



Serial: NPD-NRC-2009-044
March 27, 2009

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

**LEVY NUCLEAR POWER PLANT, UNITS 1 AND 2
DOCKET NOS. 52-029 AND 52-030
SUPPLEMENTAL INFORMATION FOR ENVIRONMENTAL REVIEW: NATIVE FILES –
COOLING TOWER PLUME AND THERMAL PLUME MODELING**

Reference: Letter from Garry D. Miller (PEF) to U.S. Nuclear Regulatory Commission (NRC), dated March 27, 2009, "Response to Request for Additional Information Regarding the Environmental Review", Serial: NPD-NRC-2009-042

Ladies and Gentlemen:

The purpose of this letter is to provide supplemental information to support the NRC's review of the Levy Nuclear Power Plant Units 1 and 2 (LNP) Environmental Report (ER). In the referenced letter, Progress Energy Florida, Inc. (PEF) noted that the input and output files for the modeling analysis of the cooling towers for LNP 1 and LNP 2 using the CALPUFF and the AERMOD models would be provided under separate cover due to the need to process the data in native file format (see NRC RAI # 5.3.3-1, PGN RAI # L-0083). The referenced letter also noted that the input files used in the analyses for thermal plume modeling in the Gulf of Mexico for the combined CREC and LNP discharges would be provided under separate cover (see NRC RAI # 5.3.2.1-1, PGN RAI # L-0097). This letter provides the native files noted in the referenced letter.

The supplemental information contained in the files on the CD provided as Attachment 1 is provided to support the NRC's review of the LNP ER, but does not comply with the requirements for electronic submission in the NRC Guidance Document. The NRC Staff requested the files be submitted in their native formats, required for utilization in the software employed to support the ER development.

As discussed with the NRC's environmental project manager responsible for review of the LNP ER, the files provided on the attached CD are of a nature that is not easily convertible to PDF output files. Furthermore, PEF understands that converting the information to PDF output files would not serve the underlying purpose of the submittal; i.e., to provide the raw, unprocessed data to enable reviewers to evaluate software used in the LNP application.

Enclosure 1 provides a list of files that are included on the CD provided as Attachment 1.

If you have any questions, please contact Bob Kitchen at (919) 546-6992 or me at (919) 546-6107.

*Dory
MRO*

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

Executed on March 27, 2009.

Sincerely,

A handwritten signature in black ink, appearing to read "Garry D. Miller". The signature is fluid and cursive, with a long horizontal stroke at the end.

Garry D. Miller
General Manager
Nuclear Plant Development

Enclosure and Attachment

cc (with 4 copies of Enclosures/Attachment):

Mr. Douglas Bruner, U.S. NRC Environmental Project Manager

cc (without attached CD):

U.S. NRC Director, Office of New Reactors/NRLPO
U.S. NRC Office of Nuclear Reactor Regulation/NRLPO
U.S. NRC Region II, Regional Administrator
Mr. Brian C. Anderson, U.S. NRC Project Manager

The following files are being provided on the Attachment 1 CD:

**LNP – Cooling Tower Plume Visibility Analysis (Reference: NRC RAI # 5.3.3-1)
(Sheet 1 of 2)**

File Name	File Description
CTEMISS.EXE	Application that calculates the hourly emissions of water vapor and "excess" temperature for each cooling tower cell
CTEMISS.INP	Input Data File for the CTEMISS application
Q_03.PT2	Output Data File for the CTEMISS application; Point Source Data File the CALPUFF Dispersion Model, Plume and Receptor Modes
Q_03.LST	List Data File for the CTEMISS application
GNV03I_REV.ASC	2003 Gainesville, Florida Meteorological Data for CTEMISS application and CALPUFF Dispersion Model
CALPUFF.EXE	CALPUFF Dispersion Model
PUFF2.INP	Input Data File for the CALPUFF Dispersion Model, Plume Mode
FOG_PM.DAT	Output Data File for the CALPUFF Dispersion Model, Plume Mode
PUFF_PM.LST	List File for the CALPUFF Dispersion Model, Plume Mode
POSTPM2.EXE	Plume Mode Fog Post Processor, generates the hourly visible plume results
POSTPM.INP	Input Data File for the Plume Mode Fog Post Processor
POSTPM.LST	List File for the Plume Mode Fog Post Processor
GNV03I.144	2003 Gainesville, Florida CD144 Meteorological Data File for the Plume Mode and Receptor Mode Fog Post Processors
SUMPOST.EXE	Interprets the hourly data produced by the Plume Mode Fog Post Processor
SUMPOST.INP	Input Data File for the SUMPOST Program
SUMPOST.LST	Output Data File for the SUMPOST Program, summarizes the visible plume length and results written to POSTPM.LST (Daylight Hours Only)
SUMPOST (ALL).LST	Output Data File for the SUMPOST Program, summarizes the visible plume length and results written to POSTPM.LST (All Hours)
PUFF3.INP	Input Data File for the CALPUFF Dispersion Model, Receptor Mode
FOG_RM.DAT	Output Data File for the CALPUFF Dispersion Model, Receptor Mode
PUFF_RM.LST	List File for the CALPUFF Dispersion Model, Receptor Mode
POSTRM2.EXE	Receptor Mode Fog Post Processor, identifies potential events

