

November 14, 2001

LICENSEE : Duke Energy Corporation

FACILITIES: McGuire, Units 1 and 2, and Catawba, Units 1 and 2

SUBJECT: TELECOMMUNICATION WITH DUKE ENERGY CORPORATION TO DISCUSS  
INFORMATION IN THEIR LICENSE RENEWAL APPLICATION ON  
CONTAINMENT SYSTEMS

On October 11, 2001, after the NRC (the staff) reviewed information provided in Chapter 2 of the license renewal application (LRA), a conference call was conducted between the staff and Duke Energy Corporation (the applicant) to clarify information presented in the application pertaining to the scoping of structures and components in the containment isolation system, containment air return exchange and hydrogen skimmer system, and the containment spray system. Participants in the conference call are provided in an attachment.

The questions asked by the staff, as well as the responses provided by the applicant, are as follows:

#### 2.3.2.2 Containment Isolation System

1. Containment Hydrogen Sample and Purge System (Catawba only): the staff questions whether any parts of this system are being relied upon to provide post-accident hydrogen concentration samples on which the decision to operate the hydrogen recombiners would be based. If applicable, please justify why the parts of the system relied upon for hydrogen monitoring are not within the scope of license renewal according to 10 CFR 54.4(a)(2).

The applicant indicated that safety-related hydrogen analyzers are used to obtain hydrogen concentration sample, are part of the post accident containment sample system, and are not part of the containment hydrogen sample and purge system. The safety-related hydrogen analyzers are relied upon for determining when to energize hydrogen recombiners. The applicant referred the staff to Updated Final Safety Analysis Report (UFSAR) Table 1-11, page 12 of 33, for a description of the safety-related hydrogen analyzers. The applicant also referred the staff to TS 3.3.3 to understand the requirement governing these components. The applicant indicated that the safety-related hydrogen analyzers are within the scope of license renewal but not subject to an aging management review (except for the tubing that conveys the sample outside of containment to the analyzers) because they are active. The staff will consider this information but may request additional information to confirm that the containment hydrogen sample and purge system does not include post accident hydrogen analyzers that are used to determine when to energize hydrogen recombiners.

2. Containment Ventilation Cooling Water System, drawing MCFD-1604-03.00, grid location E-7: the staff questions why valve 1RV0037 is not within the scope of license renewal. Please justify why this valve is not considered to be a pressure boundary.

The applicant indicated that the drawing was in error and that the piping segment in question is actually Class F piping and within the scope of license renewal.

3. Containment Ventilation Cooling Water System, drawings MCFD-1604-03.00 & MCFD-2604-03.00, grid locations J-9 through D-9: though aware of the piping class break, the staff seeks the underlying basis justifying why this in-core instrument room line is not within the scope of license renewal. This piping appears to function as a pressure boundary, and the staff additionally notes that a similar, adjacent piping line is within the scope of license renewal.

The applicant indicated that the drawing was correct and confirmed that the piping segment in question is Class G piping and, as such, is not within the scope of license renewal. The applicant stated that the adjacent line to the piping segment in question is Class F piping that is in scope because of its potential for adversely affecting a safety-related component's ability to perform its intended function. However, no such potential exists for the Class G piping segment in question.

4. Conventional Chemical Addition System, drawing MCFD-2617-01.00: the staff questions why the four 3/4" Class B piping lines are not within the scope of license renewal up through the upstream check valves. The valves and piping appear to function as a pressure boundary, and the LRA further states that all Class B piping and components are within the scope of license renewal.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

5. Ice Condenser Refrigeration System, Table 3.2-2, Aging Management Review Results, pg. 3.2-16 of the LRA: the staff questions why the third "Pipe" entry from the top (which is carbon steel and has the reactor building as an external environment) is not identified as susceptible to Loss of Material and subject to the Fluid Leak Management Program and the Inspection Program for Civil Engineering Structures and Components. This finding appears to be inconsistent with the LRA's treatment of similar or identical materials and components.

The applicant could not determine which piping in the Catawba and McGuire plant systems corresponded to the pipe entry from the table and suggested that the staff request additional information on this item. This will allow the applicant sufficient time to review their documents and provide an answer to this question in their response to the request.

6. Makeup Demineralized Water System, drawing CN-2556-2.0, grid location K-4: the staff questions why the Class F piping is not within the scope of license renewal up to the downstream check valve. Please justify why this piping is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

7. Steam Generator Blowdown Recycle System, drawing MCFD-2580-01.00, grid location G-4: the staff questions why the 3/4" line is not within the scope of license renewal up through the globe valve. Please justify why the piping and valve are not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

8. Steam Generator Blowdown Recycle System, drawing MCFD-2580-01.00, grid location D-4: the staff questions why the 1" line is not within the scope of license renewal up through the globe valve. Please justify why the piping and valve are not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

9. Steam Generator Blowdown Recycle System, drawing MCFD-2580-01.01, grid location K-6: the staff questions why the 1" line is not within the scope of license renewal up through the globe valve. Please justify why the piping and valve are not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

10. Steam Generator Blowdown Recycle System, drawing CN-1580-1.0, grid location C-3: the staff questions why the 2" BW system line is not within the scope of license renewal. Please justify why this piping line is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

#### 2.3.2.3 Containment Air Return Exchange & Hydrogen Skimmer System

1. Drawings MC-1557-1.0, MC-2557-1.0, CN-1557-1.0, CN 2557-1.0: the staff questions whether the Class H piping in the hydrogen skimmer part of the system, which is not highlighted as within the scope of license renewal, is essentially all embedded in concrete.

