TABLE OF CONTENTS

Section	Title	Page
1.0	INTRODUCTION	1
1.1	SITE DESCRIPTION	1
1.2	SITE OWNERSHIP	2
1.3	LIMITED WORK AUTHORIZATION ACTIVITIES	2
2.0	SITE REDRESS PLAN	4
2.1	GENERAL REQUIREMENTS	4
2.2	SITE REDRESS CRITERIA	5
2.3	DESCRIPTION OF SITE REDRESS PLAN	5
2.4	CONTROLS TO MITIGATE IMPACTS DURING REDRESS ACTIVITIES	6
2.4.1	NOISE CONTROLS	6
2.4.2	TRAFFIC CONTROLS	7
2.4.3	EROSION AND SEDIMENT CONTROLS	8
2.4.4	AIR QUALITY CONTROLS	8
2.4.5	VISUAL AESTHETIC CONTROLS	9
2.4.6	POTENTIAL POLLUTANT SOURCE CONTROLS	9
2.4.6.1	Vehicle Fueling	9
2.4.6.2	Truck Washout/Decontamination Areas	9
2.4.6.3	Loading and Unloading Areas	10
2.4.6.4	Vehicle and Equipment Maintenance	10
2.4.6.5	Material Handling/Storage	10
2.4.6.6	Stockpile Management	10
2.4.6.7	Spill Prevention	10
2.4.6.8	Spill Mitigation	11
2.4.7	FUTURE SITE OWNERSHIP AND USE	11
2.4.8	POTENTIAL LIABILITIES	11
2.4.9	POTENTIAL CONTAMINATION	11
2.5	IMPACTS ON EXISTING REDRESS AND DECOMMISSIONING PLANS	11

TABLE OF CONTENTS (CONTINUED)

Section	Title	Page
2.6	FINANCIAL RESPONSIBILITY	11
2.7	NRC NOTIFICATION UPON COMPLETION	12

LIST OF FIGURES

Number	Title
1.0-1	LNP Site Location
1.0-2	LNP Site
1.0-3	Conceptual View Looking South of Major Station Components on the LNP Site

ACRONYMS AND ABBREVIATIONS

ac.	acre
AP1000	Westinghouse's AP1000 Reactor
AST	aboveground storage tank
CFR	Code of Federal Regulations
COL	Combined License
COLA	Combined License Application
CWA	Clean Water Act
E&SCP	Erosion and Sedimentation Control Plan
ER	Environmental Report
ESP	Early Site Permit
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
ha	hectare
km	kilometer
LNP	proposed Levy Nuclear Plant Units 1 and 2
LWA	Limited Work Authorization
mi.	mile
NRC	U.S. Nuclear Regulatory Commission
OSHA	Occupational Safety and Health Administration
PEF	Florida Power Corporation doing business as Progress Energy Florida, Inc.

ACRONYMS AND ABBREVIATIONS (CONTINUED)

SRP	Site Redress Plan
SSC	Structures, Systems, and Components
SWFWMD	Southwest Florida Water Management District
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
Westinghouse	Westinghouse Electric Company, LLC

1.0 INTRODUCTION

The U.S. Nuclear Regulatory Commission (NRC) Limited Work Authorization (LWA) process in 10 Code of Federal Regulations (CFR) 50.10 allows Combined License (COL) applicants to perform certain pre-construction activities without prior NRC approval. These pre-construction activities may include site clearing, transmission line routing, and road building. In addition, construction of certain structures, systems, and components (SSC) not essential to public health and safety and/or common defense and security can proceed without NRC review or approval. However, activities having a reasonable nexus to radiological health and safety and/or common defense and security, as delineated in the rule, require some form of prior NRC approval (e.g., LWA, construction permit, Early Site Permit [ESP] or COL). The rule allows the applicant to submit a LWA request along with the underlying Combined License Application (COLA) and information on site suitability, and obtain an early NRC decision on site suitability under Subpart F of 10 CFR Part 2.

