

January 9, 2009

Mr. Adrian P. Heymer
Senior Director, New Plant Deployment
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006

Subject: NEI DRAFT WHITE PAPER, "CONSISTENT SITE-RESPONSE/ SOIL-STRUCTURE INTERACTION ANALYSIS AND EVALUATION"

Dear Mr. Adrian:

I am responding to your letter dated October 10, 2008, in which you provided us the subject draft White Paper for our review [Agencywide Documents Access Management System (ADAMS) Accession Number ML083020171]. This paper was an outcome of the September 25th - 26th meeting between the Nuclear Regulatory Commission staff and the Nuclear Energy Institute Seismic Issues Task Force (meeting summary is contained in a document with ADAMS Accession Number ML082950476). The paper describes one option for ground motion input to soil-structure interaction analyses.

We have reviewed the paper and find that the technical positions described in the paper are consistent with the discussions and understandings reached at the September meeting. We offer the following two comments:

- (1) We suggest that reference ASCE 4-98, "ASCE Standard – Seismic Analysis of Safety Related Nuclear Structures and Commentary", American Society of Civil Engineers, 1998, be removed from the White Paper as it does not pertain to the performance-based design motion, and may lead to unintended use.
- (2) The last sentence in Section 3.3, Checking SSI Input Motion for the Minimum Requirement, states that "—check for the minimum requirement is only for the horizontal motion. For vertical analysis, site-specific FIRS can be used." We suggest that, to be consistent with the position 5.2, Vertical Spectrum, of the Regulatory Guide 1.208 and the common industry practice, the vertical spectrum should be developed using the appropriate V/H ratios.

The staff plans to incorporate the technical positions from the subject White Paper and the staff options described in the meeting summary into an Interim Staff Guidance on the consistency between the ground response and the soil-structure interaction analysis.

A. Heymer

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Please contact me (Nilesh.chokshi@nrc.gov; 301-415-1634) or Clifford Munson (Clifford.munson@nrc.gov; 301-415-6947) if you have any questions.

Sincerely,

/RA/

Nilesh C. Chokshi, Deputy Division Director
Division of Site and Environmental Reviews
Office of New Reactors

A. Heymer

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Please contact me (Nilesh.chokshi@nrc.gov; 301-415-1634) or Clifford Munson (Clifford.munson@nrc.gov; 301-415-6947) if you have any questions.

Sincerely,

/RA/

Nilesh C. Chokshi, Deputy Division Director
Division of Site and Environmental Reviews
Office of New Reactors

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Combination Mailing List:

cc: (page 1)

Mr. Laurence Parme
Manager, GT-MHR Safety & Licensing
General Atomics Company
P.O. Box 85608
San Diego, CA 92186-5608

Mr. David Lochbaum, Nuclear Safety Engineer
Union of Concerned Scientists
1707 H Street, NW, Suite 600
Washington, DC 20006-3919

Mr. Paul Gunter
Nuclear Information & Resource Service
1424 16th Street, NW, Suite 404
Washington, DC 20036

Mr. James Riccio
Greenpeace
702 H Street, NW, Suite 300
Washington, DC 20001

Mr. Adrian Heymer
Nuclear Energy Institute
Suite 400
1776 I Street, NW
Washington, DC 20006-3708

Mr. George Alan Zinke
Project Manager
Nuclear Business Development
Entergy Nuclear
M-ECH-683
1340 Echelon Parkway
Jackson, MS 39213

Ms. Marilyn Kray
Vice President, Special Projects
Exelon Generation
200 Exelon Way, KSA3-E
Kennett Square, PA 19348

Mr. Charles Brinkman
Westinghouse Electric Co.
Washington Operations
12300 Twinbrook Pkwy., Suite 330
Rockville, MD 20852

Mr. Joseph D. Hegner
Lead Engineer - Licensing
Dominion Generation
Early Site Permitting Project
5000 Dominion Boulevard
Glen Allen, VA 23060

