BEFORE THE FLORIDA
PUBLIC SERVICE COMMISSION

DOCKET NO. 050045-EI
FLORIDA POWER & LIGHT COMPANY

MARCH 22, 2005

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

TESTIMONY & EXHIBITS OF:

J. A. STALL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF J.A. STALL

DOCKET NO. 050045-EI

MARCH 22, 2005

Q. Please state your name and business address.

A. My name is J.A. (Art) Stall. My business address is Florida Power & Light Company, 700 Universe Boulevard, Juno Beach, Florida, 33408-0420.

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

A. I am employed by Florida Power & Light Company (FPL or the Company) as Senior Vice President - Nuclear Operations, and Chief Nuclear Officer.

Q. Please describe your duties and responsibilities in that position.

A. I am responsible for the safe and reliable operation of all of FPL's nuclear assets, consisting of four nuclear units in Florida – two at Turkey Point Nuclear Plant near Florida City, Florida, (1,386 MW) and two at St. Lucie Nuclear Plant, near Jensen Beach, Florida (1,677 MW).

Q. Please describe your educational background and the business experience that qualifies you to be FPL's Chief Nuclear Officer.

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 more than 25 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 have been Senior Vice President, Nuclear Operations, and Chief Nuclear Officer at FPL since June 2001.

Q. **Are you sponsoring an exhibit in this case?**

A. Yes. It consists of the following documents:

JAS-1 – FPL Nuclear Division Personnel Safety.

JAS-2 – WANO Indices for FPL's Plants and for Similarly Situated PWRs.

JAS-3 – Unit Capability Factor for St. Lucie and Turkey Point.

JAS-4 - Forced Loss Rate for St. Lucie and Turkey Point.

JAS-5 - Collective Radiation Exposure for St. Lucie and Turkey Point.

JAS-6 - NRC Performance Indicators for St. Lucie and Turkey Point.

JAS-7 - Capacity Factors for Nuclear Industry.

JAS-8 - Steam Generator Tube Plugging for St. Lucie Unit 2.

JAS-9 – Life Cycle Management Plans for St. Lucie and Turkey Point.

JAS-10 – Historical Capital Expenditures for St. Lucie and Turkey Point.

JAS-11 – Historical O&M Spending for St. Lucie and Turkey Point.

JAS-12 – Historical Condition Reports for St. Lucie and Turkey Point.

Q. Are you sponsoring or co-sponsoring any MFRs in this case?

A. Yes, I am sponsoring the following MFR:

F-4, NRC Safety Citations.

Additionally, I am co-sponsoring the following MFRs:

B-12, Production Plant Additions

B-13, Construction Work in Progress

B-16, Nuclear Fuel Balances

B-24, Leasing Arrangements

C-8, Detail of Changes in Expenses

C-15, Industry Association Dues

C-16, Outside Professional Services

C-41, O&M Benchmark Variance By Function

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

A. The purpose of my testimony is to (1) describe how FPL's nuclear fleet performance has yielded significant benefits to FPL customers; (2) describe the challenges to FPL's nuclear operations; (3) describe the steps FPL is taking to address these challenges; and (4) discuss the resulting impact on 2006 test year costs for FPL's nuclear operations.

BACKGROUND ON FPL'S NUCLEAR DIVISION

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.

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 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 twenty years past the original license expiration date should FPL choose to do so. 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.

Q. Has FPL decided yet whether to operate its nuclear plants for the full period of extended operation as authorized by the renewed NRC operating licenses?

A. No. FPL will periodically review the prudence of the continued operation of these plants, in light of changing regulatory requirements and the overall economics of continued operation. I should add, however, that I fully expect FPL to operate Turkey Point and St. Lucie well into their renewed license periods.

Q. Is FPL considering new nuclear capacity?

A. FPL is looking toward the future in preserving the nuclear option. Recently, FPL joined the NuStart Energy consortium. NuStart Energy's proposal seeks federal government cost sharing under the U.S. Department of Energy's (DOE) Nuclear Power 2010 initiative to demonstrate the NRC's licensing process for building and operating advanced nuclear power plants. Nuclear Power 2010 is designed to have a new nuclear power plant under construction somewhere in the United States by 2010. The DOE program offers to share up to 50 percent of the cost of preparing an application for a construction and operating license (COL) to the NRC. While none of the consortium members, including FPL, has committed to build a new nuclear plant, NuStart Energy does plan to complete detailed engineering design work and to prepare COL applications for two advanced reactors, choose one of the applications and file it for NRC review and approval. After NRC approval, any individual company or group of companies could decide to use the license to build a new nuclear plant based on its assessment of power demand, the price of competing electricity technologies, environmental requirements, and other factors. Of the ten companies participating in the consortium, nine have formed NuStart

Energy Development LLC and each has pledged $1 million a year plus in-kind services for seven years. A federal power agency, the Tennessee Valley Authority, will be providing in-kind services only, and two reactor vendors, GE Energy and Westinghouse, will be contractors to NuStart Energy. FPL views this membership as a prudent measure to help preserve the option of nuclear energy as a potential source of fuel diversity.

Q. **Please describe the organization of FPL's Nuclear Division.**

A. FPL's Nuclear Division currently employs more than 2200 "full time equivalent employees." The management team at each site reports to a Site Vice President, and each Site Vice President reports directly to me. The engineering organization at each site, which is independent of the line organization at each plant, reports to a site Engineering Manager. In addition, there is an engineering organization in Juno Beach. The Engineering Managers at each location report to the Vice President of Nuclear Engineering, who reports directly to me. The Vice President, Nuclear Operations Support, responsible for integrating and standardizing programs and processes for the nuclear units, and the Vice President Nuclear Projects, responsible for all activities associated with major projects, both report directly to me. The independent quality assurance organization at each site reports to a site Quality Assurance Manager. In addition, there is a quality assurance organization in Juno Beach. The managers of these organizations report to the Director, Nuclear Assurance, who reports directly to me.

NUCLEAR PLANT PERFORMANCE

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

A. FPL uses the following metrics to measure the performance of our nuclear plants: personnel safety, nuclear safety, reliability, regulatory performance as measured by the NRC, and overall plant performance as measured by an objective numerical index.

Q. Please describe FPL's Nuclear Division personnel safety performance.

A. FPL is proud of its personnel safety record. FPL measures its personnel safety performance using a standard from the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor known as an OSHA recordable (serious) injury. Document JAS-1 shows FPL's substantial improvement in the area of personnel safety over the last 10 years. In 1994, FPL had 68 recordable injuries in the Nuclear Division. In contrast, there were less than 10 recordable injuries for each year in the 2001-2004 period. The Southeastern Electric Exchange recently issued a report recognizing FPL's Nuclear Division as best in class among Southeast nuclear generators for 2004 safety performance.

Q. Please describe FPL's Nuclear Division nuclear safety and reliability performance.

A. FPL is also proud of its nuclear safety and reliability record. FPL's performance in operating its nuclear units has ranked among the best in the United States, as measured by a number of objective performance criteria. As illustrated in

Document JAS-3, the unit capability factor of FPL's nuclear plants has consistently been higher than the industry average from 1998 through 2004. Document JAS-4 shows that the forced loss rate of FPL's nuclear plants has been consistently lower than the industry average from 1998 through 2004. Document JAS-5 illustrates that the collective radiation exposure for FPL's nuclear workforce has been lower than the industry average from 1998 through 2004. Document JAS-6 shows that all of the NRC performance indicators are in the "green" band, indicating acceptable performance. Since the NRC performance indicator program was introduced in the fourth quarter of 2000, with one exception for one quarter, all of the performance indicators for FPL's nuclear plants have been in the "green" band.

Q. **Has FPL recently experienced challenges to its nuclear plant performance?**

A. Yes. Certain pressurized water reactors, including FPL's nuclear plants, have recently experienced challenges that negatively impacted the World Association of Nuclear Operators (WANO) index in the 2003-2004 period. The WANO index is an internationally recognized metric of nuclear plant safety and reliability. The WANO index is calculated by summing weighted values of the following key indicators:

1. Unit Capability Factor (16%)
2. Forced Loss Rate (16%)
3. Unavailability of High Pressure Safety Injection System (10%)
4. Unavailability of Auxiliary Feedwater System (10%)
5. Unavailability of Emergency AC Power System (Site Average) (10%)

6. Unplanned Automatic Reactor Trips (10%)

7. Collective Radiation Exposure (10%)

8. Nuclear Fuel Reliability (11%)

9. Quality of Secondary Water Chemistry (7%)

Input on these indicators is provided by all nuclear plants on a quarterly basis. As shown in Document JAS-2, several U.S. pressurized water reactors have faced operational challenges similar to those faced by FPL's plants, and the WANO indices for those plants have been affected in a manner similar to the impact on the WANO indices for FPL's nuclear plants. These plants have all experienced problems with or replacements of reactor vessel heads and steam generators. The data shows that the performance of similarly situated plants declined in the timeframe when such problems were encountered or when the replacement projects were executed. The operational challenges facing owners of pressurized water reactors -- issues relating to reactor vessel head penetrations and steam generator degradation -- are discussed further below.

Q. Please discuss the issues that have affected the performance of pressurized water reactors.

A. A number of factors contributed to the decline in the performance of several pressurized water reactors in late 2003 and early 2004. These include:

- The discovery of degradation in reactor vessel head penetrations at multiple plants, most notably the findings at the Davis-Besse nuclear plant in 2002;

- Continuing deterioration in alloy 600 steam generator tubes at a number of pressurized water reactor plants, including a tube rupture at the Indian Point plant;
- Pressurizer heater weld degradation at a number of plants, and
- Equipment aging and obsolescence.

In general, the most notable events affecting the nuclear industry were those at Davis-Besse and Indian Point. These events have resulted in significant regulatory impacts affecting the entire nuclear industry.

Q. Please describe in more detail the event that occurred at the Davis-Besse nuclear plant.

A. In March 2002, First Energy, the owner of the Davis-Besse nuclear plant in Ohio, discovered significant degradation in the reactor vessel head after several opportunities to previously identify and correct this degradation were missed. Left unchecked, this degradation could have led to a significant nuclear event (i.e., loss of coolant accident) at this plant. The impacts of this discovery were reflected in two forms.

First, significantly more rigorous inspections of reactor vessel heads have since been required by the NRC. These inspections have extended the length of planned outages for both inspections and repair (and in some cases reactor vessel head replacements). The extended outages and new reactor vessel head inspections also resulted in elevated occupational radiation exposure to plant workers.

Second, specific initiatives related to assessing and improving the safety culture became necessary. Stakeholders also criticized the NRC, based on a perception that NRC allowed Davis-Besse to operate amid concerns about the integrity of the reactor vessel head after First Energy advised the NRC of the economic consequences of a premature plant outage.

Q. Please describe the event that occurred at the Indian Point Nuclear Plant.

A. All steam generator tubes fabricated with alloy 600 mill-annealed tube materials are susceptible to cracking, primarily due to stress corrosion cracking (SCC) on the outer diameter of the tube. When inspections for these generators are performed during each refueling outage, tubes found to have corrosion cracking are taken out of service by plugging.

An event that has drawn significant scrutiny from the NRC and stakeholders was the steam generator tube leak at the Indian Point Nuclear Plant near New York City in 2001. In that case, a previous steam generator tube inspection failed to identify a degraded steam generator tube, which then ruptured while the plant was in service, resulting in a small release of radioactivity to the environment and entry into the plant's emergency plan. Stakeholders focused blame on the event at the plant's previous owner, Consolidated Edison of New York, and at the NRC, as allegations surfaced that the degradation in the steam generator tube that ruptured should have been identified earlier. Because of the added scrutiny and criticism the NRC received as a result of the Indian Point and Davis-Besse events, the NRC has become more rigid in its approach in the oversight of licensed nuclear operating units.

