BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 120015-EI
FLORIDA POWER & LIGHT COMPANY

IN RE: PETITION FOR RATE INCREASE BY FLORIDA POWER & LIGHT COMPANY

TESTIMONY & EXHIBITS OF:

J. A. STALL

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FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF J.A. STALL

DOCKET NO. 120015-EI

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is J. A. (Art) Stall. My address is 1803 SW Foxpoint Trail, Palm City, Florida 34990.

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

A. I am currently a consultant for NextEra Energy, Inc. ("NextEra"). I previously worked for FPL Group, Inc. (now NextEra) as President, FPL Group Nuclear, and in other nuclear operational positions for NextEra's subsidiaries. In that position, I reported directly to the Chairman and Chief Executive Officer, independent of line management of NextEra's nuclear power operations.

Q. Please describe your previous duties and responsibilities as President, FPL Group Nuclear.

A. The Nuclear organization reports directly to the Chief Operating Officer of NextEra. Accordingly, I was responsible for the overall strategic direction for all of NextEra's nuclear assets, consisting of the four nuclear units owned by Florida Power & Light Company ("FPL" or the "Company") in Florida (two at Turkey Point Nuclear Plant and two at St. Lucie Nuclear Plant), and the four nuclear units owned by FPL's affiliates outside of Florida (one unit at Seabrook Station in Seabrook, New Hampshire; one unit at Duane Arnold Energy Center in Palo, Iowa; and two units at Point Beach Nuclear Plant in Two Rivers, Wisconsin).

Q. Please describe your educational background and overview of your experience in nuclear operations.

A. I earned my Bachelor of Science degree in nuclear engineering from the University of Florida in 1977. I also earned a Master's degree in Business Administration from Virginia Commonwealth University in 1983. I am a career nuclear professional with approximately 35 years of nuclear operating experience. I joined Virginia Power Company in 1977, where I held various positions of increasing responsibility, including superintendent of operations, assistant station manager for safety and licensing, and superintendent of technical services. I also held a senior nuclear reactor operator license from the U.S. Nuclear Regulatory Commission ("NRC") while working at Virginia Power Company's nuclear plants. In 1996, I joined FPL as the Site Vice President at the St. Lucie Nuclear Plant. From 2000 to 2001, I was Vice President for Nuclear Engineering at FPL. I was named Senior Vice President, Nuclear Operations, and Chief Nuclear Officer at FPL in June 2001, and in 2008, I was named Executive Vice President, Nuclear Operations, and Chief Nuclear Officer. In these positions, I was responsible for the day-to-day operations of all of FPL and NextEra Energy Resources' (formerly known as FPL Energy) nuclear plants. In January 2009, I was named President, FPL Group Nuclear, and on May 1, 2010, I retired.

Q. What are your current duties and responsibilities as a consultant to the Company?

A. In my current position as a consultant to the Company, I provide advice and counsel to the Company on nuclear power issues. For example, at the Company's request, I provided a presentation to members of the Florida Legislature in March 2011 on the details of the Fukushima nuclear accident in Japan.

Q. Are you sponsoring any exhibits in this case?

A. Yes, I am sponsoring the following Exhibits:

- JAS-1, Schedule of Minimum Filing Requirements
- JAS-2, NRC Performance Indicators
- JAS-3, NRC Inspection Findings
- JAS-4, NRC Regulatory Status

Q. Are you sponsoring or co-sponsoring any Minimum Filing Requirements ("MFRs") in this case?

A. Yes, I am sponsoring the MFRs listed in JAS-1.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to: (1) provide an overview of FPL's nuclear operations; (2) describe how FPL's nuclear fleet performance has yielded significant benefits to FPL customers; (3) describe challenges facing FPL, including recent industry events; and (4) discuss the capital and O&M expenditures for the 2013 Test Year for FPL's nuclear operations.

Q. Please summarize your testimony.

A. FPL's nuclear power plants are a source of safe, reliable, clean and cost effective base-load energy for FPL's customers. These plants are a key component of FPL's energy mix that provide significant value to FPL's customers in terms of fuel savings, enhanced system fuel diversity, and reductions of greenhouse gas ("GHG") emissions. My testimony summarizes FPL's efforts to help ensure the continued safe, reliable, clean and cost effective operation of FPL's nuclear power plants to meet the significant operational and regulatory challenges facing these plants.

