

**Golder Associates Inc.**

6241 NW 23rd Street, Suite 500  
Gainesville, FL 32653-1500  
Telephone (352) 336-5600  
Fax (352) 336-6603



July 31, 1998

Mr. Cleve Holladay  
Bureau of Air Quality Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**RECEIVED**

**AUG 08 1998**

**BUREAU OF  
AIR REGULATION**

**RE: FPL Fort Myers Plant Repowering Project  
Air Modeling Protocol for Site Certification Application**

Dear Mr. Holladay:

Florida Power and Light Company (FPL) is proposing to repower their existing power plant site in Fort Myers. The existing power plant site consists of two oil-fired steam generating units and 12 gas turbine peaking units. The proposed project will involve replacing the two existed boilers with six nominal 150-MW combustion turbines (CTs). The CTs will be connected to heat recovery steam generators (HRSGs) to produce steam for the plant's existing 400- and 160-MW (net) steam turbines. No duct burners are planned for the project. The new CT units will be designed for continuous operation and will fire natural gas only. A once-through cooling tower is also planned to dissipate heat from the circulating water system.

The proposed project is not expected to cause increases above the Environmental Protection Agency's (EPA) Prevention of Significant Deterioration (PSD) significant emission rates for any regulated pollutant. Emissions of nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), total particulate matter (PM), particulate matter with aerodynamic diameters less than 10 microns (PM<sub>10</sub>), and carbon monoxide (CO) are expected to decrease from current facility emission levels while volatile organic compound (VOC) emissions will increase slightly but be less than the PSD significant emission rate. A PSD application will be included as part of a Site Certification Application/Environmental Assessment (SCA/EA).

This protocol presents the methodology to be used for the air modeling analysis to be performed for the SCA/EA. The protocol includes a discussion of the air dispersion model to be used; site geography; meteorological data; emission and source inventories; building data; receptor locations; and additional impact analyses.

**Air Dispersion Model**

The air modeling analysis will be performed in accordance with air modeling guidelines that are recommended by the EPA and FDEP. The Industrial Source Complex Short-term (ISCST3, Version 97363) will be used to predict air quality impacts in all areas that are beyond the FPL Fort Myers plant's property boundary. All modeling analyses will use the EPA default regulatory options.

**Site Geography**

The project site is located in Lee County, Florida. Around the site, the terrain is mostly flat within 50 miles in any direction. Based on topographical maps of the project site, the land use within a 3-km radius of the site can be classified as rural. As a result, the flat terrain and rural model options will be selected in the model.

**Meteorological Data**

Meteorological data will consist of a 5-year record of hourly surface data from the Flight Service Station located at Fort Myers Page Field and coincident upper air observations from the National Weather Service Station at Ruskin. The years of record for the meteorological data will be 1987 to 1991. The Fort Myers weather station, located approximately 14 kilometers (km) southwest of the FPL Fort Myers plant site, is the closest and considered the most representative of the climatology at the proposed project site.

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### **Receptors**

#### **Plant Vicinity**

Concentrations for the project alone will be predicted in a screening grid centered on the proposed CTs and comprised of 36 radials with 10-degree resolution. Receptors will be located along each radial beginning at the fenced property boundary and extending to off-site distances of 0.1; 0.5; 1.0; 1.5; 2.0; 2.5; 3.0; 4.0; 5.0; 7.0; and 10 km from the project site. Receptors will be located at further distances, if necessary, to capture the location of the proposed project's maximum impact. As necessary, modeling refinements will be performed in the area of the location of maximum impact in the screening grid. The refined receptor grid(s) will be centered on the critical screening grid receptor(s) and will extend to the adjacent screening grid receptors. Refinements will be performed for the receptor at which the highest concentration was predicted and at other receptors if concentrations predicted at those receptors are within 80 percent of the highest concentration, and occur during a different year or location. Receptor spacing will be 100 m or less between all adjacent receptors using an angular spacing of 1 or 2 degrees.