Q. Please describe the issues related to pressurizer heater weld degradation.

A. Operators of pressurized water reactors have experienced age-related degradation of alloy 600 materials within the nuclear steam supply system (NSSS). As I mentioned previously, the principal degradation mechanism for alloy 600 is SCC. SCC has resulted in cracking in pressurizer penetrations, reactor head penetrations and numerous other locations, resulting in increased inspection costs, repairs, and component replacements. Seven pressurizers at Combustion Engineering plants have developed leaks in over 30 heater sleeve penetrations since 1998. St. Lucie Units 1 and 2 are Combustion Engineering plants and have experienced these same pressurized heater sleeve degradation issues.

Q. Please describe the impacts that equipment aging and obsolescence are having on the nuclear industry as a whole.

A. Equipment aging and obsolescence are having an increasing impact on plant reliability and initiatives to sustain high reliability. As the plants in the industry have aged, it has become apparent that preventive and predictive maintenance practices have not fully kept pace with time related equipment degradation. As a result, the frequency of time/age-related failures increased, with adverse consequences to reliability. Specific industry-wide examples (which have also impacted FPL plants) include air operated valve components and electrical power supplies for critical components. Many of the age-related degradation mechanisms were not fully anticipated.

In response to the problem of age-related equipment degradation, FPL has undertaken significant upgrades to its predictive and preventive maintenance programs. However, some of these efforts are complicated because spare parts and service expertise for equipment no longer in production or common use are becoming increasingly difficult and expensive to obtain. This has resulted in the need to upgrade systems and equipment with new designs just to preserve or restore traditional plant reliability. Upgrade efforts of this type are resource intensive from a financial and human perspective and have created regulatory challenges in licensing new designs and technologies.

Collectively, these factors have imposed a significant burden on utilities both from financial and management focus perspectives. Resources focused on continuous improvement were and continue to be redirected toward addressing these issues. FPL recognized the need to take actions to ensure that on-site management was not distracted from its necessary focus on nuclear safety, reliability and continuous improvement. To this end, FPL has formed a Nuclear Operations Support department and a Nuclear Projects department to simultaneously support continuous improvement through standardization to industry best practices while addressing the technical and equipment changes necessitated by the aforementioned industry issues.

Q. Please discuss the impact of these issues on the performance of FPL's nuclear units.

A. Document JAS-3 shows FPL's performance for Unit Capability Factor (UCF). The last two years have seen a modest decline in performance. This decline is directly related to the issues discussed above. Specifically, outage extensions were needed to include expanded inspection requirements for primary reactor coolant system components. Additionally, plant aging resulted in an increase in the amount of unplanned work and modification necessary to be performed during our refueling outages in order to safely and reliably operate through the next operating cycle.

Document JAS-4 shows a decline in performance for Forced Loss Rate (FLR). This decline is attributable in large measure to equipment reliability issues. Consequently, FPL has placed increasing emphasis on its equipment reliability program. FPL experienced an increase in equipment failures during 2002 and 2003 (e.g., reactor shutdown due to loss of main generator excitation, automatic and manual reactor trips due to malfunctioning feedwater controls) causing either power reductions or forced outages. These trends indicate that improvements are necessary to ensure that FPL continues to achieve consistent and reliable operation.

Document JAS-5 shows FPL performance for Collective Radiation Exposure. This indicator has also seen a decline. Even though this measure is not directly related to capacity factor, the major equipment replacements and expanded inspection requirements for primary reactor coolant system components have caused a higher level of occupational radiation exposure to our workforce. FPL strives to minimize the occupational radiation exposure to our workforce. Even in light of the higher exposures caused by the equipment replacements and inspections, at no time has any occupational radiation exposure exceeded the regulatory dose limits imposed by the NRC.

Other pressurized water reactors that have experienced problems with reactor vessel head and steam generators have experienced similar performance downturns. Document JAS-2 shows that FPL's WANO indices compare similarly with the WANO indices for other pressurized water reactors that have had reactor vessel head and steam generator performance issues.

In summary, FPL is proud of its nuclear performance, both from a safety and reliability standpoint. However, this performance cannot be sustained without continued investment in our nuclear plants and our people.

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

A. The nuclear safety aspects of FPL's nuclear operations are comprehensively regulated by the NRC. The NRC maintains and tracks a set of performance indicators as objective measures of nuclear safety performance. These indicators monitor performance in initiating events, performance of safety systems, maintenance of fission product barrier integrity, emergency preparedness, occupational and public radiation safety, and physical protection. As shown in

Document JAS-6, all four of FPL's units are in the "green" band of all NRC Performance Indicators, indicating good 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, the NRC determines the appropriate level of agency response, including the need for supplemental inspections, regulatory actions, and senior management meetings. Nuclear plants in the "green" band receive only baseline NRC inspections. From the NRC's perspective, FPL's plants compare favorably with the remainder of the industry. Approximately 25 percent of the nuclear plants in the United States are characterized by the NRC as having some level of degraded plant performance requiring increased NRC regulatory involvement for those plants: the "regulatory response" category (17 plants having at least one regulatory finding of low to moderate safety significance in the past 12 months); the "degraded cornerstone" category (zero plants), and the "multiple/repetitive degraded cornerstone" category (3 plants having a regulatory finding of low to moderate safety significance, a regulatory finding of substantial safety significance, or a finding of high safety significance, usually coupled with inadequate corrective actions). None of FPL's units falls into these categories. The NRC conducts additional inspections of plants with performance indicators showing degraded performance (white, yellow, or red). This regulatory structure places a premium on FPL's ability to identify and correct problems on our own. Degraded performance can result in increased NRC regulatory activity, which in turn would require management attention to these NRC inspections and increase O&M costs accordingly.

Q. Please describe FPL's nuclear generation performance and compare this performance to the rest of the nuclear industry.

A. As shown in Document JAS-7, FPL has maintained capacity factors (including refueling outages) for FPL's Nuclear Division equal to or greater than the industry average. This was achieved while at all times maintaining the highest levels of safety performance. As discussed above, some declines were experienced by FPL in the 2003-2004 period. For FPL, the declines were principally attributable to equipment problems resulting either in extensions to planned outages or unplanned generation loss.

Q. How do FPL's planned refueling outages compare to other planned refueling outages in the industry?

A. FPL's refueling outages are well planned and structured to assure a proper balance is maintained between safety and reliability and overall outage duration. Refueling and maintenance activities have been typically performed in less than 30 days, which is better than the industry average. In fact, some of our outages have been the shortest achieved for similar units in the industry. For example, in 2001 the employees at Turkey Point completed a refueling outage in 15 days. Our employees continuously critique outage performance, and lessons learned are implemented in subsequent outages to further improve performance. Similarly, benchmarking is performed at other nuclear stations to identify improvement opportunities.

Q. Are there other challenges facing FPL's nuclear fleet relating to human resources?

A. Yes. 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 within the Nuclear Division will have approximately 600 employees eligible to retire within the next five to seven years. The entire nuclear industry faces this issue. As a result, FPL cannot count on hiring from other nuclear entities to compensate for the workforce attrition issue. FPL will be required to add headcount to anticipate and ultimately compensate for attrition and retirements. Additional headcount will also be required to ensure compliance with an upcoming NRC rulemaking that will impose additional restrictions on the number of hours that can be worked by nuclear plant personnel.

Q. Did the events of September 11, 2001 have an impact on FPL's nuclear programs?

A. Yes. In light of the events of September 11, 2001, FPL has substantially enhanced nuclear security measures to address additional requirements imposed by the NRC. Since September 11, 2001, the NRC has issued a series of legally binding Security Orders that: (1) provided interim guidance for security measures necessary to comply with new requirements; (2) revised the "design basis threat" for nuclear power plants; (3) defined fatigue limits for nuclear plant security officers; (4) revised the access authorization requirements for nuclear plant personnel; and (5) prescribed training and qualification requirements for security officers.

For 2006, FPL projects that it will spend $10.2 million to comply with the NRC's existing Security Orders. If there are no further changes to the NRC's security requirements, this amount should be representative of FPL's annual September 11, 2001-related nuclear security costs in 2007 and beyond. However, the NRC is engaged in a continued, ongoing process of reevaluating its Security Orders. This reevaluation resulted in the issuance of three additional Security Orders in 2003, which are requiring FPL to spend in excess of $40 million in 2004-2005 beyond the baseline annual security costs for those years. FPL has no assurances that there will not be further changes to the NRC's security requirements, compliance with which could lead to additional extraordinary expenditures in future years. In fact, the nuclear industry has been advised by the NRC that the agency plans to impose additional security requirements on all nuclear plants at some point in 2005.

Beyond the direct costs of complying with the NRC's security requirements, there are also unquantifiable but substantial indirect impacts on productivity due to the diversion of plant staff toward meeting these emerging security requirements.

Q. How is the United States Department of Energy's failure to carry out its legal obligation to dispose of FPL's spent nuclear fuel affecting FPL?

A. FPL has previously provided the Commission with details of its attempts through litigation to seek recovery of past and future damages related to the U.S. Department of Energy's default in disposing of spent nuclear fuel. There will be significant capital and O&M expenses relating to the long-term spent fuel storage problem. The path to recovery of those expenses through litigation has been and will continue to be slow and uncertain.

Q. What impact could all of these challenges have on FPL?

A. Failure to maintain the condition of safety-related equipment at FPL's nuclear plants could have substantial economic, safety, reliability, and regulatory consequences for FPL, as illustrated by events at other nuclear plants. The discovery of the reactor head degradation at Davis-Besse caused that plant to be shut down for more than two years for regulatory reasons, with resulting impacts of more than $673 million to that company. In this context, the NRC received significant criticism from stakeholders, including Members of Congress, for not taking a stronger position on ongoing equipment problems at Davis-Besse and for a perception that the NRC allowed Davis-Besse to continue operating for economic reasons. There is now a significant premium on critical self-identification and problem resolution. This has numerous implications for FPL and other nuclear plant operators, including a reduced margin for allowable steam generator tube degradation, stricter reactor vessel closure head inspection and acceptance requirements, and a reduced management and regulatory tolerance for equipment degradation issues in general. This reduced tolerance for equipment problems has and will continue to result in longer and more expensive outages at FPL and throughout the industry.

Q. Does the age of FPL's nuclear plants exacerbate these challenges?

A. Yes. Turkey Point Units 3 and 4 have each been in service for more than 30 years, St. Lucie Unit 1 has been in service for 28 years, and St. Lucie Unit 2 has been in service for 20 years. As noted above, equipment aging is resulting in an increase in the amount of work necessary to operate safely and reliably, and has resulted in unplanned generation loss. In addition, the NRC regulatory environment since the Davis-Besse event strongly discourages operation with degraded equipment even if that degradation does not cause a direct threat to safety or reliability. Accordingly, FPL must invest in its nuclear program in order to preserve the viability of FPL's nuclear plants into the renewed license terms.

RESPONSES TO CHALLENGES TO FPL'S NUCLEAR PROGRAM

Q. How is FPL reacting to the challenges to its nuclear program?

A. The challenges to FPL's nuclear program are driving proactive and major investments in plant equipment programs, staffing, and training to preserve the nuclear option. As part of a long-range plan, FPL is focusing on the infrastructure necessary to ensure the successful execution of a multi-year capital investment program. The areas of focus are: improvements in plant material condition, address equipment reliability and aging, backlog reduction and staffing. In order to meet these challenges, FPL plans on making significant capital investments in its nuclear plants. FPL is also undertaking several operational programs which will result in significant additional O&M expenses.

