

Duke Energy Carolinas, LLC Catawba Nuclear Station / CNO1VP 4800 Concord Road York, SC 29745

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May 29, 2008

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555

Subject: Duke Energy Carolinas, LLC (Duke)

Catawba Nuclear Station, Units 1 and 2

Docket Numbers 50-413 and 50-414 Request for Relief Number 06-CN-003

Use of Polyethylene Material in Nuclear Safety

Related Piping Applications (TAC Numbers MD3729 and MD3730)

References: Letters from Duke to NRC, same subject, dated

October 26, 2006, June 21, 2007, and March 13,

2008

The reference letters comprise Duke's original submittal and RAI responses to support a proposed alternative of utilizing polyethylene material in lieu of steel material in piping associated with the emergency diesel generator jacket water coolers.

Duke notes that the industry is engaged in an extensive ongoing testing program to establish the full range of properties for the specific grade of polyethylene material (PE4710) to be utilized in the requested Catawba application. Furthermore, techniques to ensure the structural integrity of fusion joints are still evolving. Finally, there is currently no domestic performance or operating experience history regarding polyethylene piping's use in nuclear safety related applications. (It should be noted, however, that Catawba has approximately 10 years of experience with the use of polyethylene material in a non-nuclear safety related application. In addition, British Energy has approximately 3-4 years of experience with the use of polyethylene material in a nuclear safety related service water application at the Sizewell B plant.)

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In light of these considerations and in conjunction with this request for alternative, Duke is hereby making the following formal regulatory commitments:

- 1. Prior to submitting Catawba's fourth 10-year interval inservice inspection plan, Duke will submit information obtained from the above referenced industry testing program to the NRC. If the information supports operation using PE4710 for the remainder of the plant life, this information will be submitted to the NRC for information only.
- 2. If the information does not support operation using PE4710 for the remainder of the plant life, this information will be submitted to the NRC as part of a subsequent request for alternative for the fourth 10-year interval.

If you have any questions concerning this information, please call L.J. Rudy at (803) 701-3084.

Very truly yours,

James R. Morris

LJR/s

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## XC:

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