II. BACKGROUND ON FPL'S NUCLEAR ENERGY OPERATIONS

Q. Please describe FPL's nuclear plants.

A. FPL's long and successful involvement with nuclear power started in the mid-1960s with the first order for nuclear generation in the south. FPL's plans to build nuclear units at the Turkey Point Plant were announced in 1965, and the first nuclear unit achieved commercial operation in 1972. FPL is currently licensed by the NRC to operate the St. Lucie Nuclear Plant, Units 1 and 2, and the Turkey Point Nuclear Plant, Units 3 and 4. Turkey Point Units 3 and 4 are pressurized water reactors designed by Westinghouse. Unit 3 commenced commercial operation in 1972, and Unit 4 did so in 1973. St. Lucie Units 1 and 2 are pressurized water reactors designed by Combustion Engineering (now owned by Westinghouse). Unit 1 went into commercial operation in

1976, and Unit 2 did so in 1983. The investment to build these units in the 1960s, 70s, and 80s has yielded significant value to FPL's customers in terms of safe, reliable, clean, cost-effective, base-load energy.

Q. Describe the ownership structure for FPL's nuclear units.

A. FPL owns 100 percent of Turkey Point Units 3 and 4 and St. Lucie Unit 1. FPL owns 85.10449 percent of St. Lucie Unit 2. The balance of St. Lucie Unit 2 is owned by the Florida Municipal Power Agency, which owns 8.806 percent, and the Orlando Utilities Commission, which owns 6.08951 percent.

Q. How long are FPL's nuclear units currently licensed to operate?

A. In the late 1990s, FPL had the foresight to begin the process to renew the operating licenses so that the benefits of those nuclear units could continue well into the 21st century. In June 2002, FPL received renewed operating licenses from the NRC for Turkey Point Units 3 and 4, and in October 2003, FPL received renewed operating licenses from the NRC for St. Lucie Units 1 and 2. The renewed licenses give FPL the authority to operate each unit for 20 years past the original license expiration date. Accordingly, the current license expiration dates are for Turkey Point Unit 3, 2032; for Turkey Point Unit 4, 2033; for St. Lucie Unit 1, 2036; and for St. Lucie Unit 2, 2043.

III. FPL'S NUCLEAR PLANT PERFORMANCE

Q. What metrics are used by FPL to measure the performance of FPL's nuclear plants?

A. FPL uses many metrics to measure the performance of its nuclear plants, including nuclear safety, regulatory performance (as measured by the NRC), overall plant performance (as measured by an objective numerical index maintained by the Institute for Nuclear Power Operations ("INPO")), personnel safety, and reliability. INPO is an organization that promotes the highest levels of safety and reliability by promoting excellence in the operation of nuclear electric generating plants. FPL is a member of INPO.

Q. How does the NRC measure FPL's nuclear safety record?

A. Nuclear safety is by far the most important aspect of owning and operating FPL's nuclear fleet. FPL takes its commitment to protect the health and safety of the public very seriously. The nuclear safety aspects of FPL's nuclear operations are comprehensively regulated by the NRC, which maintains and tracks a set of performance indicators as objective measures of nuclear safety performance for commercial U.S. nuclear plants. These indicators monitor the performance of initiating events, safety systems, fission product barrier integrity, emergency preparedness, occupational and public radiation safety, and physical protection (security). As shown in Exhibit JAS-2, all four of FPL's nuclear units are in the "green" band of all NRC Performance Indicators in 2011, indicating the best or highest band for these ratings of

nuclear safety performance. As shown in Exhibit JAS-3, the NRC inspection findings for 2011 were also "green," again indicating the best or highest band for these ratings of nuclear safety performance.

Q. How do FPL's nuclear plants compare to the remainder of the industry in terms of the NRC performance system?

A. Based on the NRC's performance indicators, FPL's plants compare favorably with the remainder of the U.S. nuclear industry. The NRC uses its Performance Indicators and inspection activities to determine the appropriate level of agency oversight and response, including the need for supplemental inspections, senior management meetings, and regulatory actions.

All of the U.S. nuclear plants are listed in the NRC's Action Matrix which categorizes each plant into one of five regulatory status columns based on overall regulatory performance. The five regulatory columns in order of best-to-worst regulatory performance are: (1) licensee response; (2) regulatory response; (3) degraded cornerstone; (4) multiple/degraded cornerstone; and (5) unacceptable performance.