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

A. The major projects included in the capital investment effort are:

1. Reactor Vessel Head Replacement for St. Lucie and Turkey Point
2. St. Lucie Unit 2 Steam Generator Replacement
3. St. Lucie Unit 1 Pressurizer Replacement
4. Life Cycle Management and
5. Spent Fuel Initiatives

Q. **Please explain the necessity of replacing the Reactor Vessel Heads.**

A. As discussed above, in March 2002, a large cavity in the reactor vessel head at the Davis-Besse nuclear plant was discovered while conducting the required inspections of the reactor head penetration nozzles. As a result of this discovery, the NRC questioned the methodology that was being used by the nuclear industry for determining the susceptibility for potential reactor vessel head penetration leaks and the ability of visual inspection techniques to identify all reactor head damage mechanisms. Consequently, the NRC issued a series of legally binding orders to address its concerns.

These orders have resulted in all four FPL units being categorized as "highly susceptible" to the problem identified at Davis-Besse. These orders require FPL to perform 100% non-destructive examination, including ultrasonic and dye penetrant testing of the penetrations in addition to visual inspections. The testing must be performed every refueling outage until the reactor heads are replaced. Failure to replace the reactor heads would require FPL to continue to pay for costs associated with reactor head inspections until the reactor heads are replaced. The susceptibility of reactor head to further degradation requiring repair increases with each inspection. The inspection program also requires plant personnel to incur higher than normal occupational radiation dose. The repairs could impact critical path durations during refueling outages and increase the number of days a unit would be off-line.

For these reasons, FPL placed orders for new reactor vessel heads for Turkey Point and St. Lucie. FPL has entered into contracts for procurement of reactor vessel head components for each of its four units, and a contract for the installation of each reactor vessel head. FPL successfully replaced the reactor vessel head at Turkey Point Unit 3 during an outage in the Fall of 2004, and plans on replacing the existing reactor vessel heads at the remaining three nuclear units beginning in the Spring of 2005.

Q. **Please explain the necessity of replacing the St. Lucie Unit 2 Steam Generators.**

A. As discussed previously, the St. Lucie Unit 2 steam generators were fabricated with alloy 600 tube material. Consistent with experience from other plants including St. Lucie Unit 1, the number of steam generator tubes requiring plugging has significantly increased over the last two inspections, as illustrated in Document JAS-8. The number of steam generator tubes that can be plugged is limited by regulatory requirements and plant operational parameters. Most steam generators in the industry that were manufactured with the alloy 600 mill annealed tube material have been replaced, including those at St. Lucie Unit 1. In 1997-1998, FPL replaced the steam generators at St. Lucie Unit 1 in record time and well within budget, reducing the potential for tube leaks that could lead to extended shutdowns.

In January 2005, FPL received permission from the NRC to plug up to thirty percent (30%) of the tubes in the St. Lucie Unit 2 steam generators. To date, 18.9% of these tubes have been plugged. It is possible that during the next scheduled refueling outage of St. Lucie Unit 2 in spring of 2006 the 30% tube plugging limit could be exceeded. FPL is currently evaluating various interim options, including sleeving degraded tubes, to stay within the tube plugging limit. FPL has requested NRC approval to sleeve degraded tubes as an alternative to plugging. Ultimately, sleeving of steam generator tubes is not a permanent solution, and replacement of the steam generators will minimize the potential for mid-cycle outages and extended plant outages, and maintain plant reliability. Accordingly, FPL has entered into a contract for new steam generators for St. Lucie Unit 2, and the new steam generators will be installed in 2007.

Q. **Please explain the necessity of replacing the St. Lucie Unit 1 Pressurizer.**

A. In 2003, circumferential cracking was observed in alloy 600 pressurizer heater sleeves. Industry experience indicates that once detected, such cracking proceeds at an accelerated rate. FPL's analysis of this problem concluded that replacing the pressurizer in Unit 1 was the least cost alternative compared to continuing inspections and remedies. Additionally, FPL receives a benefit by replacing the pressurizer during the 2005 refueling outage. This is a planned extended outage for the reactor head replacement, and replacing the pressurizer during this outage will avoid two extended refueling outages and reduce the number of days the unit is off-line. Accordingly, FPL has entered into a contract for the procurement of a replacement pressurizer and for the installation of that component at St. Lucie Unit 1 in the Fall of 2005.

Q. Please explain FPL's plans for addressing issues with the St. Lucie Unit 2 pressurizer.

A. The Unit 2 pressurizer has approximately thirty heaters, as opposed to more than one hundred heaters in the Unit 1 pressurizer. This design difference means that repair of the Unit 2 pressurizer heater sleeves is feasible and the least cost alternative in dealing with Unit 2 pressurizer issues.

Q. Please explain the necessity for the Life Cycle Management Upgrades.

A. The Life Cycle Management capital project will replace obsolete instrument and controls (I&C) in several critical plant control systems at the nuclear sites. Document JAS-9 lists the systems that are being replaced. In many cases, dated analog technology will be replaced with digital technology. I&C maintenance costs are increasing as the equipment ages. The existing equipment utilizes obsolete technology that requires maintenance by specially trained personnel. Maintaining specialized personnel increases training costs as the workforce ages and retires. Additionally, many parts are not available and custom refurbishment of existing parts is necessary. New modern control equipment will minimize the potential for extended plant shutdowns, and maintain plant reliability. Inventory and spare part costs will be reduced since vendor availability is increased. Costs associated with maintenance specialization will be reduced.

Q. Please explain the necessity for spent fuel storage initiatives.

A. As discussed above, FPL will incur capital and O&M expenditures to manage the DOE's failure to begin accepting spent fuel for disposal as required by law. On-site storage capacity for spent fuel in the spent fuel pools is limited. As existing capacity is utilized, alternative methods of storing the spent fuel are required. Alternative storage is required as a prudent operational measure whenever the spent fuel pools can no longer accommodate a full-core offload. Maintaining a full-core offload capability is a prudent measure in the event that all of an entire core of reactor fuel must be offloaded to accomplish emergent repairs to the reactor.

The approximate dates for loss of full-core offload capability using installed storage systems are as follows:

St. Lucie Unit 1	2008
St. Lucie Unit 2	2007
Turkey Point Unit 3	2010
Turkey Point Unit 4	2012

In addition to the loss of storage due to the increasing inventory of spent fuel, storage space could also be lost at St. Lucie Unit 1 and Turkey Point Units 3 and 4 due to degradation of the neutron-attenuating material (Boraflex) in the spent fuel storage racks. To date, Boraflex degradation has only affected the loss of full-core offload capability at Turkey Point Unit 3. As discussed below, FPL is investigating alternatives to eliminate reliance on Boraflex.

Q. **What are the specific spent fuel initiatives for St. Lucie?**

A. Installation of a removable storage rack in the cask pit area of each spent fuel pool will provide increased storage space for both units. In July 2004 the NRC approved the use of St. Lucie cask pit racks. The Unit 1 cask pit rack was installed in September 2004, and will be placed in service in 2005. Installation of the Unit 2 cask pit rack is being deferred in light of the recent decision to pursue dry cask storage for St. Lucie, as discussed below.

In light of recent NRC licensing challenges related to spent fuel pools, new regulatory issues with spent fuel storage, and FPL's newly revised expectations for the Department of Energy's acceptance of spent nuclear fuel for permanent disposal, FPL decided that proceeding directly to dry cask storage for St. Lucie was a prudent approach. Accordingly, FPL is now pursuing dry cask storage as the primary solution to St. Lucie's incremental spent fuel storage requirements. Dry cask storage consists of a system of concrete and steel storage casks placed on a secure onsite storage pad. Each spent fuel storage cask can contain as many as 32 spent fuel assemblies. Once operational, dry storage would extend the full-core reserve capability of each spent fuel pool indefinitely.

Q. What are the specific spent fuel initiatives for Turkey Point?

A. Installation of a removable storage rack in the cask pit area of each spent fuel pool will provide increased storage space for both units. In November 2004 the NRC approved the use of these racks and the racks have been installed. The cask pit racks extend the loss of full-core reserve dates as follows:

Turkey Point Unit 3 2010

Turkey Point Unit 4 2012

These projected dates for the loss of the full-core offload capability dates are based on the existing degraded state of Boraflex and a resulting loss of storage space. To restore and maintain the full storage capacity of these racks, FPL plans to install new neutron-absorbing inserts into the storage racks. NRC approval for this effort is expected in late 2006 or 2007.

To extend Turkey Point operations for the long term, FPL is planning to implement dry cask storage at the Turkey Point site. A preliminary site selection survey was completed in 2004. Following site selection, FPL will select a cask supplier and start storage pad construction in 2006. The first cask loading is planned to occur in advance of the loss-of-full-core-reserve in 2010.

Q. How is FPL's Nuclear Division addressing the challenges posed by attrition and by the impending NRC work hour rulemaking?

A. FPL has already created a Nuclear Operations Support department and a Nuclear Projects department to manage the industry issues discussed previously. FPL is also aggressively recruiting additional talent for its Nuclear Division. Further, in 2004, FPL's Nuclear Division began a Leadership Forum/Supervisory Development Academy (SDA) to further develop and improve the skill sets of managers and supervisors. Each SDA session includes approximately 25 managers and supervisors drawn from the nuclear plant sites and from FPL's corporate headquarters and covers a wide range of topics and exercises focused on developing and improving managerial and supervisory skills for each participant. Each SDA session is a full-time multi-week exercise.

FINANCIAL IMPACT OF RESPONDING TO CHALLENGES

Q. How do the forecasted capital expenditures compare to historical values?

A. Document JAS-10 shows that for the past several years, FPL has been able to minimize the Nuclear Division's capital expenditures. With the challenges going forward, these spending levels must be increased to preserve the nuclear option. The overall impact on capital expenditures is summarized as follows: In 2005, FPL expects that its capital expenditures for the Nuclear Division will be approximately $301.4 million. In the 2006 test year, FPL expects that its capital expenditures for the Nuclear Division will be approximately $221.6 million. In 2007, FPL expects that its capital expenditures for the Nuclear Division will be approximately $260.6 million. Of the capital expenditures, more than $520 million will be spent on steam generator and reactor vessel head replacements.

Q. How do the forecasted O&M expenditures compare to historical values?

A. Document JAS-11 shows that for the past several years, FPL has been able to minimize the Nuclear Division's O&M expenditures. FPL's O&M spending is increasing due to the drivers previously identified. FPL anticipates its spending to increase to keep up with workloads resulting from an increase in issued Condition Reports (CRs). A CR identifies an issue of an unexpected or unwanted circumstance pertaining to equipment performance, design requirements, process inefficiencies or shortfalls in human performance. Additional resources will be required to resolve these open issues to maintain plant safety and reliability. Document JAS-12 shows an increase in the number of CRs written from 2003 to 2004. With respect to O&M expenditures, the overall impact is summarized as follows: In 2005, FPL expects that its O&M expenditures for the Nuclear Division will be approximately $311 million. In the 2006 test year, FPL expects that its O&M expenditures for the Nuclear Division will be approximately $350 million. In 2007, FPL expects that its O&M expenditures for the Nuclear Division will be approximately $387 million.