Mr. Edward L. Quinn
Longenecker and Associates
Utility Operations Division
23292 Pompeii Drive
Dana Point, CA 92629

Mr. Paul Leventhal
Nuclear Control Institute
1000 Connecticut Avenue NW
Suite 410
Washington, DC 20036

Mr. Jay M. Gutierrez
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Mr. W. Edward Cummins
AP600 and AP1000 Projects
Westinghouse Electric Company
P.O. Box 355
Pittsburgh, PA 15230-0355

Mr. Gary Wright, Manager
Office of Nuclear Facility Safety
Illinois Department of Nuclear Safety
1035 Outer Park Drive
Springfield, IL 62704

Combination Mailing List:

cc: (page 2)

Mr. Brendan Hoffman
Research Associate on Nuclear Energy
Public Citizens Critical Mass Energy and
Environmental Program
Pennsylvania Avenue, SE
Washington, DC 20003

Mr. Lionel Batty
Nuclear Business Team
Graftech
12300 Snow Road
Parma, OH 44130

Mr. Ian M. Grant
Canadian Nuclear Safety Commission
280 Slater Street, Station B
P.O. Box 1046
Ottawa, Ontario
K1P 5S9

Mr. Glenn H. Archinoff
AECL Technologies
481 North Frederick Avenue
Suite 405
Gaithersburg, MD 20877

Mr. Ed Wallace, General Manager
Projects
PBMR Pty LTD
PO Box 9396
Centurion 0046
Republic of South Africa

Mr. Dobie McArthur
Director, Washington Operations
General Atomics
1899 Pennsylvania Avenue, NW, Suite 300
Washington, DC 20006

Carlos Sisco
Senior Paralegal
Winston & Strawn LLP
1700 K Street NW
Washington, DC. 20006

Ms. Vanessa E. Quinn, Chief
Radiological Emergency
Preparedness Branch
Nuclear and Chemical Preparedness 215
and Protection Division
Department of Homeland Security
1800 South Bell Street, Room 837
Crystal City-Arlington, VA 22202

Mr. Ron Simard
6170 Masters Club Drive
Suwanee, GA 30024

Ms. Sandra Sloan
Areva NP, Inc.
3315 Old Forest Road
P.O. Box 10935
Lynchburg, VA 24506-0935

Ms. Anne W. Cottingham
Assistant General Counsel
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006

Mr. David Repka
Winston & Strawn LLP
1700 K Street, NW
Washington, DC 20006-3817

Mr. Robert E. Sweeney
IBEX ESI
4641 Montgomery Avenue
Suite 350
Bethesda, MD 20814

Mr. Eugene S. Grecheck
Vice President
Nuclear Support Services
Dominion Energy, Inc
5000 Dominion Blvd.
Glen Allen, VA 23060

Combination List:

cc: (page 3)

E-Mail:

tom.miller@hq.doe.gov
tom.miller@nuclear.energy.gov
mark.beaumont@wsms.com
sfrantz@morganlewis.com
ksutton@morganlewis.com
jgutierrez@morganlewis.com
sandra.sloan@areva.com
mwetterhahn@winston.com
gcesare@enercon.com
whorin@winston.com
erg-xl@cox.net
steven.hucik@ge.com
david.hinds@ge.com
chris.maslak@ge.com
mgiles@entergy.com
patriciaL.campbell@ge.com
bob.brown@ge.com
jim@ncwarn.org
pshastings@duke-energy.com
ronald.hagen@eia.doe.gov
murawski@newsobserver.com
Cary.Fleming@constellation.com
tansel.selekler@nuclear.energy.gov
trsmith@winston.com
James.Beard@gene.ge.com
george.stramback@gene.ge.com
david.lewis@pillsburylaw.com
paul.gaukler@pillsburylaw.com
john.o'neill@pillsburylaw.com
matias.travieso-diaz@pillsburylaw.com
maria.webb@pillsburylaw.com
roberta.swain@ge.com
cee@nei.org
jcurtiss@winston.com