

**Addendum to Enclosure 1
Nuclear Regulatory Commission's Request for Additional Information
Levy Nuclear Plant, Units 1 and 2
Combined Operating License Application**

RAI Number	Question Summary	Full Text
<p>General – 1 10 CFR 51.71(d)</p>	<p>Provide requested figures that reproduce clearly in both black-and-white and color, and that can be modified as necessary, for use in hardcopy and electronic versions of the EIS.</p>	<p>Provide files of figures that reproduce clearly in both black-and-white and color, and that can be modified as necessary by our GIS experts and graphic specialists, as specified below. For non-GIS figures, i.e., those that are drawn or otherwise created by graphic designers, provide “original” files, such as, native-platform vector files, working layered Photoshop files, Illustrator files, Cad files, Freehand files, etc. In addition, provide high-resolution (300 dpi) editable PDFs in both black-and-white and color for each figure. These files are needed because the website version of the Environmental Impact Statement (EIS) will be in color, while hard copies are printed in black-and-white. For GIS figures, provide shapefiles. Provide the following figures in the format described above:</p> <p><u>Environmental Report (ER) Figures:</u> 1.1-1, 2.1-2, 2.2-1, 2.2-3, 2.2-6, 2.3-1, 2.3-4, 2.3-5, 2.3-7, 2.3-8, 2.3-13, 2.3.1-13, 2.3-18, 2.3-20, 2.3-28, 2.4-11, 2.5-1, 2.5-2, 2.5-5, 2.5-7, 2.5-10, 2.5-14, 2.5-15, 2.6-1, 2.6-4, 3.1-2, 3.1-3, 3.3-2, 3.3-3, 3.3-4, 3.7-1, 3.7-2, 4.2-1, 5.2-6, and 6.1-3.</p> <p><u>Site Certification Application (SCA) Figures:</u> 9A3.2-1 to 9A3.3-16 and Vol. 1 4.10.2-1.</p> <p><u>CH2MHill Technical Memo 338884-TMEM-087 (CH2MHill, 2009, Sampling Report for Crystal River Energy Complex (CREC):</u></p> <ol style="list-style-type: none"> 1.) 2-1 (CFBC Aquatic Sampling Locations), 2.) 2-2 (CREC Aquatic Sampling Stations), 3.) 2-3 (OWR Aquatic Sampling Locations)

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General – 1 (cont.)		<p data-bbox="844 287 1310 315"><u>Figures provided in RAI Responses:</u></p> <ol data-bbox="890 354 1591 451" style="list-style-type: none"><li data-bbox="890 354 1457 381">1. Attachment A to response to RAI 2.3.1-1<li data-bbox="890 386 1457 414">2. Attachment B to response to RAI 2.3.1-1<li data-bbox="890 418 1591 451">3. Figure 1 of Appendix A to response to RAI 2.3.3-1.

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<p>Hydrology</p> <p>5.3.2.1 – 2</p> <p>10 CFR 51.71(d)</p> <p>ESRP 5.3.2.1</p>	<p>Provide details regarding addition of LNP discharge to existing CREC discharge canal and to the thermal plume in the Gulf of Mexico related to the power uprate planned for CREC Unit 3.</p>	<p>The staff has recently become aware that CREC Unit 3, a nuclear power plant, will request a power uprate from the NRC. Due to this uprate, the discharges and temperatures in the CREC discharge canal will likely change and need to be considered as a cumulative assessment with the combination of the proposed LNP units as the new units will discharge the CWS and service water system blowdown, and effluents from demineralized use and sanitary system to the CREC discharge canal.</p> <p>Provide information regarding the following:</p> <ol style="list-style-type: none"> 1. the time frame of the uprate when the discharges to the canal from CREC Unit 3 would change and its relation with the timing of the commencement of LNP operations, 2. a description of the new operational discharges and associated temperatures from CREC Units 1-5, 3. a description of the operation of the existing and any new helper cooling towers and their effect on discharges from CREC Units 1-3, 4. a schematic representation of the CREC discharge canal showing the locations of various discharges from the CREC units and the LNP units and the locations of intakes and discharges for the helper cooling towers, 5. the discharges and temperatures of the effluents in (4) above, 6. a description of how changes to the canal associated with CREC Unit 3 uprate are included in the effluent plume analysis at the discharge point in the Gulf of Mexico,

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		<ol style="list-style-type: none"> 7. a table showing the effluent discharges, effluent temperatures, effluent salinities, ambient temperature, and ambient salinity at the discharge point in the Gulf of Mexico for summer and winter conditions (a) before the addition of the LNP discharge and (b) after the addition of the LNP discharge, and 8. figures showing the extent of the effluent plume in the Gulf of Mexico along with the dilution contours (a) before the addition of the LNP discharge and (b) after the addition of the LNP discharge.
<p>Hydrology</p> <p>4.1.1 – 1</p> <p>10 CFR 51.71(d)</p> <p>ESRP 4.1.1</p> <p>ESRP 4.2.1</p>	<p>Provide details of how the floodplain storage loss was determined at the LNP site, provide a description of how the floodplain storage loss would be compensated, and provide an assessment of impacts on land use, hydrology, and terrestrial ecology related to the loss and its compensation.</p>	<p>ER Section 4.1.1.1.2.1 states that the land around the reactors and the cooling towers would be raised to 50 ft NAVD88 from its existing elevation of 42 ft NAVD88. ER Section 4.1.1.1.2.1 also states that the switchyard and the construction laydown areas around the proposed location of the reactors and the cooling towers would be raised to 47 ft NAVD88.</p> <p>ER Section 4.2.1.1 states that SWFWMD 40D rules regulate construction in floodplains and that the applicant would need to obtain an environmental resource permit from Florida Department of Environmental Protection (FDEP) and a development permit from Levy County.</p> <p>In the Progress Energy Florida (PEF) Site Certification Application Appendix 10.4, the Environmental Resource Permit application, Attachment A.7, the Storm Water Management Report contains an analysis for the estimation of the volume of floodplain storage loss (p. 7 of 230 and p. 229 of 230). A map titled “Levy FEMA Floodplain Sections,” drawing number LNG-G100-X3-017, shows the FEMA floodplain areas on and near the LNP site and some LNP facilities.</p>

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4.1.1 – 1 (cont.)		<p>Provide the following items:</p> <ol style="list-style-type: none"><li data-bbox="890 370 1751 597">1. A revised map or maps, similar to drawing LNG-G100-X3-017, that clearly identify the locations and extent of all proposed LNP facilities, both onsite and offsite (i.e., transmission lines and blowdown lines), and the extent of grading and any other land disturbance. The map or maps should include a clear and unambiguous legend. All proposed LNP facilities should be clearly labeled.<li data-bbox="890 613 1751 776">2. A description of how the 100-year floodplain was determined for the areas that may be impacted. Describe how the estimated 100-year floodplain is appropriate for the LNP site and for offsite areas where LNP-related disturbance may occur.<li data-bbox="890 792 1751 857">3. A detailed description of how the volume of floodplain storage loss was determined for all impacted areas.<li data-bbox="890 873 1751 1003">4. A description of the applicable rules and regulations from all agencies, including but not limited to SWFWMD and Levy County, that would require compensation for the floodplain storage loss due to construction of the LNP facilities.<li data-bbox="890 1019 1751 1084">5. A map or maps accurately showing the potential areas where the floodplain storage loss would be compensated.<li data-bbox="890 1101 1751 1182">6. An assessment of the impacts on land use, hydrology, and terrestrial ecology related to floodplain loss and its compensation.