**LNP – Cooling Tower Plume Visibility Analysis (Reference: NRC RAI # 5.3.3-1)
(Sheet 2 of 2)**

File Name	File Description
POSTRM.INP	Input Data File for the Receptor Mode Fog Post Processor
POSTRM.RH	Output Data File for the Receptor Mode Fog Post Processor, details the relative humidity histograms for each receptor
POSTRM.LST	List File for the Receptor Mode Fog Post Processor, details the total number of hours of plume-induced fog or ice

Note: The files in **Bold** are summarized in the TM "LNP – Cooling Tower Plume Visibility Analysis," dated March 3, 2008.

**LNP – Cooling Tower Plume Deposition Analysis (Reference: NRC RAI # 5.3.3-1)
(Sheet 1 of 2)**

File Name	File Description
BPIPPRM.EXE ^(a)	Building Profile Input Program for PRIME
LEVY3P.GPW, LEVY3P.PIP, LEVY3P.SO, LEVY3P.SUM, LEVY3P.TAB, LEVY3P.PRW	BPIP-Prime Processing Files and Results
AERMOD.EXE ^(a)	AERMOD Dispersion Model
GNV01.SFC	Meteorological data based on 2001 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Hourly Surface Data File)
GNV02.SFC	Meteorological data based on 2002 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Hourly Surface Data File)
GNV03.SFC	Meteorological data based on 2003 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Hourly Surface Data File)
GNV04.SFC	Meteorological data based on 2004 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Hourly Surface Data File)
GNV05.SFC	Meteorological data based on 2005 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Hourly Surface Data File)
GNV01.PFL	Meteorological data based on 2001 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Upper Air Profile File)
GNV02.PFL	Meteorological data based on 2002 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Upper Air Profile File)
GNV03.PFL	Meteorological data based on 2003 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Upper Air Profile File)
GNV04.PFL	Meteorological data based on 2004 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Upper Air Profile File)
GNV05.PFL	Meteorological data based on 2005 Gainesville, Florida surface observation and Jacksonville, Florida upper air data (Upper Air Profile File)
LEVY3_2001_PM.DTA	Input Data File, 2001 Meteorological Data
LEVY3_2002_PM.DTA	Input Data File, 2002 Meteorological Data

**LNP – Cooling Tower Plume Deposition Analysis (Reference: NRC RAI # 5.3.3-1)
(Sheet 2 of 2)**

File Name	File Description
LEVY3_2003_PM.DTA	Input Data File, 2003 Meteorological Data
LEVY3_2004_PM.DTA	Input Data File, 2004 Meteorological Data
LEVY3_2005_PM.DTA	Input Data File, 2005 Meteorological Data
LEVY3_2001_PM.GRF	Graphic Output Data File, 2001 Meteorological Data
LEVY3_2002_PM.GRF	Graphic Output Data File, 2002 Meteorological Data
LEVY3_2003_PM.GRF	Graphic Output Data File, 2003 Meteorological Data
LEVY3_2004_PM.GRF	Graphic Output Data File, 2004 Meteorological Data
LEVY3_2005_PM.GRF	Graphic Output Data File, 2005 Meteorological Data
LEVY3_2001_PM.LST	Output Data File, 2001 Meteorological Data
LEVY3_2002_PM.LST	Output Data File, 2002 Meteorological Data
LEVY3_2003_PM.LST	Output Data File, 2003 Meteorological Data
LEVY3_2004_PM.LST	Output Data File, 2004 Meteorological Data
LEVY3_2005_PM.LST	Output Data File, 2005 Meteorological Data

Notes:

The files in **Bold** are summarized in the TM "LNP – Cooling Tower Plume Deposition Analysis," dated May 22, 2008.

a) The actual program used in the modeling analysis is part of a licensed software package. The executable (.EXE) files in the directory of files were downloaded directly from EPA's web site on March 2, 2009.

**LNP – Thermal Plume Modeling Assessment of the Combined CREC and LNP
Discharges into the Gulf of Mexico (Reference: NRC RAI # 5.3.2.1-1)
(Sheet 1 of 1)**

File Name	File Description
RAI 5.3.2.1-1 LNP Discharge.vpp.db	Data Base File
RAI 5.3.2.1-1 LNP Discharge.001.db	Data Base File