

December 5, 2005

Mr. Gene St. Pierre  
Site Vice President  
FPL Energy Seabrook, LLC  
Seabrook Station  
P.O. Box 300  
Seabrook, NH 03874

SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR FPL ENERGY SEABROOK, LLC, REGARDING SEABROOK STATION [TAC No. MC 9007, NOED No. 2005-01-01]

Dear Mr. St. Pierre:

By letter dated December 1, 2005, (Accession Number ML053390385), you requested that the NRC exercise discretion not to enforce compliance with the actions required in Technical Specification (TS) Limiting Condition for Operation (LCO) 3.8.3.1, "Onsite Power Distribution - Operating." Your letter documented information previously discussed with the NRC in a telephone conference on November 29, at 11:30 p.m. The principal NRC staff members who participated in that telephone conference included:

NRC Region I Staff

- Brian E. Holian, Director, Division of Reactor Projects (DRP)
- David C. Lew, Deputy Director, DRP
- Marsha K. Gamberoni, Deputy Director, Division of Reactor Safety (DRS)
- Paul G. Krohn, Branch Chief, DRP
- John F. Rogge, Chief, Engineering Branch 3, DRS
- William A. Cook, DRS Senior Reactor Analyst
- Glenn T. Dentel, Senior Resident Inspector, Seabrook Station

NRC Headquarters Staff

- Edwin M. Hackett, Deputy Director, Division of Operating Reactor Licensing (DORL), Nuclear Reactor Regulation (NRR)
- Cornelius F. Holden, Deputy Director, DORL, NRR
- Duc T. Nguyen, Electrical Engineer, Division of Engineering, NRR
- Darrell J. Roberts, Chief, Plant Licensing Branch I-2, NRR
- Lakshminarasimh Raghavan, NOED Process Expert, DORL, NRR
- Jin W. Chung, Probabilistic Safety Assessment Branch, NRR
- Michael X. Franovich, Probabilistic Safety Assessment Branch, NRR
- Brian J. Benney, Project Manager, NRR
- G. Edward Miller, Project Manager, Seabrook Station, NRR

You stated that on November 30, 2005, at 3:23 a.m., the plant would not be in compliance with TS LCO action statement 3.8.3.1.b, due to a failure of the inverter 1F which would require the

unit to be placed in a hot shutdown condition by November 30, 2005, at 9:23 a.m. (within the next 6 hours) and in cold shutdown by December 1, 2005, at 3:23 p.m. (within the following 30 hours). You requested that a Notice of Enforcement Discretion (NOED) be issued pursuant to the NRC's policy regarding exercise of discretion for an operating facility, set out in Section VII.C, of the "General Statement of Policy and Procedures for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600, and be effective for the period of 18 hours, ending at 9:23 p.m. on November 30, 2005. This letter documents our telephone conversation from approximately 11:30 p.m., on November 29, to 2:15 a.m. on November 30, 2005, during which we orally issued this NOED. We understand that the condition causing the need for this NOED was corrected by you, allowing you to exit from TS LCO 3.8.3.1 and from this NOED at 3:22 p.m. on November 30, 2005.

Your staff requested this NOED following a loss of the inverter 1F (one of six components that supplies instrument power) output at 3:23 a.m., on November 29, 2005, during which a static transfer switch successfully transferred the associated power panel to its maintenance power supply. A troubleshooting team was assembled, a plan developed, and the vendor contacted for consultation and concurrence. The inverter was shutdown and continuity checks were performed on the fuses associated with the three power legs of the inverter (each inverter power leg is composed of main silicon controlled rectifiers (SCRs), commutating SCRs, diodes, and gate driver boards). The continuity checks revealed that the A-2 leg fuse was blown. The fuse was replaced and the inverter was restarted. The inverter successfully started and ran unloaded for 35 minutes when it tripped, and the A-2 leg fuse just replaced was found blown. Through further troubleshooting and consultation with the vendor you stated that:

- successful restart of the inverter made it unlikely that the logic cards were the cause of the inverter failure;
- the fact that the inverter blew the same A-2 leg fuse provided high likelihood the problem was associated with the A-2 leg;
- an intermittent failure that allowed the inverter to start and run for a period of time indicated that the failure was unlikely to be caused by one of the discreet components (i.e., SCRs or diodes), but more likely the SCR gate driver boards; and,
- additional testing of the A-2 leg SCRs and diodes was performed with no failures or problems identified.

Based upon your troubleshooting, vendor manual information, and input from vendor technical representatives, you concluded that there was a high likelihood that the SCR gate driver boards were the most likely cause of the inverter failure. A search of the inverter history did not identify any recent failures or problems with the inverter.

Your staff concluded that it was likely inverter 1F repairs could be completed in an additional 18 hours (42 hours total) including time to perform post-maintenance testing and restore the inverter to operable status. You stated that compliance with TS 3.8.3.1 would force a shutdown of Seabrook Station prior to completing restoration of the inverter. You also stated that such a shutdown introduced an unnecessary plant transient with potential safety consequences and operational risks.

