



RULES AND DIRECTIVES  
BRANCH  
USNRC

2006 SEP 26 PM 12:30

RECEIVED

5

GE Energy  
Nuclear

8/17/06  
71 FR 47548

Robert E. Brown  
General Manager  
Regulatory Affairs

P.O. Box 780 M/C A45  
Wilmington, NC 28402-0780  
USA

T 910 675 5242  
F 910 362 5242  
Bob.Brown@ge.com

MFN 06-341

10 CFR 50.55a

September 25, 2006

Rules and Directives Branch  
Office of Administration  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject :** Comments on Draft Regulatory Guide 1144 - Guidelines for Evaluating Fatigue Analyses Incorporating the Life Reduction of Metal Components Due to the Effects of the Light-Water Reactor Environment for New Reactors (ML060970173)

General Electric Company (GE) appreciates the opportunity to submit comments on the proposed Draft Regulatory Guide 1144 (DG 1144). GE has two comments for your consideration.

1. The use of the DG 1144 guidance will result in an increase in the calculated cumulative fatigue usage in the ASME Code stress analyses of the NSSS piping. As a result, more locations are likely to exceed a fatigue usage of 0.1, the threshold specified for pipe break postulation in EMEB 3-1<sup>1</sup>. This in turn will result in the postulation of significantly more break locations and thus lead to the design and installation of more pipe whip restraints. Pipe whip restraints can hinder access for in-service-inspections, thus an increase in the number of pipe whip restraints may have an adverse effect on plant safety. Therefore, the staff is requested to consider an increase in the fatigue usage threshold. GE notes that the specified fatigue usage threshold for pipe break postulation in ANSI 58.2 was 0.4. GE suggests the staff consider an increase in the fatigue usage threshold for pipe break postulation, for example to ~0.8, under the proposed guidance in DG 1144.

<sup>1</sup> Branch Technical Position EMEB 3-1, "Postulated Rupture Locations in Fluid System Piping Inside and Outside Containment," an attachment to NRC Standard Review Plan (SRP) Section 3.6.2, "Determination of Rupture Locations and Dynamic Effects Associated with Postulated Rupture of Piping" (NUREG-0800).

SUNSI Review Complete

Template = ADM-013

E-RIDS = ADM-03

Add = H. J. Gonzalez (HJG)

2. Neither the DG 1144 nor NUREG/CR-6909 currently addresses Ni-Cr-Fe materials (e.g., Alloy 690 & Alloy 600). GE suggests the staff consider adding clarification to the DG 1144 or NUREG/CR-6909 to address materials such as these, or communicate plans for future revisions that would include guidance for these materials.

Please contact me should you have any questions.

Sincerely

A handwritten signature in black ink that reads "R. E. Brown". The signature is written in a cursive style with a large, prominent "R" and "B".

Robert E. Brown  
General Manager  
Regulatory Affairs