

September 17, 2009

MEMORANDUM TO: Stephanie Coffin, Chief  
AP1000 Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

FROM: Brian Anderson, Senior Project Manager */RA/*  
AP1000 Projects Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

SUBJECT: TRIP REPORT – APRIL 28-29, 2009 – SEISMOLOGY AND  
GEOTECHNICAL SITE VISIT IN SUPPORT OF THE LEVY  
COUNTY UNITS 1 AND 2 COMBINED LICENSE  
APPLICATION

This report summarizes the Nuclear Regulatory Commission's (NRC) trip to the Levy County site and surrounding area during the period of April 28 - April 29, 2009, to support the seismology and geotechnical review of the Progress Energy Florida, Inc. (PEF) Levy County Units 1 and 2 combined license (COL) application. The attendance list for the site visit is provided as Enclosure 1. The agenda for the site visit is provided as Enclosure 2. During the site visit, PEF provided two presentations to the NRC staff. The first presentation was an overview of the development of technical information to support the final safety analysis report section 2.5, "Geology, Seismology, and Geotechnical Engineering" of the Levy County COL application. This presentation also provided highlights of sections 2.5.1, 2.5.2, 2.5.3 and 2.5.4 (Geology; Seismology; Seismic Sources; and Site Geotechnical Characterization/Foundations) of the Levy County COL application. The second presentation provided detailed information related to the computer modeling used by PEF to characterize the Levy County site response analysis. These presentations are available in the Agencywide Documents Access and Management System under accession numbers ML092600399 and ML092600387, respectively.

The purpose of the trip was to orient the staff with the proposed Levy County site and to observe geologic features that are discussed in the Levy County COL application. The site visit also allowed the staff and PEF to discuss the draft requests for additional information (RAIs) that had been issued prior to the site visit. During the visit, the NRC staff conducted a site overview field tour. As part of the field tour, the staff examined an outcrop of the foundation rock unit. These outcrop examinations occurred along the Waccasassa River, about 16 miles northwest of the site, and allowed the staff to observe fractures in the Avon Park Formation. The field tour also included examination of some of the rock cores that had been collected in support of the Levy County COL application. Specifically, the staff looked at the cores obtained from the proposed centerline locations of the Levy County Units 1 and 2 containment structures and turbine buildings. The NRC staff discussed several RAIs that had been issued as drafts prior to the site visit.

S. Coffin

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The purpose of these RAI discussions was to ensure that all RAI questions were understood by PEF and that no clarifying information was needed. Following the site visit, all draft RAI questions were issued to PEF in final RAI letters.

CONTACT: Brian Anderson, NRO/DNRL/NWE1  
(301) 415-9967

Docket Nos.: 52-029 and 52-030

Enclosures:  
As stated

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The purpose of these RAI discussions was to ensure that all RAI questions were understood by PEF and that no clarifying information was needed. Following the site visit, all draft RAI questions were issued to PEF in final RAI letters.

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As stated

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LEVY COUNTY NUCLEAR POWER PLANT, UNITS 1 & 2  
SEISMOLOGY AND GEOTECHNICAL SITE VISIT  
APRIL 28 – 29, 2009

LIST OF ATTENDEES

| NAME                 | ORGANIZATION                        |
|----------------------|-------------------------------------|
| Brian Anderson       | Nuclear Regulatory Commission (NRC) |
| Carl Constantino     | NRC                                 |
| Cliff Munson         | NRC                                 |
| Becky Karas          | NRC                                 |
| Pravin Patel         | NRC                                 |
| Wayne Bieganousky    | NRC                                 |
| Ricardo Rodriguez    | NRC                                 |
| Vladimir Graizer     | NRC                                 |
| Stephanie Devlin     | NRC                                 |
| Meralis Plaza-Toledo | NRC                                 |
| Gerry Stirewalt      | NRC                                 |
| Mike McKown          | U.S. Army Corps of Engineers        |
| Alan Nelson          | U.S. Geological Survey (USGS)       |
| Art McGarr           | USGS                                |
| Mark Hudson          | USGS                                |
| Oliver Boyd          | USGS                                |
| Randy Cox            | USGS                                |
|                      |                                     |
| Mike Franklin        | Progress Energy Florida, Inc. (PEF) |
| Ron Knott            | PEF                                 |
| Jim Nevill           | PEF                                 |
| Vann Stephenson      | PEF                                 |
| David Waters         | PEF                                 |
| Mike Edwards         | PEF                                 |
| Bill Elliott         | CH2M Hill                           |
| Kathryn Hanson       | AMEC Geo                            |
| Conrad Ginther       | Rizzo Associates                    |
| Diego Rivera         | Rizzo Associates                    |
| Paul Rizzo           | Rizzo Associates                    |
| A.K. Singh           | Sargent and Lundy                   |

Enclosure 1

LEVY COUNTY NUCLEAR POWER PLANT, UNITS 1 & 2  
SEISMOLOGY AND GEOTECHNICAL SITE VISIT  
APRIL 28 – 29, 2009

AGENDA

Tuesday, April 28

8:30 am        Introductions, Overview Discussion, Site Overview Presentation  
10:30 am        Field Tour, Site Orientation  
12:30 pm        Working Lunch  
1:00 pm        Continuation of Field Tour, Site Orientation  
5:30 pm        Meeting Adjourned

Wednesday, April 29

8:30 am        Applicant Presentations  
9:30 am        Documentation and Records Review, Review of Supporting Calculations and Data, Discussion of Draft RAIs  
12:30 pm        Working Lunch  
1:00 pm        Continuation of Documentation and Records Review, Review of Supporting Calculations and Data, Discussion of Draft RAIs  
5:00 pm        Closeout Discussion  
5:30 pm        Meeting Adjourned

**Enclosure 2**