#### **PSD Class I Area**

Maximum impacts for the project will be predicted at the PSD Class I area of the Everglades National Park using an array of 52 discrete receptors located along the northern border of the ENP. The ENP, located approximately 100 miles (160 km) southwest of the proposed project site, is the nearest PSD Class I area to the proposed project site. Because there are no other Class I areas located within 120 miles (200 km) from the project site, impacts will be predicted only at the Class I area of the ENP.

### **Significant Impact Analysis**

The highest annual and highest short-term average (i.e., 24-hour or less) concentrations predicted for the proposed project only using the five years of meteorological data will be compared to the EPA significant impact levels (SIL) in the plant vicinity and to the EPA's proposed and National Park Service's (NPS) PSD Class I significant impact levels at the Class I area of the ENP. The significant impact analysis will be performed for SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and CO in the vicinity of the project site and for SO<sub>2</sub>, NO<sub>2</sub>, and PM<sub>10</sub> at the ENP. If maximum predicted impacts of the proposed project are above the EPA SIL, additional air modeling analyses will be performed to determine the net change in impacts due to the reduction in pollutant emissions when the existing boiler units are shutdown. If these impacts are still above the SIL, additional analyses will be performed to determine compliance with allowable PSD Class II increments. The distance to which each respective pollutant has a significant impact will be determined, and that distance will be the maximum receptor distance for predicting impacts in the air modeling analysis. If the maximum predicted impacts of the proposed project at the ENP exceed EPA's proposed PSD Class I SIL, additional air modeling analyses will be performed to determine compliance with allowable PSD Class I increments.

For SO<sub>2</sub>, NO<sub>2</sub>, and PM<sub>10</sub>, the maximum impacts of the proposed project will be modeled with other sources to ensure compliance with AAQS.

For NO<sub>x</sub>, a second-level screening analysis will be applied (EPA Air Modeling Guidelines, Section 6.2.3) which assumes that 75% of the emitted NO<sub>x</sub> emissions are converted to NO<sub>2</sub> and the rest remains as NO or other forms of NO<sub>x</sub>. This approach is based on the fact that the model being used does not account for the natural transformation of NO<sub>x</sub> to NO<sub>2</sub> during the dispersion process.

### **Emission Inventories**

Based on the results of the significant impact analyses for each applicable pollutant, information for background sources will be developed to perform the PSD Class I, PSD Class II and AAQS analyses, as necessary. The information for these background sources will be obtained from the DEP and included in the air modeling analyses.

C. Holladay  
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will include all the existing and future sources associated with the proposed project plus all increment consuming (or increment expanding) sources within the ENP airshed.

**Additional Impact Analysis**

In addition to the air quality impact analyses, additional analyses will evaluate impairment to visibility and the impact of the proposed project on soils and vegetation. Impacts as a result of general commercial, residential, industrial, and other growth associated with the proposed project will also be addressed.

The Federal Land Manager of the ENP will be notified of the proposed project to help address any issues concerning that the proposed project may have on Air Quality Related Values (AQRV) within the ENP including regional haze. Because the proposed project will result in total emission decreases for SO<sub>2</sub>, NO<sub>2</sub> and PM<sub>10</sub>, the project's impacts are not expected to adversely affect AQRV within the ENP.

Please call me or Steve Marks at (352) 336-5600, if you have any questions or comments on the protocol. FPL greatly appreciates the assistance of the FDEP on this important project.

