



# **Review of Duke Energy Florida, LLC Project Management Internal Controls for Levy Nuclear Plant**

June 2017

BY AUTHORITY OF  
The Florida Public Service Commission  
Office of Auditing and Performance Analysis



**Review of  
Duke Energy Florida, LLC  
Project Management  
Internal Controls  
for  
Levy Nuclear Plant**

**R. Lynn Fisher**  
Government Analyst II  
Project Manager

**Jerry Hallenstein**  
Senior Analyst

**June 2017**

**By Authority of  
The State of Florida  
Public Service Commission  
Office of Auditing and Performance Analysis**

**PA-17-01-001**



# TABLE OF CONTENTS

<b>CHAPTER</b>		<b>Page</b>
<b>1.0</b>	<b>EXECUTIVE SUMMARY</b>	
1.1	Levy Nuclear Project Status at a Glance .....	1
1.2	Audit Execution.....	1
1.3	Commission Audit Staff Observations.....	3
<b>2.0</b>	<b>LEVY NUCLEAR PROJECT</b>	
2.1	EPC Contract Litigation Status.....	5
2.2	Long Lead Equipment Dispute Resolution and Close-Out Costs.....	5
2.3	Remaining Licensing Activities and Staffing Changes .....	6
2.4	Audits and Quality Assurance Reviews .....	7
2.5	Contractor Selection and Management .....	8



# 1.0 Executive Summary

## 1.1 Levy Nuclear Project Status at a Glance

- ◆ Duke Energy Florida, LLC (DEF) received the Combined Operating Licenses (COLs) for Levy Units 1&2 (LNP or Levy) on October 20, 2016.
- ◆ No 2016 LNP COL-related costs are submitted in Docket No.170009-EI for the Nuclear Cost Recovery Clause (NCRC) pursuant to the 2013 stipulation.
- ◆ DEF continued wind-down activities for LNP during 2016, including settlement of remaining obligations under a long-lead equipment (LLE) contract.
- ◆ In December 2016, the U.S. District Court Western District of North Carolina issued a Memorandum of Decision regarding the Engineering, Procurement, and Construction (EPC) contract litigation between DEF and Westinghouse Electric Company. Both parties issued appeals in early 2017. On May 23, 2017, the bankruptcy court lifted the stay but has yet to release the necessary funds for Westinghouse to continue its appeal.
- ◆ In 2017, DEF began what it believes are required Nuclear Regulatory Commission (NRC) post-COL actions to update Levy 1&2 licenses.

## 1.2 Audit Execution

### 1.2.1 Purpose and Objectives

This audit addresses project internal controls and management oversight used by DEF in managing the Levy Units 1&2 project during 2016. The objective of this audit is to provide an independent account of project activities and to evaluate internal project controls. Information in this report may be used by the Commission to assess the reasonableness of DEF cost-recovery requests.

Commission audit staff published previous reports in 2008 through 2016, reviewing project management internal controls of DEF's cost-recovery requests. These previous reports are available on the Commission website at [www.floridapsc.com](http://www.floridapsc.com).

### 1.2.2 Scope

The period of this review is January 2016 to May 2017. The internal controls assessed were 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

Comprehensive controls are essential for successful project management. They are ineffective if not actively emphasized by management, embraced by the organization, and subject to oversight and revision. Proper internal controls minimize and enhance risk mitigation and management, and aid efficient reasoned decision making.

Risk must be timely and accurately identified, with adequate safeguards created, vetted, and actively employed to control schedule and cost. Prudent decision making results from effective communication, adherence to clearly defined procedures, and vigilant management oversight.

The primary standard used by Commission audit staff for review of DEF internal controls associated with the Levy Units 1&2 project is the Institute of Internal Auditors' *Standards for the Professional Practice of Internal Auditing* and *Internal Control - Integrated Framework*. Staff's audit work is performed in compliance with Standards 2000 through 2500. This set of standards was developed by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Staff's internal control assessments focused on the COSO framework's five key interrelated elements of internal control:

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

To maximize operational effectiveness and efficiency, reliability of financial reporting, and compliance with applicable laws and regulations, all five components must be present and functioning in concert to conclude that internal controls are effective.

