JULY 2009

REVIEW OF

Florida Power & Light's

Project Management Internal Controls

FOR

Nuclear Plant Uprate and Construction Projects

By Authority of
The State of Florida
Public Service Commission
Division of Regulatory Compliance
Bureau of Performance Analysis

Review of

Florida Power & Light's Project Management Internal Controls for Nuclear Plant Uprate and Construction Projects

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1.0 Executive Summary

1.1 Purpose and Objectives

At the request of the Florida Public Service Commission's (Commission or FPSC) Division of Economic Regulation, the Division of Regulatory Compliance conducted this review. It is the second annual review in an ongoing oversight program. FPSC audit staff's previous report is entitled *Review of Florida Power and Light's Project Management Internal Controls for Nuclear Plant Uprate and Construction Projects.* It was published in August 2008. Staff examined the organizations, processes, and controls used by Florida Power & Light Company (FPL) to execute the Extended Power Uprates (EPU) of St. Lucie Units 1 & 2 and Turkey Point Units 3 & 4, and the construction of Turkey Point Units 6 & 7.

The primary objective of this year's review was to document project key developments, organization, management, internal controls, and oversight that FPL has in place or plans to employ for these projects. The information provided in this report may be used by Division of Economic Regulation staff to assist in an assessment of the reasonableness of the FPL project cost-recovery requests.

1.2 Scope

The internal controls examined were those related to the following key areas of project activity:

- Planning
- Management and Organization
- Cost and Schedule Controls
- Contractor Selection and Management
- Auditing and Quality Assurance

Internal controls are the vital mechanisms used by the company to stay within budget and on schedule. According to the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing*, appropriate internal controls allow the organization to:

- Produce accurate and reliable data
- Comply with applicable laws and regulations
- Safeguard assets
- Employ resources efficiently
- Accomplish goals and objectives

Well-constructed internal controls assist with the challenges of risk management and decision making. Risks must be identified and appropriate protections established to prevent, mitigate, or eliminate them. Prudent decision making results from orderly, well-defined

processes that address known risks, needs, and capabilities. Adherence to written procedures, effective communication, vigilant internal and contractor oversight, and ongoing auditing and quality assurance are essential to ensure that project costs are prudently incurred.

Specifically, according to Internal Control Integrated Framework designed by the Committee of Sponsoring Organizations of the Treadway Commission, an internal control should consist of five interrelated components. The components are:

- Control environment
- Risk assessment
- Control activities
- Information and communication
- Monitoring

The synergy and linkage among these components forms an integrated system which reacts to changing conditions. The internal control system must be intertwined with the entity's operating activities. When looking at the effectiveness and efficiency of operations, the reliability of financial reporting and compliance with applicable laws and regulations all five components must be present and function effectively to conclude that internal operational controls are effective. This report will document the existence of each of these five components for FPL project management.

1.3 Methodology

Planning and research for this review were performed in January and February 2009. Data collection, site visits and interviews, analysis and report writing were conducted between March and June 2009. The information compiled in this report was gathered via company responses to eleven staff document requests, a visit to the St. Lucie site, and interviews with key project personnel. Staff also reviewed testimony, discovery and other filings in Docket No. 090009-EI.

A large volume of information was collected and analyzed. Specific information collected from FPL included the following categories:

- Policies and procedures
- Organizational charts
- Requests for proposals
- Contractor bids and proposals
- Bid evaluation analyses
- Contracts
- Project scope analysis studies by FPL and consultants
- Internal audit reports

1.4 Observations

General

Internal controls will ultimately determine the success of the FPL projects and the prudence of the company's actions. This is not to say that a hindsight review should be used to determine company prudence. A complete determination of the reasonableness of the eventual control systems for management of these projects cannot be made at this time. Any assessment made at a particular point in time is a snapshot view and cannot be guaranteed to remain valid for the entire duration of the project activities.

In any controls assessment, adequate controls may be in place at some point. But, the ultimate proof of adequacy comes when project work is undertaken. Often controls require further revision to ensure continued protection from project risks. Until controls have been tested under actual operational conditions, the adequacy of the controls cannot be fully assessed. Such is the case with the project controls for these projects. Beyond planning and licensing activities, the vast majority of work for these projects has not yet been performed. Actual work conditions will test the controls in place and determine their adequacy.

Though internal controls in place at the outset of any undertaking may appear adequate, there is no guarantee that they will be followed or used properly. Verification of adherence to procedures and careful examination of changes to control systems are essential ingredients to evaluating the reasonableness of management actions. FPSC audit staff believes continued internal and external oversight is necessary over the lifespan of these projects. Internal audits and quality assurance audits are particularly important and should provide coverage of controls, procedural adherence, and project management issues.

During the course of this review, FPSC audit staff made observations in a variety of areas including project development, organization, oversight, controls, and contracts. Of those, the key observations for Turkey Point 6 & 7 new construction and the St. Lucie and Turkey Point Extended Power Uprate projects are discussed below.

Turkey Point Units 6 & 7 Observations

- FPL reports that all scheduled long term milestones have been completed to date, on time and within budget. The company continues to move toward obtaining necessary regulatory approvals at the local, state and federal levels.

- FPL decided to delay submitting its Combined Operating License Application (COLA) to the Nuclear Regulatory Commission (NRC) by three months, from March to June 2009. The company filed its COLA with the NRC on June 30, 2009 and believes this short term delay will have no impact to the long term schedule.

- FPL has not yet signed an engineering, procurement, and construction (EPC) contract. The company has signed a reservation agreement to reserve component manufacturing slots for long lead equipment forgings.

- Responding to the 2008 Nuclear Cost Recovery Clause hearings, FPL conducted additional training to improve documentation of single/sole source procurements. This ensures justifications follow Nuclear Policy NP-1100 instructions and facilitates independent review by third parties. FPSC audit staff believes that FPL should continue to improve and monitor single/sole source contract justifications to ensure each reflects Commission Order No. PSC-08-0749-FOF-EI.

St. Lucie and Turkey Point Uprates Observations

- In early 2009, FPL adjusted the federal submission schedule for its License Amendment Request (LAR). FPL believes this will have no long term schedule impact since most of the outage construction work is scheduled in 2010-2012.

- FPL states that the Uprate project is within current budget projections.

- As it begins the construction phase, FPL states that the long term schedule is on target. Licensing and permitting tasks are ongoing.

- FPL restructured the EPU project organization late in 2008 to assist transition to the construction phase. FPL considers the reorganization beneficial to project management, coordination, and risk mitigation.

- In December 2008, Extended Power Uprate (EPU) management approved an Engineering, Procurement, and Construction (EPC) contract with Bechtel Corporation. FPL believes an EPC will provide better staffing and construction expertise while simultaneously improving project coordination and oversight.

- After questioning the level of detail for EPU single/sole source justifications during the 2008 Nuclear Cost Recovery Clause hearings, the Commission ordered FPL to improve documentation. EPU management initiated additional single/sole source training. The company states that it has improved documentation to ensure justifications follow Nuclear Policy NP-1100, and facilitate review by independent third parties. FPSC audit staff believes that FPL should continue to monitor and improve single/sole source justification for EPU contracts and ensure each reflects Commission Order No. PSC-08-0749-FOF-EI.

- FPL considers upgrades to existing gantry cranes at both sites as critical to project success. The St. Lucie Unit 2 upgrade is scheduled for completion in 2009 and Unit 1 in 2010. FPL must similarly upgrade Turkey Point gantry cranes but costs have not yet been determined and a contract has not been signed.

- An FPL employee complaint through the Employee Concerns program prompted an Internal Audit of hiring practices in 2008. Corrective actions were implemented and FPL made a monetary adjustment to its nuclear cost recovery clause request.

2.0 Key Project Developments

2.1 Key Project Developments – Turkey Point Units 6 & 7

What is the current status of the Turkey Point Units 6 & 7 project?

In 2008 and 2009, FPL moved the Turkey Point Units 6 & 7 project forward toward submission of the Combined Operating License Application (COLA) to the Nuclear Regulatory Commission (NRC) for approval to begin construction of the project. FPL states that it has continued its stepwise and cautious approach toward negotiating an Engineering, Procurement, and Construction (EPC) contract for construction of two Westinghouse AP1000 reactors. Key project developments for Turkey Point Units 6 & 7 since the initial Nuclear Cost Recovery hearing are discussed below.

Units 6 & 7 Contract Decision Remains Under Consideration

FPL has not yet signed an engineering and procurement contract for Turkey Point Units 6 & 7 but did sign an agreement with Westinghouse Electric Company to reserve manufacturing slots for long lead equipment components. Since then, the parties have been negotiating toward an engineering and procurement contract. The current reservation agreement expires on December 31, 2009. Unless a definitive engineering and procurement contract is signed before then, FPL is at risk of losing a portion of its $10.8 million reservation fee. However, the reservation agreement also specifies that if the parties mutually agree to continue negotiations on a definitive engineering and procurement contract, an extension of the December termination date is possible.

The company states that it is continuing to take a cautious approach in deciding whether to sign just an engineering and procurement contract or a combined Engineering, Procurement, and Construction (EPC) contract package. FPL states that it has not excluded the potential for a Westinghouse/Shaw, Stone & Webster EPC package, but believes there are other qualified candidates available to construct the new AP1000 units.

FPL believes it can delay the constructor decision now, without impacting the long term in-service schedule of the project, and receive financial benefits from changing market conditions. In FPL's opinion, there may be considerable benefits to bidding the construction portion of the project to a qualified constructor, rather than negotiating a package contract.

COLA Submission Revised From March to June 2009

In 2008, FPL decided to delay submission of its COLA to the NRC, from March to June 2009. FPL considered several potential risk factors in making the submittal date change. FPL states that the primary motivator for slipping the COLA schedule was a change in scope to include work that addresses concerns identified by the NRC in the Progress Energy Levy COLA review. Based on the NRC Requests for Additional Information issued to Progress for the Levy units, FPL added site-specific geotechnical information to the Turkey Point 6 & 7 COLA submission.

FPL wanted to include answers to NRC requests for information up front, rather than face future delays. The company was concerned that the COLA submittal might be accepted, and sit for six months without action, only to later face NRC concerns. FPL believed it should spend three months to "get it right", by addressing known NRC concerns related to groundwater and site geology. These changes were included in the June 30, 2009 COLA submission to the NRC.

FPL believes that NRC budget cuts and resource restraints may extend the interval for review and approval of its COLA application. FPL estimates the impact of budgetary cuts may extend the approval and hearing process to approximately 50 months.

Changes in Single/Sole Source Justification Documentation Practices

During the Nuclear Cost Recovery Clause hearings in 2008, close attention was paid to the detail FPL provided in its justification of single/sole source contract awards. In Order No. PSC-08-0749-FOF-EI, issued November 12, 2008, the Commission ordered FPL to "increase its documentation and support for single source and sole source contracts for the EPU project and the Turkey Point units 6 & 7 project for future filings in the NCRC".

Since that time, FPL states that the company has improved the process of documenting and approval of single and sole source procurements to insure justification documentation follows Nuclear Policy NP-1100 instructions, and facilitates the review of justification documentation by third parties. Additional training on single/sole source justification documentation and support was implemented within the Turkey Point 6 & 7 organization during late 2008.

FPL states that the single/sole source justification documentation and support procedures themselves did not require enhancements. Instead, the company conducted training pertinent to its single and sole source policies. FPL completed the single/sole source contract training for Turkey Point Units 6 & 7 projects in November and December 2008. The company states it has also placed more oversight on single/sole source justification documentation. FPL states it has included more information for an independent reviewer to understand the justification for choosing a single/sole source vendor. FPL reports that it is writing justifications with greater attention to the explanation and support of reasonable costs and single or sole source selections, and it is trying to involve reviewers upfront before the justification is issued.

Staff sought to determine whether changes in the detail of single/sole source justifications improved as a result of the Commission's order. FPSC audit staff reviewed FPL training materials, lists of training attendees, and single/sole source justification documents issued after

November 2008. FPSC audit staff found that single/sole source justification documents completed for Turkey Point 6 & 7 contained basic decision-making information, are easily understood by a third party, and include an analysis addressing the reasonableness of the cost/price.

However, FPSC audit staff believes FPL single/sole source justification documentation could be further improved, and encourages FPL to attach any additional detail documentation that helps show single/sole sourcing was a reasonable financial decision. Examples of useful additional documentation may include: details on avoided expenditures, anticipated cost savings, projected man hour savings, estimated costs of bidding versus single/sole source, potential delays to the schedule, and other data that demonstrates single/sole sourcing is the most reasonable alternative.

