



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

May 18, 1992

Docket No. 50-461

Mr. Frank A. Spangenberg
Licensing and Safety
Clinton Power Station
P. O. Box 678
Mail Code V920
Clinton, Illinois 61727

Dear Mr. Spangenberg:

SUBJECT: CLINTON POWER STATION - CONTAINMENT PURGE EVALUATION
(TAC NO. M72966)

By letter dated April 4, 1989, the Illinois Power Company (IP) submitted a containment purge evaluation report based on the experience gained during the first operating cycle for the Clinton Power Station. The report contains the results of the Containment Purge Operational Data Gathering and Evaluation Program, and the proposed containment purge criteria to be used. This submittal satisfies the commitment contained in Section 6.2.4.1 of Supplement 5 to Clinton Safety Evaluation Report (NUREG-0853)(SSER5). Section 6.2.4.1 requires IP to provide the NRC staff, prior to startup after the first refueling outage, with a reevaluation of the need to use the containment purge systems during plant operational modes 1, 2, 3, and with criteria for purge operation which will be used for the remainder of plant life.

In order to develop the proposed containment purge criteria, IP used data from three different sources. The report discusses data collected during normal plant operation. These data indicate relatively low levels of airborne radioactivity in the containment building atmosphere during normal plant operations with continuous purge operation. A special test was performed to establish airborne radioactivity buildup and drawdown rates and equilibrium levels while the containment purge systems were isolated, and the effectiveness of the purge systems in removing airborne radioactivity when restarted. The test indicated that with the containment purge systems isolated, airborne radioactive contamination reached an equilibrium level of approximately 0.05 of the Maximum Permissible Concentration per 10 CFR Part 20 in about 30 hours. Data from the Containment Access Management Program shows that containment entries are necessary on a daily basis and during all shifts.

In summary, the report demonstrates the need to perform containment purging at Clinton while in operational modes 1, 2, and 3. The staff has not identified any unnecessary containment purging, and finds the measures implemented by IP

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Mr. Frank A. Spangenberg

-2-

May 18, 1992

to maintain airborne radioactivity levels and personnel exposures ALARA to be acceptable. Therefore, the staff finds that Section 6.2.4.1, NUREG-0853, SSER 5 has been satisfied.

If you have any questions, please contact me at (301) 504-1387.

Sincerely,

Jon Hopkins/for

C. E. Carpenter, Jr., Project Manager
Project Directorate III-3
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

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