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December 29, 1983

W3P83-4150

3-A1.01.04

Q-3-B41

Director of Nuclear Reactor Regulation
Attention: Mr. G.W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: Waterford SES Unit 3
Docket No. 50-382
Component Cooling Water to Reactor Coolant Pumps

REFERENCE: W3P83-2115 dated June 27, 1983

Dear Sir:

The Component Cooling Water System (CCWS) at Waterford 3 provides cooling to essential plant auxiliary components during all modes of operation including postulated accidents to the extent the auxiliary components are required for safe shutdown and accident mitigation. Cooling is also supplied by the CCWS to non-essential components such as the Reactor Coolant Pumps (RCPs) and motors, during normal shutdown, normal operation and refueling. The current CCWS design requires, upon receipt of a safety injection actuation signal (SIAS), that the redundant CCWS cooling loops be isolated from each other and that the non-essential loops (including RCPs) be isolated from the essential portions by closing the normally open safety-related isolation valves in series. This design, included in the conceptual flow diagram of Attachment #1, was reviewed and accepted in the original issuance of the Waterford SER.

We are presently redesigning the CCWS to allow for utilization of the Containment Spray Actuation Signal (CSAS) to isolate cooling water flow to the RCPs in lieu of the SIAS and Containment Isolation Actuation Signal (CIAS). The CSAS is activated by a high-high containment pressure signal with a coincident SIAS. Both the SIAS and CIAS are activated on either high containment pressure or low pressurizer pressure. Transferring the closure signal of the CCW containment isolation and header isolation valves from SIAS/CIAS to CSAS would reduce the frequency of unnecessary termination of cooling water supply to the RCP seals.

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Our redesign stems from two main concerns:


1. In answer to Generic Letter 83-10a - Resolution of TMI Action Item II.K.3.5, Automatic Trip of Reactor Coolant Pumps, LP&L intends to implement the CE Owners "trip two/run two" RCP strategy as described in the referenced letter. This will require maintaining cooling water flow to the RCPs following SIAS at least until the transient has been diagnosed.
2. Inadvertent SIAS or CIAS will introduce operational limitations on the RCPs due to CCW isolation. The termination of CCW flow could increase the average length of an outage, due to seal inspection delays, if flow is not reestablished within a short period of time.

Our redesign will be similar to that utilized on Westinghouse plants. While the redundant CCW trains will still be isolated from each other on SIAS, the designated CCW train will continue to feed cooling water to the RCPs. The tentative valve changes necessary to implement this conceptual redesign are included in Attachment #2.

We are providing this initial information in order to assist you in scheduling and initiating your review. The final design documents will be available for review in mid-January, 1984. We will contact our Project Manager at that time and schedule a meeting with your reviewer. Considering the Spring, 1984 fuel load date for Waterford, we request a timely concurrence review meeting in support of our schedule no later than the end of January.

Should you have any questions or comments on this matter, please feel free to contact me or Mike Meisner at (504) 363-8938.

