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U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Duke Energy Carolinas, LLC
Oconee Nuclear Station, Unit 1, 2, 3
Docket No: 50-269, -270, -287
Fourth Ten Year Inservice Test Program Interval
Request for Relief No. ON-SRP-HPI-03
Request for Additional Information Response

By letter dated March 11, 2010, (Agencywide Document Access and Management System (ADAMS) Accession No. ML100770431), Duke Energy Carolinas, LLC (Duke Energy) submitted Request for Relief No. ON-SRP-HPI-03 seeking relief, pursuant to 10 CFR 50.55a(f)(5)(iii), from the requirement for vibration monitoring specified by the American Society of Mechanical Engineers (ASME) Operational and Maintenance Code, 1995 Edition, 1996 Addenda.

The relief would allow Duke Energy to take exception to vibration monitoring requirements for the upper motor bearing housing on the High Pressure Injection pumps for all three Oconee Nuclear Station (ONS) units on the basis of impracticality.

On August 30, 2010, Duke Energy received a request for additional information (RAI) via e-mail from the NRC Staff concerning the request for relief Duke Energy submitted on March 11, 2010. This submittal is to address the staffs questions posed in the RAI. The following enclosure contains the reviewer's questions, and Duke's responses to each.

If there are any questions or further information is needed you may contact Corey Gray at (864) 873-6325.

Sincerely,

T Gillespie

T. Preston Gillespie, Jr.

Enclosure

A047
NRR

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Oconee Nuclear Station (ONS)

Response to NRC Request for Additional Information

Relief Request ON-SRP-HPI-03

1) Oconee is eight years into the fourth IST test interval. Why is Oconee asking for relief now?

   Oconee Response:

   Early in 2003, Oconee Nuclear Station (ONS) recognized the need to request relief to allow vibration measurements on the HPI pumps to be taken at alternative locations to those required in ASME OM Code, 1995 edition with 1996 addenda. Due to relief request quality / process weaknesses (in 2003-2006) and associated improvements, a back log developed. This relief request was given lower priority and therefore not submitted unitl 2010. The quality / process weaknesses have been addressed in Duke Energy's corrective action program.

2) Is Oconee currently in compliance with 50.55a concerning this relief?

   Oconee Response:

   Yes. Per 50.55a(f)(4), IST requirements must be met "to the extent practical within the limitations of design, geometry and materials of construction." Per 50.55a(f)(5)(iii), "the licensee shall notify the Commission and submit... information" when "conformance with certain code requirements is impractical for its facility." Per 50.55a(f)(5)(iv), "the basis for this determination must be demonstrated to the satisfaction of the Commission not later than 12 months after the expiration of... each subsequent 120-month period of operation during which the test is determined to be impractical."

3) Why is this now a hardship?

   Oconee Response:

   Reference the relief request, 50.55a(f)(5)(iii), 50.55a(f)(6)(i), and LIC-102 (rev 2) Table 5. Duke Energy is seeking relief on the basis of impracticality, not hardship. The last line of Table 5 guidance states, "Do not mention hardship or unusual difficulty in the SE."

   Duke Energy has considered this requirement to be impractical since the requirement was recognized. In the spring of 2003, it was recognized that measurements for the upper motor bearing housing were not being taken, the location was not accessible, and readings taken on the domed shell would not be meaningful, even if it could be accessed safely. Although identified in 2003, this request was not submitted until March 2010. Once Duke Energy's internal weaknesses in the processing of relief requests were addressed, the existing requests were developed and submitted based on their relative priority.

4) Obtaining axial vibration data is important data. Has Oconee considered obtaining the axial data at a different location such as the bottom of the motor near the pump/motor coupling area? If it is possible to obtain axial data in another position.

Oconee Response:

Yes, it is possible to take the axial data on the lower bearing on the HPI pumps and consideration was given for taking data at this location. If the axial readings were taken on the lower bearing housing (the only accessible place for axial measurement on HPI motors), the readings would be significantly attenuated due to the distance from the thrust bearing. To be detectable at the lower motor bearing, the axial forces applied on the thrust bearing faces would be transmitted through the upper bearing housing, down the external housing around the stator, into the lower bearing housing (which is 55.5 inches away from upper housing) and finally to a vibration probe magnetically attached to the lower bearing housing. Taking readings at this location as an alternative to the code requirement would still require a request for relief from the code (OMa-1996 Subsecton ISTB 4.7.4 b). Ultimately the additional pump vibration data proposed as an alternative was determined to add more value towards the monitoring and trending for pump degradation.