SUMMARY

Q. Please summarize your testimony.

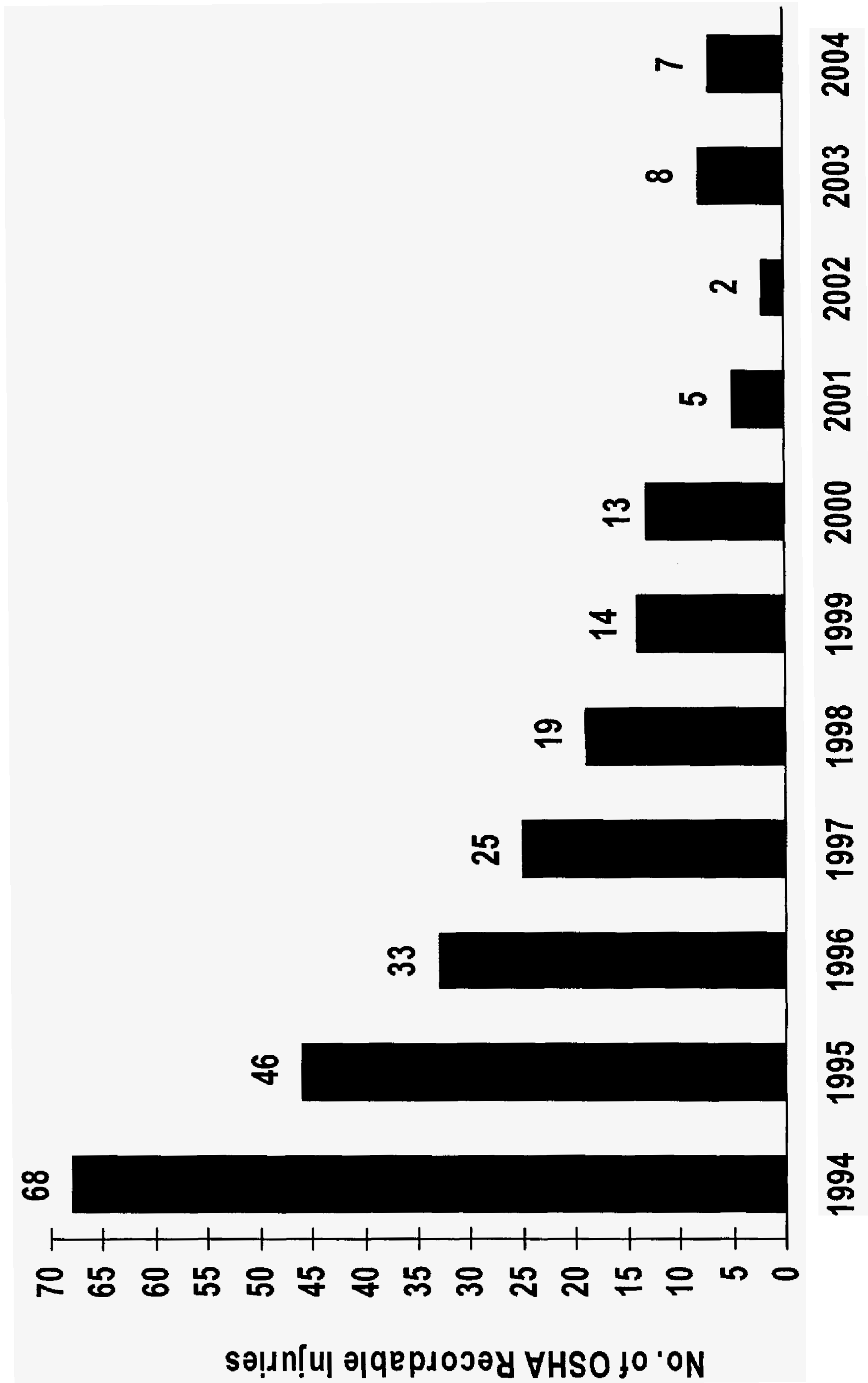
A. FPL's nuclear power plants are a source of reliable, safe, and cost effective energy for FPL's customers. Those plants are a key component of FPL's energy mix. In order to position FPL's nuclear power plants for continued reliable, safe, and cost effective operation, and to meet the significant operational and regulatory challenges facing those plants, FPL is required to increase its capital and O&M spending to implement equipment upgrades, ensure that degraded plant conditions are addressed in a timely fashion, and maintain a qualified workforce.

Q. Does this conclude your direct testimony?

A. Yes.

Docket No. 050045-EI
J. A. Stall Exhibit No. ____
Document No. JAS-1, Page 1 of 1
FPL Nuclear - Personnel Safety

FPL Nuclear- Personnel Safety



Data source: Chief Nuclear Officer Indicator report

WANO Index (Turkey Point, St. Lucie, and Similar Units)

Pressurized Water Reactors

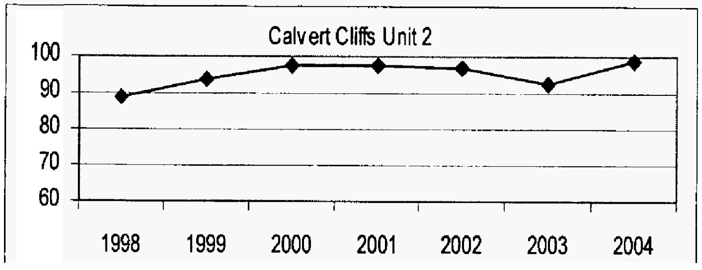
Plant	Head Replacement Schedule	Year	Components /Changes	Rank	2001	Rank	2002	Rank	2003	Rank	2004	Access opening required	Dose - Roentgen equivalent man (REM)	Duration	Control Rod Drive Mechanism	Comments
Calvert Cliffs Unit 2	Sprin[illegible] 00[illegible]	2003	Steam Generator			35	97.03	45	92.51	24	98.83	[illegible]e[illegible]	[illegible].0	52	not applicable	Two-piece steam generator moved through equipment hatch
Crystal River	Fall 2003	2003	Reactor Head			23	99.15	14	99.94	34	97.28	no	10.7	32	new	Head was moved onto containment via hatch
North Anna Unit 2	Fall 2002	2002	Reactor Head	42	90.99	64	79.77	60	80.88	1 of 13	100.00	yes	30.8	145	used existing	
Oconee Unit 1	Fall 2003	2003	Reactor Head and Steam Generator			27	98.66	51	87.54	58	84.02	yes	18.1	115	used existing	New control rod drive mechanisms previous outages
Oconee Unit 2	Spring 2004	2003	Reactor Head and Steam Generator			25	98.75	[illegible]	98.37	45	93.66	yes	[illegible]	88	used existing	New control rod drive mechanisms previous outages
Oconee Unit 3	Spring 2003	2003	Reactor Head			24	98.79	34	96.78	52	89.12	no	16.0	42	used existing	Head was moved onto containment via hatch
Surry Unit 1	Spring 2003	2003	Reactor Head			58	84.57	65	73.89	25	98.64	[illegible]e[illegible]	[illegible]4.8	58	used existing	
Su[illegible]ry Unit 2	Fall 2003	2003	Reactor Head			[illegible]	86.30	62	80.33	46	92.85	yes	23.0	76	new	
Three Mile Island Unit 1	Fall 2003	2003	Reactor Head			47	92.25	25	98.59	21	98.93	no	31.8	47	used existing	Head was moved onto containment via hatch
Turkey Point Unit 3	Fall 2004	2004	Reactor Head			1 of 13	100.00	31	97.24	56	86.11	yes	5.9	66.5	new	Project duration 46.8 days. Outage duration was 66.5 days
Turkey Point Unit 4	Spring 2005	2005	Reactor Head			1 of 13	100.00	24	98.62	29	98.36					Planned 65 day outage
St. Lucie Unit 1	Fall 2005	2005	Reactor Head			28	98.56	29	97.61	1 of 13	100.00					Planned 60 day outage
St. Lucie Unit 2	[illegible] 00[illegible]	00[illegible]	Reactor Head and Steam Generator			29	98.48	49	88.80	28	98.37					Planned 75 day outage

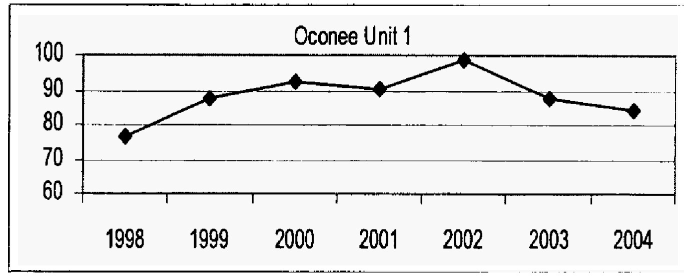
Data source: Electric Power Research Institute (EPRI)

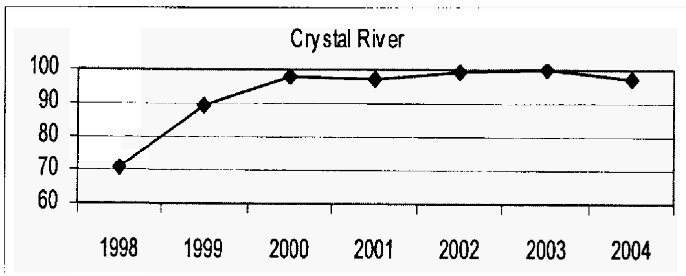
Docket No. 050045-EI
J. A. Stall Exhibit No. ____
Document No. JAS-2, Page 2 of 3
WANO Index (Turkey Point,
St. Lucie, and Similar Units)

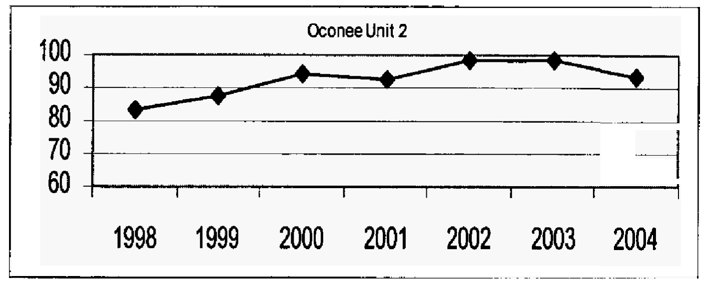
WANO Index (Turkey Point, St. Lucie, and Similar Units)