A Site Redress Plan (SRP) provides guidance for returning a proposed site to an environmentally stable and aesthetically acceptable condition appropriate with local zoning laws in the event that site activities allowed under a LWA are performed. As used in this section, *construction* means the activities in paragraph (a)(1) of 10 CFR 50.10, and does not include the activities in paragraph (a)(2) of 10 CFR 50.10. Therefore, the SRP does not apply to pre-construction activities allowed under 10 CFR 50.10 (a)(2).

Including the SRP with the COLA constitutes assurance that, if activities authorized by the LWA are carried out but are terminated by Florida Power Corporation doing business as Progress Energy Florida, Inc. (PEF), the LWA is revoked by the NRC, or the final decision of the NRC is to deny the COLA, the site will not be left in an unacceptable condition or state.

1.1 SITE DESCRIPTION

PEF proposes to build and operate two units of the Westinghouse Electric Company, LLC's (Westinghouse) AP1000 Reactor (AP1000), a nuclear plant design certified under 10 CFR 52, Appendix D.

The proposed Levy Nuclear Plant Units 1 and 2 (LNP) site is located in Levy County, Florida (Figure 1.0-1). This is a large, primarily rural area located southwest of Gainesville and west of Ocala. It is approximately 15.5 kilometers (km) (9.6 miles [mi.]) north of the Crystal River Energy Complex, an energy facility also owned by PEF.

The Gulf of Mexico is located approximately 12.8 km (7.9 miles mi.) west of the LNP site and Lake Rousseau lies about 4.8 km (3.0 mi.) to the south (Figure 1.0-2). The LNP site is approximately 1257 hectares (ha) (3105 acres [ac.]), with the primary location for the two reactors and ancillary power production support facilities comprising approximately 121 ha (300 ac.) near the center of the site.

Much of the LNP site, particularly the primary reactor location, has been in intensive silviculture production for over a century. Tree production and harvesting operations have extensively altered the natural configuration of the vegetation and the land surface by creating a series of elevated hillocks, separated by shallow furrows. Detailed descriptions of current land use, demography, and the physical characteristics at and around the site are discussed in more detail in the Environmental Report (ER) Chapter 2.

The LNP will be a large industrial facility. Cooling towers will be used for normal cooling. Figure 1.0-3 presents a conceptual overlay of the plants and cooling towers on the LNP site as they would exist when constructed.

1.2 SITE OWNERSHIP

PEF is the owner of the site and the applicant/licensee for this COL.

As described in the administrative information included as a part of this COLA, PEF has the necessary authority, control, and rights related to the construction and operation of the LNP.

1.3 LIMITED WORK AUTHORIZATION ACTIVITIES

The activities that are allowed or not allowed in accordance with an LWA are specified in 10 CFR 50.10(a).

LWA activities that PEF intends to undertake would be those allowed by 10 CFR 50.10(d)(1) and include the following, any of which may be for an SSC for which a construction permit or a COL is otherwise required:

- Driving of piles.
- Subsurface preparation.
- Placement of backfill, concrete, or permanent retaining walls within an excavation.
- Installation of a foundation, including placement of concrete.

The PEF LWA request is for the full extent of activities allowed by NRC regulation, and the SRP encompasses all such activities. PEF has identified the following LWA activities that are being requested:

- Prepare nuclear island foundation surface with dental concrete.
- Place roller compacted concrete under the nuclear islands.
- Install mud mat under the nuclear islands.

- Install waterproofing beneath the mud mat under the nuclear islands.
- Install rebar in the nuclear island concrete foundations.
- Erect safety-related concrete placement forms.
- Install Turbine Building foundation drilled shafts.
- Install Annex Building foundation drilled shafts.
- Install Radwaste Building foundation drilled shafts.
- Install circulating water piping between the cooling tower basins and the entrance point to the turbine building condensers.[1]
- Install the raw water system intake structure and make-up line to the cooling tower basin.[1]

[1] PEF has determined that there are certain site preparation activities related to circulating water piping and intakes that should be allowed as pre-construction activities, as defined in 10 CFR 50.10, because they are not encompassed by the definition of construction contained in 10 CFR 50.10(a)(1), they do not have a reasonable nexus to radiological health and safety and/or common defense and security, and their indirect effect on such health and safety or common defense and security is so low as to be considered negligible.