Other Project Considerations

Each of the two new Turkey Point units is expected to use millions of gallons of water per day. FPL is considering different sources for primary, secondary, and back-up supplies. FPL is currently working with county and state environmental agencies to evaluate its options. Possible water resources for the project include the use of groundwater, reclaimed wastewater from Miami-Dade County, deep well, and ocean extraction. If FPL decides that reclaimed wastewater is to be a significant portion of the overall water resource mix, pipeline facilities will be needed. FPL anticipates that approximately ten miles of pipeline would be required to bring in reclaimed water from Miami-Dade County. FPL believes a wastewater treatment facility will be required on or near the Turkey Point site to further treat the reclaimed water prior to use at the site. The estimated costs of necessary pipeline and treatment facilities are currently under study by FPL.

FPL continues to assess the possibility of excavating tons of fill rock near the Turkey Point site. FPL must raise the containment vessel elevation approximately twenty feet above sea level, requiring millions of tons of fill. To reduce the total amount of purchased rock required from outside vendors for the site, FPL is working with county and state agencies to secure necessary permits allowing excavation of needed fill rock from a near-by location and transport to the Turkey Point site. FPL anticipates this would save millions of dollars.

Transmission corridor and rights-of-way studies for Turkey Point Units 6 & 7 were completed in early 2009. FPL has identified the transmission requirements of the Turkey Point Units 6 & 7 project going forward. The company will locate the new Clear Sky substation on site, and will deliver generation through two different routes extending north and west from the plant.

FPL states that it has reviewed the potential environmental impacts to neighborhoods and wildlife, and has chosen transmission routes primarily located in FPL's existing rights-of-way to minimize potential impacts. FPL held nine open house public meetings in November and December 2008. These meetings provided public input for selecting the new transmission routes. The selected transmission routes and preferred corridors will be input to FPL's Site Certification Application for the Turkey Point 6 & 7 units.

What is the current schedule for the Turkey Point Units 6 & 7 project?

FPL reports that all Turkey Point Units 6 & 7 scheduled milestones to date have been completed on time and within budget. FPL is progressing toward obtaining necessary regulatory approvals at the local, state and federal levels. The majority of project activities and expenditures have focused on development of the Combined Operating License Application and the Site Certification Application (SCA) for federal and state requirements. Additional project activities have focused on local issues of water resources, fill rock excavation, and transmission route approvals. **EXHIBIT 1** shows licensing activities and other schedule items which may impact the project schedule in 2009-2010.

Turkey Point 6 & 7 Key Activities for 2009-2010	
Activity	**Target Date**
Combined Operating License Application Submittal	June 2009
Turkey Point Site Certification Submittal	June 2009
Army Corp of Engineers Wetlands Permits	June 2009
NRC produced Draft Environmental Impact Statement	2010
Anticipated Site Certification Approval	Late 2010

EXHIBIT 1 *Source: S. Scroggs, May 2009 testimony*

The FPL licensing and permitting process increased in January 2008, with development of a 15-month schedule to submit the COLA, Army Corps of Engineers permit applications, and the Florida Department of Environmental Protection site certification. Licensing and permitting for Turkey Point Units 6 & 7 is centrally managed. FPL states that a single coordination entity improves project efficiency, while simultaneously maximizing productivity. The company faced a full slate of important application submissions in 2009. FPL management states that the COLA, SCA and Army Corps of Engineers permit application were submitted in June 2009 and the company is set to meet the remaining planned submission dates.

Federal Approvals

Following submission of the COLA, FPL believes the NRC review and hearing process will likely take up to 50 months to complete. When the submission is approved, the NRC will grant FPL a license to operate the new Turkey Point Units 6 & 7. Based on COLA submittal in June 2009, FPL has targeted NRC approval and licensure for mid to late 2013.

FPL is also pursuing an Environmental Resource Permit from the Army Corps of Engineers, the federal agency with jurisdiction over wetlands or infrastructure impacted by Turkey Point 6 & 7. According to FPL, the request for the Environmental Resource Permit is part of the Site Certification Application, submitted on June 30, 2009. FPL believes the request provides sufficient detail for the Army Corps of Engineers to assess project impacts and make a determination that FPL can minimize impacts sufficiently to allow for construction approval.

State Approvals

FPL reports that it submitted the Florida Site Certification Application for Turkey Point Units 6 & 7 on June 30, 2009. After submitting the application, the approval process is expected to take up to 15 months to complete. FPL anticipates the SCA to be granted in late 2010.

2.2 Key Project Developments – Uprates

What is the current status of the St. Lucie and Turkey Point Uprate projects?

FPL states that to date the planned Extended Power Uprates are on schedule and within budget projections. In 2008 and 2009, EPU management has moved the projects toward submissions of License Amendment Requests (LAR) to the NRC in late 2009 through second quarter 2010. In preparation for the scheduled system outages, considerable attention has turned to preparing detailed engineering modules for construction, and planning of the associated logistics for coordinating the construction effort. Key project developments for the EPU during 2008-2009 are discussed below.

Bechtel Contract Awarded

In December 2008, EPU project management approved an Engineering, Procurement, and Construction (EPC) contract with Bechtel Corporation. Previously, FPL and FPL Energy have generally self-managed nuclear plant Uprates. However, due to the complexities of coordinating four unit outages, FPL believes an EPC contractor provides greater benefits in construction expertise, staffing resources, and overall coordination and oversight of construction activities.

FPL will oversee Bechtel's progress and assist with resolving any roadblock issues, to ensure the project schedule and budget remain intact. EPC contract provisions include key deliverables for payment and incent the contractor with shared savings opportunities. Likewise, Bechtel would share in any cost overruns due to contractor non-performance. Key Performance Indicators also ensure the contractor is held to project objectives of timely completion and cost effective performance. The performance of Bechtel will continue to be important to the timely and cost effective completion of the EPU.

EPU Project Reorganization

In late 2008, FPL restructured the St. Lucie and Turkey Point Uprate project organization. A Director is now located at each site to provide senior management attention and decision-making. The reorganization separates licensing and modification engineering responsibilities between two Director-managed groups. FPL believes having Director level decision-making at each site reduces potential risks associated with untimely decision-making. Director level supervision of licensing and modification activities reduces risks associated with the activities being supervised by separate organizations. FPL views the project reorganization as both a streamlining of project management and a risk mitigation strategy. In 2009, FPL is

beginning the final design and pre-construction phase of the EPU project, with most of the actual construction work scheduled during outages in 2010-2012.

FPL experienced staffing challenges with two contractors late in 2008. [redacted] each experienced inadequate staffing. As a result of short-term delays, FPL requested that each vendor prepare a recovery plan, identify underlying causes of staffing problems, and develop a plan to return to the project schedule. FPL believes both vendors responded adequately and anticipates no long-term schedule delays. FPL states that it believes staffing is a critical project issue and intends to continue close monitoring of the contractors. FPL uses the monthly EPU Project Risk Management Report to monitor contractor staffing.

FPL modified the dates for the LAR submittals partially due to the staffing issues experienced with [redacted]. While the staffing issues alone did not cause the LARs to be delayed, the staffing events impacted the short term schedule. As late as May 2009, staffing issues with these two vendors continued to appear on the EPU Project Risk Management Report as a [redacted] with a [redacted] rating for the St. Lucie site, and a [redacted] with [redacted] rating on the Turkey Point site.

Internal Audit Review of EPU Staffing Practices

As a result of an employee complaint, FPL Internal Audit conducted a review of the staffing practices used by EPU management. The complaint was lodged through FPL's Employee Concerns program and included [redacted] FPL conducted an internal audit during the summer of 2008, and issued its report in December.

The internal audit findings and recommendations were presented to FPL management and corrective actions were taken by the company. [redacted] and an EPU project cost adjustment to the Cost Recovery Clause amount.

[redacted]

Following the audit, FPL asked Concentric Energy Advisors to conduct an independent assessment of whether rates paid by the former staffing vendor were comparable to those of other contractors used by FPL. The assessment concluded that the rates used by the staffing vendor were seven to nine percent higher than other contractors. FPL states that, taking a conservative approach, it chose to adjust the total incurred vendor costs downward by nine

percent. This resulted in a $772,000 reduction in FPL's EPU project cost recovery request. According to the company, this adjustment was reflected in the May 1, 2009, filing. [redacted]

The internal audit and subsequent Concentric Energy Advisors assessment identified [redacted] However, the FPL employee report of suspected violations served as another internal control to notify FPL of potential problems. FPL Internal Audit completed an investigation of the allegations and reported results to executive management. FPL responded to the report findings and took corrective action. A project the size and complexity of the St. Lucie and Turkey Point Uprates is likely to experience some form of control violations during the project. Continued vigilance by FPL employees, management, Internal Audit, Quality Assurance, and Contractor oversight is required to help identify and minimize the potential for control violations.

Changes in Single/Sole Source Justification Documentation Practices

The Commission-ordered changes in single/sole source procurement documentation discussed regarding Turkey Point 6 & 7 also impact the EPU project procurement. In late 2007 and early 2008, much of the initial EPU project procurement of engineering services and long lead equipment items was completed through single and sole sourcing. While FPL had completed single/sole source justifications as required by its procedures, the detail provided by the justifications was questioned, during the Nuclear Cost Recovery Clause hearings held in 2008. In Order No. PSC-08-0749-FOF-EI, issued November 12, 2008, the Florida Public Service Commission ordered FPL to "increase its documentation and support for single source and sole source contracts for the EPU project and the Turkey Point units 6 & 7 project for future filings in the NCRC".

Since that time, FPL states that the company has continued to improve the documentation and approval process for single/sole source procurements. In response to the Florida Public Service Commission order, the company began to improve on the quality of its single/sole source documentation, by implementing additional personnel training on justifications at both the EPU and Turkey Point Units 6 & 7 projects. FPL states that its justifications have been improved to ensure compliance with Nuclear Policy NP-1100 instructions, and can be easily understood by a third party. Additionally, FPL states that the company improved single/sole source controls by placing the responsibility for the adequacy of single and sole source justification documentation within one position. These improvements were implemented during late 2008.

FPSC audit staff reviewed FPL training materials, listing of attendees, and single/sole source justifications for FPL contracts issued after November 2008 to determine whether changes in the detail of single and sole source justification documents improved since the November 12, 2008 Commission Order. FPSC audit staff found that the EPU organization began single/sole source contract training sessions in October and November 2008, and completed the training in March 2009.

FPSC audit staff examined EPU single/sole source justifications completed after November 2008 and found that additional improvement can be made to justification documentation. Justifications should contain expanded explanation of why single/sole sourcing was used, and more fully support the reasonableness of cost/price. FPL explained that because the EPU group did not complete single/sole source justification documentation training until March 2009, justifications prior to that time would not yet reflect improvements. Staff expects that any EPU single/sole source justifications completed after March 2009 will contain more detailed documentation that can be easily retraced by a third party and include reasonableness of cost/price analysis. FPSC audit staff believes FPL should continue to monitor single/sole source justifications and ensure each reflects the Commission ordered changes.

What is the current schedule for the St. Lucie and Turkey Point uprate projects?

FPL states that EPU project licensing and permitting activities are ongoing. In 2009, the company adjusted the federal licensing submission schedule, but claims it will not cause a project schedule delay. **EXHIBIT 2** shows licensing activities and other schedule items which may impact the Uprate project schedule in 2009-2010.

St. Lucie and Turkey Point Uprates Key Activities for 2009-2010	
Activity	**Target Date**
St. Lucie	
License Amendment Request Submission to NRC - Unit 1	Fourth Quarter 2009
Unit 2 Gantry Crane Upgrade completed	December 2009
Engineering Modification Packages Supporting Uprates Completed for 2010 Outages	December 2009
License Amendment Request Submission to NRC - Unit 2	First Quarter 2010
Unit 1 Gantry Crane Upgrade completed	First Quarter 2010
Unit 1 Outage for Refueling and Uprate Construction	April 2010
Unit 2 Outage for Refueling and Uprate Construction	November 2010
Turkey Point	
License Amendment request Submission to NRC - Alternate Source Term for both units	Second Quarter 2009
Engineering Modifications Supporting Uprates Completed	December 2009
License Amendment Request Submission to NRC - Extended Power Uprate for both units	Second Quarter 2010
Conditions of Certification for Turkey Point Units	Ongoing
Unit 3 Outage for Refueling and Uprate Construction	September 2010
Unit 4 Outage for Refueling and Uprate Construction	March 2011

EXHIBIT 2 *Source: FPL Response to DR-8.7, 8.8, DR-9.1*

Federal Approvals

In 2008, FPL completed engineering evaluations and analyses supporting its required Uprate License Amendment Requests to the NRC. The company originally intended to submit the License Amendment Requests in third and fourth quarter 2009. In April 2009, EPU project management adjusted its original regulatory submittal dates, and extended the schedule into

second quarter 2010. FPL believes these adjustments do not impact the project implementation schedule or costs.