Approximately 12.5 percent of the 104 nuclear plants in the United States are characterized by the NRC as having a level of plant performance requiring increased NRC regulatory oversight. Of those plants: (1) the "regulatory response" category includes nine plants having at least one regulatory finding of low to moderate safety significance in the past 12 months; (2) the

"degraded cornerstone" category includes three plants having more than one finding of low to moderate safety significance in the last 12 months; and (3) the "multiple/repetitive degraded cornerstone" category includes one plant having multiple regulatory findings of low to moderate safety significance, a regulatory finding of substantial safety significance, or a finding of high safety significance (or some combination of these), usually coupled with inadequate corrective actions.

As illustrated by the NRC Action Matrix Summary, Exhibit JAS-4, none of FPL's units falls into these categories requiring increased regulatory oversight. This regulatory structure places a premium on FPL's ability to identify and correct problems. Degraded nuclear safety performance can result in increased NRC inspection activity, which in turn would require increased management attention to these NRC inspections and increased O&M costs. Due to FPL's consistent regulatory performance in 2011, FPL's nuclear units have remained in the "licensee response" column of the NRC's Action Matrix which results in the normal baseline inspection program. In summary, FPL is proud of its nuclear performance, both from a safety and regulatory standpoint. However, this performance cannot be sustained without continued investment in our nuclear plants and our people.

Q. Please describe the operational performance of FPL's nuclear fleet as measured by the numerical index maintained by INPO.

A. The operational performance of FPL's nuclear fleet reflects a strong nuclear safety and reliability record. FPL measures its nuclear plant performance using the INPO index. The INPO index is a metric of nuclear plant safety and reliability widely used in the U.S. nuclear power industry. The INPO index is calculated by summing weighted values of the following key indicators:

1. Unit Capability Factor (15 percent);
2. Forced Loss Rate (15 percent);
3. Unavailability of High Pressure Safety Injection System (10 percent);
4. Unavailability of Auxiliary Feedwater System (10 percent);
5. Unavailability of Emergency AC Power System (Site Average) (10 percent);
6. Unplanned Automatic Reactor Trips (10 percent);
7. Collective Radiation Exposure (10 percent);
8. Nuclear Fuel Reliability/Fuel Rod Defects (10 percent);
9. Quality of Secondary Water Chemistry (five percent); and
10. Industrial Safety (five percent).

The INPO index calculation was modified for 2011, but FPL continued to internally track the INPO index based on the prior definition through the end of 2011 for consistency in comparing current results to prior performance indicators.

FPL's INPO index is currently trending below the industry average. This is primarily driven by down time of the nuclear units in 2010 and 2011. There are times when a conservative decision made by FPL management to shut down a unit or keep a unit shut down to address a potential safety issue adversely impacts the INPO index. Conservative decision-making means that safety issues will be addressed and broken equipment will be repaired when nuclear safety could otherwise be adversely impacted, even if longer down time is required. Depending on the nature of the shutdown, unit down time can impact multiple inputs to the INPO index, including unit capability factor, forced loss rate, unplanned automatic reactor trips, collective radiation exposure, and the quality of secondary water chemistry.

Q. Please describe the personnel safety performance of FPL's nuclear fleet.

A. FPL has a "Zero Injury" goal for all workers, including employees and contractors. FPL measures its personnel safety performance using a standard from the Occupational Safety and Health Administration ("OSHA") of the U.S. Department of Labor. The standard is known as an OSHA recordable injury and the nuclear fleet measures personnel safety performance using an INPO performance indicator known as the Total Industrial Safety Accident ("TISA") rate. The TISA rate measures the injury rate for all employees and contractors that work at our nuclear sites, and it is based on the total number of injuries per 200,000 man-hours worked over an 18 month period. An injury rate is an effective measure of personnel safety performance because it takes into account the amount of work undertaken during the reporting period

in man-hours. The current TISA rate over the 18 month period ending December 31, 2011 for the nuclear fleet is 0.08 (*i.e.*, 8 injuries ÷ 19,284,779 man-hours worked X 200,000 man-hours). The injuries are industrial in nature and not radiological. The TISA rate includes injuries that would involve radiological consequences, but there have been none. FPL is committed to conducting its nuclear operations in a safe and responsible manner that avoids injuries of all kinds and promotes the physical safety and well being of its employees.

Q. Please describe FPL's nuclear generation for 2011.

A. FPL's nuclear plants generated over 22 million megawatt hours ("MWh") of energy in 2011. FPL has safely generated this electricity by following its Nuclear Excellence Model ("NEM"), which is the foundation of its commitment to achieve and sustain excellence in all aspects of its nuclear operations. The strategic focus areas of the NEM are: (1) Operational Excellence; (2) Organizational Effectiveness; (3) Generation Reliability; and (4) Effective Business and Financial Performance. This strategic focus has yielded significant value to FPL's customers in terms of safe, reliable, clean, cost-effective, base-load energy. In addition to being proactive in the design, maintenance and operation of its nuclear plants, FPL stands ready to face emerging issues in accordance with the core principles of the NEM to provide the best service possible to its customers.

