UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

March 12, 2014

Mr. Kelvin Henderson
Site Vice President
Duke Energy Corporation
Catawba Nuclear Station
4800 Concord Road
York, SC 29745-9635

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION (NOED) FOR CATAWBA NUCLEAR STATION, UNIT 1 [NOED NO. 14-2-001]

Dear Mr. Henderson:

By letter dated March 10, 2014, you requested the NRC to exercise discretion and not enforce compliance with the actions required in Catawba Nuclear Station (CNS), Unit No. 1, Technical Specification (TS) 3.8.1, "AC Sources – Operating," Required Action B.4; TS 3.7.8, "Nuclear Service Water System (NSWS)," Required Action A.1; TS 3.6.6, Containment Spray System," Required Action A.1; and TS 3.7.5, "Auxiliary Feedwater (AFW) System," Required Action B.1. You first informed the NRC of the potential for requesting a NOED on Tuesday, March 4, 2014, through the NRC Senior Resident Inspector. Your letter documented information which had been previously discussed with the NRC staff during a telephone conference on March 6, 2014, at 10:00 a.m. The principal NRC staff members who participated in the telephone conference are listed in the enclosure. We understand that the condition resulting in the need for this Notice of Enforcement Discretion (NOED) was corrected on March 9, 2014, at 3:40 a.m. allowing you to exit from the TS Limiting Condition for Operation (LCO) and from this NOED.

On March 4, 2014, at 3:29 a.m., the 1A diesel generator (DG) was declared inoperable for planned maintenance activities. TS LCO 3.8.1 was entered due to the inoperability of the 1A DG. TS LCO 3.7.8 was affected because the 1A DG is required to be operable for the NSWS Train 1A to be considered operable. TS LCO 3.7.5 and TS LCO 3.6.6 were also affected due to the inoperable NSWS train. Part of the maintenance activity involved taking position measurements of the piston connecting rod bearings. These measurements are taken once every 18 months for each DG. While taking these measurements, it was discovered that the bearing for connecting rod number 7 had rotated approximately 25 degrees from its normal horizontal position (i.e., the bearing insert had rotated within the connecting rod). Based on this observation, Duke Energy Corporation (Duke) decided to replace the bearing to allow for analysis of the cause of the rotation. Duke determined that replacement of the bearing and returning the 1A DG to service could not be completed prior to the end of the TS LCO action statement on March 7, 2014, at 3:29 a.m. After inspection of the removed bearing, your staff determined that the amount of movement did not challenge the ability of the bearing to perform its function.

You requested that a NOED be granted pursuant to the NRC's policy regarding the exercise of discretion for an operating facility, set out in Section 3.8 of the Enforcement Policy and NRC Inspection Manual Chapter 0410, Notices of Enforcement Discretion, and that the NOED be effective for a period of 60 hours beyond the established 72 hour TS LCO until 4:29 p.m. on March 9, 2014, for those required actions statements specified above. This letter documents our telephone conversation of March 6, 2014, at 8:00 p.m. when we verbally granted your NOED request.

The NRC staff determined that the requested NOED was warranted to avoid an unnecessary transient as a result of compliance with license conditions, and, thus, minimize potential safety consequences and operational risks. The NRC staff's basis for the exercise of discretion included: 1) deferring non-essential surveillances and other maintenance activities on equipment required by the TS and in the switchyard; 2) staffing the Standby Shutdown Facility (SSF) to improve the reliability of the SSF by reducing the confusion/stress associated with the early stages of a fire; 3) assignment of dedicated operators to transfer plant control from the control room and power for the hydrogen igniters from normal power to SSF power; 4) assignment of continuous fire watches with suppression capability for fire areas deemed to be of higher risk to reduce the probability that small fires could grow to a challenging fire before being discovered and extinguished; 5) administrative protection of the DG 1B and support equipment, the SSF, the Unit 1 turbine driven AFW pump, and the switchyard and Unit 1 transformer yard such that no surveillances or maintenance activities would be allowed except for emergent issues; 6) operations staff would contact the system dispatcher once per day to ensure no significant grid perturbations are expected and that there were no planned switching actions in the switchyard; 7) the work scheduled is well defined and maintenance on the 1A DG, required testing, and required system realignments to restore to operable status can be completed within 48 hours; and 8) the calculated Incremental Conditional Core Damage Probability (ICCDP) increased between 5E-7 and 1E-6 and Incremental Conditional Large Early Release Probability (ICLERP) increased between 5E-8 and 1E-7. Although these values are above the guidance threshold values in Inspection Manual Chapter 0410 we find them acceptable. The NRC resident inspectors at Catawba independently verified that these compensatory measures were implemented. You also stated that you would expedite inspections to verify the three remaining DGs did not have a similar condition. We understand these inspections and any associated maintenance will occur systematically following the 1A DG work completion and its return to service.

