

December 6, 2001

LICENSEE : Duke Energy Corporation

FACILITIES: McGuire, Units 1 and 2

SUBJECT: TELECOMMUNICATION WITH DUKE ENERGY CORPORATION TO DISCUSS REQUESTS FOR ADDITIONAL INFORMATION (RAIS) REGARDING SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMAS) FOR MCGUIRE LICENSE RENEWAL (TAC NOS. MB2021 AND M2122)

By letter dated November 21, 2001, staff from the Nuclear Regulatory Commission (NRC) transmitted requests for additional information (RAIs) regarding severe accident mitigation alternatives (SAMAs) to Duke Energy Corporation (the applicant) as part of the license renewal review for McGuire Nuclear Station, Units 1 and 2 (McGuire).

On December 5, 2001, after the applicant had the opportunity to review the RAIs, a conference call was conducted between the NRC staff and its contractors, ISL and Energy Research, and the applicant to discuss the RAIs and provide clarification, as needed. Participants in the conference call are provided in an attachment.

As a result of discussions during the telecon, Questions 5 and 8 from the November 21, 2001, RAI have been reworded.

Replace RAIs 5 and 8 in the McGuire SAMA RAIs with the following revised RAIs:

5. Based on the McGuire PRA used for the SAMA evaluation, please provide the frequency and population exposure (person-rem within 50 miles) for each containment failure mode (radiological release mode), and a breakdown of the population dose (person-rem per year) by containment end-state (similar to Table 5-4 in NUREG-1437, Supplement 2). Identify which of these release modes most closely represents each of the following scenarios:
  - Early containment failure (i.e., at or around the time of vessel breach) due to hydrogen combustion resulting from a SBO with containment sprays unavailable, and a dry reactor cavity
  - Late containment failure (i.e., within a few hours after vessel breach) due to hydrogen combustion resulting from a SBO with containment sprays unavailable, and a dry reactor cavity
  - Late containment failure (i.e., at or about 24 hours after the start of core damage) due to gradual containment overpressurization in a SBO with containment sprays unavailable, and a dry reactor cavity
  - No containment failure, containment sprays unavailable, and a dry reactor cavity.

8. The SAMA analysis assessed benefits in terms of averted offsite person-rem (public dose) but did not include other averted costs that should be included in accordance with the Regulatory Analysis Guidelines (NUREG/BR-0184). The SAMA analysis should be modified to include all potential averted costs associated with each potential improvement, in particular, replacement power costs, and for potential containment-related SAMAs, the averted offsite property damage costs. In addition, a sensitivity study should be performed to assess the value of SAMAs over the remainder of the current operating license and the license renewal period.

A draft of this telecommunication summary was provided to the applicant to allow it the opportunity to comment prior to the summary being issued.

**Original Signed By: JHWilson**

James H. Wilson, Senior Project Manager  
Risk Informed Initiatives, Environmental,  
Decommissioning, and Rulemaking Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Docket Nos. 50-369 and 50-370

Attachment: As stated

cc w/attachment: See next page

8. The SAMA analysis assessed benefits in terms of averted offsite person-rem (public dose) but did not include other averted costs that should be included in accordance with the Regulatory Analysis Guidelines (NUREG/BR-0184). The SAMA analysis should be modified to include all potential averted costs associated with each potential improvement, in particular, replacement power costs, and for potential containment-related SAMAs, the averted offsite property damage costs. In addition, a sensitivity study should be performed to assess the value of SAMAs over the remainder of the current operating license and the license renewal period.

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\*See previous concurrence

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DATE	12/5/01	12/5/01	12/5/01	12/6/01	12/6/01

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DECEMBER 5, 2001**

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