

New Hampshire Yankee

Ted C. Feigenbaum
President and
Chief Executive Officer

NYN-92043

April 6, 1992

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

References: Facility Operating License No. NPF-86, Docket No. 50-443

Subject: Inservice Testing of Pumps and Valves (Changes to Revision 1)

Gentlemen:

Enclosed are proposed changes to the New Hampshire Yankee (NHY) Inservice Test Program (IST) Plan, Revision 1. In accordance with the Seabrook Station Safety Evaluation Report 6 (SSER 6), Appendix S, required program changes such as additional relief requests or the deletion of any components from the IST Program Plan are to be submitted to the U.S. Nuclear Regulatory Commission (NRC) under separate cover in order to receive prompt attention.

During a review of the component testing performed under the IST Program, a discrepancy was identified with certain solenoid valve remote position indicating lights that are utilized when performing valve exercise and stroke time testing. The discrepancy involves the manner in which the solenoid valve is wired, such that the remote indicating light that indicates that the valve is closed is actuated by utilizing the "open" limit switch (Reed Switch). This condition exists for twenty solenoid operated valves. This limit switch energizes or deenergizes a relay depending on whether the valve is open or not open. This single relay in turn energizes either the open or close position indicating lights which have been used to measure valve stroke times. Therefore, the IST valve close stroke time was actually only measuring the time interval from the control switch initiation to the valve not full open position, rather than the intended time interval of the control switch initiation to the valve full closed position.

For nineteen of the twenty valves, status monitoring lights (UL Lights) are available that are actuated by the "closed" limit switch. Upon discovery of the discrepancy, NHY timed the valve stroke utilizing this "closed" limit switch. Thus the valve was timed from control switch initiation to the status light being energized, thereby measuring a full valve stroke time. In all nineteen cases the valve stroke times were verified to be satisfactory. Due to the very short valve stem travel from full open to full close, there was no appreciable change in the stroke times obtained from the status lights when compared to the valves remote position indicating lights stroke time. Stroke times were measured within 0.5 second of previous times. All of the valves in question are designated as rapid acting (less than two second) valves.

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The Reactor Vessel Head Vent Valve, RC-FV-2881, is located adjacent to the refueling cavity area on the containment operating deck in an approximate 100mR/hr neutron field. This valve has a "close" limit switch, however, this limit switch is not utilized to actuate any remote position indicating or status light. In discussions with the valve manufacturer and reviews of the design drawings, the following relevant information was identified:

1. The full travel of the valve disc is 200 mils.
2. A properly adjusted open limit switch is set in the upper 50 mils of full open travel.
3. With the use of other components of the reactor vessel head vent system, discussed below, the current design can be used to verify both full open and close exercise position of the reactor vessel head vent valve. Both the full open stroke time, as well as closure of the valve pilot and initiation of disc movement in the close direction can be verified.
4. Full closure of RC-FV-2881 can be verified by opening downstream valve RC-V323 and verifying no temperature rise at downstream temperature element TE-7377 (see Enclosure D, P&ID RC-20845). This procedure for verification of full closure has been approved by the Station Operation Review Committee and will be performed to establish OPERABILITY on this valve as discussed below.

New Hampshire Yankee has determined that the reactor vessel head vent valve is fully capable of performing its intended function of venting noncondensable gasses from the RCS following an accident. In support of this determination, NHY performed a safety evaluation pursuant to 10CFR50.59 which addresses the lack of main control board position indication for reactor vessel head vent valve closure and the inability to time the closing stroke. In addition, as a result of a review it was determined that there is no control room alarm from the downstream temperature element. This is contrary to the description in the Updated Final Safety Analysis Report (UFSAR) Section 5.2.6. The function of the reactor vessel head vent is to allow the venting of noncondensable gasses from the RCS following an accident. This function is not hampered by the lack of position indication from the closed position limit switch on the valve. The alarm function serves to indicate inadvertent vent operation; the ability to vent is not affected by the absence of the alarm function. The safety evaluation determined that no unreviewed safety question has been introduced. This determination is based on the current UFSAR evaluation of the inadvertent opening of the reactor vessel head vent path and vent path line break. Neither of these events constitutes a Loss of Coolant Accident requiring ECCS actuation because the flow rate is within the capacity of the makeup system. Additionally, in the event of inadvertent opening of the reactor vessel head vent path, instrumentation other than the temperature alarm (e.g. Pressurizer Relief Tank level, temperature and pressure) exists to alert the operator of an open vent path.

