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BEFORE THE GOVERNOR AND CABINET
OF THE STATE OF FLORIDA

IN RE:

ORLANDO UTILITIES COMMISSION
CURTIS H. STANTON POWER
PLANT, UNIT NO. 1, SITE
CERTIFICATION.

DOAH Case No. 81-1431
OGC File No. 81-0145

The following persons were present and participated in the disposition of this matter:

Honorable Bob Graham
Governor

Honorable George Firestone
Secretary of State

Honorable Jim Smith
Attorney General

Honorable Bill Gunter
Treasurer and Insurance Commissioner

Honorable Gerald A. Lewis
Comptroller

Honorable Doyle Conner
Commissioner of Agriculture

Honorable Ralph D. Turlington
Commissioner of Education

CERTIFICATION ORDER

BY THE GOVERNOR AND CABINET:

The Governor and Cabinet, sitting as the Siting Board, having heard presentations by the parties, having reviewed the Recommended Order dated November 12, 1982, (as modified by the Order dated November 16, 1982, which is attached and incorporated as Composite Exhibit "A") and all other pleadings timely filed herein and being otherwise fully advised, it is

ORDERED:

1. The Findings of Fact and Conclusions of Law contained in the November 12, 1982, Recommended Order, as modified by the Department's Exception to Recommended Order, are correct, are supported by competent substantial evidence, and are specifically

approved and adopted.

2. Orlando Utilities Commission is granted 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 the evidence of record, subject to the Conditions of Certification attached and incorporated in Composite Exhibit "A".

3. The Orlando Utilities Commission Curtis H. Stanton Energy Center is certified for an ultimate site capacity of approximately 2,000 megawatts.

4. The State of Florida Department of Environmental Regulation's Exception is granted. Proposed Condition XXVI is adopted as a condition of certification for the Orlando Utilities Commission Curtis H. Stanton Energy Center, Unit 1. Orange County's Motion for Delegation of Modification Authority and Motion for Official Recognition is accordingly granted.

5. All other exceptions filed by the parties have been considered by the Board and rejected as either irrelevant, unsupported by competent substantial evidence or the law, or are otherwise unnecessary to the determination of this cause.

6. On the Motion of Orange County and supported by the Sierra Club, the Siting Board imposes an additional condition of certification, to be numbered Condition XXXV, that requires the Orlando Utilities Commission to use the currently certified best available control technology to maintain compliance with currently existing air quality standards and emission limitations throughout the operating life of the Curtis H. Stanton Energy Center, Unit 1. (See attached Composite Exhibit "A")

7. The Hearing Officer's November 12, 1982, Order denying Sierra Club's Motion to Reopen Hearing is adopted.

8. The Sierra Club's Motion for Continuance of this agenda item to January 11, 1983, is denied.

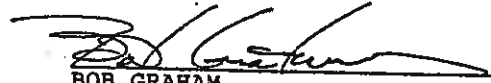
DONE AND ENTERED this 14th day of December, 1982, in Tallahassee, Florida, subsequent to vote of the Governor and Cabinet at a duly constituted Cabinet Meeting of December 7, 1982.

FOR THE GOVERNOR AND CABINET

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 (9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Richard A. Howard 12/15/82
Clerk Date


BOB GRAHAM
Governor

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NOV 17 1982

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

Dept. of Environmental Regulation
Office of General Counsel

IN RE: ORLANDO UTILITIES COMMISSION)
CURTIS H. STANTON POWER PLANT,)
UNIT NO. 1, SITE CERTIFICATION.) Case No. 81-1431
)

O R D E R

The proposed Conditions of Certification which are ATTACHMENT I to the FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDED ORDER in this cause should have been the draft of those proposed conditions dated May 21, 1982. However, a draft of the proposed conditions dated March 22, 1982, was mistakenly included as ATTACHMENT I.

Therefore, it is hereby

ORDERED:

1. The draft of the proposed Conditions of Certification dated May 21, 1982, shall be denominated ATTACHMENT I and substituted for the draft of the Conditions of Certification dated March 22, 1982, currently appended to the FINDINGS OF FACT, CONCLUSIONS OF LAW AND RECOMMENDED ORDER.

DONE and ORDERED this 16th day of November, 1982, in Tallahassee, Florida.


CHRIS H. BENTLEY
Hearing Officer
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301
(904) 488-9675

Copies furnished:

See following page

Filed with the Clerk of the Division of Administrative Hearings this 16th day of November, 1982.