2.0 SITE REDRESS PLAN

This section describes the elements that apply to the SRP, including specific regulatory requirements that must be followed in the planning and implementation of redress activities, effects associated with existing redress and decommissioning plans, and the financial responsibility of the LNP COL applicant regarding redress associated with any LWA activities that have been performed if the activities authorized by the LWA are carried out but are terminated by PEF, the LWA is revoked by the NRC, or the final decision of the NRC is to deny the COLA.

2.1 GENERAL REQUIREMENTS

An SRP is required if the COL applicant intends to perform any of the activities allowed by 10 CFR 50.10 (a)(1) and requested under 10 CFR 50.10(d)(1). The COL applicant must identify measures that might be necessary to restore the site to a condition suitable for other appropriate use if the activities authorized by the LWA are carried out but are terminated by PEF, the LWA is revoked by the NRC, or the final decision of the NRC is to deny the COLA.

Site redress activities described in this SRP are specific to the effect of planned LWA activities. Redress activities will reflect specific land use and zoning requirements of local municipal, county, and state jurisdictions, in addition to applicable federal requirements and industry standards.

Redress activities may account for both pre-existing site conditions and a range of potential future use scenarios, including the following:

- Future site ownership and use.
- Use of constructed facilities for alternative purposes, or their removal.
- Potential liabilities associated with any facility or structure that is to remain following the completion of redress activities.
- Potential environmental contamination that either pre-dates, or is a result of PEF's actions.

The overall objective of this SRP is to reconfigure and redress the site to provide an environmentally stable and aesthetically acceptable site that can be left unattended post-redress.

In planning for site redress, the following two general categories of conceptual options will be considered:

- Topographic approaches that accomplish the objective and preserve the potential of the site for future industrial use.

- Completion or addition of site development features that enhance the value of the site for future industrial use.

Redress activities will begin (in concert with the federal, state, or local land use authority and industrial development authorities) either at the time that the activities authorized by the LWA are carried out but are terminated by PEF, the LWA is revoked by the NRC, or the final decision of the NRC is to deny the COLA. A detailed redress scope and schedule that is consistent with this SRP would be implemented in accordance with 10 CFR 52.91. The schedule would include a period of time for preparation to secure additional input from regulators and local municipalities. The redress activities would comply with applicable local, state, and federal environmental requirements. If, prior to commencement of redress activities, industrial or other acceptable uses for the site are identified and committed to and that are consistent with its development, redress would be performed in a manner that accommodates and is consistent with such alternative use. The site would be redressed to the specifications of the future use in accordance with applicable regulations.

Prior to and during redress activities, environmental control of local water quality, air quality, stormwater runoff, solid waste, and the protection of critical ecological elements, if any, would be maintained in compliance with approved permits and regulatory requirements.

2.2 SITE REDRESS CRITERIA

Regulatory requirements for redress are contained in 10 CFR 50. Once the LNP LWA is granted, PEF may perform none, some, or all of the construction activities listed in SRP Section 1.3. Redress carried out under this plan will achieve an environmentally stable and aesthetically acceptable site suitable for whatever non-nuclear use conforms to state and local zoning laws. If the activities permitted by 10 CFR 50.10(a)(1) are performed at the LNP site, and the LNP COL is not granted or not exercised, then the site would be redressed in accordance with the terms of this SRP. If, before redress is complete, a use not envisioned in the SRP is found for the site or parts thereof, the SRP would be followed to the greatest extent practical consistent with the identified alternative use.

