



Public Service of New Hampshire

New Hampshire Yankee Division

William B. Derrickson

Senior Vice President Nuclear Energy

June 25, 1986

SBN- 1142

T.F. B7.1.7

United States Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation

References: (a) Construction Permits CPPR-135 and CPPR-136, Docket
Nos. 50-443 and 50-444
(b) PSNH Letter dated March 30, 1973, W. C. Tallman to
AEC, Director, Directorate of Licensing

Subject: Full 40 Year Term Operating License

Dear Sir:

As you are aware, we soon expect to receive an operating license on or about June 30, 1986. In preparation of issuance of the license, members of your Staff requested further information/clarification of our original operating license request for the subject license term of 40 years, which was filed with the NRC's predecessor agency via Reference (b).

Enclosed, we have provided further supportive arguments for authorizing Seabrook Station an operating license for a full 40 year term, commencing on the date of license issuance. We firmly believe, that based on the NRC's already established precedent of issuing full 40 year term licenses, and that Seabrook Station's design, construction and licensing was based on an operating license term of 40 years, the NRC is obligated to issue Seabrook Station the full 40 year term operating license.

It is believed that not only will this request maintain consistency with NRC's practices, but that it will also be in the best interest of the public, by allowing the maximum economic benefits of operating the Station. Therefore, we request that the Seabrook Station be granted its operating license for the full 40 year term, commencing on the date of its issuance.

Very truly yours,

William B. Derrickson

Enclosure

cc: Atomic Safety and Licensing Board Service List

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STATE OF NEW HAMPSHIRE

Rockingham, ss.

June 25, 1986

Then personally appeared before me, the above-named William B. Derrickson who, being duly sworn, did state that he is Senior Vice President of Public Service Company of New Hampshire, that he is duly authorized to execute and file the foregoing information in the name and on the behalf of Public Service Company of New Hampshire, and that the statements therein are true to the best of his knowledge and belief.

Beverly E. Silloway
Beverly E. Silloway, Notary Public
My Commission Expires: March 6, 1990

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I. STATUTORY AND REGULATORY CONSIDERATIONS

Section 103(c) of the Atomic Energy Act of 1954 authorizes the Nuclear Regulatory Commission to issue commercial reactor operating licenses for a "specified period...but not exceeding 40 years". It is presumed that Congress intended to provide 40 year operating licenses so that public utility companies would not be discouraged from undertaking the costly construction of nuclear power plants. The fact that new plants are more complex and expensive, and take longer to build and license than was envisioned in 1954, underscores the need for allowing a utility and the public it serves the full economic benefit of a 40 year license term originally intended by Congress.

The NRC regulations (10CFR50.51) which implement Section 103(c) carry forth the intent of the statute by prescribing procedures which ensure a full term of 40 years to an applicant who meets the necessary safety and environmental requirements of the Commission. In particular, 10CFR50.51 entitled "Duration of License", provides:

"Each license will be issued for a fixed period of time to be specified in the license but in no case to exceed 40 years from the date of issuance. Where the operation of a facility is involved the Commission will issue the license for the term requested by the applicant or for the estimated useful life of the facility if the Commission determines that the estimated useful life is less than the term requested..."

The regulation clearly requires the NRC to grant PSNH et al's request for 40 year operating license, unless the useful life of Seabrook Station is determined to be something less. In addition, Section 50.51 states that the 40 year license term should commence "from the date of issuance", not from a date prior to the issuance.

The statute and the regulation do provide allowance for a full 40 year operating license term, to which the licensee is entitled.

II. SAFETY CONSIDERATIONS

The Seabrook Station and the associated structures, facilities, utilities, and transportation services were designed to meet, with margin, the objective of having an operating license for a 40 year term. Our decision to construct Seabrook Station was made under that assumption.

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(Continued)

All aspects of the design of Seabrook Station have been chosen to be compatible with a 40 year operating lifetime objective. For example, the corrosion allowance on piping, tanks, valves, and pump bodies, was conservatively established for 40 years of operating service and was measured in the Preservice Inspection Program to verify that the minimum thickness met ASME code requirements. Additionally, the allowable stress levels in the power generation and safety equipment have been established on the basis of service conditions more severe than those expected in 40 years of routine power and transient operation.

As it will be part of an operating license condition, an Inservice Inspection Program will verify the continuing adequacy of piping and components. The reinforced concrete primary containment structure is designed to withstand all credible loadings, including severe environmental and abnormal loads throughout the full 40 year operating service life. Internal shielding and equipment access were designed on the ALARA principle for a full 40 year operating service life. The radwaste equipment was designed to accommodate conditions throughout the full 40 year operating life. Plant structures have been designed to accommodate thermal, hydrodynamic, seismic, and other cyclic loads for 40 years of operation, plus margin. The reactor vessels and internal structures which will be subjected to high neutron influence have all been designed to accommodate the effects of 40 years of exposure.

Our programs for seismic and environmental qualification of electrical and mechanical equipment have used a 40 year operating life as a goal. Test conditions and qualification envelopes are evaluated against this objective. Appraisals of life-limited equipment have resulted in surveillance and maintenance requirements to maintain the qualification objective throughout plant lifetime. To verify the continued operability of engineered safeguards equipment, the performance of plant systems will be routinely tested as described in the Technical Specifications which will be an Appendix to an operating license for a 40 year term. Safety margins are all established with acknowledgment of limitations imposed by a 40 year operating license term.

The combination of conservative design and extensive operations surveillance submits confidence that the Seabrook units can be safely operated during a 40 year operating term.

III. ENVIRONMENTAL CONSIDERATIONS

No significant adverse environmental impact associated with the operating authorization for a 40 year term exists. The continued impact of plant operation upon ground-water surface water and aquatic biota is minute. The adverse effects are also minute in terms of terrestrial resources, visual intrusion, noise, traffic, demand on public and private facilities and services, accident risk, human health effects, and in the balance of the fuel cycle.

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(Continued)

The magnitude of these effects is not expected to vary significantly over the 40 year operating life. In addition, non-radio-logical, environmental Technical Specifications included as an Appendix B to the license will be in effect throughout the 40 year license term.

IV. ECONOMIC CONSIDERATIONS

Continued operating and fuel costs are more than balanced by the income from the continuing production of electricity, annual employment, local tax payments and the secondary benefits associated with the use of electricity from the station and the money paid as wages and taxes. Operation of Seabrook Station provides continued diversity of supply on the New England area electrical grid and provides additional reductions in generating costs over alternative forms of generation. The 40 year operating life also defers capital costs and environmental impacts of replacement generating capacity.

V. SUMMARY

As identified above, there are no safety, environmental, or economic concerns which would prevent issuance of 40 year operating license to Seabrook Station. By law, the NRC is obligated by regulation to issue 40 year licenses, and the precedent for issuance of 40 year licenses has already been firmly established. Upon consideration of the extensive effort and detail which has gone into the design, construction, and licensing of the Seabrook Station, it is apparent that issuance of 40 year operating license serves the best interest of the public, the NRC and the applicant.