Case No. 81-1431

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Dept. of Environmental Regulation
Office of General Counsel

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: ORLANDO UTILITIES COMMISSION)
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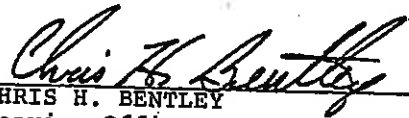
O R D E R

The Sierra Club, by a MOTION TO REOPEN HEARING, seeks an order reopening the need question in this proceeding on the grounds that certain actions by the Florida Public Service Commission indicate a modification of their determination for need. Having considered those matters presented in the motion, it does not appear that the Florida Public Service Commission has receded from the orders entered by it on October 2, 1981 and October 9, 1981, wherein they found a need for Unit 1 as proposed. The order of the Florida Public Service Commission being binding, it is therefore

ORDERED:

1. The MOTION TO REOPEN HEARING is DENIED.

DONE and ORDERED this 12th day of November, 1982, in Tallahassee, Florida.


CHRIS H. BENTLEY
Hearing Officer
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301
(904) 488-9675

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of Administrative Hearings this 12th
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IN RE: ORLANDO UTILITIES COMMISSION
CURTIS H. STANTON POWER PLANT,
UNIT NO. 1, SITE CERTIFICATION.

Case No. 81-1431

FINDINGS OF FACT, CONCLUSIONS
OF LAW AND RECOMMENDED ORDER

This proceeding was held pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes, and Chapter 17-17, Florida Administrative Code, to consider the Orlando Utilities Commission's (OUC) application for site certification for Unit 1 of the Curtis H. Stanton Energy Center and its associated facilities and an ultimate site capacity for the Curtis H. Stanton Energy Center.

The Governor and Cabinet, sitting as the Board under Chapter 403, Part II, Florida Statutes, entered an ORDER dated October 20, 1982 holding that the proposed site for Unit 1 is consistent and in compliance with existing land-use plans and the zoning ordinances.

Pursuant to proper notice, a certification hearing as required by Section 403.508(3), Florida Statutes, was held in Orlando, Florida, on March 15, 16, 17, 18, 19, 22, and 23, 1982, for the purpose of receiving testimony and evidence concerning whether the location and operation of the proposed facilities will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. The hearing included an examination of the following: the need for power as determined by the Florida Public Service Commission; the expected environmental impact from construction and operation of the facility; operational safeguards of the facility; and other public interests and issues relevant to certification of the proposed site.

The following are parties to this proceeding:

1. Orlando Utilities Commission;
2. Florida Department of Environmental Regulation;
3. Florida Public Service Commission;
4. Florida Department of Veteran and Community Affairs;
5. St. Johns River Water Management District;
6. South Florida Water Management District;
7. Orange County, Florida;
8. Orange County Aviation Authority;
9. Florida Department of Transportation;
10. Florida Chapter of the Sierra Club;
11. Lake Nona Corporation.

An opportunity was provided to the public during the course of the final certification hearing to present testimony and evidence. The public availed themselves of that opportunity.

Having considered all testimony and evidence properly admitted, having heard argument of counsel, and being otherwise full apprised herein, the following Findings of Fact, Conclusions of Law and Recommended Order are entered.

FINDINGS OF FACT

1. The proposed site for the Stanton Energy Center is located in Orange County, Florida, approximately twelve and one-half miles southeast of Orlando, Florida. The site consists of sections 13 and 24 and the east one-half of sections 14 and 23, range 31 east, township 23 south, and sections 18 and 19, range 32 east, township 23 south. The site upon which Unit 1 is proposed for construction occupies approximately 3,280 acres and is immediately adjacent to the Orange County Landfill. Approximately 403 acres of the proposed primary site are wetlands. Approximately 125 acres of these wetlands will be disturbed by construction of Unit 1.

In addition to the primary site composed of 3,280 acres as above described, the site also includes the use of an existing transmission corridor approximately one-half mile north of the proposed primary site. Unit 1 will be accessed by a road to be constructed from State Road 50 south to the north side of that transmission corridor. At that point, the access road will turn east for approximately two miles before turning south to the plant site.

In addition to the transmission corridor and access road the site also includes a water pipeline corridor and a railroad right-of-way. The pipeline corridor begins at the Iron Bridge Road Regional Water Pollution Control Facility and proceeds in a northeasterly direction to its intersection with State Road 520 (Alafaya Trail), thence south from the State Road 520 right-of-way to State Road 50, thence east along the State Road 50 right-of-way to the intersection of the plant access road and thence along the right-of-way of the plant access road to the site of Unit 1. The railroad right-of-way proceeds south of the plant site, crossing under the Beeline Expressway, to a point approximately one mile south of that expressway where it proceeds southwest, crossing Weewahootie Road

to the south side of the road and crossing Moss Park Road and the extension of Weewahootie Road. The railroad right-of-way then proceeds crossing State Road 15 and Boggy Creek Road until it connects with the main line of the Seaboard Coast Line approximately one mile south of Taft.

