

ORLANDO UTILITIES COMMISSION

**CURTIS H. STANTON ENERGY CENTER
UNIT 1**

SITE CERTIFICATION APPLICATION

VOLUME 1

**SITE CERTIFICATION
APPLICATION**

**ORLANDO UTILITIES COMMISSION
CURTIS H. STANTON ENERGY CENTER
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VOLUME 1

REQUEST FOR MODIFICATION OF CERTIFICATION 1
SUMMARY DESCRIPTION OF CHANGES TO APPLICATION

On December 14, 1982, the Honorable Bob Graham, Governor, signed the Certification Order granting certification pursuant to Chapter 403, Part II, Florida Statutes, for the location, construction, and operation of the Curtis H. Stanton Energy Center, Unit 1, its associated facilities, and its directly associated transmission lines as proposed in the amended application and evidence of record, subject to the Conditions of Certification attached to the Order.

The design concepts for several features of the project have been changed. In accordance with Section 17-17.211 F.A.C. adopted 5/9/83, a Request for Modification of Certification is submitted. This request is a result of changes in six components of the certified facility. The related substantive revisions of the Site Certification Application for the Curtis H. Stanton Energy Center Unit 1 are summarized in the following paragraphs.

- Railroad Corridor. A small portion of the railroad corridor has been changed to accommodate realignment of the railroad spur to avoid newly planned residential developments. Section 2.3 of the application has been revised to demonstrate that the Florida Department of State has reviewed the modification and has found that no archaeological or historic sites have been recorded within the added corridor area. A new Exhibit 2.3-2 has been added to demonstrate these findings. Section 2.7 has been modified to incorporate the results of field surveys of affected terrestrial ecosystems, wetlands, and endangered or threatened species. A new Figure 2.7-7a has been added to illustrate the vegetative communities of the modified railroad corridor. Section 3.9, Subsection 3.9.1, has been revised to describe the railroad corridor as modified. Figure 3.9-1 has also been revised to show the extent and nature of the corridor modification.
- Fugitive Dust Control. Section 3.2, Subsection 3.2.4, has been revised to more accurately describe the measures to be installed

or used to reduce fugitive coal dust emission levels. Table 3.2-2 has been revised to correspond with planned coal dust control facilities. Section 3.7, Subsection 3.7.2.1, has been changed to correspond to facilities for fugitive dust control to be installed. Subsection 3.9.4 and Table 3.9-1 have been revised to correspond to those specific measures currently planned for fugitive dust control for limestone handling facilities. Section 5.5, Subsection 5.5.1, has been revised to include all fugitive dust control references in the application.

- Radioactive Level Detectors. Section 3.9 has been revised by the addition of Subsection 3.9.7 to include the planned installation and use of a number of devices based on emission and interception of radioactivity to detect levels of fluids, bulk materials, or waste products in various plant systems. Appendix 3.9A has been added to provide completed application forms for radioactive materials licenses as they would be submitted to the Florida Department of Health and Rehabilitative Services, Radiation Control.
- Main Plant Access Road. Section 2.2, Subsection 2.2.2.1, has been modified to express correct relationships between the transmission lines and a new Orange County road and the modified pipeline route.

Section 3.9, Subsection 3.9.2, has been changed to reflect that vehicular access to the Stanton Energy Center will be provided by a new Orange County road. The main plant access road shown in the amended application will not be constructed. Figure 3.9-6 has been revised to illustrate the route of the new Orange County road.

