



Michael J. Annacone
526 South Church Street
Charlotte, NC 28202

Mailing Address:
Mail Code EC07H / P.O. Box 1006
Charlotte, NC 28201-1006
980-373-2544
704-382-6056 fax

June 26, 2013

10CFR50.4

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

Catawba Nuclear Station (CNS), Units 1 and 2
Docket Numbers 50-413 and 50-414
Renewed License Numbers NPF-35 and NPF-52

McGuire Nuclear Station (MNS), Units 1 and 2
Docket Numbers 50-369 and 50-370
Renewed License Numbers NPF-9 and NPF-17

Oconee Nuclear Station (ONS), Units 1, 2, and 3
Docket Numbers 50-269, 50-270, and 50-287
Renewed License Numbers DPR-38, DPR-47, and DPR-55

Subject: Duke Energy Carolinas, LLC, Capability to Perform Multi-Unit Dose Assessment Capability

- Reference:**
1. Nuclear Energy Institute (NEI) Letter, *Commitment for Implementation of Multi-Unit Dose Assessment Capability*; Pollock to Wiggins; dated March 14, 2013 (ADAMS Accession Number ML13073A522)
 2. NRC Letter, *Industry Implementation of Multi-Unit Dose Assessment Capability*; Wiggins to Pollock; dated February 27, 2013 (ADAMS Accession Number ML13029A632)

In accordance with Reference 1, Duke Energy Carolinas, LLC, hereby provides the following information concerning the capability to perform offsite dose assessment during an event involving multiple release points (e.g., releases from reactor containments and spent fuel pools) at the Catawba, McGuire, and Oconee Nuclear Stations:

1. Summary of current capability to perform multi-unit/multi-source dose assessment.

In the event of a multi-source or multi-unit release accident, dose assessors would take the following actions:

Qualified dose assessors responding to the onsite Technical Support Center (TSC) and the offsite Emergency Operations Facility (EOF) located in Charlotte, North Carolina, initiate dose assessment functions within 75 minutes of a declared emergency. Radioactive releases are modeled using the computer software program Raddose V and procedure SH/O/B/2005/001, Emergency Response Offsite Dose Projections.

A001
MLC

The components of the Raddose V program used by dose assessors allows for evaluating up to five concurrent release pathways for each calculated step. For each release pathway, one out of ten accident types can be specified, including a loss of coolant accident (LOCA), steam generator tube rupture, LOCA outside containment, and a fuel handling accident. Each accident type can model accident spectrums associated with normal reactor coolant, fuel gap releases or core melt. Raddose V can also model other onsite radiation monitors including unit vent low, high, and high-high range monitors concurrently. Other onsite units can be also modeled using a direct isotopic sample entry ($\mu\text{Ci}/\text{ml}$) or release rate, if known (Ci/sec).

The Raddose V program determines source term and calculates projected offsite dose to the public on a per unit basis. Therefore, in order to perform multi-unit dose assessments, the Raddose V program must be run from more than one computer workstation and the results summed together. Currently, the Raddose V program is installed on multiple computer workstations located within each station's TSC and the EOF.

2. Anticipated schedule to establish multi-unit/multi-source dose assessment capability on an interim and/or permanent basis if required.

Duke Energy has the capability to perform multi-unit/multi-source dose assessments. Notwithstanding, procedural enhancements have been identified that, when implemented, will strengthen that capability. The identified procedural enhancements are expected to be implemented by December 31, 2014.

3. A description of the administrative process that will be used to track completion of key actions (e.g., commitment tracking or corrective action program and tracking identifiers).

No key actions or milestones were identified. The procedural enhancements identified in response to Item 2, however, will be tracked within the corrective action program as Problem Investigation Program (PIP) G-13-0585.

This letter does not contain any new or revised regulatory commitments. Any actions discussed in this letter should be considered intended or planned enhancement actions.

Should you have any questions concerning the content of this letter, please contact Michael Austin, at 980-373-4134 (michael.austin@duke-energy.com).

Sincerely,



Michael J. Annacone,
Vice President - Organizational Effectiveness &
Regulatory Affairs

xc:

V.M. McCree, Region II Administrator
U.S. Nuclear Regulatory Commission
Marquis One Tower
245 Peachtree Center Avenue NE, Suite 1200
Atlanta, Georgia 30303-1257

John Boska, Project Manager (ONS)
U.S. Nuclear Regulatory Commission
One White Flint North, Mailstop O-8G9A
11555 Rockville Pike
Rockville, MD 20852-2738

J.S. Kim, Project Manager (MNS and CNS)
U.S. Nuclear Regulatory Commission
One White Flint North, Mailstop O-8C2A
11555 Rockville Pike
Rockville, MD 20852-2738

E. L. Crowe
NRC Senior Resident Inspector
Oconee Nuclear Station

J. Zeiler
NRC Senior Resident Inspector
McGuire Nuclear Station

G. A. Hutto, III
NRC Senior Resident Inspector
Catawba Nuclear Station

Justin Folkwein
American Nuclear Insurers
95 Glastonbury Blvd., Suite 300
Glastonbury, CT 06033-4453

Ms. Sue Perkins-Grew, NEI
Nuclear Energy Institute
1201 F St., NW, Suite 1100
Washington, DC 20004-1218