Sincerely yours,



Robert C. McCann, Jr.  
Manager, Air Resources

RCM/arz

cc: S. Marks, Golder  
K. Kosky, Golder  
R. Piper, FPL  
File (2)

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MAY 05 1998

BUREAU OF  
AIR REGULATION



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AL  
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XC: claim - FYI  
pat - file orig.  
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Howard  
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Richard Piper  
Environmental Services Dept.  
Florida Power & Light Company  
P.O. Box 14000  
Juno Beach, FL 33408

RECEIVED

APR 29 1998

DIVISION OF AIR  
RESOURCES MANAGEMENT

April 23, 1998

Howard Rhodes, Director  
Florida Department of Environmental Protection  
Division of Air Resources Management  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

Dear Howard:

I wanted to thank you again for the recent opportunity you provided for me to share FPL's plans for adding new generating capacity and *repowering* the Fort Myers power plant. As we discussed, this change will enable us to produce about three times more electricity from the plant and significantly improve air quality by using new combined-cycle technology and natural gas.

I especially appreciate your initial thoughts on the project. We are using all the feedback we received in our current planning for community outreach and licensing. Generally, the overall response was quite positive. I am enclosing a summary of what we learned in the hope that you will find it as informative as I did.

The other item I'm enclosing is a brief summary of FPL's recently filed 10-year Power Plant Site Plan. This is our annual forecast of how we plan to meet the electricity needs of the region and the state in a manner that protects Florida's sensitive land resources. The full plan is available on FPL's Web site in "About Us." At the same location, there also is a special site devoted to *Repowering Fort Myers*. Please visit -- or share with others our Web address -- [www.fpl.com](http://www.fpl.com).

As the project progresses, we'll continue to meet with business, government and agency representatives to answer your questions. We also want to make sure that any issues DARM may have are addressed in our application. I anticipate setting up an inter-agency meeting, coordinated through Buck Oven, sometime in mid-May.

Meanwhile, if there is any additional information that might be of interest to you, or other thoughts or ideas you'd like to share with me, please email me at [rich\\_piper@fpl.com](mailto:rich_piper@fpl.com) or give me a call at (561) 691-7058 at your convenience.

Sincerely,

Richard Piper  
Sr. Environmental Specialist

## Florida Power & Light Company: Learning About People's Ideas On Repowering to Meet Future Demand for Electricity

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We at Florida Power & Light recently announced several opportunities to improve or expand electricity-generating plants.

- Two of the opportunities involve *repowering* existing FPL plants in Fort Myers and Sanford, Florida. Repowering simply means new combined-cycle technology would be added to an existing site, and a few older turbine-generators retained, resulting in a vastly more efficient plant.
- The third opportunity calls for new construction and new combined-cycle technology at an existing FPL power plant site in Martin County, Florida.
- All three proposals – the repowering and the new construction – call for the use of natural gas-fired combined-cycle, combustion turbines.

The reason for these changes is to make sure there is enough electricity for FPL customers, based on forecasts we have made of future demand. The changes would occur over the next 10 years.

Before making the announcement, FPL employees spoke with about 44 government officials, agency representatives and residents in different towns about the project. We wanted to find out what suggestions or questions people might have about the opportunities. Here's a summary of what we heard.

### Looking Ahead

- Most people were very positive when they first heard about the project. They often asked for more information about how the changes might affect their particular areas.
- Most spoke about economic benefits for their communities possibly coming from the changes. They thought these benefits might include such things as lower electricity costs and more taxes paid by the company.
- Many thought using natural gas instead of oil to generate electricity could be good for the environment because burning natural gas would result in less air pollution. They also thought that using natural gas would eliminate the risk of oil spills because oil will no longer have to be shipped to the plants.
- Most questions or concerns about the company's proposal had to do with where and how a future gas pipeline would be built. A small number of individuals also mentioned the possible effects that new production methods might have on Manatees. They suggested there was a need to discuss both subjects with community citizens.