- Water Supply Source. Chapters 2.0 and 3.0 have been revised in several sections to reflect that makeup cooling water supply will be obtained from the Orange County Easterly Subregional Wastewater Treatment Plant instead of from the Iron Bridge Road Regional

Water Pollution Control Facility in Seminole County. Subsection 3.1.3 has been changed to indicate that the Orange County Plant will receive and treat cooling tower blowdown and plant drainage in excess of power plant needs. Sections 2.2 and 3.3, Subsections 2.2.3, 3.3.1, and 3.3.2 have been revised to reflect the change in the source of makeup cooling water. Table 3.3-2 and Figure 3.3-1 have also been changed to reflect this change. Section 3.4 has been revised to account for the change in cooling water supply source and quality. Table 3.4-1 has been changed to provide an estimate of the chemical analysis of the Orange County Plant effluent. Table 3.4-2 has been revised to reflect the chemical analysis of the circulating cooling water based on the Orange County Plant effluent as makeup. Section 3.5, Subsection 3.5.1, has been revised to recognize the Orange County Plant as the source of makeup water and to provide a revised estimate of chemical treatment requirements.

Section 5.1, Subsection 5.1.7.3, has been revised in view of the changes in the quality of the cooling water makeup supply. The Orange County Plant effluent contains lower concentrations of dissolved solids than the Iron Bridge Facility effluent and will undergo complete advanced treatment including nitrate removal. Based on this improved quality, the circulating water analysis shows lower total dissolved solids which reduces deposition of salts by cooling tower drift. Figures 5.1-1 and 5.1-2 have been revised to show lower contour values for the salt deposition isopleths. Section 5.9 has been modified to delete the request for a variance or exemption from the ground water standard for nitrate nitrogen.

- Makeup and Return Water Pipelines. Section 2.2, Subsection 2.2.2.1, Section 2.5, Subsection 2.5.16, and Section 3.9, Subsection 3.9.1, have been modified to show a new and shorter pipeline route which is a result of the new Orange County road and the change in the source of cooling water makeup. Figure 3.9-6 has been revised to

show the modified pipeline route in relation to the new Orange County road and the Orange County Plant. Section 2.7, Subsections 2.7.7.7, 2.7.7.8, and 2.7.7.9 have been deleted and Figure 2.7-9 has been deleted. Subsection 2.7.8 has been revised to delete references to Figure 2.7-9.

INTRODUCTION

This Site Certification Application is being submitted by Orlando Utilities Commission for the Curtis H. Stanton Energy Center. It is intended to serve the following purposes.

- Site Certification Application for Unit 1 of the Curtis H. Stanton Energy Center.
- Site Certification Application for Ultimate Site Development of the Curtis H. Stanton Energy Center.
- Application for a Prevention of Significant Deterioration (PSD) permit for Units 1 and 2 of the Curtis H. Stanton Energy Center as required by the Clean Air Act.
- Joint Application (U.S. Army Corps of Engineers and Florida Department of Environmental Regulation) for dredge and fill permit for site development and construction of all associated facilities for Unit 1 of the Curtis H. Stanton Energy Center as may be required by the Clean Water Act.

For purposes of the PSD permit, the two-unit application is for phased construction. The applicant understands that construction of Unit 1 must commence within 18 months after receiving PSD approval and that Unit 2 construction must commence within 18 months of the scheduled commence construction date. The Unit 2 scheduled commence construction date for purposes of this PSD phased construction permit application is July 1, 1990.

Best Available Control Technology (BACT) has been demonstrated by the applicant in this Site Certification Application for Unit 1. The BACT for Unit 2 is currently proposed as identical to Unit 1. However, the applicant understands that the PSD permit for Unit 2 will be reopened for a new determination of BACT prior to the commencement of Unit 2 construction.

As provided for under recent amendments to the Florida Electrical Power Plant Siting Act, a separate Need for Power document has been submitted to the Florida Public Service Commission. That document is intended to establish the need for Unit 1 only of Curtis H. Stanton Energy Center.

The need for Unit 2 and subsequent units will be demonstrated when required for their construction. Information previously requested by the Florida Department of Environmental Regulation in Sections 1.0 and 8.2 of the Site Certification Application have been omitted from this document since it is contained in the separate Need for Power document.

The pertinent applicant information is provided in the following pages.

