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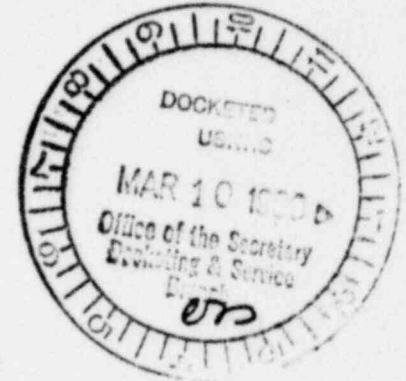
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March 5, 1980

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Atomic Safety and Licensing Appeal Board
United States Nuclear Regulatory Commission
Washington, D.C. 20555



Re: Public Service Company of New Hampshire
(Seabrook Station, Units 1 and 2) Docket
No. 50-443 and 444 (Seismic Review)

Gentlemen:

We have received copies of the January 22, 1980, "Board Notification" and attached letters and memoranda concerning the re-evaluation of the 1732 Montreal, Canada earthquake and its impact upon the choice of SSE for the Seabrook nuclear plant.

The notification demonstrates how swiftly the Staff is able to report on matters which favor its position. Unfortunately, in its haste the Staff has provided the Boards and parties with essentially meaningless documents. The "new information" which resulted in a downgrading of the assigned intensity of the Montreal earthquake was not included, or even described, in the materials sent to the Board and the parties. Nor did the Staff discuss the procedures followed by Dr. Leblanc in making his assessment. Therefore, it is impossible for the Board and the parties to determine whether the conclusion is at all justified. Indeed, we do not even know whether the Staff examined Dr. Leblanc's data and methodology before reporting to the Board, or simply accepted his reassessment at face value.

In either event, the Staff's conclusion about the impact of the change in intensity assigned to the Montreal

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Ivan W. Smith
Dr Ernest O. Salo
Dr. Marvin Mann
Alan S. Rosenthal
Dr. John Buck
Michael C. Farrar
March 5, 1980
Page 2

earthquake is premature. The Canadian records have not been altered, and it is possible that peer review of Dr. Leblanc's work could stop this from occurring. Furthermore, a change in a digital tape file of Canadian earthquakes may or may not be significant for the United States and the NRC. We do not know.

It must also be noted that the reassessment was carried out by an employee of Weston Geophysical Research, the company retained by the Applicant Public Service Company of New Hampshire as its seismic experts. Apparently this potential conflict of interest was not questioned, although the credibility of witnesses on the seismic issue has been a matter of dispute throughout the proceedings.

The most significant problem with the Board Notification is that the Staff is not correct in stating that a reassessment of the intensity of the Montreal earthquake obviates the need for consideration of a larger than MMI VIII earthquake at the Seabrook site. As NECNP argued throughout the proceedings, the choice of an MMI IX earthquake as the SSE for Seabrook does not depend solely on the use of the tectonic province approach. At least four other considerations direct the selection of MMI IX.

1. In a recent amendment to 10 CFR 50, Appendix A, the Commission specifically provided that it is appropriate to select an SSE larger than the historical maximum when "geological and seismological data warrant." Included in the "conditions that might warrant selection" of a larger earthquake are:

- (1) where seismicity in the immediate site vicinity is significantly higher than that generally existing in the tectonic province as a whole;
- (2) where there exists in proximity to the site tectonic structure demonstrably like that where larger earthquakes in the tectonic province have occurred historically.

Ivan W. Smith
Dr. Ernest O. Salo
Dr. Marvin Mann
Alan S. Rosenthal
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Michael C. Farrar
March 5, 1980
Page 3

Both of these conditions are met at Seabrook. Seismicity in the immediate vicinity is significantly higher than generally exists in the tectonic province as a whole, as demonstrated by the occurrence of the 1725 and 1755 Cape Ann earthquakes, which are generally accepted as MMI VII or IX events. Furthermore, in the vicinity of the site is a structure--the White Mountain intrusives--which, in the opinion of our experts, is similar to the Montereccion Hills structure associated with the Montreal earthquake. Thus, under Appendix A, even if the Montreal earthquake is accepted as an MMI VIII event, the appropriate SSE for Seabrook is still an MMI IX.

2. The probability of occurrence of an Intensity IX earthquake near the Seabrook site during the life of the facility is sufficiently high, according to Dr. Chinnery and Board Member Farrar, to warrant selection of MMI IX as the SSE for the plant.

3. As previously acknowledged by the Staff, substantial disagreement exists among seismic experts about the appropriate intensity to be assigned to both the Cape Ann and Montreal earthquakes. Because of the limited historical data available about earthquakes in the region, the difficulty in predicting the possible maximum earthquake for the area and the consequences of underestimating the potential intensity, choosing an MMI IX as the SSE is prudent and conservative.

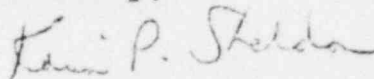
4. Finally, the Statement of Considerations which accompanied 10 CFR 50, Appendix A emphasizes that "[b]ecause of the limited historical data the most severe earthquakes associated with these tectonic structures or tectonic provinces are determined in a conservative manner and are usually larger than the maximum earthquake historically recorded." 38 Fed. Reg. 31279, 31280 (November 13, 1973) (emphasis added). Even if the Montreal earthquake is an MMI VIII, the NRC contemplates the selection of a larger than historical maximum event as the SSE. For Seabrook, the choice is an MMI IX.

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Dr. Ernest O. Salo
Dr. Marvin Mann
Alan S. Rosenthal
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Michael C. Farrar
March 5, 1980
Page 4

Given the importance of the issue, and the fact that it is presently before the Commission itself, we suggest that, at a minimum, the Staff be required to produce all the information underlying this potential change in the Montreal earthquake, and that the parties be permitted an opportunity to examine it and to provide the Boards with their own views on the subject. The other option is to disregard the "Board Notification" completely until the Staff is able to curb its enthusiasm long enough to observe the Commission's regulations for adding to the Seabrook record.

Sincerely,



Karin P. Sheldon

KPS/dds

cc: Seabrook Service List