2. Unit 1 as proposed, is a 460 gross megawatt (415 net megawatt) coal-fired steam/electric generating unit. The ultimate capacity for which certification is sought for the site is 2,000 megawatts. Unit 1, in addition to the associated facilities, will include a cooling tower make-up water supply storage pond, a natural draft cooling tower, a recycle water basin, a combustion waste storage area, coal storage and handling facilities, and associated water runoff retention basins. Coal will be transported to the site in unit trains of 70 to 100 cars, carrying approximately 100 tons of coal per car. Unit 1 will require an average delivery rate of approximately two to three trains per week, depending upon the type of coal used as fuel.

The air pollution control system for Unit 1 consists of a cold side electrostatic precipitator for particulate removal and a flue gas desulfurization system consisting of a wet limestone scrubber for sulfur dioxide removal. The cleaned gases will be discharged through a chimney 550 feet tall.

The wastewater retention system has been designed to contain the one hundred year rainfall and the one year 24-hour rainfall event onsite during plant operation.

3. There are several other utilities participating with the Orlando Utilities Commission in the proposed construction of the Stanton Energy Center. The City of Lakeland proposes to participate and use approximately 45 megawatts of electricity. The participating members of the Florida Municipal Power Agency and the amount of electricity they propose to use are as follows:

City of Bartow - 8.9 megawatts;
Ft. Pierce Utility Authority - 25 megawatts;
City of Homestead - 15 megawatts;

City of Jacksonville Beach - 16.8 megawatts;
City of Kissimmee - 20 megawatts;
The Lakeworth Utility Authority - 10 megawatts;
City of Leesburg - 4.8 megawatts;
The Utilities Commission of
City of New Smyrna Beach - 11 megawatts;
City of Ocala - 32.3 megawatts;
City of Starke - 2.7 megawatts.

It was shown in this proceeding that the foregoing utilities seriously intend to participate in the Stanton Energy Center as proposed and specifically, Unit 1. The evidence in this proceeding, however, did not establish to what extent these utilities are bound to participate in the Stanton Energy Center.

4. In its natural and undisturbed state, the primary site as well as the transmission line corridor, access road, railroad right-of-way and water supply pipeline corridor are suitable for native or improved pasture and forest. There are scattered wooded and wetland areas on the site with the largest vegetation community being pine flatwood. There are no residences on the site and no timbering activities have been observed on the site. Approximately one and one-quarter sections of the site have been leased for hunting purposes. None of the onsite wetlands are connected to offsite aquatic systems except for that wetland associated with Hart Branch. There are no major streams onsite. A small segment of Hart Branch of the Econlockhatchee River extends into the northeast portion of the site. That part of the site will not be disturbed by either construction or operation of Unit 1. The water supply pipeline corridor, including the access road, traverses 1.2 acres of wetlands along its 12-mile route. Construction of the transmission line to be built in a corridor paralleling an existing transmission line corridor will require the clearing of 141 acres of which 25 acres are wetlands.

Neither the railroad corridor, the pipeline corridor nor the transmission line corridor will traverse any prime or unique farmlands as identified by the U.S. Department of Agriculture Soil

Conservation Service. There are no existing or currently proposed developments within three miles of the proposed Unit 1. There are no incorporated areas within five miles of Unit 1. There are no industrial water users, municipal water supplies, wastewater facilities, reservoirs, or natural lakes onsite. There are no industrial water users, reservoirs, or natural lakes within a five-mile radius of the site.

5. Personnel from the Florida Division of Archives, History and Records Management, conducted an archaeological and historical survey of the site. The area surveyed was determined to be one of minimal aboriginal activity. Five isolated areas of interest were found by the surveyors which are thought to result from single cultural events. Although the surveyors did not find enough evidence to conclude a particular cultural association, they determined it likely that those areas found represented some task-specific event, most likely a hunting activity that took place away from a living site. The surveyors concluded that these areas did not represent significant archaeological or historical resources meriting exceptional efforts either to preserve or mitigate their destruction. The surveyors also conducted a survey of the proposed railroad corridor. Within that corridor, eight areas were located including seven prehistoric and one historic. Of these areas one was determined by the surveyors to be significant. However, this one significant area does not occur within the area for which construction is proposed. The Condition of Certification proposed by the Department of Environmental Regulation and accepted by the Applicant with regard to archaeological sites discovered during construction is sufficient to protect any such sites so discovered.

