



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

October 11, 1996

MEMORANDUM TO: David B. Matthews, Chief  
Generic Issues and Environmental Projects Branch  
Division of Reactor Program Management, NRR

FROM: James H. Wilson, Senior Project Manager *James H. Wilson*  
Generic Issues and Environmental Projects Branch  
Division of Reactor Program Management, NRR

SUBJECT: SUMMARY OF PUBLIC MEETING HELD ON OCTOBER 2, 1996, WITH  
NUCLEAR ENERGY INSTITUTE (NEI) TO DISCUSS IMPLEMENTATION OF  
NUREG-1465 ACCIDENT SOURCE TERM AT OPERATING REACTORS

On October 2, 1996, the staff held a public meeting with NEI at NRC headquarters to discuss implementation of the NUREG-1465 accident source term at operating reactors. A list of attendees and their affiliations is provided as Attachment 1. The meeting agenda is provided as Attachment 2.

The purpose of this meeting was to inform industry of the NRC staff's progress in reviewing NEI's Generic Framework Document (TR-105909) and the pilot plant submittals. A copy of the handouts used by the staff in its presentation is provided as Attachment 3. The staff informed NEI and the utilities that it will be seeking Commission approval of this approach in November 1996, after it has gone to the Committee for Review of Generic Requirements. The staff also plans to brief the Advisory Committee on Reactor Safeguards in November, after a Commission paper on this issue has been submitted to the Commission.

The staff plans to issue a letter concerning the results of its review of TR-105909. The staff stated that the letter would address the acceptability of the four principles described in TR-105909 and provide information on the staff's approach for reviewing the pilot plant applications. The staff indicated that the appendices contained in TR-105909 would not receive a comprehensive technical evaluation, but the staff plans to evaluate the technical models described therein during the pilot plant reviews.

The staff has tentatively concluded that use of the NUREG-1465 accident source term will require adjustments in the current licensing-basis dose calculation methods to account for changes in the fission product distribution of the revised source term. The staff plans to use the total effective dose equivalent (TEDE) methodology in 10 CFR Part 20 and compare the calculated doses to acceptance criteria of 25 rem TEDE for offsite doses and 5 rem TEDE for the control room. Also, the staff plans to calculate doses over any two hour period following the onset of the postulated fission product release, which differs from the existing regulations stated in 10 CFR Part 100.11. The staff considers that although rulemaking is the appropriate vehicle for allowing widespread implementation of the new accident source term at operating reactors, efficiencies in staff review and improvements in the rulemaking process can be achieved by issuing a limited number of exemptions to the pilot plants.

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October 11, 1996

A good deal of discussion at the meeting was devoted to the concept of assessing the integrated impacts of implementing the revised source term. The staff plans to rebaseline one PWR and one BWR previously analyzed in NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants." The goal of the rebaselining effort is to more fully understand the effect of using the new source term in specific areas on overall plant safety.

At a public meeting with the staff earlier this year, NEI stated that it intended to conduct a survey to obtain estimates of the total number and spectrum of applications of the revised source term that may be utilities for NRC review. The informal results of the NEI survey are provided in Attachment 4.

Project No. 689

Attachments: As stated

cc w/ attachments:  
See next page

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NEI

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cc: Mr. Thomas Tipton, Vice President  
Operations and Engineering  
Nuclear Energy Institute  
Suite 400  
1776 I Street, NW  
Washington, DC 20006-3708

Ms. Lynnette Hendricks, Director  
Emergency Preparedness  
and Waste Regulation  
Nuclear Energy Institute  
Suite 400  
1776 I Street, NW  
Washington, DC 20006-3708

Mr. Ronald Simard, Director  
Advanced Reactors Programs  
Nuclear Energy Institute  
Suite 400  
1776 I Street, NW  
Washington, DC 20006-3708

Mr. Nicholas J. Liparulo, Manager  
Nuclear Safety and Regulatory Activities  
Nuclear and Advanced Technology Division  
Westinghouse Electric Corporation  
P.O. Box 355  
Pittsburgh, Pennsylvania 15230