A 2008 policy change constrains utilities from filing more than a single application before the NRC at one time. This decision means that FPL cannot "link" its license amendment request submittals for NRC review. This has effectively lengthened the timing required for regulatory review by spreading out the Uprate submittals. The NRC action delinking an Alternate Source Term license amendment request from the EPU license amendment request has caused FPL to reevaluate its licensing timeline.

FPL will submit four individual and separate license amendment requests to the NRC during 2009-2010. Requests will be submitted for St. Lucie in the fourth quarter 2009 (Unit 1) and the first quarter 2010 (Unit 2). There will be two license amendment requests for Turkey Point, each applicable to both Units 3 & 4. An Alternate Source Term request will be submitted in second quarter 2009, and an EPU request in second quarter 2010.

State Approvals

The Site Certification Application for the St. Lucie phase of the EPU project was submitted to the Florida Department of Environmental Protection in December 2007. The application for the Turkey Point phase was submitted in January 2008. Approval orders were received in September 2008 for St. Lucie and in October 2008 for Turkey Point. The Site Certification Applications contained conditions of certification, requiring additional work with the South Florida Water Management District, Miami Dade County, and Florida DEP for the Turkey Point Units. Minimal activities of this type are expected for the St. Lucie application.

Other Schedule Items

Procurement contracts for long-lead items such as the moisture separator reheaters, feedwater heaters, main condensers, heat exchangers, and generator step-up transformers were competitively bid and awarded in 2008. Engineering modification packages supporting the planned outages will be completed in 2009, with construction to occur in 2010-2011. FPL states that the company is on target to meet outages for refueling and concurrent uprate work currently scheduled in 2010 for St. Lucie Unit 1 (April), Turkey Point Unit 3 (September), and St. Lucie Unit 2 (November). The refueling and uprate work for Turkey Point Unit 4 is currently on target for 2011 (March).

Current St. Lucie and Turkey Point gantry crane capabilities were identified as a project risk in 2008. The FPL risk mitigation plan recommended hiring the original equipment manufacturer to perform an assessment of the cranes and provide recommendations for modification and improvements. Modifications to the gantry cranes are considered critical to the success of St. Lucie and Turkey Point outages.

In November 2008, FPL issued a single source, lump sum contract to American Crane and Equipment for [redacted]. American Crane is the original manufacturer of the St. Lucie Unit 1 gantry crane. The contract scope includes gantry crane upgrades for both St. Lucie Units 1 and 2. FPL states that the St. Lucie Unit 2 gantry crane upgrade is expected to be completed in 2009 and the Unit 1 upgrade in 2010. FPL believes it is impossible to perform the required

project work, consistent with current outage schedules, without these upgrades. The actual amount expended on the American Crane contract thus far is [redacted], per FPL's Schedule AE-8 submitted in May 2009.

FPL states that similar gantry crane modifications for Turkey Point Units 3 & 4 will be necessary. FPL also anticipates using the original equipment manufacturer to complete the Turkey Point 3 & 4 refurbishments in support of the Uprate. Costs for upgrading Turkey Point Units 3 & 4 gantry cranes have not yet been determined.

3.0 Project Oversight & Controls

What is the current Project Management organization for each project?

Turkey Point 6 & 7

The Turkey Point 6 & 7 project organization has not changed significantly from last year. While the organization has increased slightly in the number of personnel, the organizational structure remains much the same. As shown in **EXHIBIT 3**, the Turkey Point 6 & 7 project organization consists of two key groups, Project Development and New Nuclear Projects.

The Chief Development Officer is responsible for overall control of the Project Development group. This group has primary responsibility for project management, state regulatory processes, environmental services, transmission planning, and non-NRC licenses and approvals.

Turkey Point 6 & 7 Organization

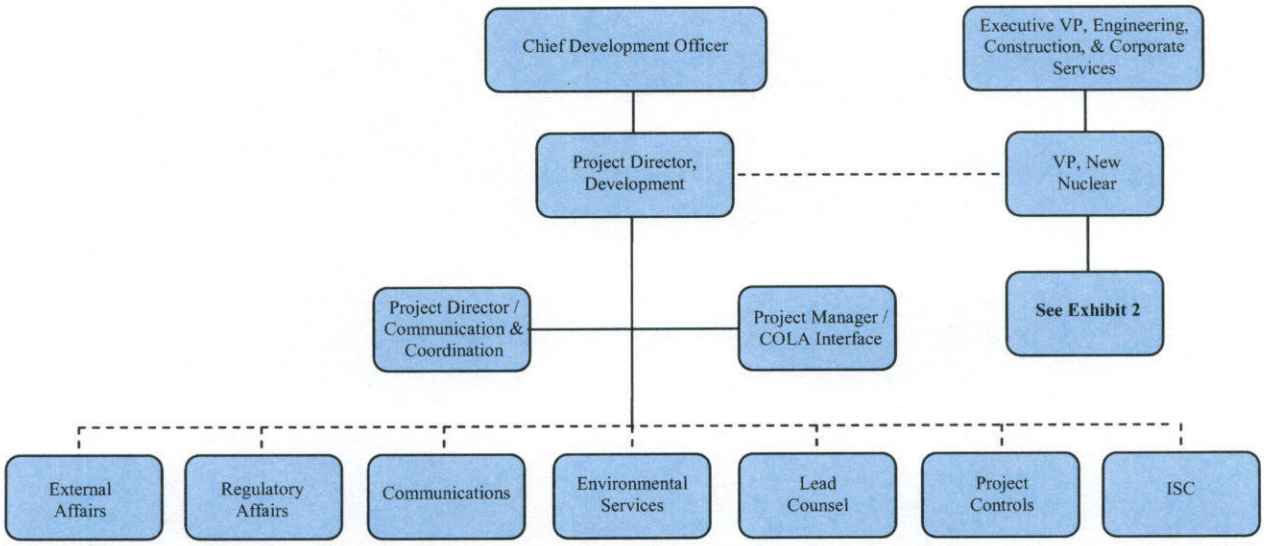

EXHIBIT 3 *Source: FPL response, DR-1.35*

The Project Director–Development manages the Project Manager/COLA Interface and the Project Director/Communications and Coordination. He also directs supporting activities with external affairs, regulatory affairs, project communications, environmental services, FPL legal, project controls, and procurement.

The Vice President, New Nuclear Projects, within Construction and Corporate Services, is responsible for managing the Combined Operating License Application, project engineering, procurement, site preparation, and construction activities. As shown in **EXHIBIT 4**, the Project Director and License Director report directly to the Vice President, New Nuclear Projects. Activities for procurement, quality assurance, legal assistance, and financial analysis provide

support to the project and have indirect reporting responsibility to the Vice President New Nuclear Projects.

New Nuclear Projects Organization

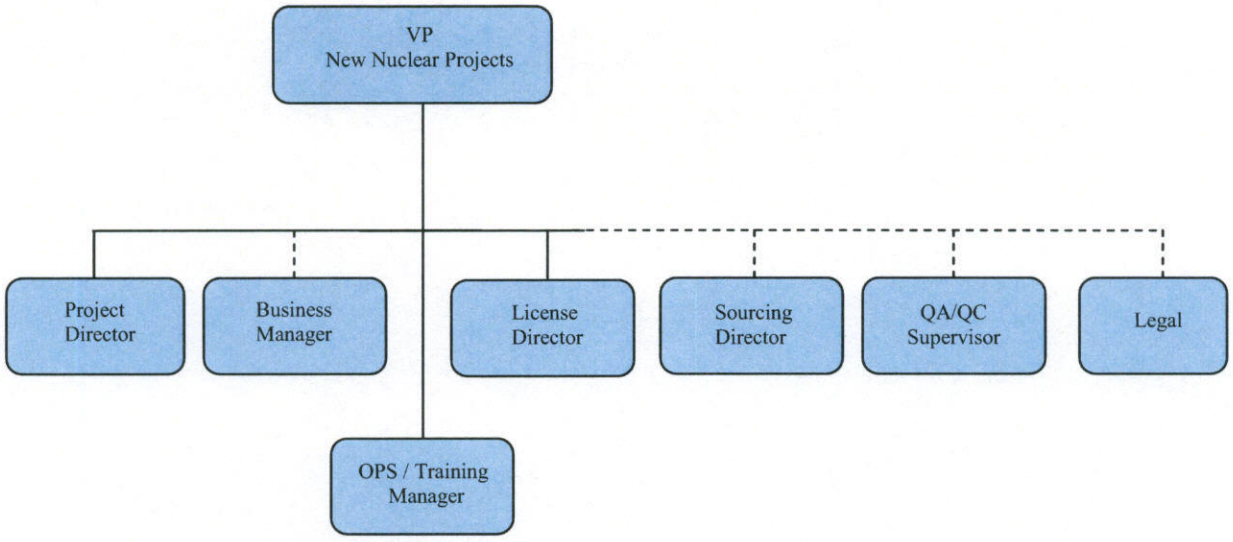

EXHIBIT 4 *Source: FPL response, DR-1.35*

The Project Development and New Nuclear Projects organizations share the same controls group, legal assistance, and procurement support. The Project Controls Group provides project schedule and budget updates, as well as monthly project dashboard views for management use. Legal support is necessary in the areas of cost recovery, land use, and NRC licensing. The Integrated Supply Chain organization provides support for contract development, RFP bid processing, procurement, contract negotiations, contract administration, and contractor evaluation.

St. Lucie and Turkey Point Uprates

Until late 2008, the Extended Power Uprate (EPU) Project Director and Engineering Director had oversight responsibility for the uprate projects at the St. Lucie and Turkey Point sites. These Directors reported to the Vice President, Nuclear Power Uprates, who is responsible for completing the uprate projects on schedule and budget. Project Managers at each site directed EPU project activities to complete the uprates, and Project Engineers for each site supported the project with on-site engineering.

In late 2008, FPL reorganized the EPU project and believes this reorganization marks a clear transition from the design and licensing phase of the project to the construction phase. **EXHIBIT 5** shows that the new organization still reports to the Vice President, Nuclear Power Uprate. The new structure incorporates several direct reports to the Vice President, Nuclear Power Uprate, including the Vice President, Implementation of EPU/Projects. This Vice President is responsible for providing oversight of the EPC contractor and project construction activities necessary to complete the uprates. A Project Director at each plant site reports directly to this Vice President. Each site Director has responsibility for the uprates at their assigned plant

site and coordinates EPC construction activities. FPL believes that Directors at each site will lead to greater company oversight, more efficient internal coordination, and better application of resources during the construction phase.