Q. Please summarize the benefits of nuclear generation in Florida to FPL's customers.

A. FPL's nuclear generating assets are necessary to maintain fuel cost savings, enhanced system fuel diversity, and reductions in FPL's system GHG, sulfur dioxide, nitrogen oxides and Particulate Matter emissions, all for the benefit of FPL's customers. FPL's nuclear generation has resulted in over $14 billion in fuel savings from January 2000 through December 2011. This translates into direct savings for FPL customers as these cost savings are passed directly to the customers through lower Fuel Cost and Purchased Power Recovery Clause charges.

In addition, FPL's nuclear operations in Florida have a significant positive impact on our local communities. FPL's families live, work and go to school in the communities near our plants. There are thousands of contract workers at FPL's sites that eat in local restaurants, shop in stores, and stay in hotels providing a tremendous economic benefit.

Q. Please describe the benefits to FPL's customers of being affiliated with an even larger nuclear fleet.

A. FPL and its affiliates collectively comprise the third largest nuclear operator in the United States, owning and operating eight nuclear units at five locations. FPL's affiliates own interests in and operate the Duane Arnold Energy Center in Iowa, the Point Beach Nuclear Plant, Units 1 and 2, in Wisconsin, and Seabrook Station in New Hampshire.

There are important benefits and synergies to FPL and its customers from the affiliation with a larger nuclear fleet. First, FPL is able to use operational experience from its affiliate plants and incorporate lessons learned to the FPL nuclear fleet. By doing so, FPL has made improvements that have increased equipment reliability which prevent events from occurring, resulting in improved nuclear safety and plant reliability. FPL also receives operational experience in occupational health and safety matters that improve plant industrial and radiological safety. Second, FPL continuously pursues standardization of programs and procedures, where applicable, and both shares and receives data on best practices to the benefit of FPL's nuclear fleet, improving nuclear safety, efficiencies, and reducing costs. Third, FPL is able to leverage contracts for goods and services among the nuclear fleet, resulting in more favorable pricing and contract terms for its nuclear fleet. Fourth, FPL is able to maintain and have access to a staff of subject matter experts to address specific technical or regulatory issues that may arise at its nuclear fleet. It is increasingly difficult and expensive for smaller nuclear operators or operators of single nuclear units to retain such in-house expertise. Fifth, in a similar manner, each of FPL's and its affiliates' nuclear plants maintains an inventory of spare parts, enabling plants to share critical spare parts in some circumstances. Sixth, with the increased demand for nuclear workers in the nuclear industry and the increase in retirements associated with an aging workforce, recruiting and retaining talent has become a significant challenge. One of the key benefits of operating a large nuclear fleet is the existence of

numerous business opportunities for employees to pursue career advancement in our nuclear program in different jobs at different locations. All of these benefits to FPL and its customers and the local communities in Florida are not available to the operator of a smaller nuclear fleet or a single nuclear site.

IV. INDUSTRY AND FPL CHALLENGES

Q. Please describe the significant natural disaster that occurred in Japan in 2011 and its impact on nuclear power plants.

A. On March 11, 2011, the Great East Japan Earthquake, rated a magnitude 9.0, occurred 81 miles east of the Sendai Region in Japan. The earthquake triggered powerful tsunami waves. The earthquake and tsunami produced widespread devastation across northeastern Japan, significantly impacting the infrastructure in the northeastern coastal areas of Japan. The combination of events resulted in a loss of cooling to the reactors and the spent fuel pools at Fukushima Daiichi ("Fukushima") that severely damaged the nuclear fuel in the four southerly Fukushima units, 1 through 4, causing several large hydrogen explosions at the site.

Q. What has FPL done in response to the event in Japan?

A. FPL convened a response team within several hours of learning of the consequences of the events in Japan and monitored the events in the days and weeks following the tsunami. In addition, FPL has been conducting technical

reviews of all aspects of the event in conjunction with INPO, the NRC and the Nuclear Energy Institute ("NEI").

Q. Have the reviews and analyses performed by FPL and the NRC following the Fukushima event reaffirmed that FPL's nuclear plants meet or exceed all safety requirements?