## Keeping People Informed

- People we talked with said it was important that they and others (mostly community citizens) be kept well informed about work on the projects. They said they especially wanted to learn more about the building of a gas pipeline and how the environment will be protected.
- They also thought that if government officials were well aware of what was going on with work on the opportunities, they would be able to help answer questions that community citizens might have.
- The government and regulatory officials that were contacted said that presentations about the company's plans should be made early to city councils. From there, information could be made more widely available to other citizens.
- There were several other reasons why people thought it would be good for the company to keep community citizens up-to-date on the company's activities. One reason was that information would help people to better understand how the project would affect them. Another reason was that it would make it possible for the company to address early on any concerns citizens might have.
- People thought that good communications could build trust between community citizens, government officials and FPL employees. To gain citizen's confidence in how the projects would be managed, the people we spoke with said the company must be sure to follow through on any promises it might make.
- They also suggested that citizens should be involved in open discussions about the opportunities. They believed that this would help make sure that citizens could be involved in some of the decisions that would be made.
- People also suggested that the company work together with the business community and regulators. They believed that working together would help build community support. It would also help businesses and government to plan ahead.

"Talking to people about opportunities was a very positive experience for us," said Mary Lou Kromer, FPL's vice president of corporate communications. "It's helping us better understand people's views and ideas concerning our activities. We also learned important insights we can use to improve our communications as we work to match varying community interests with the technical requirements of generating electricity."

## Florida Power & Light Company: The next ten years

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Florida needs more electricity each year. This is because the population of Florida has grown dramatically, doubling since 1970 to 14.7 million residents today. Florida Power & Light Company has been a part of Florida's growth for more than 70 years, expanding its generation system to keep pace with increases in customers and with customers' many uses of electricity and electrical appliances.

To continue to produce the electricity that our customers are going to need, we believe we must plan on improving some of our existing power plants. We also plan on building some new ones when the time is right. The new plants would be built on property we already own. Here is a summary of our current planning over the next ten years.

**Fort Myers Plant, Lee County** – We propose replacing by 2002 the existing oil-burning generating units at this site with advanced natural gas-fired combustion turbines and heat recovery steam generators. This type of steam generation replacement is commonly called *repowering*.

**Sanford Plant, Volusia County** – We plan a similar *repowering* for Sanford by 2004. We propose replacing two of the three existing oil-burning generating units at this site with advanced natural gas-fired combustion turbines and heat recovery steam generators.

**Martin Plant, Martin County** – We plan by 2006 - 2007 to add two new generating units at this site consisting of advanced natural gas-fired combustion turbines and heat recovery steam generators. The 11,300-acre site is currently home to two oil-fired and two natural gas-fired generating units, which will remain.

**Additional sites** – Our 10 year plan additionally identifies other alternative sites for future power plant modifications or additions. They are 1) the DeSoto site in north central DeSoto County, 2) the Cape Canaveral Plant in Brevard County, 3) the Riviera plant in Palm Beach County, and 4) the Port Everglades Plant in Broward County. Any of these sites could be substituted for another in the planning process depending on a variety of unanticipated planning changes or events.

We also anticipate needing additional transmission power lines and other equipment to ensure that our customers receive uninterrupted power.

Our plants use oil, natural gas, coal and nuclear energy to produce electricity. We additionally purchase power from others, and we are in the process of licensing an alternative fuel called Orimulsion. A diverse energy mix provides operating flexibility and the ability to minimize fuel costs – which typically represent 30 percent of a customer's bill.

Our customers also are important partners in our effort to keep costs level and meet the demand for more electricity. They contribute by using efficient appliances and conserving energy through a variety of programs FPL offers to residents and businesses.

If you would like a copy of our ten year plan or more information about our activities, check our web page at [www.fpl.com](http://www.fpl.com).

## Fort Myers Repowering Project

Site Certification Application  
Environmental Studies

### Air Quality

- Only emission increases in CO and possibly VOC.
- Existing air monitoring data to be used.
- Modeling to be performed using ISCIII and 5-years data from Fort Myers.
- Net Air Quality Benefits to Class I and II areas will be presented.

### Water Resources

- Thermal Studies to include:
  - Bathymetric Survey
  - Tidal Monitoring
  - Dye Dispersion Study
  - Thermal Plume Tracking
  - Current Measurement
  - Thermal Modeling



## Water Resources

- Literature Surveys
- No change in groundwater - new wells in 1995.
- Groundwater analysis using known aquifer characteristics.
- Stormwater design to meet SFWMD requirements.



