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

**LEVY NUCLEAR PLANT, UNITS 1 AND 2  
DOCKET NOS. 52-029 AND 52-030  
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 131 RELATED  
TO STANDARD REVIEW PLAN SECTION 12.03-12.04, RADIATION PROTECTION DESIGN  
FEATURES, FOR THE LEVY NUCLEAR PLANT, UNITS 1 AND 2, COMBINED LICENSE  
APPLICATION**

- References:
- 1) Letter from Donald Habib (NRC) to Christopher M. Fallon (DEF), dated September 2, 2015, "Request for Additional Information Letter No. 131 Related to Standard Review Plan Section 12.03-12.04, Radiation Protection Design Features, for the Levy Nuclear Plant Units 1 and 2, Combined License Application" (ML15245A738).
  - 2) Letter from Christopher Fallon (DEF) to Nuclear Regulatory Commission (NRC), dated July 1, 2015, "Revised Response to Request for Additional Information Letter No. 121 Related to SRP Sections 6.2.5 and 6.4", for the Levy Nuclear Plant, Units 1 and 2 Combined License Application, Serial: NPD-NRC-2015-027 (ML15189A247).
  - 3) Letter from Christopher M. Fallon (DEF) to Nuclear Regulatory Commission (NRC), dated November 2, 2015, "Response to Request for Additional Information Letter No. 130 Related to Standard Review Plan Section 12.03-12.04, Radiation Protection Design Features, for the Levy Nuclear Plant Units 1 and 2, Combined License Application", Serial: NPD-NRC-2015-042.

Ladies and Gentlemen:

Duke Energy Florida, LLC (DEF) hereby submits our response to the Nuclear Regulatory Commission's (NRC) request for additional information provided in Reference 1. On July 1, 2015, DEF provided submittal NPD-NRC-2015-027 (Reference 2) that described Main Control Room (MCR) design and safety analysis changes applicable to the DEF Levy COL application. The changes in the **AP1000**<sup>®</sup> certified design were made to satisfy regulatory requirements for post-accident conditions in the main control room.

During an NRC Staff audit of Westinghouse document APP-SSAR-GSC-722," AP1000 - Containment Penetration and Direct Dose Evaluation Outside Containment in Post-Accident Condition," Revision 2, the staff raised questions about penetration sealants applied to the main steam and main feed water piping penetrations through the Shield Building. The staff requested more information about penetration sealant design function and environmental qualification. In

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response to the staff audit questions, **AP1000**<sup>®</sup> post-accident shielding calculations are being revised to eliminate credit for the penetration sealant in shielding models in order to demonstrate negligible influence of penetration sealants on calculated MCR dose and post-accident radiation zone results. As stated in the response to question 12.03-4 in NPD-NRC-2015-042, "Response to Request for Additional Information Letter No. 130" (Reference 3), post-accident calculations supporting the current DEF MCR design no longer credits the existence of penetration sealants to meet regulatory dose requirement for the control room.

Other than removing penetration sealant from AP1000 post-accident shielding calculations, the DEF COL application does not contain any changes to penetration sealants applied to the main steam and main feed water piping penetrations. The DEF COL application continues to incorporate, by reference, the design descriptions and requirements in the **AP1000**<sup>®</sup> Certified Design for penetration sealants. **AP1000**<sup>®</sup> DCD Section 6.4.2.4 specifies "Penetration sealing materials are selected to meet barrier design requirements and are designed to withstand specific area environmental design requirements and remain functional and undamaged during and following an SSE." This design specification is certified information treated as resolved under the provisions of 10 CFR 52.63 and the sealant materials selected during detailed design are required to meet this specification. Therefore, no change to the sealant design requirements in the **AP1000**<sup>®</sup> DCD or DEF COL are necessary.

If you have any further questions, or need additional information, please contact Bob Kitchen at (704) 382-4046, or me at (704) 382-9248.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 2, 2015.

Sincerely,



Christopher M. Fallon  
Vice President  
Nuclear Development

Enclosures/Attachments:  
None

cc: U.S. NRC Region II, Regional Administrator  
Mr. Donald Habib, U.S. NRC Project Manager