



Duke Power Company

A Duke Energy Company

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U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Duke Energy Corporation
Catawba Nuclear Station,
Unit 1 and Unit 2
Docket Nos. 50-413 and 50-414

Cold Leg Injection Header
Containment Isolation Provisions for
Penetration M351
Compliance with GDC 55

The purpose of this letter is to provide information about the design of Catawba's Centrifugal Charging Pump Cold Leg Injection Header Inside Containment Isolation Valves. This information will demonstrate compliance with General Design Criteria (GDC) 55, *Reactor coolant pressure boundary penetrating containment*. GDC 55 requires specific arrangements of containment isolation valves, unless it can be demonstrated that the containment isolation provisions for a specific class of lines are acceptable or some other defined basis. The information provided demonstrates that acceptable containment isolation provisions are provided for this specific class of lines.

Centrifugal Charging Pump Cold Leg Injection Header Inside Containment Isolation Valves (penetration M351, both units), 1(2)NI12 are inside check valves. On the outside of this penetration are two, parallel flow paths that join prior to going into containment, each with a normally closed motor operated valve, 1(2)NI9A or 1(2)NI10B, Centrifugal Charging Pump Cold Leg Injection Isolation Valves. This arrangement was installed to ensure compliance with GDC 55 descriptions of containment boundaries. During normal operation, this flow path is isolated at all times. Valves 1(2)NI9A and 10B receive a Safety Injection (SI) signal to automatically open during a design basis accident.

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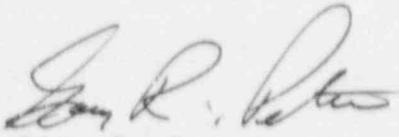
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This cold leg injection flow path is always inservice during Design Basis Accident Mitigation and Post Accident Recovery operations. Catawba's accident analysis assumes that at least one Centrifugal Charging Pump remains inservice during all accident modes: Cold leg Injection, Cold Leg Recirculation, Residual Heat Removal Auxiliary Spray operation, and Hot Leg Recirculation. During other Design Basis Accidents, a Centrifugal Charging Pump is assumed to remain inservice to supply seal injection to the Reactor Coolant Pumps. During these Design Basis Accidents, the injection line pressure remains greater than the reactor coolant pressure.

The above discussion demonstrates that for this specific class of lines, containment isolation provisions are met as a result of the continued injection flow into containment during design basis accidents. Catawba is in compliance with the General Design Criteria 55, *Reactor coolant pressure boundary penetrating containment*.

Should there be any questions concerning this information, please call Devereux Tower at (803) 831-3419.

Very truly yours,



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