



April 30, 2010

Docket No. 50-443
SBK-L-10083

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

Seabrook Station
2009 Annual Radioactive Effluent Release Report

Pursuant to 10CFR 50.36a (a).2 and Technical Specification 6.8.1.4, NextEra Energy Seabrook, LLC submits the Annual Radioactive Effluent Release Report for 2009. A copy of the Offsite Dose Calculation Manual (ODCM) is also provided pursuant to Technical Specification 6.13.c. A summary of the changes to the ODCM is included in Enclosure 1, Appendix A.

The following information is provided in the enclosures:

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| Enclosure 1 | Effluent release data as required by Regulatory Guide 1.21 |
| Enclosure 2 | Joint frequency distributions of wind speed, wind direction and atmospheric stability |
| Enclosure 3 | Radiation dose assessment |
| Enclosure 4 | Offsite Dose Calculation Manual (ODCM), Revision 33 |

Should you have any questions regarding this letter, please contact David Robinson, Chemistry Department Manager, at (603) 773-7496.

Sincerely,

NextEra Energy Seabrook, LLC


Michael O'Keefe
Licensing Manager

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A009
NRR

cc: S.J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager, Project Directorate I-2
W.J. Raymond, NRC Senior Resident Inspector
Jason Martinez, American Nuclear Insurers