LIST OF ATTENDEES AT MEETING WITH NEI HELD IN  
ROCKVILLE, MD ON OCTOBER 2, 1996

<u>NAME</u>	<u>AFFILIATION</u>
C. Miller	NRC
R. Emch	NRC
T. Huffert	NRC
J. Lee	NRC
B. Zalcman	NRC
R. Architzel	NRC
K. Parczewski	NRC
A. Drozd	NRC
M. Snodderly	NRC
J. Lyons	NRC
J. Kaval	NRC
M. Hart	NRC
J. H. Wilson	NRC
J. Schaperow	NRC
J. Ridgely	NRC
J. Grover	Westinghouse
P. Salas	TVA
T. Milton	Southern Nuclear
C. Jackson	Con Edison
J. Metcalf	Polestar
W. Hopkins	Bechtel
D. Modeen	NEI
R. Zak	GPU Nuclear
C. Wyler	PECO Energy
A. Singh	EPRI
M. Withrow	Entergy
S. Ritterbusch	ABB-CE
S. Ferguson	Stone & Webster
T. Sutter	Bechtel
S. LaVie	Duquesne Light
M. Radvansky	GPU Nuclear
B. Carroll	Duke Power
N. Haggerty	BG&E
K. Cozens	NEI
S. Mahoney	Entergy
E. Ortalan	CEI
D. Marzilli	Northwest Utilities
D. Leaver	Polestar

**AGENDA****NRC/NEI MEETING ON REVISED SOURCE TERM****OCTOBER 2, 1996**

<b><u>Item</u></b>	<b><u>Topic</u></b>	<b><u>Lead</u></b>
<b>1.</b>	<b>Introductions</b>	<b>NRC/NEI</b>
<b>2.</b>	<b>Status of NRC Staff Plans</b>	<b>NRC</b>
	<b>a. Commission Paper</b>	
	<b>b. Decision Letter</b>	
	<b>c. Pilot Plant Reviews</b>	
	<b>d. Rulemaking</b>	
<b>3.</b>	<b>Discussion of Technical and Policy Issues</b>	<b>NRC/NEI</b>
<b>4.</b>	<b>Meeting Summary</b>	<b>NRC/NEI</b>
<b>5.</b>	<b>Adjournment</b>	

**Current NRC Staff Plans for  
Implementation of the Revised Source Term**

**October 2, 1996**

**R. Emch  
A. Huffert**

- **Submit Commission Paper to Commission by 11/1/96**
  - **Brief CRGR in October 1996**
  - **Brief ACRS in November 1996**
- **Transmit Decision Letter on Generic Framework Document to NEI**
  - **Minimal Review of Appendices**
  - **Draft Completed**



- **Review of Pilot Plants**
  - **Rebaselining of 1 PWR and 1 BWR**
  - **Assessment of Integrated Impact**
  - **Exemptions**
  
- **Rulemaking**
  - **Required for TEDE Calculations and 2-Hour Dose Evaluation Period**
  - **Schedule**

- **Technical and Policy Issues**
  - **Role of the Generic Framework Document**
  - **NRC Staff Approach for Reviewing Pilot Plants**
  - **Schedule**
  - **Other**



NUCLEAR ENERGY INSTITUTE

**FAX**

**To:** Rich Emch – NRC/NRR  
**FAX** 301-415-2968  
**Number**

**From:** Kurt Cozens  
**Company:** NEI  
**Phone:** (202) 739-8085  
**Fax:** (202) 785-1898  
**Date** Oct. 7, 1996  
**Pages** 2 including cover sheet

Attached are some informal survey results which NEI obtained earlier this year. These results represent plants expressing an interest in using the revised source term and do not represent a commitment to implement the revised source term. Furthermore, these results were predicated based on the concepts expressed in our framework document. Changes in the process that may occur due to the NRC staff's present technical and regulatory positions could alter the results. Notwithstanding all these conditions, NEI still receives calls from many utilities who are interested in using the revised source term.

If you have questions concerning these results, please call me.

## SUMMARY OF SOURCE TERM SURVEY RESULTS

- 16 utilities responded, representing 43 plants
  - 41 plants plan to use the revised source term to justify plant changes
  - 2 plants (same utility) do not plan to make plant changes based on the revised source term
- Scope of evaluation approaches
  - 16 plants plan to perform a limited evaluation to justify plant changes
  - 3 plants plan to use the more extensive evaluation approach
  - 21 plants are evaluating their approach (i.e., TBD)
- Types of applications -- number of plants planning to perform the following applications (Note some plants plan to implement more than one application.)
  - 24 -- allowable leak rate
  - 31 -- isolation valve actuation timing
  - 27 -- filtration unit simplification
  - 22 -- mitigation system actuation timing
  - 2 -- equipment qualification
  - 19 -- application to be determined