You stated that, although inverter 1F would be inoperable during the requested period of extended operation, the electrical loads would be powered from the maintenance power supply,

a supply which would power the required safety-related instrumentation assuming no additional failures. If a loss of electrical power were to occur, you stated that the momentary interruption of power to the maintenance supply would not create a plant transient and power would be restored shortly through the 'B' emergency diesel generator.

Your evaluation concluded that the Incremental Conditional Core Damage Probability (ICCDP) for this failure over a 48-hour duration was  $3.14E-11$ , and the Incremental Conditional Large Early Release Probability (ICLERP) for this duration was  $9.46E-14$ . These values were less than the NOED guidance thresholds of an ICCDP of  $5E-7$  and an ICLERP of  $5E-8$ . In order to provide additional assurance that other critical systems would not be impacted and to enhance the availability of selected systems, should a loss-of-offsite-power or a loss of the maintenance supply occur, you proposed compensatory measures. These compensatory measures included: (1) providing just-in-time training for licensed operators on-shift during the period of the NOED for a loss of this power panel and the associated operator contingency actions; (2) issuing a standing order and establishing a contingency plan to manually start a room ventilation fan for the 'B' train emergency diesel generator in the event that both fans cannot be started remotely; and (3) ensuring that no maintenance or surveillance activities will be conducted on the emergency diesel generators, Supplemental Emergency Power System, or in the Seabrook Station substation. Therefore, after review by your Station Operating Review Committee, you concluded that this NOED would involve no net increase in radiological risk.

You determined that Section B.2.1, Criterion 1.a and all applicable criteria in Section D to the NRC Inspection Manual, Part 9900: Technical Guidance, "Operation - Notices of Enforcement Discretion," dated February 7, 2005, had been met, and that this NOED is intended to avoid unnecessary transients as a result of compliance with the license condition and, thus, minimize potential safety consequences and operational risks. Additionally, you committed to submit a follow-up license amendment request within four working days of our oral granting of the NOED.

On the basis of the staff's evaluation of your request, which includes the above considerations, we have concluded that granting this NOED was consistent with the Enforcement Policy and staff guidance, and had no adverse impact on public health and safety or the environment. Therefore, we exercised discretion to not enforce compliance with Technical Specification 3.8.3.1 for an 18 hour period starting at 3:23 a.m. on November 30, 2005, and ending at 9:23 p.m. on November 30, 2005.

Subsequent to our oral granting on the NOED at 2:20 a.m. on November 30, 2005, the condition causing the need for this NOED was corrected by you, allowing you to exit from the TS LCO and from this NOED at 3:22 p.m. on November 30, 2005. Additionally, the NRC resident inspectors assigned to the Seabrook Station independently verified that the compensatory actions described above were implemented.

As stated in the Enforcement Policy, the NRC will continue to review and take appropriate actions, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

**/RA/**

Brian E. Holian, Director  
Division of Reactor Projects

Docket No.: 50-443  
License No.: NPF-86  
NOED No.: 2005-01-01

Enclosure: Request for Regional Enforcement Discretion dated December 1, 2005

cc w/encl:

J. A. Stall, FPL Senior Vice President, Nuclear & CNO  
J. M. Peschel, Manager - Regulatory Programs  
M. Kiley, Plant General Manager - Seabrook Station  
J. Dent, Assistant Plant Manager  
R. S. Kundalkar, FPL Vice President - Nuclear Engineering  
D. G. Roy, Nuclear Training Manager - Seabrook Station  
Office of the Attorney General, Commonwealth of Massachusetts  
P. McLaughlin, Attorney General, State of New Hampshire  
P. Brann, Assistant Attorney General, State of Maine  
M. S. Ross, Attorney, Florida Power & Light Company  
R. Walker, Director, Dept. of Public Health, Commonwealth of Massachusetts  
B. Cheney, Director, Bureau of Emergency Management  
C. McCombs, Director, MEMA  
Health Physicist, Office of Community & Public Health, State of New Hampshire  
Administrator, Bureau of Radiological Health, State of New Hampshire  
J. Roy, Director of Operations, Massachusetts Municipal Wholesale Electric Company  
T. Crimmins, Polestar Applied Technology  
R. Backus, Esquire, Backus, Meyer and Solomon, New Hampshire  
Town of Exeter Board of Selectmen  
S. Comley, Executive Director, We the People of the United States  
R. Shadis, New England Coalition Staff  
M. Metcalf, Seacoast Anti-Pollution League

As stated in the Enforcement Policy, the NRC will continue to review and take appropriate actions, to the extent that violations were involved, for the root cause that led to the noncompliance for which this NOED was necessary.

Sincerely,

**/RA/**

Brian E. Holian, Director  
Division of Reactor Projects

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**SISP Review Complete: PGK (Reviewer's Initials)**

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