The NRC staff determined that the information in your letter requesting the NOED was consistent with your verbal request. During the NRC's evaluation of your risk analysis, the staff noted that your evaluation of the as-found condition of the 1A DG determined that the bearing could have successfully accomplished its safety-related function. Significant effort was placed on the sensitivity of the analysis for common cause failure. Because the available information could not rule out that a similar condition could exist on 1B DG, the NRC staff concluded the condition represented a small increase in the failure probability of the 1B DG due to common cause. NRC risk analysts performed an analysis of this situation using the best available information, including common cause, and concluded that the impact of a 60 hour increase in unavailability of the 1A DG resulted in an increase between 5E-7 and 1E-6 ICCDP and an increase between 5E-8 and 1E-7 ICLERP. This was based on your risk evaluation, an independent confirmatory analysis that was performed using the Catawba SPAR internal events

model, and the inclusion of common cause factors. This value is above the threshold guidance in IMC 0410, however, as stated in IMC 0410, this threshold is a guideline, not an absolute limit. We acknowledge that the risk probabilities estimated in your submittal were within the guidelines of IMC 0410.

On the basis of the NRC staff's evaluation of your request, we have concluded that granting this NOED is consistent with the Enforcement Policy and NRC staff guidance and has no adverse impact on public health and safety or the environment. The NRC staff also determined that the action is consistent with protecting the public health and safety, and that safety will not be impacted unacceptably by exercising this discretion. Therefore, as we informed you during the 8:00 p.m. phone call on March 6, 2014, we exercised discretion to not enforce compliance with the completion times associated with TS 3.8.1, Required Action B.4; TS 3.7.8, Required Action A.1; TS 3.6.6, Required Action A.1; and TS 3.7.5, Required Action B.1; until 4:29 p.m. on March 9, 2014. It is noted that you used approximately 48 hours of the 60 hours requested and officially terminated the NOED when the 1A DG was returned to service after completing repairs on March 9, 2014, at 3:40 a.m. No follow-up license amendment request is expected to be submitted by the licensee as a result of this NOED.

Sincerely,

/RA/

Richard P. Croteau, Director
Division of Reactor Projects

Docket No.: 50-413
License No.: NPF-35

Enclosure: List of Participants

cc distribution via ListServ

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On the basis of the NRC staff's evaluation of your request, we have concluded that granting this NOED is consistent with the Enforcement Policy and NRC staff guidance and has no adverse impact on public health and safety or the environment. The NRC staff also determined that the action is consistent with protecting the public health and safety, and that safety will not be impacted unacceptably by exercising this discretion. Therefore, as we informed you during the 8:00 p.m. phone call on March 6, 2014, we exercised discretion to not enforce compliance with the completion times associated with TS 3.8.1, Required Action B.4; TS 3.7.8, Required Action A.1; TS 3.6.6, Required Action A.1; and TS 3.7.5, Required Action B.1; until 4:29 p.m. on March 9, 2014. It is noted that you used approximately 48 hours of the 60 hours requested and officially terminated the NOED when the 1A DG was returned to service after completing repairs on March 9, 2014, at 3:40 a.m. No follow-up license amendment request is expected to be submitted by the licensee as a result of this NOED.

Sincerely,

/RA/

Richard P. Croteau, Director
Division of Reactor Projects

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☒ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE ☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER:_____ ☒ SUNSI REVIEW COMPLETE ☐ FORM 665 ATTACHED

OFFICE	RIII:DRP	RII:EICS	NRR	RII:DRP			
SIGNATURE	GJM /RA/	CFE /RA/	Via email	RPC /RA/			
NAME	GMcCoy	CEvans	RLantz	RCroteau			
DATE	03/12/2014	03/12/2014	03/12/2014	03/12/2014			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\DRPII\RPB1\CATAWBA\SDPS AND SERP\CATAWBA NOED 140306.DOCX

Letter to Kelvin Henderson from Richard P. Croteau dated March 12, 2014

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION (NOED) FOR CATAWBA NUCLEAR STATION, UNIT 1 [NOED NO. 14-2-001]

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List of Participants

NRC Region II Attendees

Rick Croteau, Director, DRP
Bill Jones, Deputy Director, DRP
Gerald McCoy, Branch Chief, DRP Branch 1
Curt Rapp, Senior Project Engineer, DRP Branch 1
John Hanna, Senior Risk Analyst, DRP
Andy Hutto, Senior Resident Inspector, Catawba
Adam Ruh, Project Engineer, DRP Branch 1

NRC HQ Attendees

Ryan Lantz, Division of Operating Reactor Licensing (DORL), Deputy Division Director
Robert Pascarelli, DORL Plant Licensing Branch 2-1 (LPL 2-1), BC
Jason Paige, DORL LPL2-1 PM
Ed Miller, DORL LPL2-1 PM
Jacob Zimmerman, Electrical Engineering Branch (EEEB), BC
Roy Mathew, EEEB, Team Leader
Sunil Weerakkody, PRA Operational Support Branch (APOB), BC
Jeffrey Mitman, APOB
Jeff Circle, APOB, Team Leader
Gerald Waig, Technical Specifications Branch (STSB)
Tim Lupold, Component Performance, NDE, and Testing Branch (EPNB)
Robert Wolfgang, EPNB

Enclosure