2.3 DESCRIPTION OF SITE REDRESS PLAN

PEF LWA activities will take place within the footprint of the nuclear island and adjacent buildings (e.g., annex, turbine, and radwaste) and up to 22.86 meters (75 feet) below final plant grade. PEF's method of redress for these LWA structures will comply with state and local requirements and regulations. Prior to initiating site redress activities, PEF would discuss with the Florida Department of Environmental Protection (FDEP) the specific redress activities and requirements, which may include a determination of the acceptability of burial of the LWA structures in place.

Any area that became contaminated as a result of LWA activities or LWA redress activities would be remediated in compliance with Florida law and regulations. Backfill placement for site redress would be in accordance with good engineering practices using material from the original excavation to the extent still available. Final site redress would include regrading the area to conform to the surrounding land surface and to mitigate erosion from stormwater runoff. The disturbed area would be revegetated to ensure stabilization and an aesthetically pleasing landscape. PEF would provide all required notifications to the FDEP. Depending on the specific requirements of the redress plan, PEF will ensure that appropriate deed notices are filed.

2.4 CONTROLS TO MITIGATE IMPACTS DURING REDRESS ACTIVITIES

The physical effects of redress activities will be controlled to mitigate impacts during redress activities. Controls to mitigate these impacts are outlined in the following subsections.

2.4.1 NOISE CONTROLS

Noise will occur during redress activities, such as with clearing and grading, or during the removal of installed structures. As a result, both on-site and off-site background noise levels will increase in the short term. To manage the increased ambient noise, mitigation measures will be implemented.

Noise could temporarily disturb nearby residents, workers at nearby facilities, and some individuals participating in recreational activities near the site. Noise caused by site redress activities will not be sustained for prolonged periods of time. In addition, it will vary based on the specific activities and their locations.

- **Plant site.** Noise will be generated for the longest periods of time during site redress at the LNP site itself.

- **Structural foundations and other appurtenances.** During LNP site redress activities, blasting might be necessary. If limited blasting is necessary, a blasting plan will be developed and implemented. Blasting would be limited to daytime workweek hours. This will reduce the noise effects experienced by surrounding residents. Blasting will be limited by charge size or damped. Ground acceleration from the blast would be low enough so that nearby building foundations would not be damaged from the initial shock or subsequent vibrations. No adverse effects from blasting are expected.

Noise levels are controlled by the following regulations:

- The Occupational Safety and Health Administration (OSHA) has developed noise exposure limits (29 CFR 1910). These acceptable noise

levels for offices and control rooms relate to workers' health and annoyance factors.

- Federal noise pollution control regulations (40 CFR 204) identify noise emission standards for construction equipment.

During site redress, equipment used for clearing, excavating, trash disposal, and landfilling operations will generate noise. Trucks and other heavy equipment are furnished with noise control devices that will reduce off-site noise effects, keeping such noises below acceptable levels.

As a result, there could be small adverse noise effects on the residences nearest the LNP site. However, these effects would be temporary because the majority of the site redress activities would occur during daytime workweek hours. Such activities should not affect weekend church or recreational activities, even though the site redress schedule could, at times, span 24-hour days, up to 7 days per week.

Additional traffic would be generated in the area during site redress activities. An increase in traffic to and from the LNP site would temporarily increase the level of vehicular noise for residences along routes that access the LNP site. At times, the site redress schedule could span 24-hour days, up to 7 days per week. Standard noise control devices (such as mufflers and soundproofing) would be used to reduce noise effects on nearby residences and other sensitive receptors.

If site redress supplies are brought in by rail, additional train traffic may occur during site redress activities. However, because the regional rail lines are currently in use, periodic train traffic to deliver supplies would result in a small additional noise effect, if at all.

Overall, site redress noise is expected to result in temporary, small noise effects on surrounding residential communities and sensitive receptors, such as schools and nearby recreation areas. Because noise-related effects are anticipated to be short-term, they will only result in temporary adverse effects. No long-term direct or indirect cumulative effects from site redress noise are anticipated.