St. Lucie and Turkey Point Uprates Organization

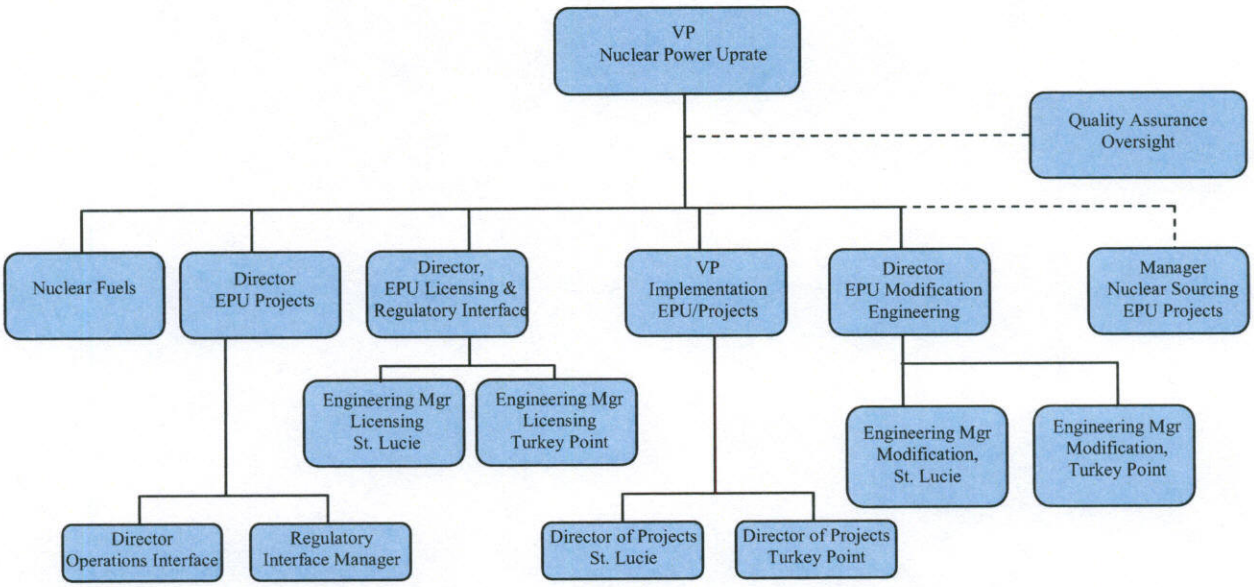

EXHIBIT 5 *Source: FPL response, DR-6*

Other direct reports to the Vice President Nuclear Power Uprate include Nuclear Fuels and the Directors of EPU Projects, Licensing and Regulatory Interface, and EPU Modification Engineering. The Manager, Nuclear Sourcing EPU Projects has a dashed line reporting relationship with the Vice President, Nuclear Power Uprate.

The organization also includes a Quality Assurance Oversight group. Assigned to the Quality Assurance Supervisor, the group is dedicated to EPU and has a dashed line relationship with the Vice President, Nuclear Power Uprate. The Quality Assurance Task Plan calls for surveillance of major equipment suppliers at least three times each year and holds them to the same standards used for other operating nuclear plant activities. Quality Assurance also provides oversight of Bechtel supplier inspections and of contractor activities at each uprate site.

What is the current Project Management controls environment for each project?

Turkey Point 6 & 7

FPL believes the proper Turkey Point 6 & 7 management structure is in place, with dedicated teams possessing the requisite subject matter expertise. Teams provide information flow in both directions while assisting oversight and accountability. FPL maintains that

comprehensive project oversight and accountability is rendered by the current organization, appropriately applying assets to issues and encouraging open, effective communication.

The company states that Turkey Point 6 & 7 oversight is synergistic and mutually supportive at all levels, comprised of organizational management and leadership elements, professional disciplines, and subject matter experts. Oversight is provided by:

- Executive management
- Subordinate managers
- Subject matter experts (SME) within the project team(s)
- Mutually reinforcing schedules and cost controls
- Regular updates on risk, cost, and schedule

FPL's Project Controls Group provides project management reports containing the project schedule, budget costs, vendor performance and risk concerns. The Controls Group monitors and updates the ongoing project schedule with Primavera software that also allows production of customized management reports.

On-site Project Managers, Technical Representatives, and Quality Assurance personnel monitor vendor performance to ensure activities are completed on time and within budget. ISC Sourcing Specialists and Contract Managers also monitor vendors and assist in assessing contract changes and contractor performance. If schedule or budget variances occur, they report potential risk to management. These reports help management to identify and prioritize risk, develop mitigation strategies, and implement resolutions addressing schedule and budget variances.

FPL also conducts an annual feasibility study which is presented to executive management. This study reviews costs and affirms economic viability of the nuclear projects and, in doing so, provides additional oversight and accountability control. The 2008 and 2009 feasibility studies determined that construction of Turkey Point 6 & 7 is economically viable and offers substantial benefit over alternatives. The studies supported continuation of the project. Through each annual feasibility study FPL regularly evaluates the continuing benefits of the project. Based on project schedule, budget, and alternative actions, FPL determines whether the project should continue.

FPL is an active participant in several nuclear industry associations. The company believes these offer valuable perspectives on the nuclear industry as a whole and on current nuclear projects worldwide. These insights help FPL manage project schedule and costs. Additionally, such affiliations provide FPL with pricing discounts or other alternatives that are not available to non-members. Among the organizations FPL is currently affiliated with include:

- NuStart Consortium, LLC
- AP-1000 Owners Group (APOG)
- AP-1000 Design Centered Working Group
- Advanced Nuclear Technology Group (ANT)

St. Lucie and Turkey Point Uprates

FPL management believes that systems and controls currently in place provide the requisite oversight. These include elements to oversee project planning, management, and execution. FPL states that a comprehensive Project Management Plan is in place, providing adequate project information and guidance. Each EPU site has its own specific EPU Project Plan for reference, offering a management framework to help complete the Uprate projects.

The company states that its EPU oversight combines a variety of organizational management and leadership elements, professional disciplines, and subject matter experts to provide project oversight and accountability. Those elements include:

- Executive management
- Subordinate managers
- Expertise within the project team(s)
- Mutually reinforcing schedules and cost controls
- Subject matter experts from Nuclear Business Operations (NBO)
- EPU-specific procedural guidelines and references
- Regular updates on risks, cost, and schedule

FPL conducts an annual project economic feasibility study. This completed study is presented to executive management who use it to review costs and evaluate economic viability of the project, as well as provide another means of oversight and accountability control. The 2008 feasibility study concluded that the Uprate project is economically viable and cost effective for producing additional generating capacity for anticipated customer need. The 2009 study determined that the EPU continues to offer substantial economic benefit over other resource and generation alternatives, and concluded by supporting continuation of the EPU project.

What are the information and communication controls for each project?

Turkey Point 6 & 7

FPL states that the system of regular reports and meetings currently in place for Turkey Point 6 & 7 enhances effective information and communication. Reports have differing purposes but, as a group, they are intended to assess progress and ensure key personnel are well informed on key issues. Each meeting also provides a forum for the exchange of problem solving ideas. Recurring meetings and reports are displayed in **EXHIBIT 6**.

Turkey Point 6 & 7 Information and Communication Controls	
Frequency	**Description**
Weekly	COLA team status update meeting
Weekly	Site Certification Application (SCA) team update meeting
Weekly	Transmission Siting team update ~~meeting~~
Monthly	Project Team Meeting
Monthly	Engineering & Corporate Services Executive Summary
Monthly	Project Report
Monthly	New Nuclear Executive Update
Monthly	NRC Meeting
Quarterly	Due Diligence Report
Quarterly	Westinghouse Update – Status of Chinese AP-1000 Project

EXHIBIT 6 *Source: March 2009 Testimony, S. Scroggs, Exhibit SDS-5*

St. Lucie and Turkey Point Uprates

FPL states that regularly scheduled meetings are held for the Uprate projects, each designed to further effective project management. The intent of each meeting is to succinctly communicate performance and gauge progress as measured against quality, schedule, and cost milestones or projections. FPL contends that each meeting also provides a forum for the exchange of ideas regarding issues common to multiple sites. Recurring meetings include those shown in **EXHIBIT 7.**

St. Lucie and Turkey Point Uprates Information and Communication Controls	
Frequency	**Description**
Daily	Morning Update Meeting
Weekly	Risk Mitigation Meeting
Biweekly	Chief Nuclear Officer, Project Vice Presidents, Directors, and Managers Meeting
Monthly	Executive Steering Committee Meeting
Monthly	Management Review Meeting
Monthly	Monthly Technical Steering Committee Meeting
Monthly	Major Vendor Meeting
Monthly	Project Report
Quarterly	Project Meeting with Major Vendors
As Needed	Project Steering Committee Meeting

EXHIBIT 7 *Source:DR-1.6*

What are the current controls for monitoring project schedule and cost?

Turkey Point 6 & 7

FPL believes the company has an array of reports and meetings capable of monitoring project cost and schedule. These reports help discern and evaluate performance trends while providing near real time assessments of project schedule, staffing, and costs. Additionally, they

assure that appropriate levels of management are informed and take action to resolve issues. Reports and meetings key to monitoring project cost and schedule are shown in **EXHIBIT 8.**

Turkey Point 6 & 7 Schedule and Cost Monitoring Controls	
Frequency	**Description**
Weekly	6-week Look Ahead
Weekly	Environmental Final Review Schedule
Weekly	License Review Board (LRB) Final Review Schedule
Weekly	Schedule Resource Profiles
Weekly	Performance Indicators Meeting
Monthly	New Nuclear Executive Update
Monthly	Project Team Meeting
Monthly	Engineering & Corporate Services Executive Summary
Monthly	Project Dashboard Review
Monthly	Corporate Variance (Cost)
Monthly	New Nuclear Units Cost Update
Monthly	Annual Forecast Analysis (Cost)
Monthly	Nuclear Filing Requirement (NFR) Cost Summary
Monthly	One Page Cost Summary
Monthly	Project Cost Summary
Monthly	Cost Recovery by Detail
As Needed	Project Team Meeting With Corporate Risk Committee
Annual	Feasibility Study

EXHIBIT 8 *Source: March 2009 Testimony, S. Scroggs, Exhibit SDS-5*

St. Lucie and Turkey Point Uprates

Among the most important and integral controls for monitoring the Uprate schedule and cost are the many meetings and management reports. Meetings occur regularly – from morning phone conferences between key management personnel to a system of weekly, biweekly, and monthly meetings and reports, including those shown in **EXHIBIT 9**.

St. Lucie and Turkey Point Uprates Schedule and Cost Monitoring Controls	
Frequency	**Description**
Weekly	Site Schedule Update Meeting (controls, schedule, status, costs)
Weekly	Project Controls Meeting
Weekly	Contracts Administration Meeting
Weekly	Integrated Supply Chain Meeting
Weekly	Licensing & Engineering Meeting
Weekly	Key Progress Indicators Report
Biweekly	St. Lucie and Turkey Point Update Meeting
Monthly	Executive Steering Committee Meeting
Monthly	Vendor Integration Meeting
Monthly	Project Steering Committee Meeting
Monthly	Major Vendor Meeting
Monthly	Budget Variance and Project and Contract Deviation Report
Annual	Feasibility Study

EXHIBIT 9 *Source:DR-1.6*

The Controls Group has responsibility to monitor project schedule and costs, providing regular status reports to EPU management. Controls Group also provides management reports to executive management. Primavera scheduling software is used to monitor and track the project schedule. Revisions may be made using the software and Primavera is utilized to produce project schedule summaries and risk management reports.

Nuclear Business Operations group specialists have been recently integrated at each site. These on-site representatives provide independent cost review, prepare monthly cost reports, and monitor the accounting code structure in a real-time, ongoing manner, for management.

An annual feasibility study also functions as a critical periodic check. The study reviews current expenditures and reconfirms the economic viability of the project compared to available alternative production methods and projections of future costs.

How does the company assess the risk of each project?

General

The FPL Corporate Risk Committee is a primary oversight body for risk management. This committee is made up of FPL directors and senior employees whose responsibility is to periodically review the project and associated risks.

Turkey Point 6 & 7

FPL states that it continually monitors and evaluates risk for Turkey Point 6 & 7 and proactively seeks mitigation strategies, increasing its situational control. The company monitors and assesses risk using a system of internal controls, meetings, management reports, internal and external audits and the feasibility study. Together these provide Turkey Point 6 & 7 management at all levels with insight on risk and mitigation strategies.

FPL states that the Turkey Point 6 & 7 Project Team meets periodically with the Corporate Risk Committee, providing them an assessment of project risk.

In conjunction with its annual Nuclear Cost Recovery Filing, FPL also analyzes the continued feasibility of the project. Based upon assumptions for construction costs and projections of future natural gas prices, FPL reexamines whether nuclear generation remains the most cost-effective option. FPL also takes market demand forecasts into consideration, verifying that timing and customer need for the projected megawatts has not changed.

FPL introduced or revised several risk assessment and management tools during 2008. Newly introduced or revised risk assessment and management tools are shown in **EXHIBIT 10**.

Turkey Point 6 & 7 Risk Assessment and Management Tools	
Type	**Title**
Procedure / Guide	Electronic Invoice Scan Process
Procedure / Guide	New Nuclear Project (NNP) Desktop Guide
Procedure / Guide	NNP Regulatory Items & Commitments Database
Procedure / Guide	NNP Regulatory Items & Commitment Database Control
Procedure / Guide	NNP Combined License Application Submittal
Procedure / Guide	NNP Correspondence
Procedure / Guide	COLA Submittal – NNP Desktop Guide
Procedure / Guide	COLA Review and Acceptance Process
Report	Updated Monthly Cost Report

EXHIBIT 10 *Source:DR-1.6*

FPL also evaluates Turkey Point 6 & 7 project risk using a variety of regularly scheduled meetings and reports. These include those shown in **EXHIBIT 11**.