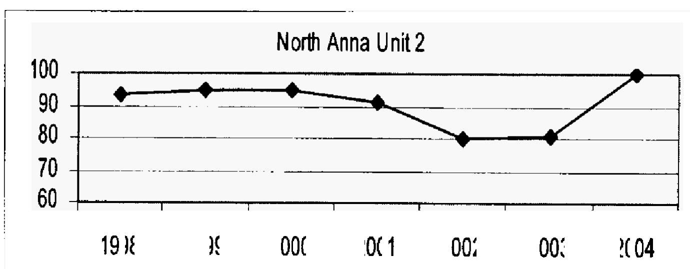
Pressurized Water Reactors

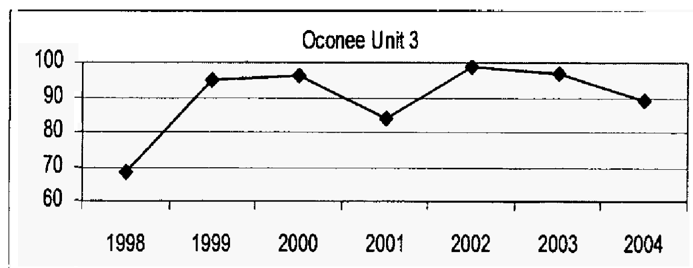








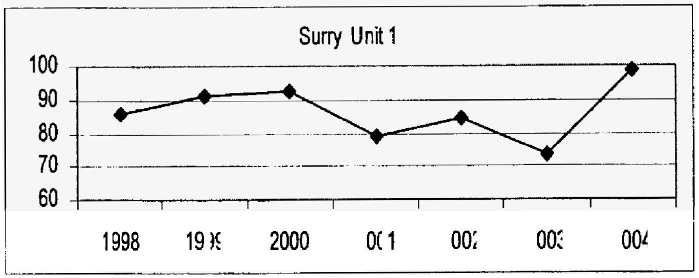


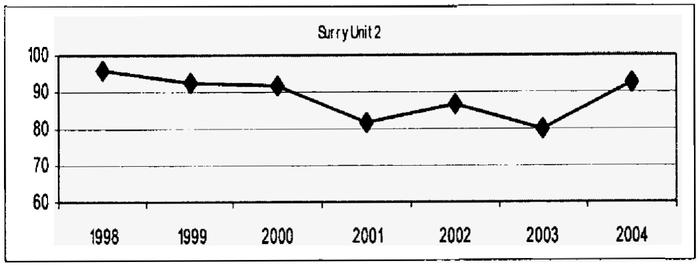


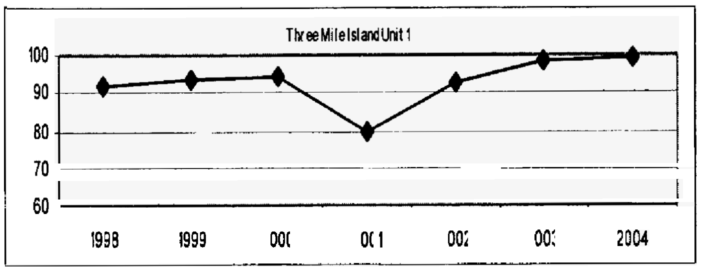
Data source: Electric Power Research Institute (EPRI)

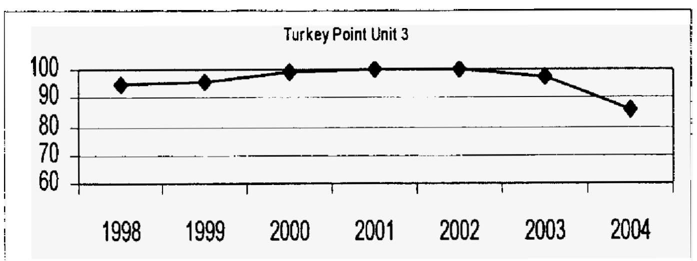
WANO Index (Turkey Point, St. Lucie, and Similar Units)

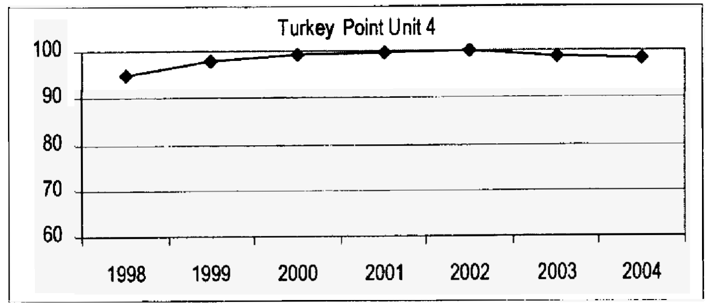
Pressurized Water Reactors

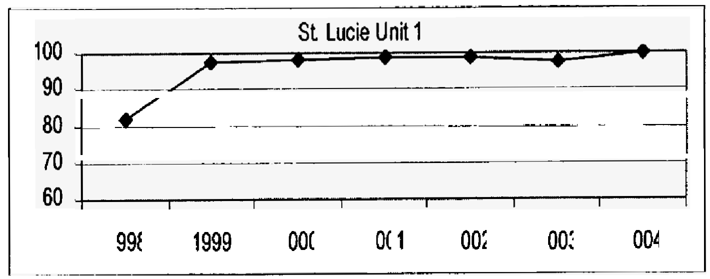


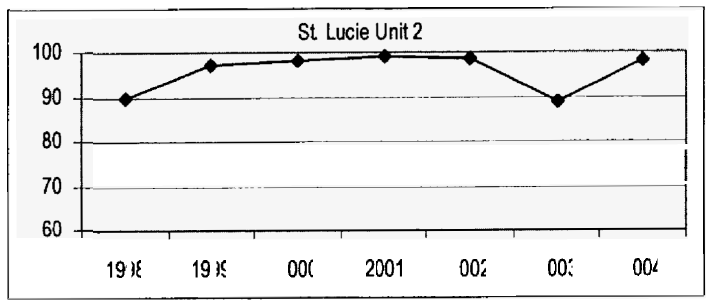






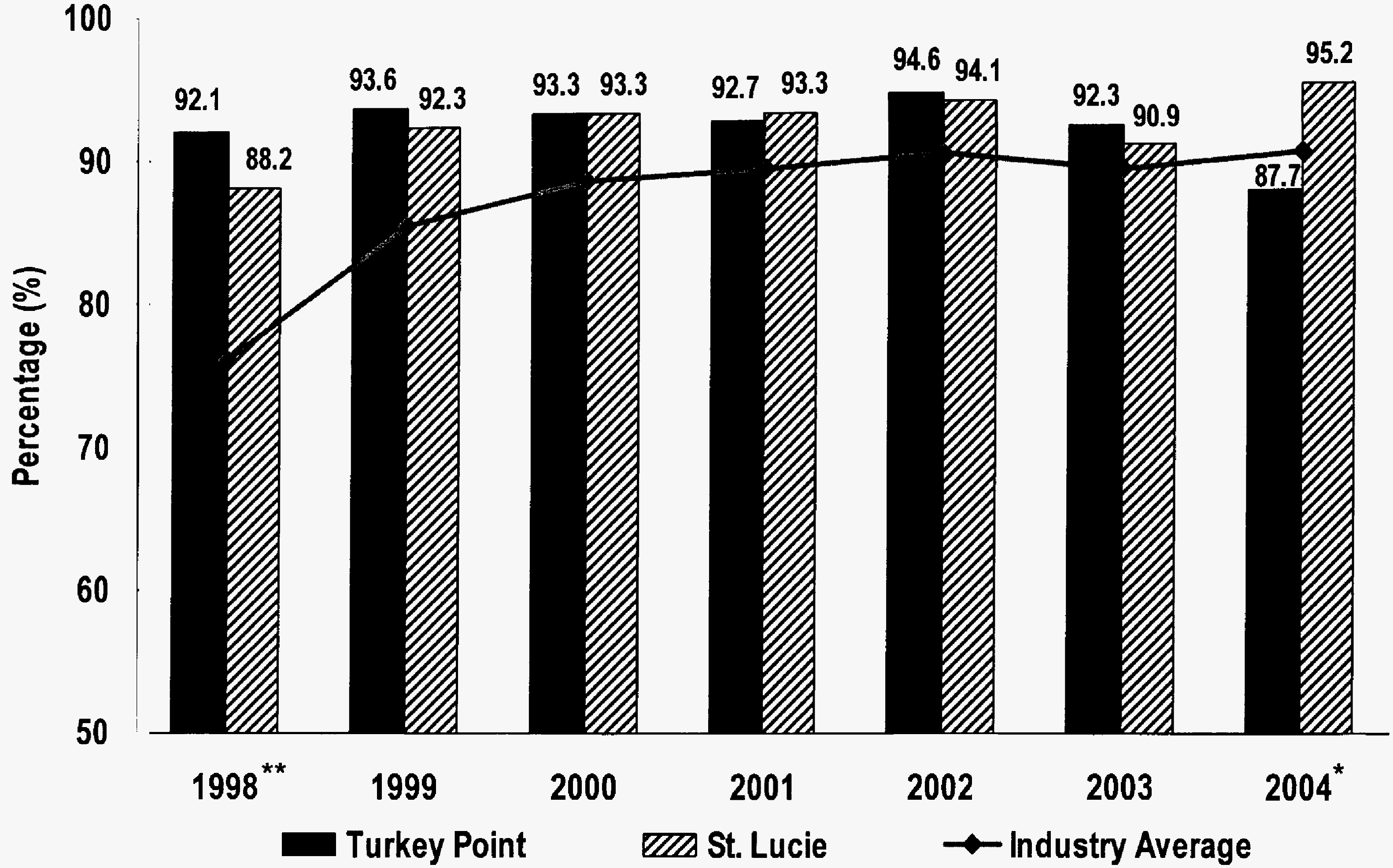






Data source: Electric Power Research Institute (EPRI)

FPL Nuclear – Unit Capability Factor (18-month average)



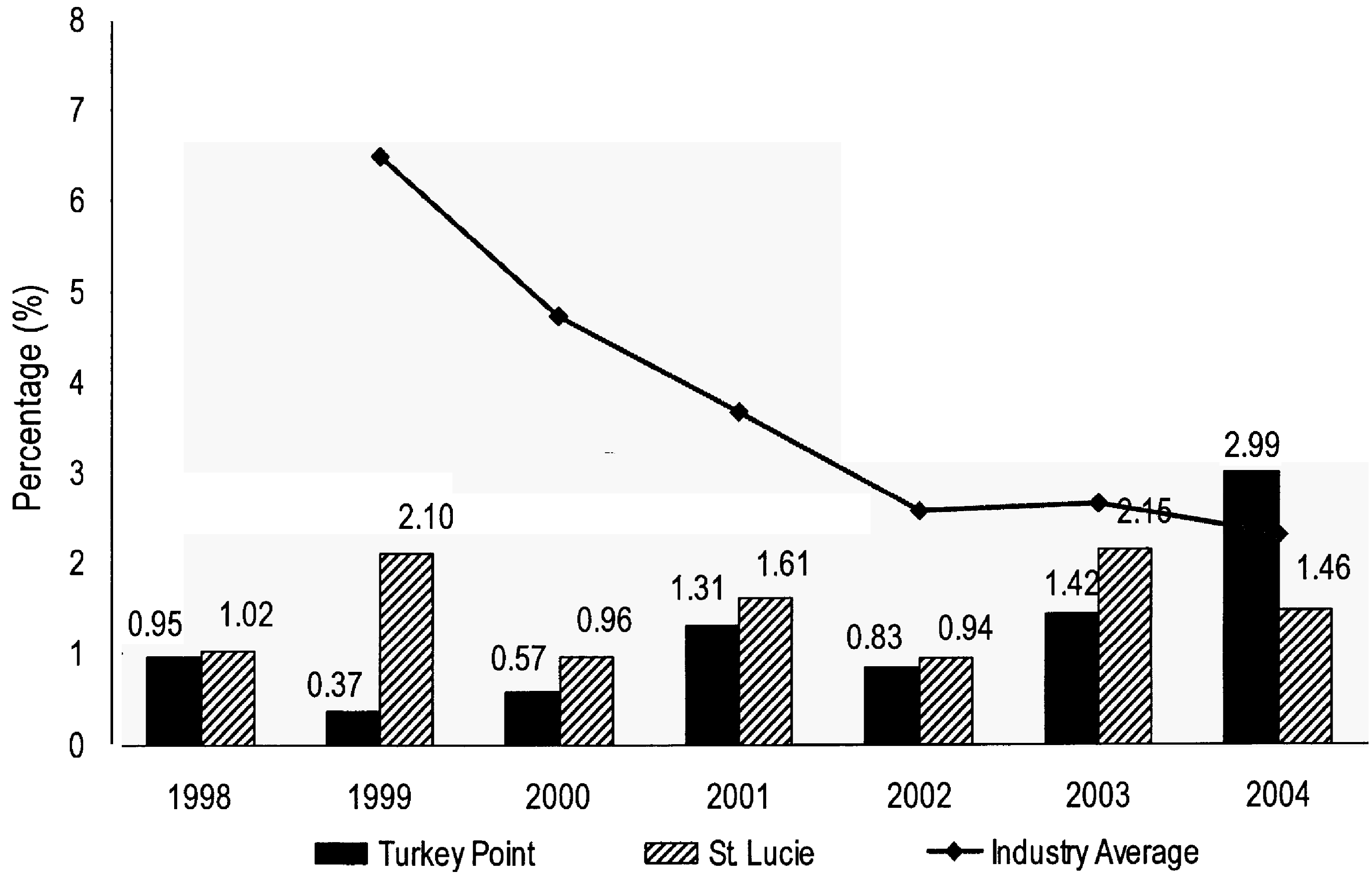
* Reflects deferral o St. Lucie Unit 2 refueling outage from November 2004 to January 2005 due to Hurricanes Frances and Jeanne