2.4.2 TRAFFIC CONTROLS

The roads and highways near the LNP site will experience an increase in use during redress activities, especially at the beginning and end of the workday. It is expected that the personnel involved in redress activities will be living in areas dispersed nearly uniformly in all directions from the site, and will travel relatively uniformly in all directions to access the site. Thus, no significant traffic congestion problems are expected as a result of redress activities.

During redress activities, traffic control on-site and off-site will adhere to applicable local, state, and federal requirements.

2.4.3 EROSION AND SEDIMENT CONTROLS

It is anticipated that the majority of the LNP site will be paved, covered with gravel, covered with vegetation, or covered by an existing structure prior to site preparation or redress activities. The runoff from these areas will be collected and controlled by a stormwater drainage system. During site redress activities, disturbances to the existing ground surface will potentially increase the sediment load through runoff to local streams, rivers, and lakes that discharge to the Gulf of Mexico. Site grading and drainage during site redress activities would be designed to mitigate erosion and comply with a comprehensive Erosion and Sedimentation Control Plan (E&SCP) and a Stormwater Pollution Prevention Plan (SWPPP), which are required under the following regulations:

- Levy County Floodplain Construction Compliance, County Code of Ordinances, Chapter 50 Article VI Division 3 Section 50.
- FDEP Florida Administrative Code (F.A.C.) Chapter 40B-400.
- FDEP Environmental Resource Permit, F.A.C. Chapter 62-25, 62-40.
- Southwest Florida Water Management District (SWFWMD) Dewatering Permit, FDEP F.A.C. Chapter 40D-2.
- SWFWMD Well Construction Permit, FDEP F.A.C. Chapter 40D-3.
- FDEP Local Branch Erosion and Sedimentation Control Plan, F.A.C. Chapter 62-40.
- Federal Clean Water Act (CWA).
- U.S. Army Corps of Engineers (USACE) Section 404 Wetland Permit.
- FDEP 401 Water Quality Certification.

These regulations will be followed during site redress activities.

Several different structural controls may be used to maintain the quality of the stormwater running off the site local streams and rivers or the local community. The final location of these controls would be based on site conditions just prior to the commencement of site redress activities.

2.4.4 AIR QUALITY CONTROLS

Air emissions may occur during site redress activities. Potential sources of air emissions during site redress may include the following:

- Fugitive dust from exposed ground or site redress activities.

- Exhaust from personal vehicles and heavy equipment.

During site redress activities at the LNP site, controls will be implemented to mitigate potential air emissions from site redress sources.

Fugitive dust and air emissions from site redress activities and equipment are expected to be minimal and would be controlled by implementing the mitigation measures described in this SRP.

2.4.5 VISUAL AESTHETIC CONTROLS

The LNP uses vegetation as a visual screen or buffer from surrounding land uses. Therefore, site redress activities at the LNP site will not be visible to nearby residences. However, certain site redress activities may be visible to users of recreational land near the LNP.

Visual aesthetic mitigation measures for site redress activities may include the following:

- Restricting laydown areas to minimize disturbance and visual intrusion.
- Removing debris in a timely manner.

Overall, some temporary visual aesthetic disturbance would occur as a result of site redress activities. These effects will be temporary, and no long-term indirect or cumulative effects on visual aesthetics are expected.

2.4.6 POTENTIAL POLLUTANT SOURCE CONTROLS

Site redress activities would result in many potential pollutant sources, including fuels, effluents, wastes, spills, and materials handling and storage. Specific measures to control discharges of pollutant sources on-site and off-site during redress activities are described in subsequent subsections.

2.4.6.1 Vehicle Fueling

Fueling areas and aboveground storage tanks (AST) that contain diesel fuel will be managed to prevent inadvertent spills.