6. The unit trains bringing coal to the plant site will be unloaded through the use of an enclosed bottom-dumping type facility designed for rapid-discharge bottom-dump cars. It will

take approximately four hours to unload a complete unit train. As the coal is unloaded from the train, it will be conveyed to the transfer house where it can then be diverted directly to the crusher building, to the emergency stockout, or to the stacker/reclaimer for stockout and reuse. Normally, when unloading a train, coal would be diverted directly to the crusher building until the coal silos are topped off and the remainder would be stocked with the stacker/reclaimer for later use. Fugitive dust resulting from the handling of the coal during the unloading and transfer operations will be controlled with bag filters, conveyers, water and chemical spray, and a telescopic chute.

7. The additive for the flue gas desulfurization system for Unit 1 is limestone. Although the source of supply has not yet been determined, potential sources involve the use of both truck and rail delivery of the limestone. Thus, provisions for delivery by both methods are included in the plant design. Truck delivery would require approximately 15 trucks per day, five days a week. Rail delivery would require approximately 18 cars each week. Limestone delivered by rail would be off-loaded by a bottom-dump type unloading facility located adjacent to the coal train unloading facility. As the limestone is unloaded from the cars, it will be conveyed to a stockout pile located southeast of the crusher building. This pile will be used for active storage. Limestone delivered by truck will be delivered directly into the stockout pile. A large reserve limestone pile of 38,000 tons (120 days for Unit 1) will be maintained just south of the stockout. Reclaim of limestone will be conveyed to the scrubber additive storage day bin prior to being ground and mixed with water to produce the additive slurry. Fugitive dust caused by the handling of the limestone will be controlled by the use of bag filters, covered conveyers, telescopic chute and pile compaction.

8. The major use of water by Unit 1 will be for cooling tower makeup. The rejection of waste heat from the steam cycle requires the evaporation of large amounts of water which must be replaced by makeup. Makeup is also required to replace the blowdown and drift losses which will occur during the process. This makeup water will consume approximately 68% of all water used on the site. While precipitation collected onsite in various ponds will be used as a secondary source of water, the primary source of water for Unit 1 will be sewage treatment plant effluent from the Iron Bridge Road Regional Water Pollution Control Facility. That facility is located northeast of the City of Orlando on the bank of the Little Econlockhatchee River in Seminole County. Treated effluent will be pumped from the Iron Bridge Facility to Unit 1 in a buried 36 inch fiberglass reenforced plastic pipe which is sized to supply the makeup water requirement of four units simil in size to Unit 1. The estimated maximum makeup rate for the Unit cooling system is 4,008 gallons per minute (GPM). At a lifetime capacity factor of 53.6%, the average makeup rate of Unit 1 is expected to b 2,673 GPM. The treatment flow rate of the Iron Bridge Facility effluent is predicted to vary from 4,000 to 46,000 GPM. At the lowest flow, the discharge rate may be less than the Unit 1 maximum demand and considerably less than the maximum demand for the po-tential four-unit development. Therefore, the effluent for makeup supply will be pumped to an onsite storage pond during high dis-charge rate periods and the pumping system will be shut down during low discharge rate periods.

The onsite makeup water supply storage pond will have a surface area of approximately 113 acres and a depth of five feet when operating at normal level. The pond will be used for site runoff collection as well as for makeup water storage.

Should the supply of sewage treatment effluent be in-terrupted from the Iron Bridge Facility, Unit 1 can operate at

peak load for approximately four weeks using the water stored in the cooling water makeup pond.

Precipitation will contribute approximately 28% of the water used by Unit 1. Approximately 5% of the water consumed by Unit 1 will come from fresh water wells. The fresh water well supply will be used as a potable water supply, service water supply, and boiler makeup water supply.

The use of sewage treatment plant effluent as cooling tower makeup has several important advantages. First, it eliminates the necessity for extracting that water from the underlying aquifer and thereby reduces the load of consumptive uses tapping that aquifer. The second advantage is that it solves the ever-present problem of disposal of a significant amount of treated wastewater effluent.

9. Vegetation studies of the plant site, the pipeline corridor, the rail corridor, and the access road were conducted to identify and document their important botanical features, the presence of threatened or endangered plant species, and to evaluate sensitive ecological systems such as wetland communities. These studies located no plant species onsite that are on the Federal Rare and Endangered List. One plant species listed as rare by the Florida Committee on Rare and Endangered Plants and Animals, the Spoonflower, was observed in a hardwood bay stand in summer onsite.

