UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 28, 1989

See memo file for this letter.

NOTE TO: Steven A. Varga

THROUGH: Walter R. Butler for RWB.

FROM: Mohan C. Thadani

SUBJECT: SUMMARY OF JUNE 22, 1989 MEETING WITH PENNSYLVANIA POWER AND LIGHT COMPANY

On June 22, 1989, Pennsylvania Power and Light Company (PP&L) met with the NRC staff and presented a briefing on its methodology for evaluation of severe accident risks at Susquehanna Steam Electric Station, Units 1 and 2. A copy of PP&L's briefing viewgraphs and a list of attendees are enclosed. Two previous meetings on PP&L's severe accident evaluation program were described in meeting summaries dated May 12 and 24, 1989 (Copies of previous meeting summaries are enclosed without the viewgraphs and attendee lists).

During June 22, 1989 meeting, PP&L once again emphasized that there are several traditional probabilistic risk assessment characteristics which detract from gaining full potential benefits of operational safety based on insights from evaluation of severe accidents. The following examples were cited by PP&L to illustrate the pitfalls of using the traditional approach to risk assessment.

1. The traditional approach (which includes the IPE approach) cannot readily be used to follow accident sequences from initiation to the final plant damage state (e.g. separation of front line function states from containment sequences). Consequently, the available hardware that can be used to prevent or mitigate the consequences of an accident sequence can not be readily identified for use at each step of the accident sequence. This results in higher than necessary calculated core damage frequencies.

2. The traditional approach uses conservatively prescribed common cause failure rates, non-specific plant failure rates, limited operator actions, and very high operator error rates for critical actions. Consequently, a large number of potential accident recovery actions are missed, simple plant modifications to aid accident recovery are not considered, and procedures are not developed and operators not trained to respond to each step of the accident sequence. This also results in higher than necessary calculated core damage frequencies.

3. Based on the above, the PP&L believes that while conventional approach provides some bottomline values of measure of risk, it inhibits the potential use of existing plant hardware, addition of inexpensive new hardware, improvement of existing procedures, and development of new procedures.

4. In its own analysis, which is based on the PP&L IPE for Susquehanna, Units 1 and 2, PP&L has rectified the pitfalls of the traditional approach to risk assessment. The PP&L incorporates the use of existing hardware,

ENCLOSURE 2

MEETING WITH PENNSYLVANIA POWER
AND LIGHT COMPANY - JUNE 22, 1989

NAME	AFFILIATION
Mohan Thadani	NRC/NRR
Wayne Hodges	NRC/NRR/DEST/SRXB
Ashok Thadani	NRC/NRR/DEST
S. A. Varga	NRR/DRP
J. G. Partlow	ADP/NRR
Charlie Tinkler	NRR/SPLB
Len Soffer	NRC/RES/SAIB
John Flack	NRC/RES/SAIB
PK Niyogi	NRC/RES/PRAB
J. O. Thoma	NRR/DRP
Steve Blazo	Bechtel Power Corp
Ann Ramey-Smith	RES/HFB
Farouk Eltawila	RES/AEB
Norm Lauben	RES/RPSB
William Beckner	RES/SAIB
Scott Humphries	Scienthech, Inc.
Rich Barrett	NRR/RAB
Glen Kelly	NRR/DRP
Gene Y. Suh	NRR/DRP
Joel J. Kramer	NRC/RES/DSR/HFB
Ray Harris	PP&L
Paul Hill	PP&L
Cas Kukielka	PP&L
Eric Jebsen	PP&L
Bob Cushman	NMPC
David Ney	PA/DER/BRP
Raymond Ng	NUMARC
Stan P. Maingi	PA/DBR/BRP
John C. Lane	RES/SAIB
Bill Johnston	NRC/Reg. I