** 1998 Industry Average is for a 2-year period (old definition)

Industry data source: Institute of Nuclear Power Operations (INPO)

Docket No. 050045-EI
J. A. Stall Exhibit No. ___
Document No. JAS-3, Page 1 of 1
FPL Nuclear - Unit Capability Factor (18-month average)

FPL Nuclear – Forced Loss Rate (18-month average)

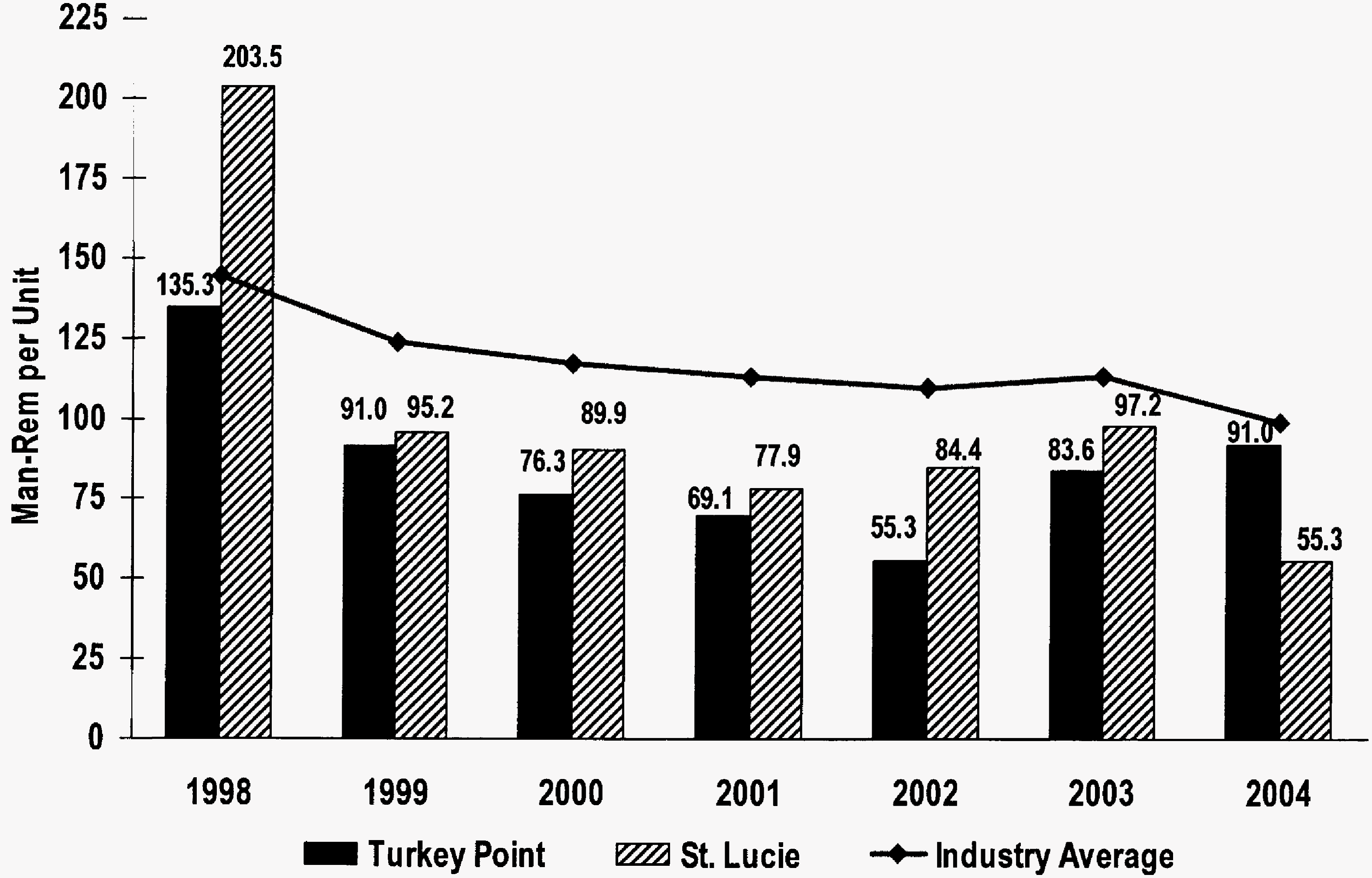


1998 Industry Average not available (Forced Loss Rate was not an indicator at that time)

Industry data source: Institute of Nuclear Power Operations (INPO)

Docket No. 050045-EI
J. A. Stall Exhibit No. ___
Document No. JAS-4, Page 1 of 1
FPL Nuclear – Forced Loss Rate (18-month average)

FPL Nuclear – Collective Radiation Exposure (18-month average)



1998 Industry Average is for a 2-year period (old definition)

Industry data source: Institute of Nuclear Power Operations (INPO)

Docket No. 050045-EI
J. A. Stall Exhibit No. ___
Document No. JAS-5, Page 1 of 1
FPL Nuclear – Collective Radiation
Exposure (18-month average)

FPL Nuclear St. Lucie Site – NRC Performance (4th Quarter 2004)

Indicator	Unit 1	Unit 2	Green	White
Unplanned Scrams Per 7000 Critical Hours	0.0	1.7	</= 3	>3 or </= 6
Scrams w/Loss of Normal Heat Removal	1.0	0.0	</= 2	>2 or </= 10
Unplanned Power Changes per 7000 Critical Hours	0.9	0.0	</= 6.0	> 6.0
Safety System Unavailability - Emergency AC Power	0.7%	0.5%	</= 2.5%	>2.5% or </= 5%
Safety System Unavailability - HP Injection	0.4%	0.4%	</= 1.5%	>1.5% or </= 5%
Safety System Unavailability - Aux Feedwater	0.5%	0.7%	</= 2%	>2% or </= 6%
Safety System Unavailability - Residual Heat Removal	0.7%	0.6%	</= 1.5%	>1.5% or </= 5%
Safety System Functional Failures	0	1	</= 5	> 5
RCS Specific Activity (RCSA) - Monthly	0.1%	0.2%	</= 50%	>50 % or </= 100 %
RCS Identified Leak Rate - Monthly	0.6%	0.0%	</= 50 %	> 50 % or </= 100 %
ERO Drill/Exercise Performance	96.7%	96.7%	>/= 90%	< 90% or >/= 70%
ERO Key Personnel Participation	100%	100%	>/= 80%	< 80% or >/= 60%
Alert & Notification System Reliability	99.6%	99.6%	>/= 94%	< 94% or >/= 90%
Occupational Exposure Control Effectiveness	0	0	</= 2	>2 or </= 5
RETS - ODCM Effluent Occurrences	0	0	</= 1	> 1 or </= 3
Protected Area Security Equip. Performance Index	0.045	0.045	</= 0.080	> 0.080
Personnel Screening Program Performance	0	0	</= 2	>2 or </= 5
FFD/Personnel Reliability Program Performance	0	0	</= 2	> 2 or </= 5

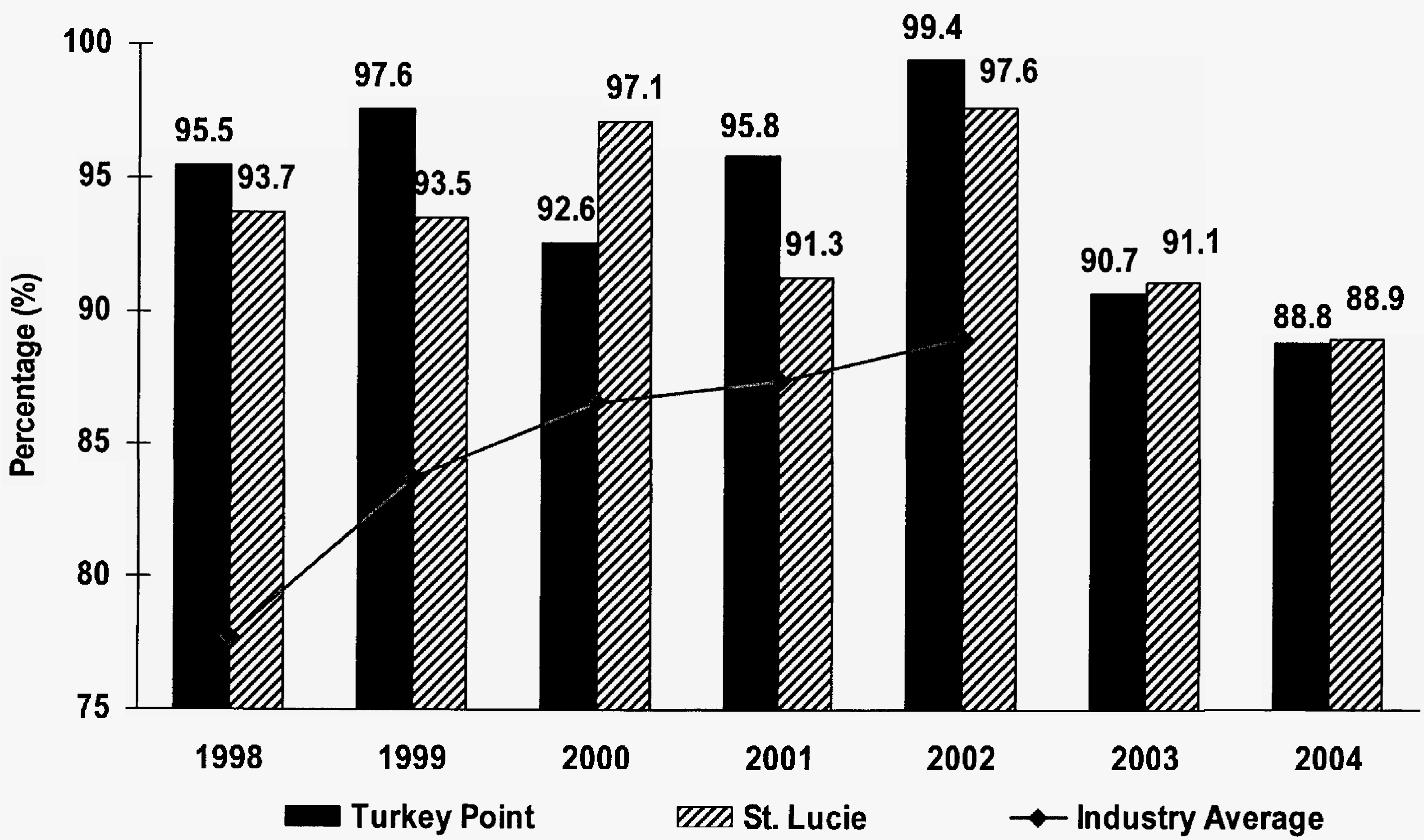
Industry data source: Nuclear Regulatory Commission