Approximately 125 acres of wetlands will be disturbed by construction onsite. All wetlands which will be disturbed are isolated wetlands. Although the loss of any wetlands is typically an adverse impact, that adverse impact is lessened if the wetlands are isolated rather than connected as in this case.

10. Field studies conducted onsite identified 16 species of mammals, 76 species of birds, 15 species of reptiles, and 8 amphibians. These included Whitetailed Deer, Bobwhite Quail and Wild Hogs. The Southern Bald Eagle and the Red Cockaded Woodpecker,

both on the Federal Endangered Species List, were observed onsite. No roosting areas for Bald Eagles were found onsite. Twenty-three colony areas for Red Cockaded Woodpeckers were located in the general vicinity of the site, with nine actually being located on the site. Six cavity trees for Red Cockaded Woodpeckers will be lost to construction of Unit 1. In addition, approximately 450 acres of foraging habitat presently utilized by the various species located onsite will be lost to construction.

Because of the presence of the Red Cockaded Woodpeckers, a mitigation and management plan is proposed which will mitigate any adverse impacts to the Red Cockaded Woodpecker which might otherwise result from construction of Unit 1. This management plan has been specifically reviewed and approved by the U.S. Fish and Wildlife Service and the Florida Game and Fresh Water Fish Commission. Although construction of Unit 1 will adversely impact wildlife onsite because of a loss of habitat onsite or the displacement of species from the area of construction, there is sufficient habitat remaining in the area to reduce the significance of this impact.

11. Approximately 18 miles of railroad will be constructed between the Stanton Energy Center and the Seaboard Coastline northwest of the site. The purpose of this railroad will be to bring coal to the site. Approximately 2.5 miles of this railroad corridor will traverse wetlands that will be affected by construction of the railroad.

Trestles will be used to span larger wetland areas within the rail corridor and culverts will be used in other wetland areas to maintain water flow. Because of the use of trestles and culverts, water flow in the vicinity of the rail corridor should not be adversely affected. All trestles and culverts will be sized, at a minimum, based on the 100 year peak discharge from the appropriate drainage basin.

Although it will be necessary to clear trees and other vegetation from the railroad right-of-way, including wetland areas, the amount of clearing necessary represents only a small percentage of the total amount of wetland and non-wetland habitat available in the area.

12. Two parallel pipelines approximately 12 miles long will be constructed from the Stanton Energy Center to the Iron Bridge Road Water Pollution Control Facility. This pipeline is for the purpose of transporting the wastewater effluent from the Iron Bridge Facility to Unit 1 for the purposes described above. The pipeline will be buried along the entire twelve-mile corridor and the corridor will be almost entirely within the right-of-way of the access road or existing roadways. After construction of the pipeline, the disturbed area will be returned to its original condition. The right-of-way in which the pipeline will run will already have been disturbed.

13. The access road from the Stanton Energy Center to Highway 50 is approximately 8 miles in length. Construction of the road will require clearing of 104 acres of land. Culverts will be installed in the wetland areas to allow flow of water between separated wetlands.

14. Emissions from Unit 1 which will affect air quality include sulfur dioxide (SO_2), particulates (TSP), nitrogen oxides (NO_x), and carbon monoxide (CO). In order to predict the impact on air quality of the emissions from Unit 1, a one-year ambient air quality monitoring program was conducted. The pollutants monitored by this program were sulfur dioxide, nitrogen oxides, carbon monoxides, total suspended particulates, and inhalable particulates. This monitoring program determined that the ambient air quality at the site is well within applicable ambient air quality standards. There are no PSD Class I areas within 100 kilometers of the site and, therefore Class II PSD increments must be complied with. With two

exceptions, all surrounding areas are in attainment with ambient air quality standards. Orange County does not meet the primary standard for ozone and Seminole County does not meet the secondary standard for particulate matter.

The impacts of stack emissions on ambient air quality concentrations of sulfur dioxide, nitrogen oxides, carbon monoxide, and total suspended particulates, were evaluated using computer modeling techniques. Similarly, the impacts of fugitive dust emissions were evaluated using computer modeling techniques. Pursuant to the U.S. Environmental Protection Agency Modeling Guideline, the CRISTER Model was used for predicting ground level sulfur dioxide and total suspended particulate concentrations. The impacts of fugitive dust emissions were evaluated by the use of the Industrial Source Complex Model also suggested by the U.S. Environmental Protection Agency for the assessment of such impacts.

Stack height used in the computer modeling was 467 feet. The actual stack height for Unit 1 is 550 feet. The use of a lower stack height than that actually to be constructed causes the models to predict impacts greater than those that will actually occur. Thus, to that extent, the modeling techniques used are conservative.

