

## NUCLEAR ENERGY INSTITUTE

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December 11, 2006

Chief, Rules and Directives Branch Office of Administration U.S. Nuclear Regulatory Commission Mail Stop T6-D59 Washington, DC 20555-0001

SUBJECT: Draft Regulatory Guide DG-1158, "Design Limits and Loading Combinations for Metal Primary Reactor Containment System Components"

## **PROJECT NUMBER: 689**

On behalf of the nuclear industry, the Nuclear Energy Institute (NEI)' is pleased to submit the following response to the *Federal Register* notice, dated September 22, 2006, *Volume 71, Number 184*, which invited written comments on the Proposed Revision 2 of Regulatory Guide 1.57 (DG-1158), "Design Limits and Loading Combinations for Metal Primary Reactor Containment System Components."

The enclosure provides comments and recommendations from the industry. The industry review provides recommendations to improve clarity and ensure consistency with current industry standards and practices.

NEI is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry.

SONSI Review Complete late=ADM-013

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We appreciate the opportunity to comment on the draft documents. If you have any questions regarding this effort please contact Leslie Kass at (202) 739-8115; <u>lck@nei.org</u>.

Sincerely,

KNS ~

Russell J. Bell

Enclosure

c: Mr. Syed K. Shaukat Mr. Stephen C. O'Connor NRC Document Control Desk

| ltem | Section                                                                                                                                                                                                                                                                                        | Priority <sup>1</sup> | Basis <sup>1</sup>                       | Description of the Issue                                                                                                                                                                                                        | Proposed Alternate                                                                       |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 1    | В                                                                                                                                                                                                                                                                                              | 3                     | 4                                        | First paragraph mentions AP1000 and CE<br>80+. ABWR and ESBWR are also advanced<br>reactors in which the containment metal<br>components not backed by concrete follow<br>ASME NE rules and they should be<br>mentioned.        | Add ABWR and ESBWR.                                                                      |
| 2    | C.1.1                                                                                                                                                                                                                                                                                          | 3                     | 3                                        | Descriptions for $P_{g1}$ , $P_{g2}$ and $P_{g3}$ are not exactly the same as those in DG-1159.                                                                                                                                 | Use consistent descriptions for $P_{g1}$ , $P_{g2}$ and $P_{g3}$ in DG-1158 and DG-1159. |
| 3    | C.1.1 3 3 Requirements for loads and load combinations associated with P <sub>g1</sub> , P <sub>g2</sub> and P <sub>g3</sub> appear related to Regulatory Position C.5 of RG 1.7 Revision 3. A cross reference would be helpful for a better understanding of the requirements                 |                       | Add RG 1.7 Revision 3 in the references. |                                                                                                                                                                                                                                 |                                                                                          |
| 4    | C.1.2.3.1 (6)                                                                                                                                                                                                                                                                                  | 3                     | 3                                        | Description "pressure test load…" could lead to misinterpretation that test be conducted for $P_{g3}$ pressure. The basis for 1.1 load factor is not clear. In DG-1159, C.5.A (2), $P_{g3}$ is not required to increase by 10%. | Remove "test" from description.<br>Delete load factor 1.1.                               |
| 5    | C.1.2.3.1 (5) 3 3 3 P <sub>g3</sub> is defined to be pressure load from post-<br>accident inerting, assuming carbon dioxide i<br>the inerting agent. Since it is associated wit<br>post accident conditions, Service Level C<br>would be more appropriate than Service<br>Level A as proposed. |                       | Move items (5) and (6) to C.1.2.3.3      |                                                                                                                                                                                                                                 |                                                                                          |
| 6    | C.1.2.3.3 (4)<br>& (5)                                                                                                                                                                                                                                                                         | 3                     | 3                                        | Regulatory Position C.5 of RG 1.7 Revision<br>3 does not require stability evaluation for<br>these load combinations.                                                                                                           | Add "evaluation of instability is not required."                                         |

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Notes:

1. See Tables below for Priority and Basis

| Priority |   |   | Examples                                                                                                                                                                         | Basis Category | Description                                                                                                               |
|----------|---|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------|
| High     | = | 1 | New requirements, requirements without<br>regulatory basis, inconsistent with established<br>precedent, significant hearing exposure, clear<br>revisiting of closed issues, etc. | 1              | Conforms guidance with the<br>regulatory requirements of 10 CFR<br>20, 50, 52, 100, etc., or other<br>regulatory guidance |
| Medium   | = | 2 | Additional information submittal, opportunity for inconsistency between individual reviewers, unclear distinction in credit for closed issues,                                   | 2              | For internal consistency within the guidance document.                                                                    |
| Low      | = | 3 | opportunity to negotiate after COLA submittal, etc.<br>Editorial, straightforward clarification required                                                                         | 3              | Clarifies guidance document requirements                                                                                  |
|          |   |   |                                                                                                                                                                                  | 4              | Other – specify                                                                                                           |