A. Yes. Based on FPL's reviews and those conducted by the NRC, FPL's plants are safe and meet or exceed all applicable safety requirements. There are many differences between the circumstances in Japan that caused the natural disaster and the nuclear event and the circumstances in Florida. Broadly, these differences include:

1. Different plant designs

The Fukushima plants were Boiling Water Reactors ("BWR") and FPL's plants are Pressurized Water Reactors ("PWR"). The FPL PWR design is fundamentally different than the BWR design used at Fukushima and the PWR features are considered to have more defense-in-depth in response to an event like the Japanese earthquake.

2. Different seismology

FPL's nuclear power plants are outside of known "high hazard" earthquake zones. Nevertheless, each plant has been specially designed to withstand a variety of natural events such as earthquakes, storm surges and flooding associated with hurricanes, tornadoes and high winds without losing capability

to perform required safety functions. For instance, the Turkey Point Plant withstood the direct impact of Category 5 Hurricane Andrew in 1992.

3. Different operating standards

Through regulatory requirements imposed by the NRC, guidance provided by INPO, and initiatives and actions taken by FPL in response to industry events such as Three Mile Island, Chernobyl, and the events of September 11, 2001, FPL has significantly improved processes, procedures, training, and plant equipment to improve safety at its plants. Those same responses and changes have not been incorporated at plants in other nations.

Each of these differences favors Florida and FPL with respect to nuclear safety.

Q. Do those differences mean that FPL will not have to make any changes as a result of the events at Fukushima?

A. No. Those differences mean that FPL's plants are safe. One of the core values for FPL's nuclear fleet is that it is a learning organization and has a self improving culture. Furthermore, a hallmark of the U.S. nuclear industry is that when events occur anywhere in the world, the industry learns from those events and takes actions to prevent the possibility of similar events occurring elsewhere. For example, the U.S. nuclear industry made thousands of changes to its plants and processes following the 1979 accident at Three Mile Island

and after the terrorist attacks of September 11, 2001. These changes are, in part, the reason that U.S. plants remain safe.

Q. What types of actions will FPL take and what types of changes will FPL make as a result of the Fukushima accident?

A. Even though FPL and the NRC have concluded that all U.S. plants are safe, the NRC has published its "*Recommendations for Enhancing Reactor Safety in the 21st Century*," in an 82-page report dated July 12, 2011. In that report, the NRC has set out a comprehensive list of near-term and long-term actions that it plans to take to enhance safety. Those actions include imposing orders on licensees to take actions and promulgating new regulatory requirements. FPL must and will comply with all of the requirements that result from applicable orders and regulations.

Q. Please provide a summary of the types of actions that the NRC is recommending that will impact FPL.

A. The following list is a high-level summary of some of the actions that the NRC is recommending:

1. Establish a new regulatory framework that balances defense in depth and risk considerations;

2. Reevaluate and upgrade seismic and flooding protection of structures, systems and components for each operating reactor;

3. Evaluate potential enhancements to the capability to prevent or mitigate seismically induced fires and floods;

4. Strengthen station blackout mitigation capability at all operating and new reactors for design basis and beyond design basis external events;

5. Identify insights about hydrogen control and mitigation inside containment to prevent destructive hydrogen explosions;

6. Enhance spent fuel cooling and makeup capability and instrumentation;

7. Strengthen and integrate onsite emergency response capabilities;

8. Require that facility emergency plans address prolonged station blackout and multi-unit events; and

9. Pursue emergency planning topics related to decision making, radiation monitoring, and public education.

Q. Were there any other natural events which impacted nuclear plants in the U.S?

A. Yes. On August 23, 2011, a magnitude 5.8 earthquake occurred near Mineral, Virginia, close to the North Anna Power Station, Units 1 and 2. The earthquake caused the reactor plants to automatically shut down, which resulted in a loss of off-site power. The plant declared an "Alert," which is the second lowest of the four emergency classification levels used by U.S. nuclear plants. The systems required to maintain the station in a safe condition were not damaged in this event and following safety reviews and inspections by the NRC, both North Anna units were returned to full power on November 28, 2011.

In addition, during the summer of 2011, the Cooper Nuclear Station and the Fort Calhoun Nuclear Power Plant, both in Nebraska, declared Unusual Events, the lowest of the four emergency classification levels used by U.S. nuclear plants, due to flooding from the Missouri River. There were no radiological consequences from these events in Virginia and Nebraska.

Q. What is the current status of the NRC's regulatory efforts concerning these natural events?

A. The events in Japan are still unfolding. However, the recommendations made by the NRC, to date, will have significant financial impacts on the nuclear industry. The NRC is currently prioritizing its recommendations as a result of all of these natural events, and is expected to begin issuing orders and promulgating new rules in 2012.

