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Illinois Power Company
Clinton Power Station
P.O. Box 678
Clinton, IL 61727
Tel 217 935-8881



August 3, 1992

Docket No. 50-461

Mr. A. B. Davis
Regional Administrator, Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Post Accident Sampling System Open Item
50-461/92003-01 Response

Dear Mr. Davis:

As documented in Clinton Power Station (CPS) Condition Report (CR) 1-92-03-041, approximately 2 milliliters of reactor coolant is being drawn into the sample collection vial during the collection of undiluted stripped gas samples from the CPS Post Accident Sampling System (PASS) panel. The subject samples are intended to be used for reactor coolant dissolved hydrogen (H₂) and noble gas analysis. Per inspection report 50-461/92003(DRSS) dated April 29, 1992, Illinois Power (IP) agreed to provide Region III with a letter describing modifications that would prevent reactor coolant from being drawn into the stripped gas vial. This action is being tracked as open item 50-461/92003-01.

The attachment to this letter provides actions taken by IP to address the subject PASS panel condition report.

Sincerely yours,

F. A. Spangenberg, III
Manager, Licensing and Safety

MAR/mfm

Attachment

cc: NRC Clinton Licensing Project Manager
NRC Resident Office, V-690
Illinois Department of Nuclear Safety

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Post Accident Sampling System (PASS) Open Item 50-461/92003-01

Condition Report (CR) 1-92-03-041 describes a condition where approximately 2 milliliters of reactor coolant is being drawn into the gas collection vial during the collection of undiluted stripped gas samples from the CPS PASS panel. This situation was initially thought to provide a situation where sampling technicians could exceed 10CFR50, Appendix A, General Design Criteria (GDC) 19 radiation doses during stripped gas sample collection. A time/motion study performed in response to the subject condition report determined that the dose received by a sampling technician collecting a stripped gas sample following a design basis accident would be significantly below GDC 19 radiation doses.

Evaluations were performed to determine the feasibility of designing a PASS panel modification which, if installed, would ensure that the situation documented by CR 1-92-03-041 would not occur. No possible modifications were identified that could provide this assurance.

NUREG-0737, TMI Action Plan, Item II.B.3, "Post Accident Sampling Capability" provides criterion which requires that reactor coolant dissolved hydrogen (H₂) and noble gas analysis be performed to aid in core damage assessment and to monitor post Loss of Coolant Accident (LOCA) reactor condition. The Illinois Power (IP) revised position on NUREG-0737, Item II.B.3 criterion was provided to NRC staff via a letter dated May 5, 1986 from F. A. Spangenberg, Manager - Licensing and Safety to Dr. W. R. Butler, Director - BWR Project Directorate No. 4.

The Clinton Power Station (CPS) procedure for estimating the degree of core damage is based upon the generic procedure submitted to the NRC by the BWR Owners' Group (BWROG) via the letter to Darrell G. Eisenhut (NRC) from T. J. Dente (Chairman, BWROG) dated June 17, 1983 (letter No. BWROG 8724). This procedure also considers fuel overheating and other plant indicators (NEDO-22215 Attachment 8D, Procedures for Estimating Core Damage Based on Plant Parameters Other than Post-Accident Sampling System Measurements). The NRC indicated their acceptance of this procedure in the CPS Safety Evaluation Report, Supplement 1, Section 9.3.5, page 9-3.

The CPS procedure for performing post LOCA core damage estimations does not use reactor coolant dissolved H₂ and noble gas analysis results. Since these analysis results do not provide useful information for post LOCA core damage estimates, it is not prudent to perform modifications on the CPS PASS panel to address the situation as described in CR 1-92-03-041.

CPS will re-evaluate our commitment to NUREG-0737, Item II.B.3 and provide a revision to the CPS "Post Accident Sampling System Evaluation Report" as required.