE PLANT,
DOCKET NO. 50-305**

A meeting was held on November 14, 1967 at the request of Wisconsin Public Service Corporation to discuss their application for construction of the Kewaunee Nuclear Power Plant. Attending were:

AEC - DRL

D. F. Knuth
V. Benaroya
W. Haddican
I. Spickler
W. Butler
L. Kintner
C. Long
H. Specter

Pioneer Service & Eng. Co(PS&E)

Del Leppke
Douglas Sahlin
P. M. Krishna
R. M. Weaver
L. C. Bird
H. C. Crumpacker
A. C. Koehler

AEC - DRS

R. Smith

Nuclear Utilities Services (NUS)

Frank Schwoerer
Peter Camp
Morton Goldman
Raphael S. Daniels

AEC - OGC

T. Engelhart

Wisconsin Public Service Corp.

R. C. Straub
E. W. James
Steven E. Keane
Cyril V. Smith, Jr.

Westinghouse Electric Co.

Alan B. Cutter
Francis D. O'Brien
A. A. Simmons

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The most important points discussed in the meeting were:

1. Contractor Responsibilities - Wisconsin Public Service will be responsible for construction and operation of the plant. R. C. Straub will follow construction for WPSC, but Pioneer has been engaged to design the plant and supervise construction. Pioneer has been in business since 1902 and has designed many power generating plants. They have been in the nuclear field since 1952 with such jobs as Prairie Island, Argonne Low Power Reactor, Pathfinder and the CP-5 rehabilitation. They have a staff of about 370 including a Nuclear and Advanced Energy System Group of 10 people managed by Del Leppke. They have hired NUS to do the site and meteorology and also they have a letter of intent with NUS to get help on analyses and other areas as required. Dames & Moore will perform soil studies. Dr. Peck of the University of Illinois will also be a consultant on geology. Westinghouse is responsible for the design criteria of the power train and will review the associated drawings in that area.
2. Accident Analysis - As a result of DRL's letter saying the assumptions of some core cooling equipment operating after the MNA were not acceptable as a design basis for the containment of Prairie Island, Pioneer is reviewing the containment design. (Kewaunee and Prairie Island plants are similar). They are considering increasing the containment free volume from 1.19 to 1.32 million cubic feet. With this increase the maximum accident pressure assuming no emergency core cooling would be 45 psi, 1 psi less than design pressure. If the core cooling works, pressure would be 42 psi. Pressures were calculated using the standard Westinghouse methods.
3. Site and Environment - By state law, the beach below high water mark is public property and they can't control access. The beach is not used much, however, because the water is too cold for swimming.

If a given concentration of radioactivity is released from the Kewaunee discharge line, NUS calculates a concentration of 8% of the discharge value at the nearest potable water intake 11 miles north.

If both Kewaunee and Point Beach (4.5 miles south) are simultaneously releasing the Part 20 limit of a given isotope into the air, the level at one plant could be increased by 10% because of the release from the other plant.

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They hope to have the foundation design finished in 3 or 4 weeks. It will probably be a mat-type foundation with one mat for both the containment and turbine buildings. Bedrock is 40-45 feet down, so pilings could be used if necessary.

Because of state requirements, the discharge point for the cooling water will be at the shoreline in 4 feet of water instead of 1200 feet off shore in 15-20 feet of water.

4. Shield Building - They calculate the following dose reduction factors for the 2-hour site boundary iodine dose:

Internal containment spray	22
Annulus holdup	7
Emergency core cooling	35
External filters	(No credit taken)

For a TID release at 1% per day leakage they need a factor of 15 reduction to meet Part 100.

We told them they would have to convince us that they could actually maintain the negative pressure in the annulus under accident conditions before they could get credit for the holdup. We also pointed out that they would have to consider the effect of methyl iodide on the release fractions. The factor for the internal containment spray may change depending on the chemical used to absorb iodine.

5. Criterion 11 - We gave them a tentative interpretation: (a) that ingress and egress need not be limited to Part 20, but would probably be limited to some value between Part 20 and Part 100, and (b) the fire or other cause of control room evacuation would not be assumed to occur at the same time as the accident, so that remote controls need be for normal shutdown only. We said that both these interpretations were not resolved and were still being discussed internally.
6. Criterion 44 - We told them we could not give them any help on interpretation now but perhaps we could when the Diablo Canyon review was further along.
7. Schedule - We gave them the following schedule as our most realistic estimate. They expressed disappointment, but admitted that they hadn't really expected to do much better.

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Internal Review
 Meet with applicant
 Written request for
 information
 Answers
 ACRS Meeting
 Hearing
 Issuance of Construction
 Permit

December 15, 1967
 January 1, 1968
 January 15, 1968
 March 1, 1968
 May 5, 1968
 July 10, 1968
 July 25, 1968

DISTRIBUTION:

Suppl.
 DRL Reading
 RPB #5 Reading
 V. Benaroya
 D. Thompson
 R. A. Birkel
 DeYoung (4)
 Newell (2)
 Rosen (3)
 Moore (2)
 Kintner

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SURNAME ▶	RSmith/ds	DKNUTH/ds	VBenaroya/ds			
DATE ▶	12/5/67	12/5/67	12/5/67			