Q. Will the new NRC rules and orders financially impact FPL?

A. Yes. FPL has included O&M and capital costs of $144,000 and $2.5 million, respectively, in the 2013 test year related to these anticipated new requirements. However, the total financial impact of all of these new requirements is not yet known, and FPL believes that over time, the costs of these new regulatory efforts could become much greater. These enhancements will be in addition to the equipment reliability upgrades and other capital projects that are ongoing to maintain and improve the performance of the units as they become older.

Q. Is FPL facing other challenges at its nuclear plants?

A. Yes. Our nuclear professionals are working very hard to maintain and improve the reliability of the systems, structures and components at our facilities as that equipment continues to age. This work involves inspections and continuous monitoring, predictive maintenance, corrective maintenance, engineering analyses, and capital improvements. In addition, the NRC continues to impose more and more requirements that require both human and financial capital to address. These activities all become more challenging due to the fact that our workforce will begin to retire in large numbers in the next few years.

V. FINANCIAL EXPENDITURES TO SUSTAIN LONG TERM PERFORMANCE

Q. Please summarize FPL's capital expenditures for the Nuclear Business Unit.

A. FPL has been proactively participating with the industry, including the NRC, NEI and INPO to ensure that our plants remain safe and our response efforts to the events in Fukushima are appropriately managed. In addition, as the systems, structures and components in the plants continue to age, FPL is challenged to improve its plant monitoring, assessment and improvement efforts. FPL will continue to invest in equipment programs, staffing, and training to enhance nuclear safety and improve equipment reliability.

Q. What is included in FPL's capital investment effort?

A. FPL will invest the necessary capital to update equipment and maintain its nuclear facilities in order to maximize fuel savings, enhance system fuel diversity, and permit the safe and reliable operation of its nuclear units into their renewed license terms, with a current projection of $222 million (excluding fuel) during 2013.

Q. Please describe some examples of FPL's capital investment efforts.

A. FPL will continue to implement long term equipment reliability projects that address ongoing component issues as part of the day to day operations of St. Lucie and Turkey Point. The primary components addressed in these projects consist of replacement and refurbishment of pumps, motors, valves and breakers. FPL estimates capital expenditures of $64 million on these projects in 2013. St. Lucie has implemented the Reactor Coolant Pump ("RCP") Motor Replacement Program which is a multi-year effort to replace and refurbish the original RCPs at St. Lucie to ensure safe and reliable operation into the renewed license term. FPL estimates capital expenditures of $40 million for this project in 2013. Also, St. Lucie has implemented a multi-year effort to replace the Emergency Diesel Generators ("EDGs"), voltage regulators and radiators. The EDGs provide backup power to various pumps and components to maintain the plant in a safe condition upon the loss of offsite power. With few if any spare parts available for this equipment, it is necessary for FPL to replace this equipment to maintain the high reliability

required of the EDGs. FPL estimates capital expenditures of $16 million for this project in 2013.

Q. Does the forecast for 2013 Test Year O&M costs for the Nuclear Business Unit exceed the Commission's benchmark using adjusted 2010 as the benchmark year?

A. No. FPL's 2013 Test Year O&M for the Nuclear Production does not exceed the Commission's benchmark using adjusted 2010 as the benchmark year.

Q. What efforts has the Nuclear Business Unit implemented to reduce O&M costs from 2010 to 2013?

A. The Nuclear Business Unit focused efforts to retain its workforce through the economic downturn which resulted in fewer turnovers and the need for fewer new hires to overlap staffing for knowledge transfer. This resulted in reduced payroll, retention and relocation costs. In addition, the Nuclear Business Unit has been able to enter into more flexible fleet contractual arrangements and is now able to better leverage its fleet service and material purchases through a well-organized and staffed fleet team and improved processes. The combination of these efforts reduced O&M expenditures by $20 million when comparing the 2013 expense to the 2010 rate case decision adjusted for inflation.

Q. Please discuss the challenges associated with developing and maintaining a qualified high performing nuclear workforce.

A. There is growing competition for talent in the nuclear industry, which is being driven by a shrinking skilled labor pool, coupled with a high demand for

skilled workers. There is also general attrition related to retirements because of the aging nuclear workforce. Another factor is the decrease in the number of U.S. nuclear engineering degree programs, from 65 in 1980 to just over 30 in 2011. There has also been talent migration from commercial nuclear operators to contracting firms, suppliers and engineering firms. Finally, there is renewed interest in nuclear power, based on the number of NRC combined construction/operating license submittals to date and announced submittals, placing a higher premium on qualified nuclear workers.