This air quality modeling and analysis indicates that all applicable Florida and Federal PSD increments and ambient air quality standards will be met during construction and operation of Unit 1.

The modeling techniques used by the Applicant are generally accepted techniques for the evaluation of impacts on air quality of certain emissions. The modeling was done in an appropriate manner.

15. The discharge of sulfur to the atmosphere in the form of gaseous sulfur dioxide or fine particle sulfate salts has been increasing in the eastern United States throughout the twentieth

century primarily because of increased combustion of fossil fuels containing sulfur. The ambient neutrality of rainfall is measured at a pH of 5.6. Acid deposition, or "acid rain," as it is frequently referred to, in general terms is a reduction in the pH of rainfall as a result of some anthropogenic source. Acid deposition or acid rain is a matter of concern in Florida. There are significant and multiple research grants and studies both at the university and consultant level being conducted in Florida and elsewhere to assess this potential problem as carefully as possible. For example, research by Dr. John W. Winchester, Florida State University, indicates that the predicted concentration of sulfuric acid achieve maximum levels in the same region where there are observed maximum lung cancer mortalities. His research suggests, therefore, a correlation between the geographic distribution of predicted sulfuric acid concentrations and the observed geographic distribution of lung cancer mortality. Dr. Winchester's research, however, points out that he has only predicted the sulfuric acid concentrations and has not actually measured those concentrations. It would be necessary to actually measure those concentrations to determine whether a true correlation between the two factors exists. His research further points out that, even then, proof of a correlation between two factors is not proof of cause and effect between those two factors. Rather, it is only an important clue indicating a need for further research. The actual measurement of the sulfuric acid concentrations in the areas with which Dr. Winchester is concerned has not been made. His research suggests the possibility of a link but does not prove a link between the two factors.

Research by Dr. Thomas L. Crisman, University of Florida, has studied the impact of acid rain on lake ecosystems. Specifically, he has studied the biotic response to acid rain in lake systems in Florida. He considers lakes acidified if they are less than the ambient neutrality of rainfall which is pH 5.6. He has

studied lakes in northern Florida which have pH ranges of 4.7 to 5.24. There are also lakes in northern Florida with pH's above the ambient neutrality of rainfall. His research has been applied almost exclusively to clear water lakes and does not necessarily relate to the colored water lakes of Florida. He has found that those lakes through central Florida expanding around Tampa Bay in the vicinity of extensive phosphate deposits are well buffered and not sensitive to acid rain. He has further found that the lakes outside that area, which tend to be very clear water lakes, are very poorly buffered and are very sensitive to acid rain.

In the northern United States, there is a higher aluminum concentration in the underlying bedrock, thus allowing the acid rain to leach very high levels of aluminum into surrounding lakes. These high levels of aluminum have had the effect of killing fish in the lakes. Because in Florida there is a relatively small aluminum content in the underlying soil, acid rain of a comparable pH to that in the North does not leach into the Florida lakes comparable amounts of aluminum. In Florida, the lowered pH (or increased acidity) of a lake causes algal abundance to go down and the algae to go out of the system. Since algae forms the basis for the food chain for all of the other organisms up through fish in the lake, the lowered pH can ultimately reduce the food available to the organisms and eventually starve the fish out of the lake.

Dr. Crisman's research indicates that as yet the lakes of Florida have not been significantly impacted by acid rain. He believes through his research, however, that if the pH is lowered to around 4.0 or 4.1, all of the organisms in the water of the lakes would die. The water that would be left would provide a good drinking water supply and be similar to distilled water. It would not support an ecosystem. Dr. Crisman's research does not project when such an event might occur or if such an event might occur.

No evidence was presented sufficient to establish that the SO₂ emissions of Unit 1 will in any manner aggravate or accelerate acid deposition. The evidence does establish that the emission of pollutants from Unit 1 will conform to the air quality standards of the State of Florida.

16. Major plant facilities having a potential for impact on ground and surface waters are the coal pile, combustion waste storage area, makeup water supply and other water storage ponds, and generally disturbed areas around the plant site. The design of the active and completed combustion waste storage area drainage and the lined coal storage area drainage will minimize potential adverse impacts. The coal storage area runoff pond built initially will contain the ten-year 24-hour rainfall runoff from a four-unit coal storage area. Excess runoff will spill to another lined basin (recycling) which is not being utilized to store a considerable amount of runoff. The perimeter ditch system in the combustion waste storage area will be used to control the water table beneath the solid waste area preventing it from mounding into the pile and drawing leachate out. The present groundwater gradient from east to west will be reversed by this perimeter ditch system so that the groundwater gradient flows from west to east away from Wide Cypress Swamp and the U.S.G.S. recharge well. The makeup water supply storage pond will contain a 25-year rainfall event. It can also contain the 100-year 24-hour rainfall event if average rainfall (51 inches per year) precedes the storm. The system of ponds is sized to contain the 100-year 24-hour rainfall event during operation. The proposed pond liner material is bentonite clay having a permeability of 1×10^{-7} cm/sec. The liners will be 6 inches thick. The monitoring programs proposed by the Applicant and DER to monitor groundwater quality are sufficient to timely detect potential degradation of water quality.