Turkey Point 6 & 7 Risk Management Meetings and Reports	
Frequency	**Description**
Weekly	New Nuclear Small Team Meetings
Weekly	Performance Indicators Report
Monthly	Project Team Meeting
Monthly	Project Dashboard Review
Monthly	New Nuclear Units Cost Report
Quarterly	Due Diligence Report

EXHIBIT 11 *Source:DR-2.1*

The magnitude and long term nature of the schedule for Turkey Point 6 & 7 increases risk potential. Though the company monitors a variety of areas for potential risk through use of the tools mentioned above, three areas of particular FPL concern are:

- The national economic downturn
- Nuclear industry events which could impact vendor negotiations
- The political and regulatory environments

FPL's primary response to impacts from the recent economic downturn is to ensure that, whenever possible, competition is encouraged and that any potential risk is adequately addressed in every contract. Protective language is included in contracts, maintaining what the company believes is a reasonable balance of cost effectiveness and risk.

Florida and the federal government are considering generation standards that promote clean energy. Passage of stricter standards could change the current Nuclear Cost Recovery system. If standards change, FPL would reevaluate the overall viability of the Turkey Point 6 & 7 project compared to available alternatives.

Ongoing commercial negotiations with Westinghouse/Shaw for the possible Engineering and Procurement contract presents risk. Management states that because of contracting challenges unique to new nuclear deployment and the current market, the company may not be able to win favorable terms, conditions, scope, and payment schedules in light of the present economic, legislative, and regulatory environment. Because of volatility in the marketplace, contracts are very sensitive to timing. The company states that tradeoffs between the competing objectives of low expenditures and maintaining schedule will be routinely and regularly considered. If expenditures above current forecasts are required to keep to the schedule, FPL would evaluate whether such expenditures are warranted and cost-effective.

FPL further states that there is regulatory risk associated with Turkey Point 6 & 7 due to the incremental nature of the processes involved. The state Power Plant Siting Act has a statutory timeline for review and this must be completed before federal applications. Then, the State Site Certification and Army Corps of Engineer wetland permits must be received before any clearing or construction commences. The NRC's Combined Operating License is required before any nuclear safety-related construction, such as the plant basemat. Federal permits and licenses are evaluated on a non-statutory timeline but once the NRC COLA is docketed, a non-binding schedule is produced which furnishes an estimated completion date. Throughout each process, there exists the opportunity for challenges that could result in delays. Therefore, FPL maintains that it is difficult for the company to determine whether site preparation activities such as clearing, construction of access roads, and preliminary fill can be initiated timely enough to support the current schedule.

FPL believes that the company has robust mitigation strategies for regulatory, commercial negotiations, and permitting. The company reviews and assesses applicable draft legislation and considers potential impacts and risks. FPL monitors the progress of commercial negotiations throughout the nuclear industry, incorporating advantageous, publicly available information into the dialog with vendors. Management routinely monitors other companies' licensing and permitting activities. Lessons learned are used to produce a more complete FPL application and reduce the risk of delays caused by review agencies seeking additional information. Management engages permitting agencies in regular discussions, incorporating feedback into creating a more complete application.

St. Lucie and Turkey Point Uprates

FPL evaluates risk in an ongoing basis for the St. Lucie and Turkey Point Uprate projects. To do this, the company states it employs an overlapping mix of internal controls, meetings, communications tools, reports, internal and external audits and an annual feasibility study.

FPL uses these meetings, reports, and mitigation strategies to identify, assess, quantify and mitigate EPU risk. FPL internal instruction EPPI-340, *EPU Project Risk Management Program*, provides organizational guidance and expectations for risk management. It assigns responsibilities and provides instructions for identifying, reviewing, assessing, tracking, mitigating, and closing risk. EPPI-340 was revised in November 2008.

Through the feasibility study, done in conjunction with the annual Nuclear Cost Recovery Filing, FPL analyzes the continued feasibility of the project. Based upon its cost assumptions for the Uprates and the future cost of natural gas, FPL reexamines whether nuclear generation remains the most cost effective option. FPL also considers marketplace demand forecasts, determining that demand still exists for the anticipated additional capacity and that the timing for this need has not changed.

FPL evaluates EPU project risk using a variety of regularly scheduled meetings and reports. These include those shown in **EXHIBIT 12**.

St. Lucie & Turkey Point Uprates Risk Management Meetings and Reports	
Frequency	**Description**
Daily	Conference Call – EPU management & vendors
Weekly	EPU Indicators Meeting
Biweekly	Update & Risk Identification Meeting
Biweekly	Port St. Lucie & Turkey Point Updates
Biweekly	EPU Progress Review
Monthly	EPU Monthly Operating Report
Monthly	EPU Project Risk Matrix
Monthly	Project Steering Committee
Monthly	Technical Steering Committee
Monthly	Executive Steering Committee
Monthly	Risk Mitigation Plan Review
Quarterly	Project Meeting

EXHIBIT 12 *Source:DR-2.1*

Each of these meetings and reports speaks to one or more critical aspects of the Uprate project. Combined, FPL believes the system to be complete, comprehensive, responsive, and synergistic, leveraging every facet of project management.

The daily morning conference call between key EPU management personnel and vendors provides the latest project updates and status report. Every meeting has as its basis the standardized Extended Power Uprate Daily Report which helps keep meetings on track and allows participants to quickly and easily identify salient items.

Each weekly EPU indicators meeting begins with a review of an organizational self-improvement tenet. Management states that as a company FPL embraces the "self-improving culture" of a "learning organization" and depicts this principle on the cover page of each weekly meeting report. Every meeting features a discussion of the Key Performance Indicators (KPI) for each unit. Information is captured on a weekly basis and trended across the two preceding weeks so that trends might be identified. Uprate project KPI discussed each week include:

- Cost
- Schedule
- Engineering Deliverables
- Project Management

- Long Lead Materials
- Installation Planning
- Station Integration

Color-coded charts show schedule allowances for subsections within each KPI category. The charts use a simple green-white-yellow-red scheme depicting whether each KPI variable is ahead, meeting or behind schedule. Appendices for each KPI provide more detail. Following the color coded KPI report is a summary of the results for the Risk Management Report, a Cost Report and Summary, a Variance Report, Cost Profile Projections for 2009, Cost Profiles by Category for 2009, an Invoice Report, Deviation Log, a comparison of planned and actual EPU LAR work hours for vendors and a Major Long Lead Equipment Milestones report.

The biweekly update and risk meeting takes place with the Chief Nuclear Officer, project Vice Presidents, Project Directors and managers. Central to each meeting is a project progress update, assessment of identified risks, and discussion of mitigation strategies for those risks.

FPL also monitors and performs risk assessment for the State of Florida's siting approval process. This oversight remains in place, from pre-filing briefings to the issuance of the final Order of Certification.

Since April 2008, FPL has identified sixty items or events in the EPU Project Risk Management report. Five items at St. Lucie and three at Turkey Point are relatively new and await further assessment. Twenty-seven items were mitigated successfully and closed. Twenty-five other items remain open and ongoing, twelve at St. Lucie and 13 at Turkey Point. Four open items have a high expected probability of occurrence (one at St. Lucie, three at Turkey Point), 16 items have a medium probability (ten at St. Lucie, six at Turkey Point), and five ranked as low probability (one at St. Lucie, four at Turkey Point).

Probability of occurrence is further clarified by an indication of potential project impact if the event occurs – critical, significant, and marginal. Of the four high-probability items mentioned above, two are critical and two are significant.

Both identified high-critical risks occur at the Turkey Point site. In one, an error was discovered in the containment integrity design analysis which might significantly reduce containment margin pressure. A mitigation plan is under development. The other high-critical item identifies the potential for corrosion due to the increased water flow requirements. According to FPL, this concern could cause delays in the LAR schedule, increase costs, lead to loss of generating capacity, or possibly require derating the units to stop the problem.

The St. Lucie and Turkey Point sites each have a "high-significant" concern, that vendor staffing may be insufficient. FPL instructed vendors to provide a recovery plan. Mitigation actions are being implemented and FPL is monitoring the effectiveness of the vendors' actions.

What are the current auditing and quality assurance controls?

General

FPL's Quality Assurance organization is a participant in the Nuclear Procurement Issues Committee (NUPIC) and supports the organization's audits of industry suppliers. Formed in 1989, the organization is a partnership of all US and several international nuclear utilities. NUPIC conducts audits and surveys of nuclear utility suppliers. The audits and surveys are performed using an industry-wide standardized approach. The results are beneficial to all member utilities, providing oversight of nuclear vendors. Many project vendors have undergone NUPIC audits in the last four years, providing FPL with additional oversight.

Turkey Point 6 & 7

FPL management states that the auditing and quality assurance controls in place during last year's review remain intact. The company states that project controls are continually monitored, reviewed, revised, and strengthened. FPL states that auditing and quality assurance activities remain a vital part of the project controls for Turkey Point 6 & 7.

Six external audits concluded during 2008. Two others are ongoing. In the spring of 2008 and again in early 2009, FPL engaged Concentric Energy Advisors, an economic advisory and management consulting firm, to review Turkey Point 6 & 7 project controls. At the conclusion of the review, Concentric provided recommendations for improvement but noted that none should raise concerns. The Concentric review concluded that:

- Turkey Point 6 & 7 had complied with the FPL system of internal controls
- Established an appropriate organizational structure,
- Implemented and adhered to FPL policies and procedures,
- Developed project-specific instructions and guidelines,
- Oversight ensure compliance with the system of internal controls,
- Sought review by FPL and external experts, and
- Turkey Point 6 & 7 is well positioned to execute the project.

Internal audits play a major role in oversight. FPL completed two internal audits for Turkey Point 6 & 7 in 2008. The New Nuclear Project Review report was issued in November 2008, with recommendations for improvement. FPL conducted additional training based on the recommendations. No changes to project management structure or controls resulted from the audit recommendations. A second audit, the *New Nuclear Project Review – Phase II*, began in early 2009 and the report was issued in June 2009. Minor discrepancies were noted and corrections made by FPL. No changes to structure or controls resulted from the recommendations.

The Project Controls Group conducted an audit on Bechtel practices at Turkey Point 6 & 7. [redacted]

The Quality Assurance group completes vendor audits for safety-related products and contractor performance evaluations for safety-related contractors. FPL's vendor audits target manufacturing quality and controls. When vendors are contracted, FPL's Quality Assurance group audits the vendor's Quality Assurance Plan to ensure it meets NRC and FPL Quality Assurance requirements. FPL Quality Assurance also performs quality surveillances to ensure the work completed by the vendor meets contract specifications. Activities are compiled in an annual Quality Assurance Plan for management review and input. The Quality Assurance Manager also completes a daily project quality summary for management review, reporting any concerns. Quality Assurance can undertake audits or surveillances upon management request.

An example of Quality Assurance oversight and quality control is a surveillance conducted in October 2008. It examined instrumentation installed on drilled wells used to provide precise measurements of underground water characteristics. The surveillance identified failures with water salinity and level change instrumentation. Closer scrutiny revealed incorrect calibration. The calibrations were corrected and all previous measurements were recalculated.

In September of 2008, NUPIC issued audit results of Westinghouse Nuclear Power Plants, evaluating the adequacy and effectiveness of the Westinghouse Nuclear Power Plant Quality Assurance Program. The audit examined compliance of the AP1000 with 10CFR50, Appendix B, and requirements of 10CFR, Part 21. A total of 11 findings were reported. Findings involved the design verification and change process, document change proposals, and an inability of the supply chain to identify design changes for corresponding purchase orders. In addition, the audit found that the Westinghouse corrective action program for implementing internal audit findings was insufficient. FPL states that Westinghouse took the NUPIC audit findings seriously and implemented corrective actions. FPL further noted that the NRC conducted a subsequent audit without findings.

St. Lucie and Turkey Point Uprates

During first quarter 2008, FPL conducted an internal audit reviewing the appropriateness of charges made against the uprate (*Extended Power Uprate (EPU) Review*). Some discrepancies were noted and corrected but, overall, FPL found that charges were appropriately made against the FPL uprates. In the first quarter of 2009, FPL conducted a follow-on review (*Extended Power Uprate (EPU) Review – Phase II*). Completed in June 2009, this second phase again found minor discrepancies which FPL corrected.