There are also special cost factors driven by federal regulatory requirements applicable to operators who must be licensed by the federal government to operate FPL's nuclear plants. Federal law and NRC regulations found at 10 Code of Federal Regulations Part 55 require that any person who manipulates the controls of a nuclear power plant must have a personal, site-specific operator license issued by the NRC. NRC regulations further require each nuclear power plant control room to have a continuous presence of two licensed reactor operators ("ROs") and one senior reactor operator ("SRO") per nuclear unit. The hours that each RO and SRO can work are also limited by NRC requirements, so there must be an adequate number of licensed operators at each site that accounts for illness and attrition. Further, the licensing process for individual operators is time-consuming and costly.

It can take as long as eight to nine years to develop an operator candidate into an SRO. In general, the cost to FPL of training, examination development, and licensing of a single candidate to obtain an SRO license is in excess of a million dollars, including payroll and benefits of each candidate, and the fees charged by the NRC for its review of the examination materials and oversight of the training and examination process.

Q. Please describe the impacts of the aging nuclear workforce.

A. A substantial percentage of the nuclear workforce is approaching retirement age, creating challenges for maintenance of needed expertise and creating demands for staffing adjustments and training of new workers. In particular, certain highly skilled classes of employees within the Nuclear Business Unit will have approximately 832 employees eligible to retire within the next five years. This is approximately 44 percent of the total employees in FPL's Nuclear Business unit. The entire nuclear industry faces this issue.

Q. What is FPL doing to address and mitigate the impact of the aging nuclear workforce issue?

A. In 2006, FPL partnered with the Homestead campus of Miami Dade College ("Miami Dade") and the Indian River State College ("IRSC") to create an Associate of Science degree in electrical power technology to help meet FPL's need for more nuclear workers. As part of the FPL Professional Training Pipeline, FPL agreed with each of Miami Dade and IRSC, through 2016, to provide that a maximum of 30 internships will be made available by FPL each summer for candidates who complete all requirements of the first

year of the program. FPL agreed to hire at least 20 (if available) candidates per year who successfully complete the two-year program. FPL has also entered into a Memorandum of Understanding with its labor union, the International Brotherhood of Electrical Workers, System Council U-4, to implement a nuclear employee apprentice program to develop additional nuclear workers for St. Lucie and Turkey Point. FPL expects to incur an annual cost of approximately $216,000 per year to administer this apprentice program. This low cost option will provide FPL a mechanism to help address the attrition and retirements in its nuclear maintenance organization.

Q. Does this conclude your direct testimony?

A. Yes.

SUMMARY OF MFRS SPONSORED BY J.A. STALL

MFR	Period	Title
SPONSOR		
F-4	Historic	NRC Safety Citations
CO-SPONSOR		
B-12	Test	Net Production Plant Additions
B-12	Prior	Net Production Plant Additions
B-13	Test	Construction Work in Progress
B-16	Test	Nuclear Fuel Balances
B-16	Prior	Nuclear Fuel Balances
C-8	Test/Prior	Detail of Changes in Expenses
C-15	Test	Industry Association Dues
C-15	Historic	Industry Association Dues
C-16	Test	Outside Professional Services
C-16	Historic	Outside Professional Services
C-41	Test	O&M Benchmark Variance by Function
C-43	Test/Prior/Historic	Security Costs
F-8	Test	Assumptions

As of December 31, 2011

NRC Performance Indicators for St. Lucie and Turkey Point

	Turkey Point Unit 3	Turkey Point Unit 4	St. Lucie Unit 1	St. Lucie Unit 2
Initiating Events Cornerstone				
Unplanned Reactor Scrams per 7000 Critical Hours (Automatic and Manual)	Green	Green	Green	Green
Unplanned Reactor Scrams with Loss of Normal Heat Removal	Green	Green	Green	Green
Unplanned Scrams with Complications	Green	Green	Green	Green
Mitigating Systems Cornerstone				
Mitigating System Performance	Green	Green	Green	Green
Safety System Functional Failures	Green	Green	Green	Green
Barriers Cornerstone				
RCS Activity	Green	Green	Green	Green
RCS Leakage	Green	Green	Green	Green
Emergency Preparedness Cornerstone				
Emergency Response Organization (ERO) Drill/Exercise Performance	Green	Green	Green	Green
ERO Drill Participation	Green	Green	Green	Green
Alert and Notification System Performance	Green	Green	Green	Green
Occupational Radiation Safety Cornerstone				
Occupational Exposure Control Effectiveness	Green	Green	Green	Green
Public Radiation Safety Cornerstone				
RETS/ODCM Radiological Effluent Occurrence	Green	Green	Green	Green
Physical Protection Cornerstone				
Protected Area Security Equipment Performance Index	Green	Green	Green	Green