The applicant confirmed that all of the Class H piping that was not highlighted as within the scope of license renewal is embedded in concrete.

2. Drawings MC-1557-1.0, MC-2557-1.0, CN-1557-1.0, CN 2557-1.0: regardless of whether or not it is embedded in concrete, based on the scoping requirements of 10 CFR 54.4(a)(1)(iii), the staff questions why the piping in the hydrogen skimmer part of the system is not essentially all within the scope of license renewal.

The applicant indicated that a failure of the Class H piping would not cause a loss of the intended function because the flow path required to accomplish the intended function would be provided by the concrete in which the piping is embedded. The applicant further stated that the concrete is part of the containment structure, which is safety-related

structure, within the scope of license renewal, and subject to an aging management review.

3. Drawings MC-1557-1.0, MC-2557-1.0: the staff questions why the ductwork between the containment air return fans and dampers is not within the scope of license renewal. Please justify why it is not considered to be a pressure boundary. The staff additionally notes that on drawings CN-1557-1.0 and CN 2557-1.0, the (apparently) analogous ductwork is within the scope of license renewal.

The applicant indicated that, for McGuire, the dampers are Quality Assurance (QA) Condition 1, safety-related, and within the scope of license renewal as noted by the highlighting on the referenced drawings. The ductwork, however, is classified as QA Condition 4, which is nonsafety-related. As such, only the hangers are within the scope of license renewal because of their function to hold up the ductwork in a seismic event. That is why the MNS drawings are not highlighted for the ductwork between the dampers. The applicant stated that leakage or failure is not a concern for this ductwork (i.e. a failure of the ductwork is not likely) during a non-seismic event. As such, the ductwork is not Class F and is not within the scope of license renewal. For Catawba, both the ductwork and dampers are QA Condition 1, safety-related. The drawings are correctly highlighted. Table 3.2-3 is correct as written and reflects the current design of each station.

The staff will consider the information provided. However, additional information may be requested so that the staff can determine if a failure of the McGuire ductwork between the safety-related dampers would impair the safety-related function provided by the containment air return sub-system.

4. For McGuire only, the staff questions whether the containment sample blower, represented on McGuire flow diagram MC-1557-1, is being relied upon to provide post-accident hydrogen concentration samples on which the decision to operate the hydrogen recombiners would be based. If applicable, please justify why the parts of the system relied upon for hydrogen monitoring are not within the scope of license renewal according to 10 CFR 54.4(a)(2).

The applicant indicated that the containment sample blower (McGuire only) is not used to sample the containment atmosphere to determine when to energize the hydrogen recombiners. The applicant indicated that separate, safety-related hydrogen analyzers are used to obtain hydrogen concentration samples and are part of the post accident containment sample system. The safety-related hydrogen analyzers are relied upon for determining when to energize hydrogen recombiners. The applicant referred the staff to UFSAR Table 1-6, page 14 of 36, for a description of the safety-related hydrogen analyzers. The applicant also referred the staff to TS 3.3.3 to understand the requirement governing these components. The applicant indicated that the safety-related hydrogen analyzers are within the scope of license renewal but not subject to an aging management review (except for the tubing that conveys the sample outside of containment to the analyzers) because they are active. The staff will consider this information but may request additional information to confirm that the containment hydrogen sample and purge system does not include post accident hydrogen analyzers that are used to determine when to energize hydrogen recombiners.

#### 2.3.2.4 Containment Spray System

1. Drawing MCFD-1563-01.00, grid location C-12: the staff questions why the 12" blind-flanged line is not within the scope of license renewal. Please justify why it is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

2. Drawing MCFD-2563-01.00, grid location C-2: the staff questions why the 8" end-capped line is not within the scope of license renewal. Please justify why it is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

3. Drawing MCFD-2563-01.00, grid location C-5: the staff questions why the 4" end-capped line is not within the scope of license renewal. Please justify why it is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

4. Drawing MCFD-2563-01.00, grid location G-4: the staff questions why the 1" line is not within the scope of license renewal up through the globe valve. Please justify why the piping and valve are not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

5. Drawing MCFD-2563-01.00, grid location J-2: the staff questions why the 8" end-capped line is not within the scope of license renewal. Please justify why it is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

2.3.2.5 Containment Valve Injection Water System

1. Drawing CN-1569-1.0, grid locations C-1 & C-2: the staff questions why segments of the piping lines near check valves 1NW101 and 1NW98 are not within the scope of license renewal. Please justify why the piping is not considered to be a pressure boundary.

The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

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

*/RA/*

Rani L. Franovich, Project Manager  
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Office of Nuclear Reactor Regulation

Docket Nos. 50-369, 50-370, 50-413, and 50-414

Attachment: As stated

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#### 2.3.2.5 Containment Valve Injection Water System

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The applicant indicated that a highlighting error had been made on the drawing and that the piping segment in question was within the scope of license renewal.

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**/RA/**

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