

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**DOCKET NO. 100009-EI
FLORIDA POWER & LIGHT COMPANY**

**IN RE: NUCLEAR POWER PLANT COST RECOVERY AMOUNT
TO BE RECOVERED DURING THE PERIOD
JANUARY - DECEMBER 2011**

REBUTTAL TESTIMONY OF:

PAUL R. JACOBS

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5 **AUGUST 3, 2010**

6

7 **Q. Please state your name and business address.**

8 A. My name is Paul R. Jacobs and my business address is 700 Universe Blvd, Juno
9 Beach, Florida, 33408.

10 **Q. By whom are you employed and what is your position?**

11 A. I am employed by Florida Power & Light Company (FPL) as Engineering
12 Supervisor, New Nuclear Project (NNP). In this position, I am responsible for
13 providing engineering support for the activities associated with Federal and State
14 licensing processes.

15 **Q. Please describe your duties and responsibilities with regard to the development
16 of new nuclear generation to meet FPL customer needs.**

17 A. Since 2006 I have been a member of the team that investigated Nuclear Steam
18 Supply System options for adding new nuclear generation to FPL's system.
19 Currently, I am the engineering lead for NNP in the development of FPL's Turkey
20 Point Nuclear Units 6 and 7 (Turkey Point 6 & 7).

21 **Q. Please describe your educational background and professional experience.**

22 A. I graduated from the State University of New York, Maritime College in 1966 with a
23 Bachelor of Science Degree in Nuclear Engineering. Following graduation, I served
24 as a Coast Guard Licensed Third Assistant Engineer with the Military Sea
25 Transportation Service. I subsequently worked for a major architect engineering
26 firm on new nuclear plant design and construction and a nuclear industry consulting

1 firm prior to starting an engineering business that provided consulting and
2 management services to nuclear generation businesses and the energy conservation
3 market. Since 2006, I have worked on the Turkey Point 6 & 7 team and currently
4 serve as the NNP Engineering Supervisor.

5 **Q. What is the purpose of your rebuttal testimony?**

6 A. The purpose of my rebuttal testimony is to respond to certain incorrect statements
7 made by SACE Witness Gundersen concerning the COLA licensing process with
8 respect to the Turkey Point 6 & 7 project.

9 **Q. Please summarize your rebuttal testimony regarding Witness Gundersen.**

10 A. In his testimony, Witness Gundersen makes an unsupported assertion that the
11 AP1000 design may not be licensable in Florida. Witness Gundersen's statement
12 demonstrates his unfamiliarity with the Turkey Point 6 & 7 Project and the
13 combined operating license application (COLA) filed by FPL at the NRC. Even a
14 cursory review of FPL's COLA by a qualified expert in nuclear plant licensing
15 matters would highlight that Witness Gundersen's assertion is not supported by
16 the facts. Consequently, his testimony should not be relied upon by the
17 Commission.

18 **Q. Does Mr. Gundersen's testimony correctly represent the NRC staff review of
19 geological issues associated with the licensing of Turkey Point Units 6&7?**

20 A. No. Mr. Gundersen's testimony contains only innuendoes, inferences, and
21 conclusions that are simply not supported by the facts. Based on his
22 misunderstanding of an NRC Staff document (NUREG-1793), Witness Gundersen
23 incorrectly claims that "the generic AP1000 design may not even be licensable for
24 any locations in Florida due to geological considerations." This assertion is
25 incorrect. The document that Witness Gundersen refers to makes no findings about

1 the suitability of any particular site. Rather, the NRC Staff document addresses the
2 criteria a COL applicant would apply to determine the types of site investigation that
3 would be necessary to confirm that the selected site falls within the site parameters
4 of the AP1000 Design Certification Document (DCD). Simply put, contrary to Mr.
5 Gundersen's claim, NUREG-1793 states nothing regarding the likelihood that an
6 AP1000 could be licensed at the Turkey Point site.

7 **Q. Please explain the process described by the NRC Staff in NUREG-1793.**

8 A. In the NRC process, a generic design is licensed based on certain assumptions about
9 the location where the design will be placed. Through its COLA, an applicant
10 demonstrates that its proposed site is adequate to host a generic design, like the
11 AP1000. If the site characteristics present at the proposed site fall within those
12 specified in the DCD, no further analysis is required from the applicant. Such a site
13 is called a "uniform" site. However, if the proposed site's parameters do not fall
14 within the DCD criteria, then the site is considered a "nonuniform" site and a site
15 specific evaluation is required to be performed. The NRC Staff highlights in
16 NUREG-1793 that for nonuniform sites, Sections 2.5.1 and 2.5.4.6.1 of the DCD
17 outline the geological investigations to be conducted to determine if the site is
18 suitable to host an AP1000.

19 **Q. Has FPL followed the NRC Staff guidance from NUREG-1793?**

20 A. Yes. On June 30, 2009, FPL submitted the COLA for Turkey Point Units 6 & 7 and
21 by a letter dated September 4, 2009 the NRC staff determined that the COLA
22 submitted by FPL contained the information required by its regulations to initiate a
23 technical review. In section 2.5.1 of the COLA, FPL provides detailed information
24 on the regional and site geology; section 2.5.4 presents information on the properties
25 and stability of the soil and rocks; and section 3.8.5 of the DCD, Descriptions of the

1 Foundations, was incorporated by reference into the COLA. Based on its site
2 investigation and analysis, FPL concluded that the geological site characteristics
3 meet the DCD requirements for siting an AP1000. Consequently, Gundersen's
4 assertion that the Turkey Point site is unlicensable is incorrect and not supported by
5 any facts.

6 **Q. Please comment with respect to Witness Gundersen's conclusions regarding**
7 **questions posed to FPL by the NRC Staff concerning geology and seismology.**

8 A. Witness Gundersen references a May 28, 2010 letter from the NRC and alleges that
9 the letter highlighted concerns over seismic risk at Turkey Point. However, this
10 allegation is not supported by the facts and is a mischaracterization of the NRC's
11 original request to FPL, which was contained in a September 4, 2009 letter. The
12 NRC Staff has requested additional information with respect to the geologic and
13 tectonic characteristics of the 200 mile radius surrounding the Turkey Point 6 & 7
14 site. The NRC staff requested the information to develop a detailed review
15 schedule of the COLA and has never indicated in writing or otherwise that there
16 was any technical concern relative to the seismic design of the plant. Requests
17 like the ones highlighted by Witness Gundersen are part of the normal COLA
18 review process and do not represent a flaw in the Westinghouse AP1000 design or
19 in the selection of the Turkey Point Unit 6 & 7 site. Accordingly, it is incorrect to
20 attribute any significance to the NRC's Staff request for additional information
21 beyond the fact that the NRC is discharging its responsibilities to review the
22 application, and Gundersen's attempt to do so in his testimony should be rejected
23 by the Commission.

24 **Q. Does this conclude your testimony?**

25 A. Yes.