FPL Nuclear Turkey Point Site – NRC Performance (4th Quarter 2004)

Indicator	Unit 3	Unit 4	Green	White
Unplanned Scrams Per 7000 Critical Hours	2.0	1.6	</= 3	>3 or </= 6
Scrams w/Loss of Normal Heat Removal	0	0	</= 2	>2 or </= 10
Unplanned Power Changes per 7000 Critical Hours	4.0	0.8	</= 6.0	> 6.0
Safety System Unavailability - Emergency AC Power	0.3%	0.5%	</= 2.5%	>2.5% or </= 5%
Safety System Unavailability - HP Injection	0.2%	0.2%	</= 1.5%	>1.5% or </= 5%
Safety System Unavailability - Aux Feedwater	0.4%	0.6%	</= 2%	>2% or </= 6%
Safety System Unavailability - Residual Heat Removal	0.5%	0.4%	</= 1.5%	>1.5% or </= 5%
Safety System Functional Failures	2	2	</= 5	> 5
RCS Specific Activity (RCSA) - Monthly	0.0%	0.1%	</= 50%	>50% or </= 100%
RCS Identified Leak Rate - Monthly	0.7%	0.5%	</= 50%	> 50% or </= 100%
ERO Drill/Exercise Performance	97.2%	97.2%	>/= 90%	< 90% or >/= 70%
ERO Key Personnel Participation	100.0%	100.0%	>/= 80%	< 80% or >/= 60%
Alert & Notification System Reliability	99.8%	99.8%	>/= 94%	< 94% or >/= 90%
Occupational Exposure Control Effectiveness	0	0	</= 2	>2 or </= 5
RETS - ODCM Effluent Occurrences	0	0	</= 1	> 1 or </= 3
Protected Area Security Equip. Performance Index	0.005	0.005	</= 0.080	> 0.080
Personnel Screening Program Performance	0	0	</= 2	>2 or </= 5
FFD/Personnel Reliability Program Performance	0	0	</= 2	> 2 or </= 5

Industry data source: Nuclear Regulatory Commission

FPL Nuclear – Capacity Factor

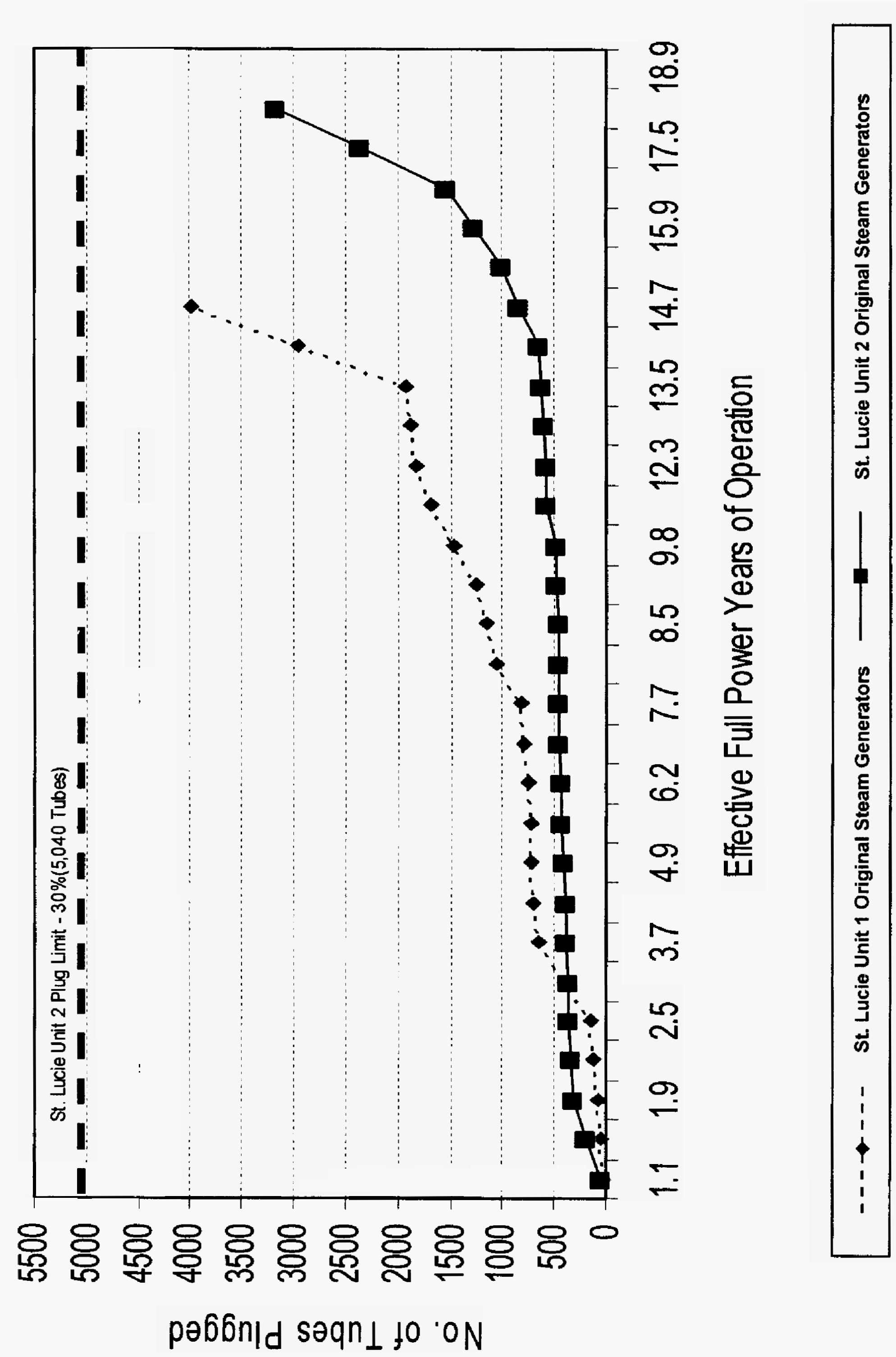


Industry averages for 2003 – 2004 not available

Industry data source: North American Electric Reliability Council – Generating Availability Data System

Docket No. 050045-EI
J. A. Stall Exhibit No. ____
Document No. JAS-8, Page 1 of 1
FPL Nuclear – St. Lucie Units 1 and 2
Steam Generators Tube Plugging – 1/05

FPL Nuclear – St. Lucie Units 1 and 2 Steam Generators Tube Plugging – 1/05



FPL Nuclear – Life Cycle Management Plans – Turkey Point

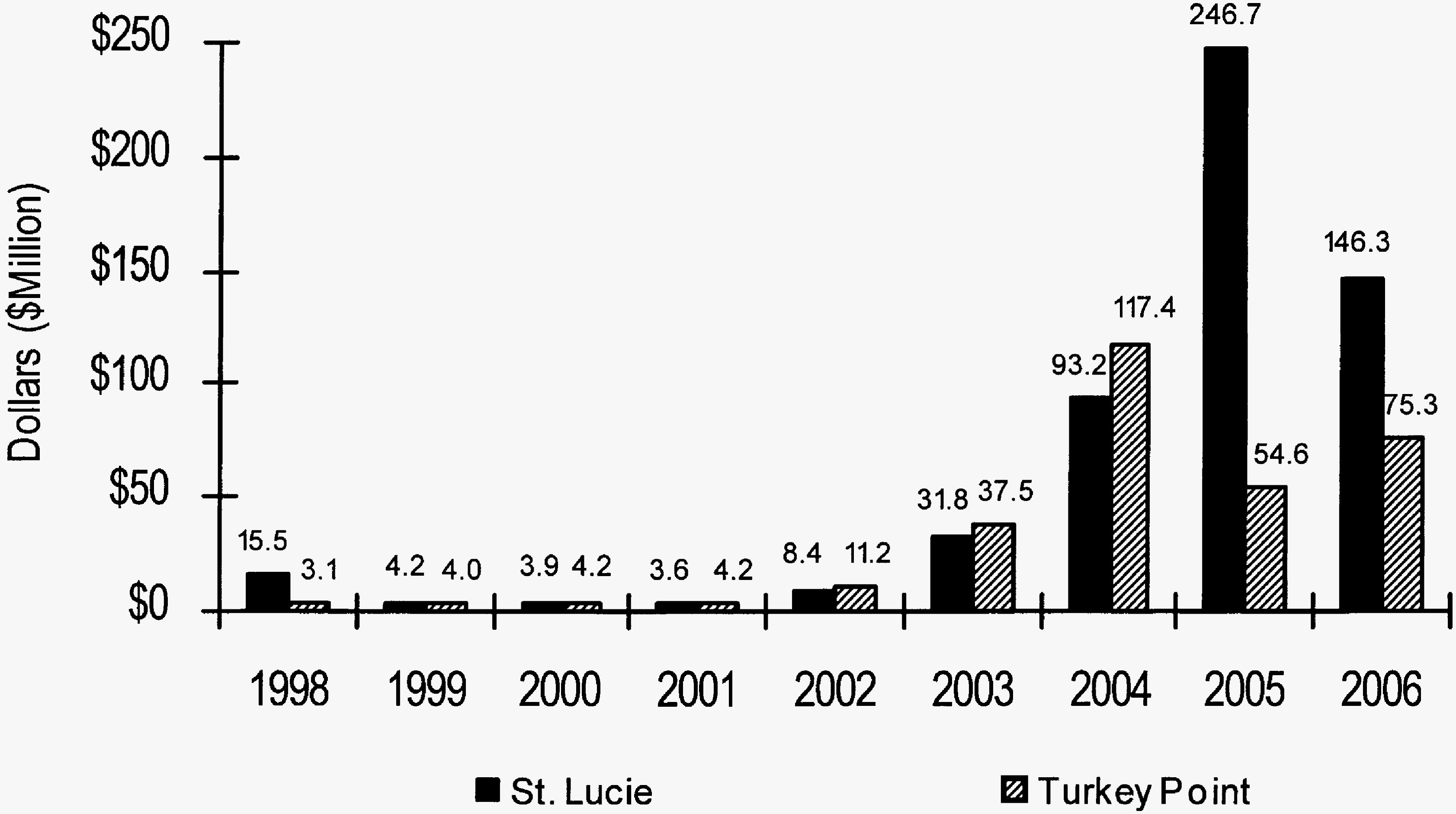
Unit	Activity	Planned Year in Service
3	Plant Data Network Installation	2005
3	Qualified Safety Parameter Display System	2005
3	Emergency Response Data Acquisition & Display System	2005
3	Feed Water Controls & Steam Dumps	2006
3	Auxiliary Feed Water Controls	2007
3	Secondary Pneumatic Side Control Systems - Turbine Bldg.	2007
3	Reactor Protection System/Engineered Safeguards Features Actuation Signal	2009
3	Reactor Coolant System, Chemical & Volume Control System & Balance of Analog Control System	2009
3	Critical Equipment Monitoring	2009
3	Annunciator	2009
3	Balance of Controls (Heating Ventilation & Air Condition, Auxiliary System Controls)	2010
3	Rod Control	2010
3	Process Area / Radiation Monitoring	2011
4	Plant Data Network Installation	2005
4	Qualified Safety Parameter Display System	2005
4	Emergency Response Data Acquisition & Display System	2006
4	Feed Water Controls & Steam Dumps	2006
4	Auxiliary Feed Water Controls	2008
4	Reactor Coolant System, Chemical & Volume Control System & Balance of Analog Control System	2008
4	Secondary Pneumatic Side Control Systems - Turbine Bldg.	2008
4	Critical Equipment Monitoring	2009
4	Annunciator	2009
4	Reactor Protection System/Engineered Safeguards Features Actuation Signal	2011
4	Balance of Controls (Heating Ventilation & Air Condition, Auxiliary System Controls)	2011
4	Rod Control	2011
4	Process Area / Radiation Monitoring	2011
Site	Simulator	Various

