

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
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September 22, 1982

Docket Nos. 50-213
50-336
A01328

Director of Nuclear Reactor Regulation
Attn: Mr. Dennis M. Crutchfield, Chief
Operating Reactor Branch #5
Mr. Robert A. Clark, Chief
Operating Reactor Branch #3
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

- References:
- (1) W. G. Council letter to H. R. Denton, dated December 31, 1979.
 - (2) TMI-2 Lessons Learned Task Force Report (Short Term) NUREG-0578.
 - (3) D. G. Eisenhut letter to All Operating Nuclear Power Plants, dated September 13, 1979.
 - (4) D. M. Crutchfield letter to W. G. Council, dated March 16, 1982.
 - (5) R. A. Clark letter to W. G. Council, dated March 19, 1982.
 - (6) W. G. Council letter to D. M. Crutchfield/R. A. Clark, dated June 2, 1982.
 - (7) W. G. Council letter to D. M. Crutchfield/R. A. Clark, dated July 31, 1982.

Gentlemen:

Haddam Neck Plant
Millstone Nuclear Power Station, Unit No. 2
TMI Action Plan Item II.B.1
Reactor Coolant System High Point Vents

A046

In Reference (1), Connecticut Yankee Atomic Power Company (CYAPCO) and Northeast Nuclear Energy Company (NNECO) presented descriptions of our proposed reactor coolant system (RCS) high point vent systems for the Haddam Neck Plant and Millstone Unit No. 2. Additionally, we addressed the design considerations identified by the NRC Staff in References (2) and (3). The NRC Staff later clarified its position in Item II.B.1 in NUREG-0737. In References (4) and (5), the NRC Staff requested additional information regarding our RCS high point vent systems. Except for the detailed procedures, our response to the NRC Staff's request was submitted in Reference (6). In Reference (7), we committed to provide these venting procedures to the NRC Staff by September 1, 1982. Subsequently, the NRC Staff was contacted by telephone and informed that transmittal of these procedures would be slightly delayed. Accordingly, we hereby submit AOP 3.2-22-C, "RCS Venting of Non-Condensable Gasses," for the Haddam Neck Plant and OP 2398, "RCS Venting Procedure," for Millstone Unit No. 2.

The criteria contained in Item II.B.1 of NUREG-0737 state that procedures addressing the use of these vents "should be directed toward achieving a substantial increase in the plant being able to maintain core cooling without loss of containment integrity for events beyond the design basis (emphasis added)." Therefore, it was solely in the context of beyond design basis events that these high point vent systems were installed and the corresponding procedures developed and reviewed. Similarly, it was in this context that the Nuclear Review Boards (NRBs) and Plant Operating Review Committees (PORCs) for both the Haddam Neck Plant and Millstone Unit No. 2 found that the attached procedures are adequate for the venting of non-condensable gasses from the RCS following an event beyond the design basis for those situations where venting could be beneficial.

Safety concerns regarding the operation of these vents for beyond design basis events were raised by the Haddam Neck Plant NRB and PORC. These safety concerns are associated with the potential for hydrogen reactions near the discharge of the RCS vent piping. The process by which these concerns will be dispositioned is described on page 3 of this letter.

Subsequent to the issuance of NUREG-0737, the NRC Staff chose to distinguish hydrogen control concerns for design basis accident (DBAs) from events beyond DBAs. Specifically, a final rule on hydrogen control, which is limited to DBAs, was issued by the NRC on December 2, 1981; whereas, a December 23, 1981 proposed rule on hydrogen control currently addresses degraded core accidents up to 75% metal-water reactions. Therefore, the only existing regulation for reactor coolant system high point vents is contained in 10CFR50.44 (c)(3)(iii), which is one element of the December 2, 1981 final rule and only applies to DBAs. It is our interpretation that the regulation and NUREG are related in the conventional sense, i.e. the regulation states agency requirements and the NUREG contains Staff positions or guidance. Accordingly, it is our

interpretation of Item II.B.1 of NUREG-0737 in conjunction with 10CFR50.44 (c)(3)(iii) that NRC Staff approval of venting procedures uniquely written for beyond DBAs is no longer required since venting capability for beyond DBAs itself is not currently required. Only the requirements of 10CFR50.44 (c)(3)(iii) need to be fulfilled by the end of first refueling outage after July 1, 1982.

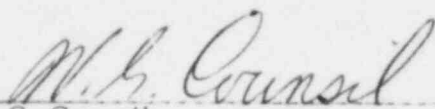
Nonetheless, since these systems have been installed and procedures have been developed specifically to address beyond DBA's we believe that they should be implemented as soon as practicable. We also believe it is desirable to obtain NRC feedback on our plans even though our interpretation is that formal approval is not required since we are dealing with beyond DBAs. Resolving all safety concerns associated with beyond DBAs is an extremely difficult task since thorough, appropriate and universally agreed-upon review criteria do not exist. It is envisioned that safety concerns associated with the operation of these vent systems for beyond DBAs can be resolved in concert with the concepts articulated in SECY-82-1A, Proposed Commission Policy Statement on Severe Accidents and Related Views on Nuclear Reactor Regulation, and the associated IDCOR activities. For the interim period, use of the decision-making process of the emergency organization (as described in the attached procedures) during a beyond DBA are deemed adequate and an improvement in overall facility safety.

It is noted that the installation of the vents does not constitute a "previously unanalyzed accident" since the maximum resultant opening in the RCS boundary from the rupture of the RCS vent system piping is bounded by the docketed and approved small break loss-of-coolant-accident analyses. Plant response would be very similar to the rupture of one of the many vents or drain lines installed as part of the original RCS designs.

In summary, CYAPCO & NNECO intend to utilize the attached procedures, if necessary for mitigation purposes, in the unlikely event of the occurrence of a beyond design basis event. Our interpretation of promulgated NRC requirements is that utilization of these procedures for their stated purpose does not require prior NRC approval. We understand that the Staff intends to issue SER's on TMI Action Plan Item II.B.1 in the near future. The Staff may wish to take this or some other opportunity to provide feedback on our approach. If the NRC Staff disagrees with our approach or any of the above interpretations, we request that we be so informed by December 1, 1982. This date represents our current schedule for "implementing" the system and the procedures as described above.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Senior Vice President