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February 11, 1983

BECO. Ltr. #83-29

Mr. M. W. Jankowski
Fuel Behavior Branch
Division of Accident Evaluation
Office of Nuclear Regulatory Research
U. S. Nuclear Regulatory Commission
1717 H Street N. W.
Washington, D. C. 02555

License No. DPR-35
Docket No. 50-293

Boston Edison Comment and Position
of Draft NUREG-0956, Volume 1

Dear Sir:

Boston Edison expresses its appreciation for the opportunity to participate, as an invited observer, in the peer review meeting of the first draft of NUREG-0956, Volume 1: A PWR Analysis, presented in Washington on January 25 & 26, 1983. We also commend the NRC's receptiveness to consider comments, before the NRC releases the final NUREG-0956 document.

Boston Edison supports the spirit of NUREG-0956 which we believe is to realistically predict best estimate fission product releases to the environs for a range of accident conditions and sequences, utilizing best available techniques to model complex transport and removal mechanisms.

It is Boston Edison's position that, due to the significant impact NUREG-0956 can have on licensing practice, emergency planning, safety goals, and indemnification policy on revised source terms, NUREG-0956 should not be issued as a final document, as it currently exists in draft form, until:

- 1) Existing problems and uncertainties identified at the peer review meeting, have been satisfactorily resolved. Specifically, the areas requiring further investigation are physical and chemical interactions related to release phenomena, and transport and removal mechanisms for certain fission product species.

In lieu of the development of more realistic models to predict releases associated with the uncertainties and problems identified above, the first draft of NUREG-0956, Volume 1, implemented conservative and unrealistic models which overestimate releases to the environment. As a result, the environs experience a significantly higher radiological impact.

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- 2) Transport models are developed which will realistically predict fission product releases from the primary system to the Reactor Building secondary containment atmosphere to the environment through smaller openings than what was considered to date.

Mixing, removal, and depletion mechanisms, if realistically modeled, could significantly reduce fission product releases to the environment. As a result, the environs would experience a smaller radiological impact.

The current method employed in the first draft of NUREG-0956, Volume 1 document is overly conservative and unrealistic in predicting releases to the environment and is essentially addressing class 9 type accidents (i.e., large scale breach of Reactor Building secondary containment) for all intent and purposes.

- 3) The office of Nuclear Regulatory Research has had the opportunity to examine and consider experimental data being generated throughout the scientific community related to the subject matter presented in draft NUREG-0956. Some of this data, as mentioned at the peer review meeting differs significantly from results presented in draft NUREG-0956.

The discrepancies in published data should be thoroughly investigated in order that the most realistic and mechanistic models can be developed prior to finalizing NUREG-0956.

Very truly yours,

W.D. Harrington