2.4.6.2 Truck Washout/Decontamination Areas

Where truck washout and decontamination areas are necessary, they will be located on-site. Typically, these areas will be located within an impoundment where the water is contained. No wash water will be allowed to run off the site or enter local, state, or federal waters.

2.4.6.3 Loading and Unloading Areas

Areas with reduced potential for spills or that would become pollution sources may be designated for loading and unloading. Cleanup in such designated areas may occur less frequently, but no less than once per day. Soils or other materials spilled during loading and unloading (outside of designated areas) will be cleaned up promptly, including soils on the outside of the trucks (i.e., the side rails) and on the ground or road surface.

2.4.6.4 Vehicle and Equipment Maintenance

Vehicle and equipment maintenance activities, such as lubrication or equipment repair that could result in oil or grease spills, will be performed in an enclosed building, if practical, in an area designated for this purpose. Spills will be cleaned up promptly. Precautions will be taken to prevent the release of pollutants to the environment from vehicle maintenance. Precautions include the use of drip pans, mats, and other similar methods. Oil-contaminated materials will be stored in metal containers and disposed of off-site in accordance with state and local regulations. Spill kits will be maintained for prompt cleanup of oil spills.

2.4.6.5 Material Handling/Storage

The LNP will have an approved SWPPP that has a section that addresses material handling/storage at the site during redress activities and will be followed.

2.4.6.6 Stockpile Management

In general, stockpiles for redress activities will be managed in accordance with state erosion and sediment control policies.

2.4.6.7 Spill Prevention

Fuel and waste tanks located on soil will be bermed with a perimeter dike of suitable native material, or will be placed inside an open tank capable of containing 110 percent of the maximum capacity of the tank in case of rupture. When practical, the areas inside the dike will be covered with an oil-resistant membrane to minimize soil contamination in the event of a spill.

Fuel and waste tanks located on concrete or steel foundations will be bermed with appropriate materials suitable for each application. These materials will allow for the containment of 110 percent of the maximum capacity of the tank in case of rupture.

For redress activities requiring fuel or waste tanks, a sufficient number of spill kits will be made available to contain minor spills and leaks.

2.4.6.8 Spill Mitigation

Fueling operations and vehicle maintenance will be performed at designated facilities.

Spill sumps will be constructed adjacent to fuel and oil tanks. Drip pans will be placed underneath oil barrels to contain fluids that are used during redress activities. Toxic or hazardous materials spills will be reported promptly to an on-site authority or designee.

2.4.7 FUTURE SITE OWNERSHIP AND USE

In the event that PEF does not fully develop the LNP site to provide new nuclear power generation, future ownership and use of the site might include other electrical generation plants.

2.4.8 POTENTIAL LIABILITIES

Once PEF has transferred ownership of any existing facilities or structures designated for reuse, completed the required redress activities, met the applicable regulatory requirements, and terminated the state and local permits, PEF will have no further liability with regard to site redress.

2.4.9 POTENTIAL CONTAMINATION

The area that has been selected for site preparation activities is currently (2008) owned by PEF. The area presently does not have any known contaminants.

Any potential spills from site preparation or redress activities will be remediated in compliance with the requirements of this SRP. The area will be returned to its baseline state post-redress or as close as reasonably achievable.

2.5 IMPACTS ON EXISTING REDRESS AND DECOMMISSIONING PLANS

The LNP site is a Greenfield site with no existing facilities. The LNP site is currently owned by PEF, and it is PEF's responsibility to redress the site in accordance with the requirements of this SRP in the event that any improvements are made and cannot be transferred.

2.6 FINANCIAL RESPONSIBILITY

PEF is responsible for providing the funding to redress the site in the event that site preparation activities are performed and reactor plant construction plans are abandoned, or if a LNP COL is denied or withdrawn.

2.7 NRC NOTIFICATION UPON COMPLETION

PEF will notify the NRC upon completion of activities addressed in this SRP. The site will be made available for inspection, and documentation that the NRC may require will be provided to confirm the satisfactory completion of the redress activities.