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NORTHEAST UTILITIES
THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270
HARTFORD, CONNECTICUT 06101
(203) 666-6911

November 1, 1978

Docket No. 50-336

Director of Nuclear Reactor Regulation
Attn: Mr. R. Reid, Chief
Operating Reactors Branch #4
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

References: (1) W. G. Counsil letter to R. Reid dated July 28, 1978.
(2) D. C. Switzer letter to G. Lear dated January 12, 1978.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Stretch Power

In Reference (1), Northeast Nuclear Energy Company (NNECO) discussed its intent to increase licensed core thermal power from 2560 MWt to 2700 MWt, the FSAR design maximum power level, starting with the beginning of Cycle 3 operation. Since the date of Reference (1), efforts have continued regarding detailed development of specific tasks, evaluations, and analyses which will be performed, as well as the schedule for these efforts. The results of informal discussions with the Staff have been incorporated into the program. The purpose of this letter is to present the details of the stretch power effort to the Staff in advance of their execution, such that subsequent to the second refueling outage, Millstone Unit No. 2 will be licensed to operate at 2700 MWt.

It is currently anticipated that Cycle 2 could terminate as early as March 10, 1979; the duration of the refueling outage will be approximately eight (8) to ten (10) weeks. Thus, NRC issuance of the refueling license amendment would tentatively be required as early as May 1, 1979. Analyses and evaluations associated with a normal refueling are being combined with the stretch power effort and will be submitted in several stages according to the following proposed schedule:

(1) Environmental Impact Review - A sectionalized review of the Final Environmental Statement, and evaluation of radiological consequences - December 15, 1978.

(2) Non-LOCA Safety Analyses - February 1, 1979.

This submittal would address the scope of a normal refueling effort, but in greater detail because of the stretch power effort. All required Technical Specification changes would be included. Probable results of LOCA analyses would also be discussed. Any relevant information regarding a review of the balance-of-plant to support 2700 MWt would be supplied.

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(3) Formal Large Break LOCA Results - March 15, 1979.

(4) Formal Small Break LOCA Results - April 25, 1979.

Several other topics merit further discussion regarding the stretch power effort at this time. It is NNECO's intention to have operational at the start of Cycle 3 a Reactor Coolant Pump Speed Sensing System (RCPSSS). This system, fully qualified as an addition to the Reactor Protective System (RPS), would replace the current steam generator Δp system for protection against the four pump loss of flow incident only. This matter was discussed briefly with the NRC Staff in Bethesda, and will be the subject of additional correspondence in the very near future.

With regard to the resolution of the waterhole peaking issue, it is NNECO's understanding that subsequent to the events summarized in Reference (1), representatives of Combustion Engineering and the NRC have been involved in further technical discussions. It is also NNECO's understanding that assumed uncertainties of 6.0% and 7.0% for F_R^T and F_Q^T, respectively, will be acceptable to the NRC Staff at this time for safety/setpoint analyses performed with the TORC/CE-1 code. For the appropriate analyses, this code will be utilized throughout the stretch power effort. The use of assumed uncertainties of 6.0% and 7.0% is designed to preclude further negotiations on this subject on the Millstone Unit No. 2 docket specifically concerning Cycle 3 operation.

Lastly, it is recognized that the proposed schedule for submittal of formal small break LOCA results is not optimized from the perspective of NRC Staff review time. However, considerable progress has been made in quantifying the peak clad temperature (PCT) results for the limiting small break for Cycle 3. As reported in Reference (2), the limiting small break for Cycle 2 operation was determined to be the 0.05 ft^2 break, yielding a PCT of 1931°F. The use of the Combustion Engineering CEFLASH-4AS Code is expected to identify a limiting break of 0.1 ft^2, with a PCT of less than 2000°F. One change from assumptions made in the Reference (2) analysis is that in these preliminary evaluations, credit has been taken for operation of the charging pumps. Conservatively assuming the failure of one diesel generator and postulating the most adverse break location, fifty percent of the flow from one charging pump is available for core cooling. Note that the three installed charging pumps are safety-related, a minimum of two are automatically sequenced onto the diesel generators in the event of a loss of offsite power, and two of the three are required to be operable by Technical Specifications.

It is emphasized that the above information is supplied to advise the Staff of stretch power efforts currently in progress, such that relevant Staff concerns can be addressed in a timely manner. Should the Staff require further amplification of any of the above items, either in the form of written correspondence or at a meeting, NUSCO and NNECO are prepared to support such efforts.

As there are considerable economic merits associated with this program, your expeditious review and comment on the above would be greatly appreciated.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

W. G. Counsil

W. G. Counsil
Vice President