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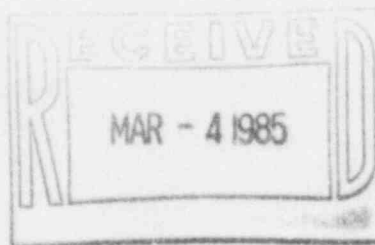
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February 28, 1985

W3P85-0458
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A4.05

Mr. Robert D. Martin
Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011



Dear Mr. Martin:

Subject: Waterford 3 SES
Docket No. 50-382
Completion of Open Items Related to Radioactive
Effluent Monitoring

- References: 1) LP&L letter W3P84-0952 dated April 13, 1984, subject:
Post Accident Sampling System.
- 2) NRC Inspection Report No. 84-21 dated June 28, 1984.
- 3) NRC Inspection Report No. 84-38 dated October 17, 1984.

Open NRC inspection items #8405-02 and #8405-03 regarding post accident sampling and effluent monitoring are noted in reference 1 and clarified in references 2 and 3. These open items are identified in Attachment 1 (items B2 and B3) to the Waterford 3 Operating License NPF-26 with completion required prior to proceeding to operational Mode 1 (power operation).

LP&L is prepared for NRC review and closure of the aforementioned open inspection items. Demonstration of operability of the Post Accident Sampling System (PASS) is scheduled for March 11. The date for the demonstration is based on having achieved initial criticality and having the Reactor Coolant System (RCS) stabilized at normal operating temperature and pressure. Attachment A on verification testing outlines the process to be followed for closure of the PASS item. Additionally, the results of calculations on particulate and iodine transmission are available for verification of representative sampling capability.

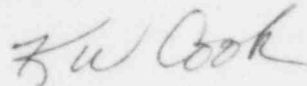
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Should you have any question concerning the above items, please contact
George E. Wuller, Onsite Licensing Coordinator at (504) 464-3499.

Very truly yours,



K.W. Cook
Nuclear Support & Licensing Manager

KWC:GEW:sms

Enclosure

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VERIFICATION TESTING OF POST ACCIDENT SAMPLING SYSTEM OPERABILITY

As a licensing commitment, prior to exceeding 5% power the Post Accident Sampling System (PASS) must be operational. To be operational, requirements of NUREG-0737 II.B.3 must be met. Demonstration of the last remaining NRC open items under NUREG-0737 II.B.3 will be done on March 11, 1985.

The capability to obtain and analyze a reactor coolant, SIS sump or containment atmosphere sample in three hours or less from the time a decision is made to take a sample will be verified. Since the reactor coolant and SIS sump samples utilize common sample piping and the SIS sump sample was tested during pre-op testing, the sump will not be flooded and the RCS sample will be used to verify the liquid sampling capability. The time criteria will be verified by a summation of the time utilized for each step as explained below. The intent of the verification test is to demonstrate system and procedure operability by qualified personnel, not to perform an emergency drill. Therefore, Anti-C's, respiratory protection, and other precautions will only be used to the extent required by current plant conditions.

Reference 1 details the procedures and accuracies to be used during accident conditions for NUREG-0737 II.B.3 analyses. Since the procedures and instruments are designed for accident levels of radionuclides, dissolved hydrogen, dissolved oxygen, etc.; demonstration of these capabilities within these accuracies prior to exceeding 5% power is restricted. The acceptability of the installed PASS system and procedures for use under accident conditions have been discussed several times in previous reviews by NRR and Region IV. This operability verification is to demonstrate that this system functions as designed and delivers a representative sample. Within the limitations of a short history of low power operation, the below described demonstration of selected parameters will be used for initial verification of operability. Additional parameters will be completed for semi-annual reverification as per reference 2.

To demonstrate the liquid sampling (RCS and SIS sump) capability of the PASS, the following will be implemented. Prior to routing RCS sample flow to the PASS, the pH and dissolved oxygen analyzers will be calibrated as per reference 2. A current sample of the RCS will also be obtained at the normal primary sampling panel located in the -4 elevation radiochemistry laboratory. Maintaining stable plant operational parameters, sample flow will be diverted to the Post Accident Sampling System. After suitable line purge time, a diluted RCS sample will be obtained in accordance with reference 3. All samples collected from each sample point will be analyzed as per the approved procedures referenced in reference 2. Since it is expected that the level of radionuclides, dissolved oxygen, and dissolved hydrogen will be well below accident levels; the only valid comparison to demonstrate that the samples are representative is that of boron. Verification that the boron results obtained agree within the accuracy stated in reference 1 will be used to demonstrate that the PASS delivers a representative sample. Verification that the on-line hydrogen, oxygen and pH instruments are calibrated and operational will be used to demonstrate that the system is operable.

The operability of the containment atmosphere sampling portion of the NUREG-0737 requirements will be verified as follows. Since the expected levels of radionuclides in the containment atmosphere under initial low power conditions will be extremely low, a valid comparison is not possible. A walkdown of the system to verify that it functions correctly will be conducted prior to declaring it operable. Results of calculations on particulate and iodine transmission and loss through the sample lines will also be available at this time as verification of representative sampling capability.

For both the liquid sampling and containment atmosphere sampling the three-hour time criteria will be verified as follows. Since a decision to obtain a sample would not be made until initial calibration and setup was completed, the time for obtaining a liquid sample will be considered to be from the time RCS flow is switched to the Post Accident System through analysis of the resulting sample. Since the comparison of samples between the normal and accident sample points necessitate multiple samples, the time criteria cannot be demonstrated with a single continuous clock reading but rather will be the summation of the time for sample purge, sample collection, boron and radionuclide analysis steps. To demonstrate the three-hour criteria for containment atmosphere sampling, the times for the purge, collection and radionuclide analysis steps will be summed.

The Post Accident Sampling and Containment Atmosphere grab sampling systems will be operated for the demonstration by Chemistry technicians trained and qualified in use of these systems per reference 4. An appropriate number of technicians will be qualified in use of these systems to meet the shift scheduling needs of the demonstration. Subsequent training and qualifications in operations of the post accident and containment atmosphere grab sampling systems will be continued. However, at any time a sufficient number will be qualified to meet scheduling requirements.

- REFERENCES: (1) W3P83-3918 letter from Licensing to Region IV NRC
- (2) CE-3-905 Rev. 1, Testing and Maintenance of the Post Accident Sampling System
- (3) CE-3-900, Operation of the Post Accident Sampling System
- (4) CE-1-001, Training and Qualification of Chemistry Department Personnel