Acceptable Performance Licensee Response Band	Acceptable Performance Increased Regulatory Response Band	Acceptable Performance Required Regulatory Response Band	Unacceptable Performance Plants Not Normally Permitted To Operate Within This Band
Green	White	Yellow	Red

Best ← → Worst

Docket No. 120015-EI
NRC Performance Indicators
Exhibit JAS-2, Page 1 of 1

As of December 31, 2011

NRC Inspection Findings for St. Lucie and Turkey Point

	Turkey Point Unit 3	Turkey Point Unit 4	St. Lucie Unit 1	St. Lucie Unit 2
Initiating Events	Green	Green	Green	Green
Mitigating Systems	Green	Green	Green	Green
Barriers	Green	Green	Green	Green
Emergency Preparedness	Green	Green	Green	Green
Occupational Radiation Safety	Green	Green	Green	Green
Public Radiation Safety	Green	Green	Green	Green
Physical Protection	Green	Green	Green	Green

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NRC Inspection Findings
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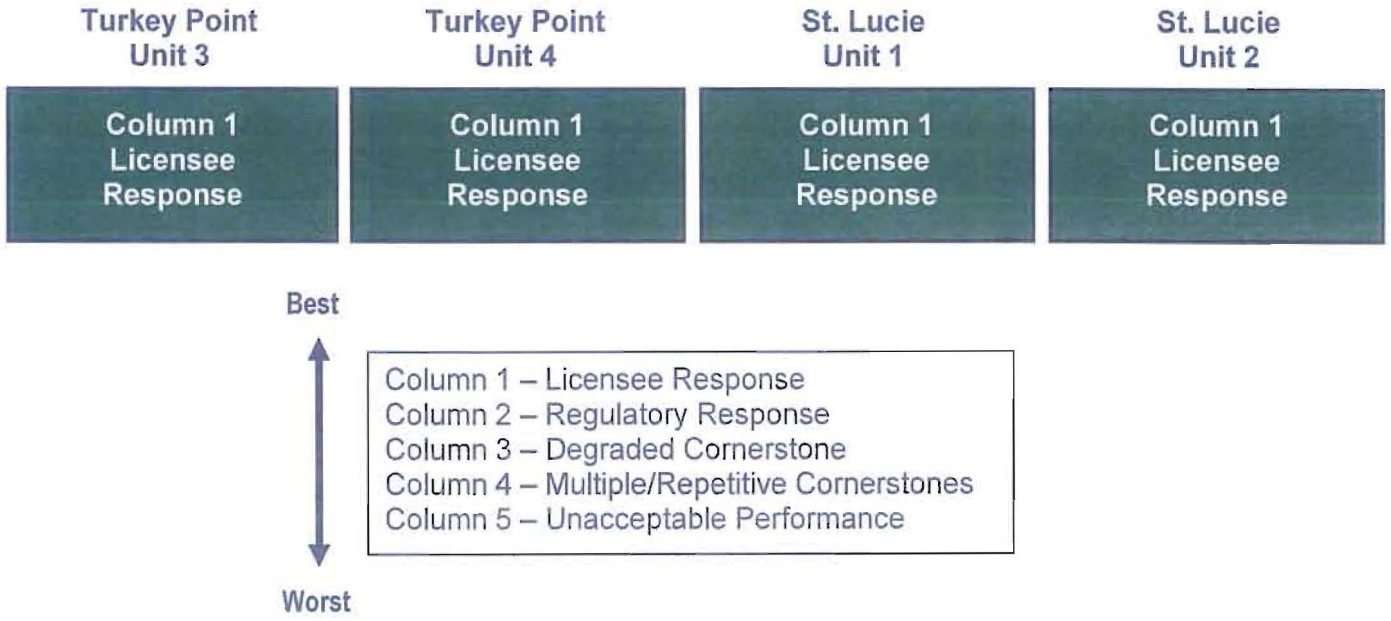
As of December 31, 2011

NRC Regulatory Status for St. Lucie and Turkey Point



Docket No. 120015-EI
NRC Regulatory Status
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