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Docket No. 50-263

LICENSEE: NORTHERN STATES POWER COMPANY

FACILITY: MONTICELLO NUCLEAR POWER PLANT

MINUTES OF MEETING WITH NORTHERN STATES POWER (NSP) COMPANY REPRESENTATIVES
"POST ACCIDENT COMBUSTIBLE GAS CONTROL" AT THE MONTICELLO NUCLEAR POWER PLANT

AEC - Licensing representatives met with NSP representatives in Bethesda, Maryland on September 19, 1974 to review Reg Guide 1.3 and 1.7 relative to post accident combustible gas control requirements for the Monticello containment. NSP has demonstrated that the containment oxygen concentration can be maintained below the 5 w/o maximum oxygen concentration specified in the Monticello Technical Specifications and plans to submit a proposal to lower the technical specification maximum oxygen concentration in the containment structure (drywell and wetwell - torus) to 3 w/o. In conjunction with this change, an additional 24 hours to inert and deinert will be requested as a technical specification limit.

The technical specification change, according to NSP calculations will allow for post DBA radiolysis of water and the resultant formation of hydrogen and oxygen for 22.2 hours in the wetwell and 83.3 hours in the drywell before oxygen concentration increases to 5 v/o and containment purging (using nitrogen) to the atmosphere must be initiated to remain within the 5 v/o oxygen limit. The controlled release of radioactivity from the containment results in a thyroid dose, according to NSP, of 148 rem (30 day release period at the nearest outer boundary of the low population zone [3218. meters]). The loss of coolant accident (LOCA) thyroid dose reported in the NSP - Final Safety Analysis Report (FSAR) is 18 rem and therefore the total dose is 166 rem well below the 10 CFR Part 100 guideline of 300 rem.

The Regulatory staff calculated a thyroid dose of 150 rem for the LOCA for the Monticello Nuclear Generating Plant, Unit 1 (safety evaluation dated March 18, 1970) whereas the NSP-FSAR value is reported as 18 rem. With this higher value and the NSP calculated purge dose the resultant total dose would be 298 rem, very close to the 300 rem guideline. To resolve this calculational discrepancy it was agreed that NSP would provide recently obtained meteorological data for possible use by the AEC and both NSP and AEC would re-examine the containment leakage dose calculations to identify and justify any differences in calculational methods.

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It was agreed that access to category 1 connections must be provided for nitrogen purging in the post accident atmosphere considering the potential for station operating personnel radiation exposure.

With respect to post accident containment gas and fission product monitoring, it was stated by AEC representatives that continuous monitoring of H₂, O₂, and radio-iodine is required and containment grab sampling, as proposed by NSP, is a suitable backup or redundant method to obtain the required post accident information. It was understood that the information, with confirmed accuracy, must be available prior to the earliest calculated purge time, i.e., 22.2 hours.

A list of meeting attendees is included.

/s/
James J. Shea
Operating Reactors Branch #2
Directorate of Licensing

Enclosure:
Attendance List

cc w/encl:
AEC PDR
Local PDR
RP Assistant Directors
RP Branch Chiefs
S. Varga
T. J. Carter
F. Schroeder
TR Assistant Directors
TR Branch Chiefs
R. Bevan
M. Kaufman, OGC
RO (3)
R. M. Diggs
R. F. Fralay, ACRS (16)
Meeting Attendees from REG

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ATTENDANCE LIST

NORTHERN STATES POWER COMPANY

SEPTEMBER 19, 1974

NORTHERN STATES POWER COMPANY

M. Voth
G. Neils

NUS

D. Fitzgerald

AEC - LICENSING

J. Shea
D. L. Ziemann
R. L. Tedesco
R. L. Cudlin
J. Cohler

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