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September 25, 2013

Ms. Cindy K. Bladey
Chief, Rules, Announcements, and Directives Branch
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry Comments on Draft NUREG/CR-7135, Compensatory and Alternative Regulatory Measures for Nuclear Power Plant Fire Protection (CARMEN-FIRE) (Federal Register of July 29, 2013; 78FR45573).

Project Number: 689

Dear Ms. Bladey:

The subject Federal Register notice issued for public comment Draft NUREG/CR-7135, Compensatory and Alternative Regulatory Measures for Nuclear Power Plant Fire Protection (CARMEN-FIRE). Comments on the supplemental proposed rule were originally requested by August 30, 2013; the comment period was extended to September 25, 2013 (Federal Register of September 11, 2013; 78FR55765-55766) per industry request. The Nuclear Energy Institute (NEI)¹ appreciates the opportunity to provide comments, on behalf of the nuclear energy industry, on this draft NUREG, and offers several for NRC consideration.

The industry is concerned that the draft NUREG may be framed in a way that implies regulatory expectations, which is inappropriate for a NUREG document. In several places, the draft NUREG implies that the NRC does not accept long-term compensatory measures. NRC has previously addressed this issue in Director's Decisions DD-96-03 (all licensees with thermo-lag) and DD-07-03, which clarifies that compensatory measures are allowed by licensee's operating license and approved fire protection program, with no time limit. Further, many licensee technical specifications demonstrate that the NRC has accepted long-term compensatory measures in very specific circumstances. This change in agency position would need to be pursued via a formal regulatory change.

¹ The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. 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 cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

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In particular, it should be noted that Section 2.2 states that "The report's overall objective is to serve as a consolidated source of regulatory and technical information for the NRC staff responsible for assessing the appropriateness of fire-safety compensatory measures at commercial NPPs." This appears to indicate that this report will be used in a regulatory capacity, and licensees cited when they do not meet the report's positions. As noted above, this is not appropriate for a NUREG document, and such language should be removed from the draft document.

Additional detailed comments on the draft NUREG are attached. Should you have any questions related to the above comments, please do not hesitate to contact me.

Sincerely,



Victoria K. Anderson

Attachment

c: Mr. Mark H. Salley, RES/DRA/FRB, NRC
Mr. Felix E. Gonzalez, RES/DRA/FRB, NRC
Mr. Alex R. Klein, NRR/DRA/AFP, NRC

Industry Comments on Draft NUREG/CR-7135, CARMEN-FIRE

Page	Section	Comment						
8	2.3, Scope of Report	It is noted that NFPA 805 is discussed for historical purposes only and discussions on compensatory measures do not apply to NFPA 805 unless stated otherwise. However, significant portions of the draft NUREG are in no way contradictory to the term "compensatory actions" as identified in section 3, item 12.						
17	3.2.1, Design Features	Suggest providing a comprehensive list of detection and alarm systems (ionization, photoelectric, duct, continually-manned Control Room, etc.) similar to fire suppression systems in next bullet.						
21	4.1, Fire Protection Impairments	<p>Table 4-1 provides a general list of common fire protection impairments. This list should include additional impairments related to Fire PRA analyses. The Fire PRA analyzes the existing plant conditions to determine the risk significance of all the plant features. For these analyses to remain applicable, the condition of the significant features related to the fire PRA must remain in a similar condition for the life of the plant.</p> <p>The following list identifies some examples of features that, if damaged, would degrade the defense-in-depth, and therefore could significantly impact the risk significance for the Fire PRA analysis.</p> <table border="1" data-bbox="652 1201 1351 1491"> <thead> <tr> <th>Fire PRA Significant Features</th> </tr> </thead> <tbody> <tr> <td>Ventilation System becomes inoperable</td> </tr> <tr> <td>ERFBS loses functionality</td> </tr> <tr> <th>Update to Fire Initiator Specifications</th> </tr> <tr> <td>Door on electrical cabinets lose functionality</td> </tr> <tr> <td>Drains near potential source of oil lose functionality</td> </tr> </tbody> </table>	Fire PRA Significant Features	Ventilation System becomes inoperable	ERFBS loses functionality	Update to Fire Initiator Specifications	Door on electrical cabinets lose functionality	Drains near potential source of oil lose functionality
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24	Table 4-2, Types of Compensatory Measures	Table 4-2 lists examples of the common Types of Compensatory Measures. "Hourly Fire Watch" should be replaced with "Roving Fire Watch," because it may not always necessarily be "hourly".						
24	Table 4-2, Types of Compensatory Measures	Suggest adding "Wireless Smoke Detection Systems" as a compensatory measure. In the description field, suggest "wireless smoke detectors as a backup means of detection that is provided to compensate for an impaired detection system."						
24	Table 4-2, Types of Compensatory Measures	In the Backup Suppression description, suggest adding "transportable fire suppression system" as an example.						

24	Table 4-2, Types of Compensatory Measures	For "Standard Video Monitoring", suggest removing "standard". In the description, suggest adding Video Image Detection System as an example. CCTV only provides an image. The Video Image Detection System can identify smoke or flame from a fire using detection algorithms. Alternatively, add new category for "Backup detection" and include this technology as an example.
24	Table 4-2, Types of Compensatory Measures	Recommend adding a Compensatory Measure "Temporary Procedure Changes." This is subsequently identified in section 4.2.2.
27	4.2.1, Types of Compensatory Measures	Some specific characterizations of long-term compensatory measures could be improved. For example, the draft NUREG offers that more than one area can be covered in a continuous fire watch, if this can be accomplished in 15 minutes and if the areas are all within a "single fire area." This limitation is unnecessary, as many plant fire areas are small, some as small as just one room, and multiple areas could easily be covered in less than 15 minutes. The limitation to one single fire area should be removed, and the performance-based criteria of 15 minutes should stand on its own merits.
General		Additional insight on operating experience with compensatory measures would enhance this report. Specifically, examples of instances when compensatory measures have been successful, or instances when lack of appropriate compensatory measures resulted in a fire with more damage, would be useful.
General		There are multiple typographical errors in the document, including extra spaces, extra periods, incorrect words (ex: "the" should be "that" in the first sentence of the description of a Continuous Fire Watch in Table 4-2), and stray characters (ex: "i" appears between words "and" and "emergency" in the discussion of Temporary Repairs in Table 4-2).