FPL Nuclear – Life Cycle Management Plans – St. Lucie

Unit	Activity	Planned Year in Service
1	Digital Data Process System/Sequence Of Events/Plant Data Network	2004 (in service)
1	Digital Feed Water Controls/Reactor Coolant Pump Indicators/Digital Controls System	2005
1	Qualified Safety Parameter Display System	2005
1	Digital Control System Raceways and Workstations	2005
1	Emergency Response Data Acquisition & Display System	2006
1	Turbine Building Heater Drains	2007
1	Turbine Digital Electro Hydraulic Control System & Reactor Turbine Generator Board 101	2008
1	Control Element Position Display System/Core Mimic (Reactor Turbine Generator Board 103 &104)	2008
1	Condensate and Cooling Water (Reactor Turbine Generator Board 102)	2008
1	Reactor Protection System/Engineered Safeguards Features Actuation Signal	2010
1	Reactor Coolant System, Chemical & Volume Control System	2008
1	Critical Equipment Monitoring	2010
1	Annunciators	2010
1	Control Element Assembly Control System	2010
1	Process Area / Radiation Monitoring	2010
2	Digital Data Process System/Sequence Of Events/Plant Data Network	2003 (in service)
2	Digital Control System Raceways and Workstations	2005
2	Emergency Response Data Acquisition & Display System	2006
2	Qualified Safety Parameter Display System	2006
2	Digital Feed Water Controls	2006
2	Turbine Bldg. Heater Drains	2007
2	Analog Display System/Core Mimic (Reactor Turbine Generator Board 203 &204)	2007
2	Digital Electro Hydraulic Control System	2009
2	Condensate and Cooling Water (Reactor Turbine Generator Board 202)	2009
2	Reactor Coolant System, Chemical & Volume Control System	2009
2	Reactor Protection System/Engineered Safeguards Features Actuation Signal	2010
2	Critical Equipment Monitoring	2010
2	Annunciators	2010
2	Control Element Assembly Control System	2010
2	Process Area / Radiation Monitoring	2011
1&2	Simulator	Various

Docket No. 050045-EI
J. A. Stall Exhibit No. ___
Document No. JAS-9, Page 2 of 2
FPL Nuclear – Life Cycle Management Plans – St. Lucie

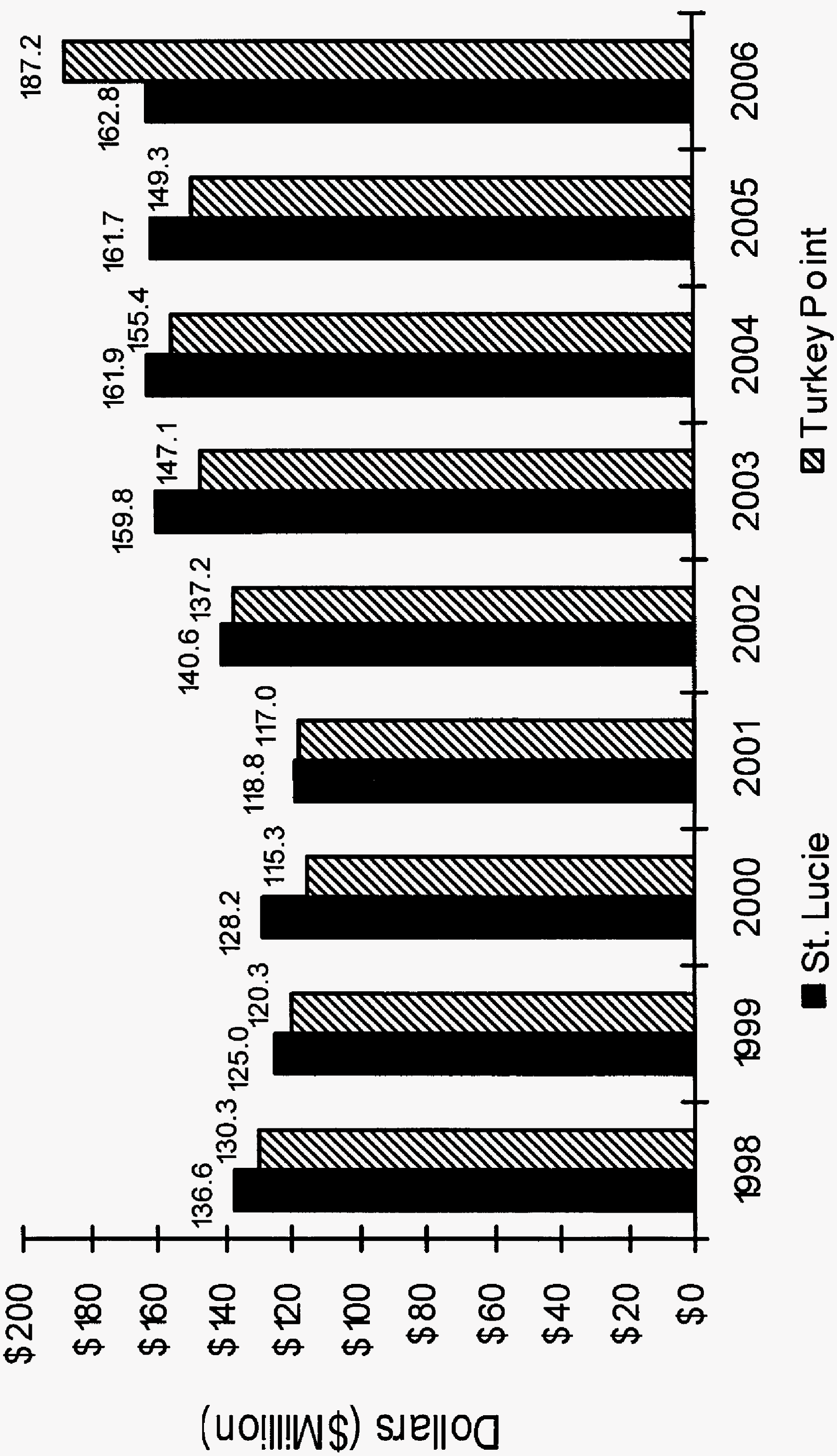
FPL Nuclear – Capital Expenditures



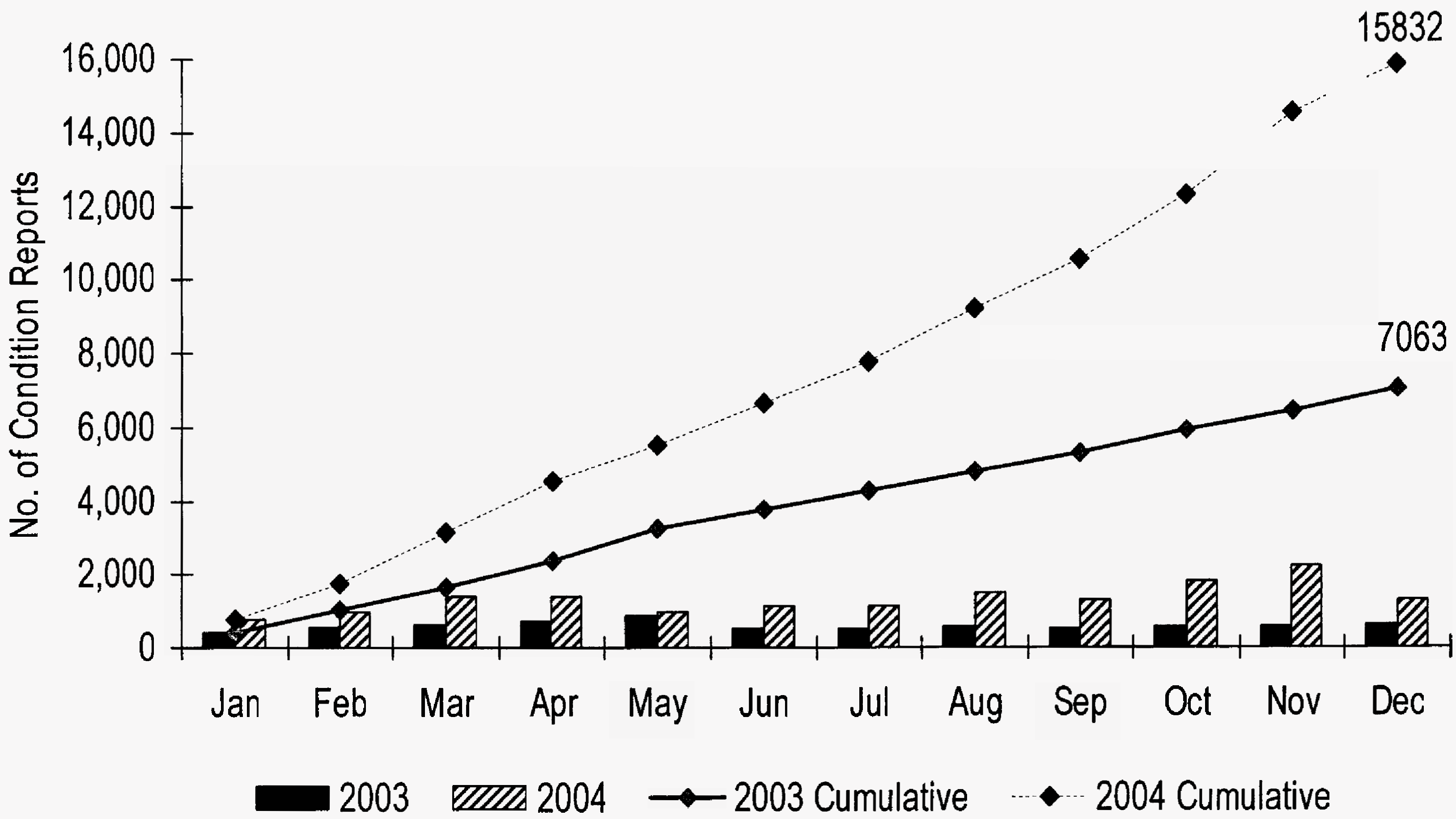
Docket No. 050045-EI
J. A. Stall Exhibit No. ___
Document No. JAS-10, Page 1 of 1
FPL Nuclear – Capital Expenditures

Docket No. 050045-EI
J. A. Stall Exhibit No. ____
Document No. JAS-11, Page 1 of 1
FPL Nuclear – O&M Expenditures

FPL Nuclear – O&M Expenditures



FPL Nuclear – Condition Reports Generated (Turkey Point and St. Lucie Combined)



Data Source: Station Issue Tracking and Information System (SITRIS) reports

Docket No. 050045-EI
J. A. Stall Exhibit No. ____
Document No. JAS-12, Page 1 of 1
FPL Nuclear – Condition Reports
Generated (Turkey Point and
St. Lucie Combined)