In accordance with Appendix S of SSER 6, it is proposed that relief from the valve stroke time test requirement (IWV-3413(a)) of Section XI of the ASME code be granted due to the inability of the current design to adequately measure valve closure stroke for RC-FV-2881. This would be an exigent relief request used as an interim measure until design changes can be implemented during the next refueling outage. In lieu of measuring the close stroke time, to ensure continued functionality of the reactor vessel head vent valve, NHY proposes that the valve be tested on a quarterly basis to verify the following parameters: full closure, open stroke time, full exercising and fail safe testing.

The attached enclosures amending the IST Program Plan, Revision 1, are as follows:

Enclosure A: This enclosure contains new relief request V-50.

Enclosure B: This enclosure contains new Note 68.

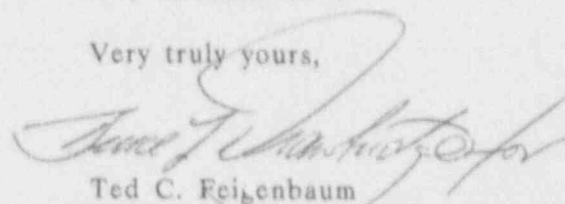
Enclosure C: This enclosure contains revised Figure 5.3, Valve Testing Requirements.

Enclosure D: This enclosure contains an informational copy of P&ID 1-RC-B20845.

New Hampshire Yankee requests expeditious NRC review and approval of the proposed changes to the IST Program by April 20, 1992. This expedited schedule is requested due to NHY's determination on March 25, 1992 to enter Technical Specification 3.4.11, Action A, for an inoperable Reactor Coolant System Vent path. New Hampshire Yankee made this determination of inoperability based on the inability to adequately measure the reactor vessel head vent valve closure time as required by ASME Section XI. The action required by Technical Specification 3.4.11, Action A, is to restore the inoperable vent path to OPERABLE status within 30 days (April 24, 1992). New Hampshire Yankee will exit Technical Specification 3.4.11, Action A, upon NRC approval of the proposed changes to the IST Program and performance of the closure verification procedure.

Should you have any questions regarding this letter please contact Mr. James M. Peschel, Regulatory Compliance Manager at (603) 474-9521, extension 3772.

Very truly yours,



Ted C. Feigenbaum

TCF:ALL/ss

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ENCLOSURE A TO NYN-92043

ENCLOSURE A

RELIEF REQUEST: V-50

VALVES: RC-FV-2881

CATEGORY: B

CODE CLASS: 2

FUNCTION: Reactor Vessel Head Vent

TEST REQUIREMENTS: IWV-3413(a)(3 Months)

BASIS FOR RELIEF: Reactor Vessel Head Vent Valve RC-FV-2881 currently cannot be Full-Stroke Time closed from initiation of the actuating signal to the end of the actuating cycle due to the remote position indicating lights wiring circuitry design. RC-FV-2881 is a rapid acting solenoid operated valve in a 100 mR/hr neutron field. Both the open and close remote position indicating lights are currently wired on an open valve position contact, thus the closed indicating light illuminates when the valve begins close travel. RC-FV-2881 closed remote position indicating light will be wired to a close valve position contact during the next refueling outage, currently scheduled for September 1992.

ALTERNATE TESTING: This valve will be Full Open Stroke Timed, Open and Closed Exercised, and Fail Safe Tested every 3 months. Full Closure of RC-FV-2881 will also be verified every 3 months using a downstream temperature sensor.

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ENCLOSURE B TO NYN-92043

ENCLOSURE B

67. These valves will be full stroke exercised on a Cold Shutdown frequency.

68. Stroke time testing in the close direction cannot be performed due to the current design of the position indicating light circuitry. Until a design change is implemented during the next refueling outage, currently scheduled for September 1992, the valve will be exercised in the closed direction by verifying the position indication light extinguishes, and that the valve has fully closed, (Relief Request V-50).

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ENCLOSURE C TO NYN-92043

ENCLOSURE C
 FIGURE 5.3
 VALVE TESTING REQUIREMENTS

SYSTEM: REACTOR COOLANT - REACTOR VESSEL P&ID NO. 805002

VALVE:
 R R
 C C - V 3
 C C - F W 3
 2 2 2 3
 8 8 3
 1

COORDINATES: D2 D2
 FUNCTION: A A
 CODE CLASS: 2 2
 CATEGORY: B S
 SIZE (IN): 3/4 3/4
 VALVE TYPE: GL GL
 ACTUATOR: S M
 NORM POSITION: C C
 LEAK TEST REQ:
 LEAK TEST REL:
 LEAK TEST ALT:
 EXER TEST REQ: 1 1
 EXER TEST REL:
 EXER TEST ALT:
 F.S. TEST RM: X
 POS IND TEST: X X
 NOTES: 68

REMARKS:

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ENCLOSURE D TO NYN-92043