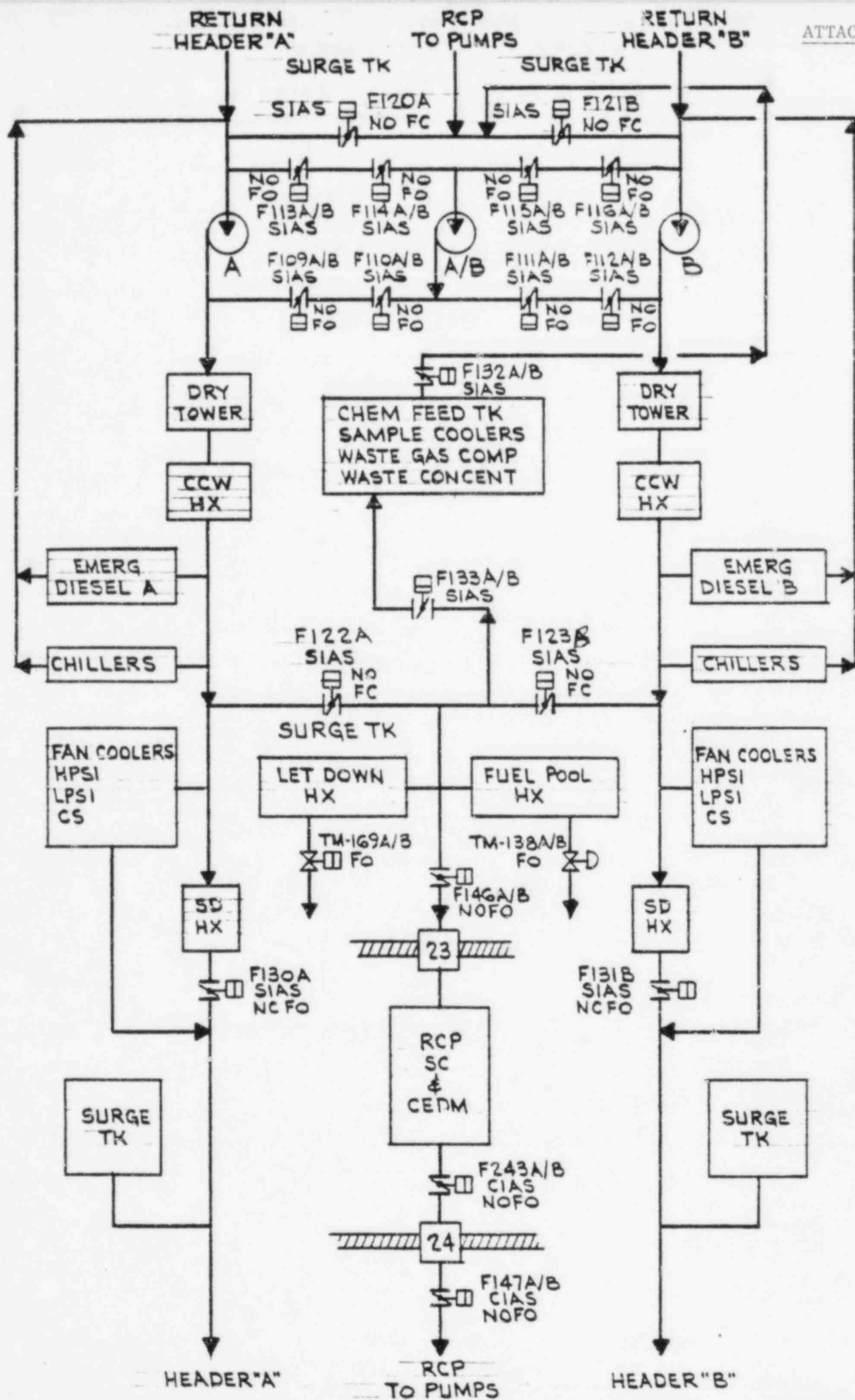
Yours very truly,



K. W. Cook
Nuclear Support & Licensing Manager

KWC/MJM/cb
Attachments

cc: W.M. Stevenson, E.L. Blake, J. Wilson (NRC), R. Stevens (NRC),
G.L. Constalbe (NRC, Resident Inspector)



<u>VALVE(S)</u>	<u>SERVICE</u>	<u>MODIFICATIONS</u>
3CC-F120A 3CC-F122A	Header Isolation	Change signal from SIAS to CSAS.
3CC-TM169 A/B	CCW Temp. Control on Jetdown HX	(1) Change valve from F.O. to F.C. (2) Add controls to close on SIAS.
3CC-FM138 A/B	CCW Temp. Control on Fuel Pool HX	(1) Change valve from F.O. to F.C.
3CC-F130A 3CC-F131B	Shutdown HX CCW Outlet	(1) Change controls so that designated train valve goes full open on CSAS - remains as is on SIAS. Other train valve goes full open on SIAS as in present design. (2) Change valve from F.O. to F.C. including accumulator.
2CC-F146A/B 2CC-F243A/B 2CC-F147A/B	CCW Supply & Return to RCP's & CEDM Coolers	(1) Change controls to close on CSAS instead of CIAS.