17. No existing sinkholes were identified onsite. The solid waste disposal area will be monitored for the presence of sinkholes which will be stabilized if identified.

18. Two deep-water wells will be utilized in operation of the site. They will each pump at a maximum of 850 gallons per minute. At the maximum withdrawal of groundwater from the Floridan Aquifer through these two pumps, the drawdown at the wells themselves will be 5.5 feet and will result in a one-foot potentiometric drawdown at a radius of two miles. This constitutes a minimal effect on the Floridan Aquifer.

19. There will be no groundwater degradation from the coal storage runoff pond or the solid waste storage runoff pond because they will be lined with bentonite. All ponds and storage areas will be monitored by one upgradient and at least two down-gradient piezometers.

20. Dewatering for excavation during construction will be controlled by measures designed to limit the lateral extent of dewatering effects and minimize the quantities of groundwater which must be removed by dewatering.

21. Pursuant to the Conditions of Certification proposed by the Department of Environmental Regulation and agreed to by the Applicant, compliance with the groundwater standard for nitrate must be achieved within the 500-foot zone of discharge established by DER for the makeup water supply pond. Similarly, the water quality in the Hart and Cowpens Branches will not exceed the state standards for potable water which may otherwise result from any underground seepage from the water supply storage pond.

22. Water and fire protection services onsite are to be provided by the Applicant. No major traffic congestion is expected to result from the construction or operation of the plant. The

Applicant and the Department of Transportation have agreed to the installation of safety equipment and related requirements at all railroad grade crossings. Induced migration from stimulated economic activity is expected to be negligible. Construction of the plant is projected to provide 2,199 man years of employment, with peak labor requirement of 830 workers occurring in 1985. The four-year construction payroll is projected to total 51.4 million dollars in 1980 dollars. Local purchases of material and equipment are projected to total 16.3 million dollars over the construction period.

23. Neither construction nor operation of the plant will result in noise having anything more than a minimal impact on the surrounding human population. During construction, there will be a steam blowout operation to clear pipes which over a period of one to two weeks will generate a loud noise for a total of twenty to sixty minutes. That noise will have minimal impact upon adjacent population.

24. Security of the site will be provided by perimeter fencing and controlled access gates.

25. The St. Johns River Water Management District has filed its report as required by Section 403.507(1)(a), Florida Statutes, and in that report does not object to certification of the proposed site with certain conditions.

26. The Department of Veteran and Community Affairs has filed its report as required by Section 403.507(1)(a), Florida Statutes, and in that report concludes that the proposed project is essentially compatible with the majority of policies in the State Comprehensive Plan.

27. The Public Service Commission has filed the report required by Section 403.507(1)(b), Florida Statutes, and in the report finds a need for the proposed facility.

28. The State of Florida, Department of Environmental Regulation, has recommended certification of Unit 1 and its

associated facilities pursuant to certain Conditions of Certification which are set forth on the record of this proceeding and attached hereto as Attachment II.

29. The construction of Unit 1 and its associated facilities will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.

30. The operational safeguards proposed for Unit 1 and its associated facilities are technically sufficient for the protection and welfare of the citizens of Florida.

31. The Stanton Energy Center site has a capacity for electrical generating units with a maximum generating capability of 2,000 megawatts.

CONCLUSIONS OF LAW

32. This proceeding was held pursuant to the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes, and Chapter 17-17, Florida Administrative Code, to consider the subject application for site certification.

33. Notice in accordance with Chapter 403 and Chapter 120, Florida Statutes, and Chapter 17-17, Florida Administrative Code, has been given to all persons and parties entitled thereto, as well as to the general public.

34. The record of this proceeding consists of all pleadings and papers filed herein, including the Site Certification Application, as amended, the transcripts of all hearings, all orders entered by the Hearing Officer, and evidence and exhibits properly admitted into the record.

35. All motions not heretofore granted or denied by the Hearing Officer are DENIED.

36. To the extent that the proposed findings of fact and conclusions of law of any party in this proceeding have not been

incorporated in this Recommended Order, those proposed findings of fact and conclusions of law are deemed irrelevant, immaterial, unsupported by competent substantial evidence or otherwise unnecessary to the determination of this cause.

