

United States Nuclear Regulatory Commission Official Hearing Exhibit

In the Matter of:

DUKE ENERGY FLORIDA, LLC
(Levy Nuclear Plant, Units 1 and 2)

Commission Mandatory Hearing



Docket #: 05200029 | 05200030

Exhibit #: DEF-004-MA-CM01

Admitted: 07/28/2016

Rejected:

Other:

Identified: 07/28/2016

Withdrawn:

Stricken:

Exhibit DEF-004



Levy Nuclear Plant – Overview Panel

Chris Fallon – Bob Kitchen – Paul Snead



Duke Energy Florida Service Territory



Site Location

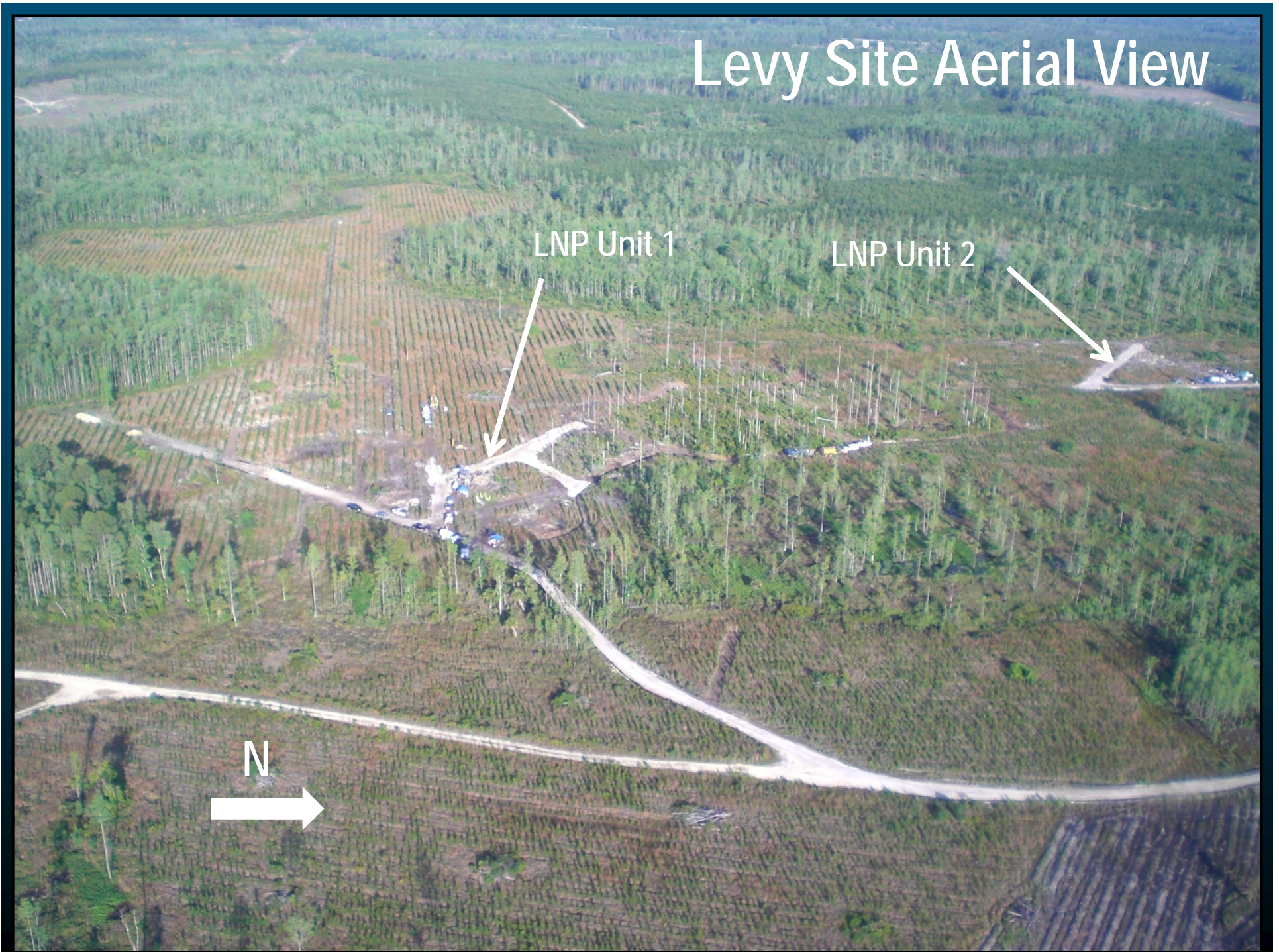


Levy Site Aerial View

LNP Unit 1

LNP Unit 2

N



Cross-Florida Barge Canal Looking West Toward Gulf

Planned
Barge Slip

Intake
Structure

Crystal River Site Discharge Canal



Levy COL Application

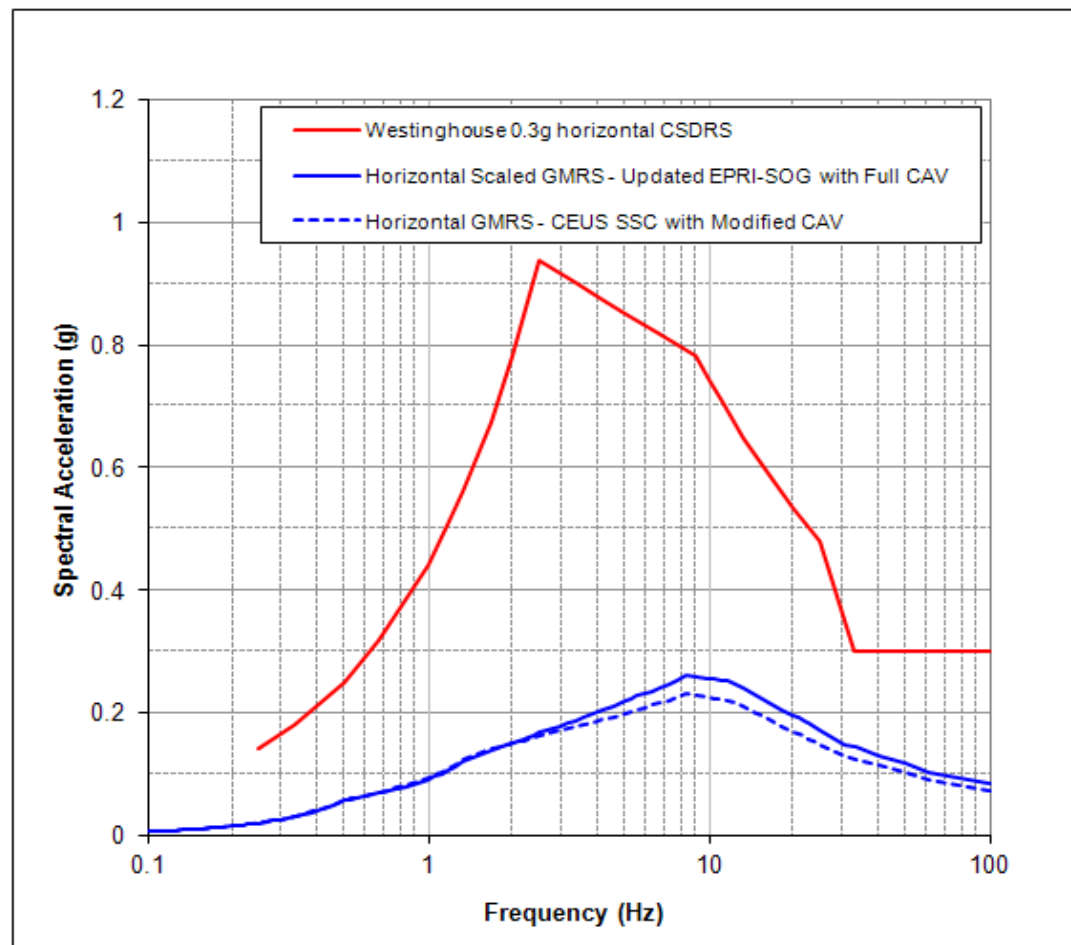
- Combined License Application (COLA) for two units
 - Submitted July 2008
 - Incorporates by Reference the AP1000 Design Control Document (DCD)
 - Adopts the R-COLA resolution of standard plant licensing issues

- NRC Guidance Utilized
 - Regulatory Guide 1.206 "Combined License Applications for Nuclear Power Plants"
 - NUREG-0800 "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants"
 - NUREG-1555 "Standard Review Plans for Environmental Reviews for Nuclear Power Plants"
 - RIS 2006-06 "New Reactor Standardization Needed to Support the Design-Centered Licensing Review Approach"

AP1000 Emergent Issues

- Emergent issues result from detailed design for construction
- ISG-11 evaluation to identify issues that cannot be deferred
 - Condensate Return Design Change
 - Main Control Room Dose
 - Main Control Room Heatup
 - Combustible Gas Control in Containment
 - Source Range Neutron Flux Doubling Block Permissive

Large Seismic Margin



- ER and FEIS – SMALL to MODERATE impacts
 - No obviously superior alternative site

- Florida Site Certification under Florida Power Plant Siting Act issued August 2009 included:
 - 401 Water Quality Certification
 - Coastal Zone Management Act Certification

- US Army Corps of Engineers 404 Permit issued December 2015