PERTINENT APPLICANT INFORMATION

Legal Name

Orlando Utilities Commission

Mailing Address

P. O. Box 3193
Orlando, Florida 32802

Address of Official Headquarters

500 S. Orange Avenue
Orlando, Florida 32801

Business Entity

The applicant is an independent authority engaged in the generation and distribution of electric power to persons within the service area.

Name and Title of Chief Executive Officers

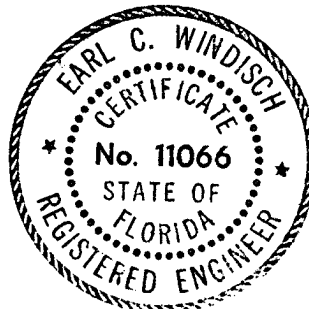
Grace C. Lindblom	- President
H. E. Johnson	- First Vice-President
W. M. Sanderlin	- Second Vice-President
William D. Frederick, Jr.	- Mayor
Charles J. Hawkins	- Immediate Past President
C. H. Stanton	- Executive Vice-President and General Manager

Name, Title, Address, and Phone Number of Official Representative Responsible For Obtaining Certification and To Whom Questions Concerning the Application Should Be Addressed

B. E. Shoup, Director, Environmental Divisions
500 S. Orange Avenue
Orlando, Florida 32801

Professional Engineer Submitting Application

Earl C. Windisch, Florida Registration Number 11066



Site Location

The preferred site for Curtis H. Stanton Energy Center is located in Orange County, Florida.

Nearest Incorporated City

Orlando, Florida

Latitude and Longitude

The preferred site is located at 28°28'50"N latitude and 81°09'40"W longitude.

Coordinates

The Universal Transverse Mercator (UTM) coordinates are:

3150500 North
484000 East

Proposed Nameplate Generating Capacity

Curtis H. Stanton Energy Center Unit 1 turbine will have a nameplate generating capacity of 425 megawatts (MW), and is scheduled for commercial operation in November 1986. Unit No. 2 turbine will have an approximate nameplate generating capacity of 425 MW, and is tentatively scheduled for commercial operation in January 1994. Units 3 and 4 have not been sized or scheduled at this time. Ultimate site development is planned to be around 2,000 MW.

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AMENDMENT 4--SUMMARY DESCRIPTION OF CHANGES

Amendment 4 provides revisions, corrections, and additions of information for the Curtis H. Stanton Energy Center--Unit 1 Site Certification Application submitted to the Florida Department of Environmental Regulation by the Orlando Utilities Commission. Some of the changes have resulted from the normal evolution of engineering design details, while others are the direct result of Florida Department of Environmental Regulation comments of July 23, 1981. Amendment 4 makes several editorial corrections and the following substantive revisions.

- (1) Revised acreage numbers for onsite facilities.
- (2) Revised discussion of plant service water use and pumpage of the Floridan aquifer.
- (3) Revised pond and basin sizes and seepage rates as shown in Figure 5.3-2.
- (4) Added a "worst case" unwashed Illinois Basin coal to BACT analysis.
- (5) Revised air emissions and air quality impact numbers to reflect "worst case" unwashed Illinois Basin coal.
- (6) Revised description of bottom ash handling.
- (7) Revised description of railroad spur crossing of Boggy Creek Road.
- (8) Revised size of makeup water supply pond and estimated liner costs in Section 5.9, Variance Request.
- (9) Revised lists of parameters to be used in ground water quality monitoring programs.

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1.0 PURPOSE OF PROPOSED FACILITY AND ASSOCIATED TRANSMISSION

Recent amendments to the Florida Electrical Power Plant Siting Act require a separate Need for Power Document to be submitted to the Florida Public Service Commission. This new document contains the materials previously required in Section 1.0 and 8.2 of a site certification application. Since this separate document has been prepared and submitted for the Curtis H. Stanton Energy Center Unit 1 project, the information formerly included in this section has not been repeated here.