In 2008 and again in early 2009, FPL engaged Concentric Energy Advisors to review EPU internal controls, management processes, and procedures. Concentric provided recommendations for improvement at the conclusion of the review but pointed out that none raised concerns about the effectiveness of EPU management, processes, procedures, or internal controls. The review indicated that, in general, the Uprate project complied with the FPL system of internal controls and further found that:

- EPU has an appropriate organizational structure,
- Internal oversight mechanisms ensure compliance with internal controls,
- A system of adequate and timely reporting of project developments exists, and
- EPU seeks to leverage lessons learned and industry experience

In the third and fourth quarters of 2008, FPL noted recurring schedule variances by the major contractors, [redacted] Seeking to avoid significant schedule delays, or "negative float", FPL sought a root cause report from the vendors. FPL also requested explanations and remediation plans. The plans were reviewed and subsequently implemented, bringing the vendors back onto the contract timeline. FPL also imposed rigorous reporting requirements to better monitor the situation on a going forward basis.

As previously discussed in Chapter 2.0, an internal audit was also completed in response to an FPL employee complaint regarding hiring of temporary labor (*Hiring Temporary Labor Through Guidant*). The matter was investigated and a report with findings was issued in December 2008. Remediation actions addressed the employee's specific concern. [redacted] were included in the remediation plan. There has been no recurrence; the Employee Concerns Program worked as intended for reporting possible misconduct and in identifying, investigating, and remediating the underlying circumstances.

In 2009, FPL audits of contractor time sheets determined that falsification had occurred. One contractor was dismissed and FPL is attempting monetary recovery. As a result of the EPU management reorganization, an internal review was also conducted to verify contractor experience and skills. This internal review resulted in the dismissal of two contractors. The hiring manager of the three individuals discussed above was also dismissed.

Are the project control activities documented?

Turkey Point 6 & 7

FPL manuals, policies and procedures provide a set of processes and guidelines applicable to the Turkey Point 6 & 7 project. These identify individual and collective responsibilities and further the understanding of training, standards, reporting, and roles. Key Turkey Point 6 & 7 policies, procedures and controls include those in **EXHIBIT 13.**

Turkey Point 6 & 7 Policies and Procedures	
Reference Number	**FPL**
General Operations - O2	FPL Group Internal Control Policy
General Operations - 700	Integrated Supply Chain – Policy
General Operations - 705	Purchasing Goods and Services – Policy and Definitions
NP-1100	Nuclear Division Procurement Controls, Rev 16
Engineering & Construction	Project Controls Process Overview (04/24/08)
Engineering & Construction	Project Controls Monthly Deliverables (2009)
-	Desktop Online Authorization Process, Rev 17, 12/17/06
-	Work Breakdown Structure, 01/2009
-	Project Control Guidelines Memo, 3/21/08
Reference Number	**New Nuclear Plant Specific**
NNP-PI-03	NNP Project Document Retention (04/28/08)
NNP-PI-04	COLA Configuration Control (1/20/09)
NNP-PI-07	NN Department Training (4/17/08)
NPP-PI-08	NN COLA Review & Approval Process (05/21/08)
NPP-PI-09	NN COLA Submittal (7/26/08)
NNP-PI-10	NNP PTN COLA Related Project Management Briefs and COLA Related Document Reviews (3/11/08)
NNP-AA-01	NNP Regulatory Items & Commitments Database Control (0/25/08)

EXHIBIT 13 *Source: March 2009 Testimony, S. Scroggs, and Exhibits SDS-4 & SDS-6*

St. Lucie and Turkey Point Uprates

FPL uses EPU Project Instructions (EPPI) to assist with project oversight and accountability by documenting control activities. EPPIs completed since staff's 2008 review are listed in **EXHIBIT 14** below.

St. Lucie & Turkey Point Uprates Policies and Procedures		
Title	**EPPI**	**Issued**
Project Instruction, Preparation, Revision, and Cancellation	100	9/29/08
EPU Project Expectations & Conduct of Business	110	1/22/09
EPU Project Contractor Staffing	130	2/3/09
Roles and Responsibilities	140	9/15/08
Project Invoices	230	8/28/08
EPU Contract Compliance Program	240	11/20/08
Project Scope Control Process	300	8/28/08
Development, Maintenance, and Update of Schedules	310	1/12/09
EPU Project Risk Management Program	340	12/1/08
Project Plans and Task Plans	410	10/7/08
EPU Project Personnel Training Requirements	520	12/19/08
EPU Project Qualification Guidelines	560	12/19/08
EPU Uprate License Amendment Request	610	12/3/08
Regulatory Communications Guideline	630	11/20/08

EXHIBIT 14 *Source: March 2009 Testimony, R. Kundalkar*

4.0 Contract Selection & Contractor Management

How does the company ensure that its contracts are priced appropriately?

FPL states that to ensure its contracts are appropriately priced for materials, services, and equipment, the company uses market knowledge, experience, technical resources, and contract strategies to select the most favorable terms. For competitively bid contracts, FPL believes that because of its purchasing volume, relative marketplace position, and vendor competition, it has historically been able to achieve favorable pricing and terms. FPL maintains that it negotiates vigorously to ensure bid contracts provide the best overall value.

Prior to the issuance of a Request for Proposal FPL establishes evaluation criteria and plans. The company believes this ensures that vendors provide all relevant bid information, and that new factors favoring a specific bidder are not introduced after bids are received. Bid factors are weighted on a case-by-case basis and separate technical and commercial evaluations are performed. The FPL business unit requesting the procurement performs a technical evaluation to ensure bid requirements are met. The Integrated Supply Chain performs a commercial evaluation to review the company's financial stability. An evaluation team, comprised of subject matter experts and representatives from the requesting business unit, considers the results of both evaluations and makes a joint procurement decision. Procurements greater than $2 million are also briefed to senior supply chain management for critique and feedback.

FPL states that it aggressively negotiates with the identified vendors for single and sole source procurements. FPL reports that an evaluation of costs and benefits is conducted to ensure contract prices offer the best value available. This evaluation includes potential benefits that would be lost if the company competitively bid the contract. FPL policies require single or sole source justifications to identify the value advantages to the company in these instances.

FPL states that its focus in single and sole source procurements is value and how the company can be assured that best total value is being obtained despite the fact that bids are not obtained. The following reasons are documented in company policies and procedures as examples of reasonable justification for a single/sole source procurement:

- A proven supplier with a record of success achieved an advantage over other similar vendors such that no other supplier could possibly provide the work as cheaply,
- The unique ability to meet short schedule requirements, not the result of starting the procurement process late, but instead stemming from short-term commercial opportunity, or newly imposed factors such as legal or regulatory requirements, or
- For items underway, if buying from a non-OEM vendor would void valuable warranty provisions.

FPL states that existing contracts are also subject to additional negotiations, whether bid, single, or sole sourced. FPL reports that these periodic and ongoing negotiations help to stabilize or reduce ongoing contract costs associated with increased rate adjustments. Examples of FPL procurements for the Turkey Point Units 6 & 7 Units and St. Lucie and Turkey Point Uprates for 2008 are described below.

Turkey Point Units 6 & 7

As discussed earlier, FPL has been negotiating the engineering and procurement agreement with Westinghouse during 2008, and FPL believes there is considerable potential savings in competitively bidding a construction contract separately. FPL states, however, that it has not excluded the potential for a Westinghouse and Shaw, Stone & Webster EPC package. Still, FPL believes it has identified other qualified and knowledgeable candidates to construct the new AP1000 units, should it elect to pursue this approach.

FPL signed a reservation agreement with Westinghouse Electric Company, effective April 21, 2008. The reservation was for the necessary manufacturing capacity of the long lead time forgings associated with the two AP1000 units scheduled to be built at the company's Turkey Point site. FPL has negotiated this agreement with Westinghouse since April 2008, and has until December 31, 2009 before the agreement would expire. At that time, FPL would potentially lose a portion of the $10.8 million reservation fee. [redacted]

St. Lucie and Turkey Point Uprates

In 2008, FPL competitively bid the EPC contract for the Uprate projects. The scope of work for these contracts includes the provision of project and corporate technical services and resources to plan, engineer, and implement the project modifications for the EPU project through 2012.

FPL developed the EPC Request for Proposal and invited six major vendors to provide bids in May 2008. Ultimately four firms submitted bids that were evaluated separately and independently by four subject matter expert team members using a matrix of pre-determined technical criteria. These bids were rated by each evaluator. A preliminary commercial assessment of each vendor was considered to ensure all vendors met FPL's commercial criteria.

During July 2008, the four remaining vendors were given a risk template to provide FPL an assessment of the primary risk assumptions that each vendor believed would impact their implementation of the project and a rating of the highest risk to the lowest. In August 2008, FPL met separately with vendors to discuss their responses to the risk template and to answer vendor questions.

After these meetings, another round of independent evaluations of the original bid information and the additional information from the risk template were completed by the four subject matter experts. At the same time, the Integrated Supply Chain team completed a final

commercial evaluation of the vendors, and examined vendor changes to contract terms and conditions, the cost associated with each vendor's proposal, and the financial capabilities of each vendor. These commercial considerations were given numerical scores as well, and the combined commercial and technical evaluation scores were totaled into a vendor overall score.

Using the overall vendor scores, considering the vendor's changes to contract terms and conditions, the vendor's reliance on other contractors, and historical performance issues with vendors on previous work, FPL eliminated two of the four vendors. FPL continued on with two of the highest scoring vendors. In September, FPL asked the two remaining vendors to supply additional qualifying information, and to provide their best and final offer for the projects.

According to FPL, one vendor proved to have the most favorable overall proposal in terms of cost, contract terms and conditions, and ability to meet the project's technical needs. FPL began negotiations with this vendor and completed the contract in November 2008. FPL management and Bechtel Power Corporation signed the EPC contracts for the St. Lucie and Turkey Point Uprate projects in November 2008. Bechtel began staffing the project in December 2008, and is continuing to mobilize resources for the Uprate projects during early 2009. The two competitively bid EPC contracts totaled over [redacted] in total contract value.

What are the company's current processes and controls for soliciting and evaluating contractor bid selection?

FPL's Integrated Supply Chain personnel provide support to both the Turkey Point 6 & 7 project and the St. Lucie and Turkey Point Uprate projects. Sourcing Specialists provide assistance in contract development, administration, contract bidding, and bid evaluation.

Integrated Supply Chain personnel supporting Turkey Point 6 & 7 use Nuclear Administrative Procedure (NAP) 420 to guide contract development and administration efforts. For single and single source justifications Nuclear Policy NP-1100 is used.

Contract bid selection procedures governing the Uprate projects are found in FPL's General Operating Procedure 705 and in Nuclear Policy NP-1100 Procurement Control. In addition to General Operating Procedures and Nuclear Policy procedures, the Uprate projects have implemented Extended Power Project Instructions (EPPI). EPPI series 200 procurement procedures specifically address contract administration, project requisition and purchase order processing, project invoicing, the EPU contract compliance program, and the preparation of installation services specifications.

Both nuclear projects use Sourcing Specialists as an independent agent to assist FPL nuclear departments in contract development by:

- Identifying potential bidders
- Developing the Request For Proposal
- Coordinating all communications and confidentiality agreements with bidders
- Ensuring proper approval authorizations are obtained

FPL Nuclear Division policy NP-301 documents expenditure authorization limits for management approvals within FPL's Nuclear Fleet. **EXHIBIT 15** shows the authorized nuclear approval levels for both Turkey Point 6 & 7 and the St. Lucie and Turkey Point Uprate projects.

FPL Nuclear Division Expenditure Authorization Limits Nuclear Procedure NP-301	
Management Title	**Dollar Approval Level**
Chief Executive Officer, Chief Financial Officer and Chief Operating Officer	> $20 million
Chief Nuclear Officer	$20 million
Nuclear Chief Operating Officer	$10 million
Nuclear Vice Presidents	$5 million
Senior Managers/Directors and Senior Directors	$1 million
Managing Professionals and Lead Professionals	$250,000
Senior Professionals (in supervisory position)	$10,000

EXHIBIT 15 *Source: DR-1.19*

Upon receipt of bid responses, the Sourcing Specialist separates proposals by technical and commercial information. A technical evaluation determines whether the vendor has responded to all aspects of the technical requirements. A commercial evaluation confirms the financial stability of all bidders. If necessary, the Sourcing Specialist coordinates written requests for additional technical or commercial information from bidders.