37. By ORDER dated October 2, 1981, and amended by ORDER dated October 9, 1981, the Florida Public Service Commission, pursuant to Chapter 403, Florida Statutes, found: ". . . that a need exists for the Stanton Unit No. 1 as proposed by the Applicant." Section 403.519, Florida Statutes (1981), provides that "The commission shall be the sole forum for the determination of [the need for an electrical power plant subject to the Florida Electrical Power Plant Siting Act], which accordingly shall not be raised in any other forum" Therefore, need for Unit 1 was not an issue in this proceeding, that need having previously been determined by ORDER of the Public Service Commission.

38. Pursuant to the requirements of Section 403.508(1), Florida Statutes, by ORDER dated October 20, 1981, the Governor and Cabinet sitting as the Board have determined that the proposed site is consistent and in compliance with land use planning and zoning requirements.

39. The reports and studies required by Section 403.507, Florida Statutes, have been rendered as required. Similarly, the Department of Environmental Regulation has met the requirements imposed upon it by Section 403.507 (2)

Florida Statutes. The Department of Environmental Regulation recommends certification of the Stanton Energy Center, both as to ultimate site capacity and the construction and operation of Unit 1 with its associated facilities, subject to the Conditions of Certification which are attached hereto as Attachment I. The Applicant has accepted these Conditions of Certification and the

record supports their implementation except as noted below. Proposed Condition of Certification No. XXVI proposes that the Board, pursuant to Section 403.516(1), Florida Statutes, delegate to the Secretary of the Department of Environmental Regulation any condition of the certification pertaining to consumptive use of water, monitoring, sampling, groundwater, mixing zones, zones of discharge, leachate control programs, effluent or emission limitations, variances or exceptions to water quality standards, railroad spur, transmission line, access road or pipeline construction, and source of treated effluent cooling water. Nothing has been presented in the record of this proceeding setting forth the reason for such a delegation. Subsection 403.516(1), Florida Statutes, provides that "The board may delegate the [Department of Environmental Regulation] the authority to modify specific conditions in the certification." Because the record is silent as to the reasons for such a delegation, the Hearing Officer cannot recommend that Condition XXVI of the proposed Conditions of Certification be imposed upon the certification of Unit 1. However, as a matter of law, it would appear to be within the sound discretion of the Board, as it may desire, to so delegate its authority. Other than as may be provided in the Conditions of Certification, there has been no showing that a variance should be granted to any of the applicable air or water quality standards of the State of Florida.

40. Unit 1 and its associated facilities, if constructed as applied for with the subject Conditions of Certification will produce minimal adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. The operation safeguards as proposed for Unit 1 are technically sufficient for the protection and welfare of the citizens of Florida. Further, a reasonable balance is struck between the need for the facility and the environmental impact resulting from construction and operation

of the facility. Finally, the facility is capable of providing abundant low-cost electrical energy.

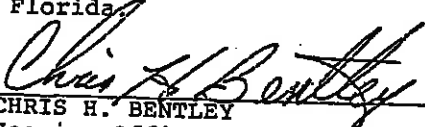
RECOMMENDED ORDER

Based upon the Findings of Fact and Conclusions of Law above, it is RECOMMENDED that:

1. The Orlando Utilities Commission be granted certification pursuant to Chapter 403, Part II, Florida Statutes, for the location, construction and operation of Curtis H. Stanton Energy Center Unit 1 and its associated facilities as proposed in the application as amended. That certification should be made subject to the Conditions of Certification heretofore agreed to by the Applicant and the Department of Environmental Regulation and supported by the record of this proceeding and attached hereto as Attachment I except that Condition XXVI cannot be recommended.

2. Orlando Utilities Commission, Curtis H. Stanton Energy Center, should be certified for an ultimate site capacity of approximately 2,000 megawatts.

Respectfully DONE and ENTERED this 12th day of November, 1982, in Tallahassee, Florida.


CHRIS H. BENTLEY
Hearing Officer
Division of Administrative Hearings
The Oakland Building
2009 Apalachee Parkway
Tallahassee, Florida 32301
(904) 488-9675

Filed with the Clerk of the Division of Administrative Hearings this 12th day of November, 1982.

Copies furnished:
See following page

Case No. 81-1431

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Certification Order has been furnished by United States Mail to the following persons this 15th day of December, 1982.

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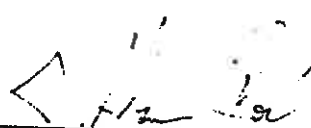
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