### **1.2.3 Methodology**

Initial field data collection for this review occurred during December 2016 through January 2017. Additional data collection, analysis, and report writing were completed during February through May 2017. The information compiled in this report was gathered via staff review of document requests, on-site interviews of key company personnel, and filed testimony within Docket No. 170009-EI.

Specific information requested or reviewed by Commission audit staff includes:

- ◆ Policies and procedures
- ◆ Organizational charts
- ◆ Contract requests for proposal
- ◆ Project Timelines
- ◆ Vendor and contract change orders and updates
- ◆ Internal and external audit reports



### 1.3 Commission Audit Staff Observations

During 2016, LNP project wind-down activities included pursuit of the COLs for Levy Units 1&2, ongoing EPC contract litigation with Westinghouse, and resolution of long-lead equipment issues. The following observations were noted:

- ◆ Commission audit staff identified no concerns regarding DEF Levy project management activities during 2016.
- ◆ Commission audit staff believes project management oversight and internal controls were adequate to successfully complete 2016 contract and project wind-down activities.
- ◆ Commission audit staff believes DEF's 2016 actions supporting the Levy project wind-down and completion were reasonable efforts that minimize total project costs, comply with contractual obligations, and meet the requirements of the 2013 and 2015 Commission-approved stipulations.
- ◆ Commission audit staff believes the 2016 staffing reductions and organizational changes DEF made were reasonable and reflect proper resource and cost management.



## 2.0 Levy Nuclear Project

In July 2013, DEF management decided to cancel Levy Nuclear Project (LNP) construction but continued efforts toward receiving NRC approval of the COL for Units 1&2. The Florida Public Service Commission approved a settlement agreement, in Docket No. 130208-EI, allowing DEF to pursue the Levy COL. However, the settlement agreement did not allow recovery of COL costs within the Nuclear Cost Recovery Clause (NCRC).

### 2.1 EPC Contract Litigation Status

In January 2014, DEF began conducting negotiations with Westinghouse to close-out its EPC contract. While DEF was able to resolve contract issues with other project vendors, it was unable to resolve the Westinghouse contractual dispute regarding cancellation costs for the EPC contract.

As a result, both companies filed lawsuits asking for financial compensation. DEF sought a \$54 million Long Lead Equipment (LLE) refund and Westinghouse sought \$512 million in termination fees and contract costs.

On December 22, 2016, The United States District Court, Western District of North Carolina ruled in the Duke Energy Florida, Inc. vs. Westinghouse Electric Company, LLC case. The court awarded Westinghouse \$34.25 million in EPC contract termination fees and interest. Additionally, the court concluded that DEF owed nothing of the remaining \$352 million invoiced by Westinghouse as compensation for direct costs and unpaid partial milestone payments for the Levy Project.

In January and February 2017, the parties appealed the District Circuit court's decision. According to DEF, both parties are appealing all adverse judgements against their positions. The appeals case was reportedly scheduled to begin in April 2017. However, the court ordered a stay of the case due to the bankruptcy of Westinghouse Electric Company. DEF believes the appellate case could be delayed until as late as 2020.

Due to the stay, the impact of litigation costs, court-awarded payments, and other associated costs will continue to be delayed and not fully known. Therefore, it is possible DEF may request recovery of some Levy project costs associated with the District Court and appeals litigation and other project activities in the future.

### 2.2 Long-Lead Equipment Dispute Resolution and Close-Out Costs

In January 2014, DEF cancelled the Westinghouse EPC contract. At that time, much of the Levy Nuclear Project LLE was in various stages of fabrication by vendors. Other items had been ordered through Westinghouse, but materials had not yet been purchased, and the manufacturing process had not begun.

As part of the wind-down activities for the LNP project, DEF developed the LNP Long Lead Equipment Disposition Plan for items procured through the Westinghouse EPC contract. After review and evaluation, DEF management decided to dispose of all Levy items under the EPC contract, considering possible re-use at another Duke Energy plant, sale to another AP1000 group owner or Westinghouse sub-contractor, or sale for salvage/scrap value.

In December 2015, as part of the disposition of remaining LLE, DEF management decided to transfer the variable frequency drive equipment to Units 4 and 5 at the Crystal River 3 Energy Complex. The company's written decision justification documented the transfer of the variable frequency flow equipment. The justification noted the internal transfer, reuse, and refurbishment of the equipment for Crystal River Units 4&5 was significantly greater than other offers received for the equipment.