Upon completion of the evaluation, the Sourcing Specialist and originating department meet to determine a recommended vendor. If evaluations find more than one qualified bidder, the originating department determines whether to request a Best and Final Offer.

If a best and final offer yields additional information, an added technical and commercial evaluation is completed. The Sourcing Specialist prepares recommendations to the originating department, and receives concurrence of the Department Head in selecting the best qualified vendor. The Sourcing Specialist is responsible for ensuring procurement documents are maintained in accordance with approved procedures and processes, developing key commercial issues for negotiations, and coordinates the negotiating subject matter team experts.

The Sourcing Specialist also notifies the recommended vendor of the intent to negotiate a contract, and coordinates the timing and location of negotiation meetings and exchange of information for the negotiating process. Upon completion of successful negotiations, the Sourcing Specialist develops a final set of commercial terms and conditions, scope of work, compensation, and specifications as applicable.

What is the company's current process and controls for single/sole source selection?

As mentioned previously in Chapter 2, the Commission issued Order No. PSC-08-0749-FOF-EI in November 2008. This requires FPL to improve documentation and support for sole source contracts for future filings in the Nuclear Cost Recovery Clause.

FPL states that EPU project management follows established company guidelines for sole source selection. The processes and controls governing selection are contained in NP-1100, Nuclear Policy Procurement Control.

FPL's nuclear procurement policy is to competitively bid all material and service contracts with an estimated value over $25,000. NP-1100 specifies that sole sourcing is for use only on a limited basis and when justified. Written justification is required to substantiate need.

NP-1100 defines single/sole source purchases as those for which no other reasonable supplier exists, and must be from a vendor that for quantifiable, technical, or business reasons, has a unique capacity to meet procurement requirements. If FPL determines it is not in the best interests of the company to solicit competitive bids, it may use single/sole source procurement with appropriate justification. Such justifications are prepared by the department requesting or authorizing the procurement, and must be completed in advance of the purchase.

NP-1100 also states that for situations in which the OEM is the only available provider, or when procurement from an OEM is deemed to be in the best interest of FPL, a sole source justification is not needed. However, if the OEM is the preferred provider among others available, justification is required.

Turkey Point Units 6 & 7

Turkey Point Units 6 & 7 single and sole sourcing procedures adhere to guidelines found in NP-1100, as mentioned above. In addition, the Turkey Point 6 & 7 project managements also follows FPL General Operating Procedure 705.3, Purchasing Goods and Services Using Purchase Orders and Contracts, for sole sourcing. General Operating Procedure 705.3 differs from NP-1100 in that it does not address scheduling as a mitigating factor in single/sole source selection. General Operating Procedure 705.3 states that two exceptions exist to competitive bidding, but are to be strictly limited to situations where no other suppliers exist for specific goods or services, and where it is clearly not in the company's best interest to attempt to competitively bid.

FPL states that it has improved its process of single/sole source documentation and approval. The company says that justification documentation facilitates review by independent third parties and that additional training on properly justifying was implemented in late 2008. FPL further noted that the company has increased emphasis on verifying single/sole source justifications and has changed the format to include more information. FPL believes justification documents are being written with greater attention to explanation and support of costs and single/sole source selections. The company states it is also attempting to reduce downstream problems by involving reviewers earlier in the process.

To determine whether FPL's single/sole source justification documentation improved, FPSC audit staff reviewed training materials, training attendee lists, and a sampling of justification documents produced after November 2008. FPSC audit staff found that justification documentation completed for Turkey Point 6 & 7 contained expanded support for single/sole sourcing, that explanations were easily understood by a third party, and that some cost/price analysis was present.

FPSC audit staff believes single/sole source justification documentation could be improved by providing additional cost/price detail documentation, such as avoided costs, anticipated savings over alternatives, projected man-hour savings, estimated cost of bid versus sole sourcing, anticipated cost of project delays, and similar data that affirms single/sole sourcing as the most reasonable financial business decision. The added information should provide evidence that it is clearly not in the company's best financial interest to attempt to competitively bid. The company needs to show that it has considered the financial costs of alternative sourcing, and reasonably selected single/sole sourcing as the most financially sound selection. Otherwise, nuclear procurement policies and procedures indicate that competitive bidding should be selected as the most financially sound alternative for procurements greater than $25,000.

St. Lucie and Turkey Point Uprates

EPU managers and personnel use NP-1100, as mentioned above. EPU personnel also use the EPU Project Requisition and Purchase Order Process (EPPI-220) as an additional guideline.

In late 2007 and early 2008, much of the initial EPU project procurement of engineering services and long lead equipment items was sole sourced. While FPL had completed single/sole source justification documents, as required by its procedures, the Commission ordered FPL to improve its future documentation.

FPL states that it has improved the process to insure justification documents are in compliance with Nuclear Policy NP-1100 instructions and to facilitate review by independent third parties. The company has implemented additional training and states that FPL improved controls by focusing responsibility for justification adequacy under one position. These improvements began to be implemented in late 2008.

FPSC audit staff reviewed training materials, instruction attendee lists, and justifications produced after November 2008 to determine whether changes had improved the process. FPSC audit staff found that the EPU organization began additional training in November and December 2008, and completed the training program in March 2009. FPSC audit staff also found that EPU management had revised its procedure, EPU Project Requisition and Purchase Order Process (EPPI-220), effective April 1, 2009. This revision included additional self-instruction, sections on cost and pricing reasonableness, and more comprehensive examples of justification documentation.

Because FPL did not complete EPU single/sole source justification training until March 2009, most contracts executed after November 2008 did not have the level of detail the Commission ordered. FPSC audit staff would expect to see that EPU single/sole source justifications, after March 2009, would have more detailed justifications, in compliance with the

Commission ordered changes. Justifications after March 2009 should be easily understood by an independent third party and include a reasonableness of cost/price analysis.

What are the current controls for contractor management?

FPL's contractor management controls for the EPU and Turkey Point 6 & 7 projects are similar in many respects. The Project Manager is responsible for the completion of project activities and assuring contractors perform as contractually required.

The Technical Representative is responsible for day-to-day administration, coordination, timeliness, quality, and on-site performance of assigned contractors. The Integrated Supply Chain Contract Manager maintains vendor performance statistics for selected major vendors, and manages non-safety-related contracts. If FPL experiences challenges with a non-safety-related vendor, Integrated Supply Chain personnel work closely with the Risk Department to remedy the challenge. Contractor reviews are conducted quarterly for newer vendors and semi-annually for longer-term vendors.

Additionally, the Project Controls Group conducts weekly and monthly meetings to review contractors' progress and adherence to the project schedule. Weekly contractor update calls are conducted to identify anticipated contractor schedule challenges for the week. Critical path events and scope changes affecting the schedule are also monitored and reported through the Project Controls Group. FPL has previously established procedures for monitoring and evaluating contractor performance on the plant site.

To ensure safety-related contractors provide quality products, and complete quality work, FPL Quality Assurance completes Vendor Audits, on-site surveillances, and safety-related Contractor Performance Evaluation Reports. FPL has separate Quality Assurance Managers responsible for Turkey Point Units 6 & 7 and the St. Lucie and Turkey Point Uprate projects. Quality Assurance audits examine whether the vendor's Quality Assurance program for on-site operations is compliant with the NRC and FPL Quality Assurance requirements. If the contractor program is not in compliance, it must be revised accordingly before beginning any work on site.

Quality Assurance Managers identify and report key operational risks at each plant to management. A daily Quality Summary Report documents Quality Assurance Manager concerns. Meetings to discuss these concerns are scheduled with FPL site and executive management as necessary. FPL's Quality Assurance organization also participates in Nuclear Procurement Issues Committee (NUPIC) sponsored supplier audits. NUPIC is a nuclear procurement issues organization that conducts audits with member companies to evaluate suppliers furnishing safety related products and services to the industry. Many of the same vendors that FPL uses at the new Turkey Point Units 6 & 7 site have been the subject of a NUPIC audit in the last four years.

Turkey Point Units 6 & 7

In August 2008, FPL contractor management controls identified that Bechtel Corporation was behind schedule for completing sections of the Final Safety Analysis Report, as part of the Combined Operating License Application submission. As a result of weekly and monthly reviews of the project schedule, FPL requested a Recovery Plan from Bechtel, explaining the reasons for schedule delays and the company's plan for getting work back onto the project schedule. Bechtel promptly responded to FPL with a Recovery Plan and worked with FPL to make necessary corrections to get back on project schedule.

In December 2008, FPL also asked Bechtel to submit a Recovery Plan outlining its plan to meet the scheduled date for hydrology activities associated with the COLA. Bechtel informed FPL that resources for the hydrology activities had been temporarily diverted to work for another utility submitting a COLA prior to FPL. FPL reminded Bechtel that the company's contractual agreement included providing sufficient staffing to complete FPL's COLA on time and on budget. According to FPL, Bechtel promptly responded with a Recovery Plan and provided additional hydrological staffing to support the FPL schedule.

FPL notes that the delays were partially caused because FPL had aggressively planned the COLA completion in fifteen months, with no float for potential delays. Both of these situations displayed FPL's contractor management controls at work, and effectively led to a prompt resolution of potential contractor and project schedule delays.

St. Lucie and Turkey Point Uprates

While FPL EPU contractor management controls are currently in place, the Engineering Procurement and Construction (EPC) vendor (Bechtel) will interface with both Juno EPU Management and EPU site management to provide contractor oversight during the remainder of the project. With the completion of the EPC contract, in December 2008, Bechtel and FPL will jointly provide the EPU Quality Assurance function for the St. Lucie and Turkey Point Uprates. Essentially, Bechtel will perform the lower tier quality control work and FPL will perform the top tier quality assurance work. Bechtel will assume the on site contractor Quality Assurance role and FPL will closely monitor Bechtel Quality Assurance performance.

As the Uprate EPC contractor, Bechtel will coordinate the work of contractors toward the completion of the construction and testing portion of the EPU projects. Bechtel will also provide improved procedures, performance indicators, and monitoring, for on site contractors. These procedures and performance indicators will be implemented during 2009. Bechtel brings over 100 work process procedures to guide the engineering, procurement, and construction, required to complete the EPU project.

What are the current controls for managing contractor costs and performance?

Turkey Point Units 6 & 7

Turkey Point Unit 6 & 7 Controls Group reports project cost and schedule variances to FPL management in weekly and monthly management reports. The Controls Group tracks

contractor progress via weekly meetings and reviews, monitoring project scope changes and tracking key performance indicators. The Senior Scheduler oversees contractor schedule status, produces weekly performance indicators, and analyzes project schedule critical path. This information is reported to management in a mix of meetings and reports. Several reporting formats are used to identify potential project risks and challenges to the schedule and budget.

FPL requires contractors to provide reports on contractor and subcontractor performance. By requiring vendors to track and report performance indicators, and trend performance, FPL is able to know weekly where contractors are in the work schedule, and can keep close control over additional costs that might arise. Regular budgetary reports are provided and management reviews are conducted to assure project costs are within budget.

On-site Technical Representatives provide oversight of activities to ensure contractors complete work per contract provisions and on schedule. Technical representatives also determine whether deliverables have been completed and whether contractor invoices are payable. If contractor performance is not satisfactory, the technical representative reports this to site management, the Integrated Supply Chain, the Contract Manager, and the Controls Group. In most cases, identification and reporting of potential impacts to the project schedule and costs occur at the Controls Group level.

If contractor performance causes schedule delay, the Contract Manager requests a Recovery Plan from the contractor. This plan outlines the timeline and activities to remedy performance and return to schedule. The contractor's performance is reviewed weekly and monthly against the Recovery Plan. If contractor performance does not improve, the issue is escalated to higher management. As described above, in late 2008, Turkey Point Units 6 & 7 project management experienced two events requiring Bechtel Corporation to produce a Recovery Plan. According to FPL, both events were of short duration and resolved without any long term impact to the project schedule.

St. Lucie and Turkey Point Uprates

FPL notes that the EPU Controls Group also helps protect the projects from substandard contractor work, by monitoring project scheduling and cost performance. This group holds weekly meetings with contractors to identify potential roadblocks to the schedule, monitors and trends contractor work scope changes, and monitors and reports overall project costs. The EPU Controls Group completes a monthly project report that presents a comprehensive look at the project schedule, budget costs, contractor key reporting indicators, and potential project risks. This report provides key project information for FPL's EPU management team and executive management. FPL states that through close monitoring of contractor performance indicators, project scheduling, and project costs, the Controls Group helps manage contractor costs and substandard performance.