As of 2016, five Levy LLE items remained in dispute. Westinghouse had paid contractors for the steam generator tubing and materials, the reactor vessel internals, the turbine generator, and the reactor cooling pumps. In October 2016, DEF and Westinghouse negotiated the net value of the remaining disputed LLE contract amounts not within the District Court litigation and DEF made final payment to Westinghouse.

DEF has identified certain litigation costs that will be incurred by the Levy project in 2017 and beyond. Although the District Court ruled on the Duke-Westinghouse EPC contract in December 2016, the final litigation costs were subject to adjustment. Further uncertainty of litigation costs are associated with the appeals case and the delay caused by the Westinghouse bankruptcy. According to DEF, these events will create additional legal costs to be submitted through the NCRC in future years. These 2017 and beyond litigation costs represent attorney fees and expenses to outside counsel for the initial District Court case and the bond required to appeal the decision to the Circuit Court of Appeals.

## **2.3 Remaining Licensing Activities and Staffing Changes**

Pursuant to the 2013 and 2015 Commission-approved stipulation agreements, no DEF 2016 COL costs are being requested for recovery through the NCRC. Though these costs are not requested for recovery, DEF continues to report them to the Commission as information.

### **2.3.1 Remaining Licensing Activities**

Under the Commission-approved settlement in Docket No. 130208-EI, DEF agreed to continue its efforts to obtain the Levy Combined Operating License (COL). On October 20, 2016, DEF's licensing efforts culminated in the NRC issuance of individual COLs for Levy Units 1&2.

In late 2016, DEF established the Nuclear Development Licensing Plan for Levy Nuclear Plant Post-COL licensing activities. A second revision document, dated November 16, 2016, outlines the Post-COL Licensing activities to be undertaken for the Levy Unit 1&2 COLs.

According to the licensing plan, Duke identified the update of Levy Units 1&2 COLs as the last remaining Levy licensing task to be completed. During 2017 and beyond, the Duke Nuclear

Engineering team expects to update the Levy COLs with requests to the NRC for License Amendment Requests (LARs) and departures, required by the construction of other AP1000 projects.

In early 2017, DEF re-directed its focus toward updating the Levy COLs to reflect current AP1000 Design Control Document revisions, and SCANA and Vogtle construction modifications. DEF management has stated that currently approximately 90 percent of the update work is ready for submission.

DEF management believes a substantial number of these changes will be submitted to the NRC in 2017. DEF will rely on construction submissions made previously to the NRC by Georgia Power and SCANA. The use of these changes as a reference is expected to ensure timely NRC approval of the COL updates. The Duke Nuclear Engineering department expects to accelerate the Post-COL submissions and plans to submit approximately two years' worth of LARs in one year.

### **2.3.2 Staffing Changes**

As the Levy licensing effort continued during 2016, DEF reduced employee and contractor staffing for the Levy Combined Operating License Application. According to the company, after DEF received the Levy Units 1&2 COLs in October 2016, the number of personnel required for the project was reduced from just over seven full-time equivalents in January 2016 to approximately four. As of the first quarter of 2017, the number of FTEs remained at approximately four.

After receiving the Levy COLs in October 2016, DEF management recognized that the nature of work called for a change in project reporting. At that time, DEF modified the Levy project organizational structure from reporting directly to the Executive Vice President & Chief Operating Officer to the Nuclear Engineering Department. More specifically, the Manager of COLs for the William States Lee (North Carolina) and Levy (Florida) projects reports to the General Manager of Nuclear Engineering, who reports directly to the Vice President of Nuclear Engineering. This organization will complete the final licensing task of updating the Levy COLs. The company noted that as of April 1, 2017 there were no project management charges made to the Levy NCRC project. To date, DEF has not estimated the level of staffing required to complete the post-COL update process. As previously mentioned, there are no Levy COL-related costs being requested for recovery by DEF in the 2016 NCRC proceeding.

## **2.4 Audits and Quality Assurance Reviews**

There were no internal and external audits completed during 2016 relevant to the LNP project. Similarly, there were no quality assurance reviews completed on any long-lead equipment or LNP project assets.

## **2.5 Contractor Selection and Management**

The Commission audit staff requested existing (open) and new contracts, updated work authorizations, and contract change orders related to the Levy project. Audit staff identified no issues of concern regarding contract management or contract change orders during 2016.