The company states that the EPU Site Project Manager, and the EPC team, help protect the project from substandard contractor work by monitoring contractor performance, scheduling delays, and cost performance. FPL's EPU Site Project Manager will coordinate all contractor work completed on the Uprate project with the EPC team. Together with the EPC team, The Site Project Manager reports potential project risks, delays, or work stoppage issues, upward to the

EPU Site Director. If project scheduling or budgeting are seriously jeopardized by contractor non-performance, the EPU Site Director may request the removal of non-performing contractors and secure other contractors to perform the scope of work. Based on the scope of work and seriousness of contractor non-performance, FPL senior management may become involved with the non-performing contractor's company, or may choose to replace the contractor.

As mentioned in Chapter 3, EPU project management dealt with two contractors having difficulty staffing the project. [redacted] have continued to have problems with staffing and have submitted recovery plans to EPU project management. FPL states that contractor staffing levels have improved somewhat, but require further monitoring for potential project impacts. FPL states while these events have caused delays, the long term project schedule is intact.

What contracts are in place for the Turkey Point 6 & 7 project?

During 2008, FPL implemented eight new contracts and twelve change orders greater than $200,000 for services and materials relevant to the Turkey Point 6 & 7 new units. These contracts represent an estimated $62 million at the completion of the project. Contracts less than $1 million represent 8.6 percent of the total dollars contracted for in 2008. Approximately 55 percent of the contract dollars were bid competitively and 45 percent were single/sole source procurements. The competitively bid and single/sole source contracts greater than $1 million are discussed below.

Competitively Bid Contracts

To date, the Avirom and Bechtel contracts are the only two contracts initially competitively bid for the Turkey Point 6 & 7 project. The Avirom contract was initially valued at [redacted] for right-of-way survey work related to the Turkey Point-Levee transmission line. The original Bechtel COLA contract was signed in November 2007 for [redacted]. Based on FPL's Final True-up Filing in March 2009, the Bechtel COLA contract was valued at [redacted] as of December 31, 2008.

During 2008, FPL completed ten change orders to the original Bechtel COLA contract, totaling over [redacted] These contract change orders were single-sourced to Bechtel under the original competitively bid contract, and are treated by FPL as competitive additions to the contract. The work description for each of the contract changes during 2008 relate to the completion of the COLA submittal to the Nuclear Regulatory Commission, and are time and materials contracts with incentives. Five of the change orders submitted for Bechtel during 2008 were over $1 million, and are listed in **EXHIBIT 16.**

Change Order 3 added the Site Certification Application scope to the existing COLA project. FPL single sourced this work to Bechtel because much of the technical analysis completed for the COLA could be used in preparing the Site Certification Application for Units 6 &7.

Change Order 6 was for the preparation and submittal of the Site Certification Application, the Army Corps of Engineers permit, and other required environmental permits for the Turkey point 6 & 7 project.

Turkey Point 6 & 7 Competitively Bid Contracts Over $1 Million				
Bechtel Contract No.	**Work**	**Original Contract**	**Estimate of Final Contract Amount**	**Payment**
Change Order 3	COLA/SCA Preparation	[redacted]	[redacted]	[redacted]
Change Order 6	COLA/SCA Preparation	[redacted]	[redacted]	[redacted]
Change Order 7	COLA/SCA Preparation	[redacted]	[redacted]	[redacted]
Change Order 8	COLA/SCA Preparation	[redacted]	[redacted]	[redacted]
Change Order 9	COLA/SCA Preparation	[redacted]	[redacted]	[redacted]
TOTAL		[redacted]	[redacted]	

EXHIBIT 16 *Source:DR-1.43, 1.44*

Change Order 7 added scope to provide COLA support for additional subsurface investigation and environmental characterizations necessary to answer NRC concerns identified in the Progress Energy COLA in preparation of the FPL submittal in June 2009.

Change Order 8 added scope to the Site Certification Application for review of the Environmental Report, Final Safety Analysis, and Requests for Information initiated for the COLA to ensure the information presented in the Site Certification Application and COLA are consistent.

Change Order 9 is to provide added scope work for dewatering and groundwater pump testing, hazards analysis for reclaimed water, transmission public open house meetings, and support for wetland survey work. Including the [redacted] in Bechtel contracts, FPL has competitively bid approximately [redacted] of the [redacted] contract dollars.

Single/Sole Source Contracts

In 2008, the FPL Turkey Point Units 6 & 7 project issued four new single/sole source contracts greater than $1 million. Another existing sole source contract, for membership in NuStart Energy Development, received charges in 2008. **EXHIBIT 17** lists these contracts and

shows the work performed, original contract amount, estimate of contract final amount, and the type of payment used.

Turkey Point 6 & 7 Single/Sole Source Contracts Over $1 Million				
Contractor / Contract No.	**Work**	**Original Contract**	**Estimate of Final Contract Amount**	**Type Payment**
Westinghouse Electric Co. / 4500419436	LLM Manufacturing reservation	$10,860,960	$10,860,960	Lump Sum
Black, Veatch & Zachary Power Partners-Nuclear / 4500452285	Preliminary Engineering & Planning	[redacted]	[redacted]	[redacted]
Hopping Green & Sams/4400002060	Legal Services	[redacted]	[redacted]	
Pillsbury Winthrop / 4400002071	Legal Services	[redacted]	[redacted]	
NuStart Energy Development	Membership Fee	[redacted]	[redacted]	
TOTAL		[redacted]	[redacted]	

EXHIBIT 17 *Source:DR-1.43, 1.44*

The four new single sourced contracts for 2008 totaled approximately [redacted] and total sole source expenditures for the project during 2008 were approximately [redacted]. The two largest contracts during 2008 totaled about [redacted], and were awarded to Westinghouse Electric Company and BVZ Power Partners-Nuclear. The contract to Westinghouse reserved a manufacturing space for AP1000 forgings and the BVZ Power Partners-Nuclear contract was for preliminary engineering and construction planning services. The other two new sole source contracts were for project legal services. The remaining sole source contract expenditure for 2008 was for membership dues in the NuStart Energy Development consortium. Including these contracts, FPL has single/sole sourced approximately 45.4 percent of the project contract dollars.

What contracts are in place for the St. Lucie and Turkey Point Uprate projects?

During 2008, FPL implemented thirty new contracts greater than $200,000 for services and materials relevant to the St. Lucie and Turkey Point Uprates. These contracts represent an estimated [redacted] at the completion of the project. Contracts less than $1 million represent approximately .5 percent of the total contracts for 2008. Approximately [redacted] of the contracts were bid competitively and [redacted] were single/sole source procurements. The nineteen competitively bid and single/sole source contracts greater than $1 million are discussed below.

Competitively Bid Contracts

During 2008, FPL issued eight new competitively bid contracts for the EPU project greater than $1 million. The eight contracts totaled over [redacted], of which approximately [redacted] was spent in 2008. The two largest contracts were the Engineering Procurement and Construction contracts for the EPU. These two contracts totaled [redacted]. **EXHIBIT 18** lists the contracts greater than $1 million for 2008, and shows the work performed, original contract amount, estimated final contract amount, and the type of payment.

St. Lucie & Turkey Point Uprates
Competitively Bid Contracts Over $1 Million

Contractor / Contract No.	Work	Original Contract	Estimate of Final Contract Amount	Type Payment
Bechtel / 117809	Turkey Point EPC	[redacted]	[redacted]	[redacted]
Bechtel / 117820	St. Lucie EPC	[redacted]	[redacted]	[redacted]
TEI / 118328	Turkey Point Condenser Tubes	[redacted]	[redacted]	[redacted]
TEI / 118206	Turkey Point Moisture Separator Reheaters	[redacted]	[redacted]	[redacted]
TEI / 118205	St. Lucie Moisture Separator Reheaters	[redacted]	[redacted]	[redacted]
TEI / 118241	Turkey Point Feedwater Heaters	[redacted]	[redacted]	[redacted]
TEI /118224	St. Lucie Feedwater Heaters	[redacted]	[redacted]	[redacted]
TEI / 118278	St. Lucie Turbine Cooling Water Heat Exchangers	[redacted]	[redacted]	[redacted]
TOTAL		[redacted]	[redacted]	

EXHIBIT 18 *Source:DR-1.15, 1.16*

The remaining competitively bid contracts were awarded to Thermal Engineering (TEI) for condenser tubes, moisture separator reheaters, and feedwater heaters. FPL noted that the competitive bid process for this purchase yielded savings for multiple pieces of equipment, spare parts, and installation services. Including these contracts, FPL has competitively bid 63.2 percent of the total EPU project contract dollars.

Single/Sole Source Contracts

In 2008, FPL issued 11 new single source EPU contracts greater than $1 million. **EXHIBIT 19** lists these contracts and shows the work performed, original contract amount, estimated final contract amount, and the type of payment. As shown in the exhibit, the 11 new single sourced contracts totaled over [redacted] Actual 2008 expenditures for the contracts were just over [redacted] Approximately [redacted] of the single/sole source

contract dollars were for equipment and services from Original Equipment Manufacturers. The two largest EPU single source contracts were to provide the low pressure turbine, exciter, and installation. These two contracts totaled [redacted]

St. Lucie & Turkey Point Uprates Single/Sole Source Contracts Over $1 Million				
Contractor / Contract No.	**Work**	**Original Contract**	**Estimate of Final Contract Amount**	**Type Payment**
Siemens / 116088	St. Lucie High & Low Pressure T/G, exciter, exciter install. Units 1 & 2	[redacted]	[redacted]	[redacted]
Siemens / 116090	St. Lucie High & Low Pressure T/G, generator/exciter upgrades & installation	[redacted]	[redacted]	[redacted]
Shaw-Stone & Webster / 112221	St. Lucie Licensing, Engineering, & BOP Specification Development	[redacted]	[redacted]	[redacted]
Shaw-Stone & Webster / 112177	Turkey Point Licensing, Engineering, & BOP Specification Development	[redacted]	[redacted]	[redacted]
American Crane & Equip. / 117272	St. Lucie Gantry Crane	[redacted]	[redacted]	[redacted]
Tampa Armature Works / 118003	St. Lucie Circulating Water Pumps	[redacted]	[redacted]	[redacted]
Proto Power / 115465	Engineering Services Turkey Point, NSS, BOP & LAR support	[redacted]	[redacted]	[redacted]
Siemens / 109843	LOI for Generator & Turbine Work for St. Lucie 1 & 2 and Turkey Point 3 2010-2012	[redacted]	[redacted]	[redacted]
Shaw-Stone & Webster / 105353	Initial BOP Scoping Support for EPU	[redacted]	[redacted]	[redacted]
Cameron / 116796	Turkey Point Ultrasonic Flow Meter Measuring System	[redacted]	[redacted]	[redacted]
Cameron / 116107	St. Lucie Ultrasonic Flow Meter Measuring System	[redacted]	[redacted]	[redacted]
TOTAL		[redacted]	[redacted]	

EXHIBIT 19 *Source: Source:DR-1.15, 1.16*

The licensing, engineering, and balance of plant specification ([redacted]) and gantry crane modification ([redacted]) contracts are critical to the successful completion of the Uprates. The 2008 expenditures for these contracts totaled [redacted] and [redacted] respectively.

The ultrasonic flow meter measurement contracts are also important to completing the measurement uncertainty recapture uprate. This improvement will reduce the degree of

uncertainty in reactor power measurement, and can improve accuracy by up to two percent. The total value of these contracts is [redacted] and the total 2008 expenditure is [redacted]. Including these contracts, FPL has single/sole sourced approximately [redacted] of the EPU project contract dollars.

5.0 Appendix

Acronyms and Abbreviations

ANT	Advanced Nuclear Technology
APOG	AP-1000 Owners Group
COLA	Combined Operating License Application
Commission	Florida Public Service Commission
EPC	Engineering, Procurement, and Construction
EPPI	EPU Project Instructions
EPU	Extended Power Uprate (or Uprate)
FPL	Florida Power & Light Company
KPI	Key Performance Indicators
LAR	License Amendment Requests
NAP	Nuclear Administrative Procedure
NNP	New Nuclear Project
NPP	Nuclear Power Plants
NRC	Nuclear Regulatory Commission
NUPIC	Nuclear Procurement Issues Committee
OEM	Original Equipment Manufacture
QA	Quality Assurance
QC	Quality Control
RFP	Request for Proposal
SCA	Site Certification Application
Westinghouse	Westinghouse Energy Corporation