## Noise

- Survey of existing combined cycle plant to develop "real-life" sound power levels.
- Survey of existing plant noise sources.
- Survey of sensitive receptors (e.g., park, residences, etc.).
- Use Type I Sound Level Meter.
- Use Environmental Noise Model.



## Ecology

- Surveys of areas affected by repowered plant and transmission upgrades.
- Benthic survey to validate 316 a/b studies performed for the plant.
- Data available from initial 316a/b studies and NEP studies on the Caloosahatchee River and estuary.



## Socioeconomics

- Review and evaluate requirements of Land Development Code (LDC) and Comprehensive Plan (CP) for Lee County.
- Development and presentation of data conforming with LDC and CP.
- Development and presentation of SCA requirements.



# REPOWERING

## Fort Myers

*an opportunity for the  
Fort Myers community*

### Meeting the community's growing electricity needs

We've been talking with residents and neighbors in recent months about Florida Power & Light's plans to repower our Fort Myers plant. Repowering means adding new equipment at the site to increase the amount of electricity we produce. What we've heard is that people like our proposal for more and cleaner electricity, using new technology and natural gas instead of oil.

This month we begin meeting with local, state and federal agencies to discuss the approvals needed to upgrade our plant. These agencies will review the environmental and technical merits of the project. As part of their review, they also will be interested in how people in the community feel about the project.

We hope this brochure provides an overview of the project and a summary of what we will be providing to the various government agencies. If you would like more information, please contact us. See the back page for details.

#### Addressing the need for power

Residents or visitors to Southwest Florida won't find it hard to believe this region is growing 40 percent faster than the rest of FPL's service territory. However, for FPL, repowering Fort Myers is about more than just meeting Southwest Florida's growth and future needs. It's also about recognizing that communities clearly expect more from us. And we're listening.

For example, our customers expect more efficient and reliable electric service. We're proposing to triple the amount of electricity the Fort Myers

plant can generate. We know that customers expect us to improve air quality, and to use water conservatively. Both of these environmental improvements are part of our repowering plan.

People also strongly believe that any new project proposed to meet future needs should be cost-effective. It should help keep electric rates from going up.

Our proposal helps us meet these objectives and offers some additional benefits. For example, repowering the Fort Myers plant means using an existing site rather than new land, which is important to environmentally conscious Floridians. Plus, some existing plant equipment can be re-used, which will generate even greater cost-savings and efficiency.

Increasing plant output locally means we can avoid the current need to build a cross-Florida transmission line to import power. That strengthens the region's opportunity to become more self-sufficient. Increasing generation in Southwest Florida also helps balance the entire FPL electrical grid.

FPL's grid of interconnected power lines collects and moves power from all 13 of our plant sites to homes and businesses in the Fort Myers area and elsewhere. It's important that all our power resources work together to supply continuous, safe, reliable electric service, and backup, for our seven million FPL customers today — and those in the future — in each of the 35 Florida counties we serve.



- \$500 million power plant upgrade.
- First of three projects to meet future customer needs.
- Phased start up beginning in early 2001.
- Addresses regional power supply shortfall.
- Two-year construction schedule starting mid-1999.
- Uses existing plant site and some equipment.

Repowering Project Facts



# SHARING OUR project plans

We are committed to building and operating an efficient, environmentally sound plant that meets the safety, environmental and economic objectives of

The employees at FPL are proud to have been part of Florida's growth for more than 70 years. We promote energy conservation so natural resources are used wisely. It's also our responsibility to anticipate and plan for the future by adding new power resources to keep pace with new residents and a greater use of electricity.

In announcing plans to repower the Fort Myers plant, FPL President Paul Evanson promised to "establish a process to work with the community and to develop a mutually beneficial plan that incorporates citizens' interests and priorities with the technical requirements of providing additional electricity to the region."

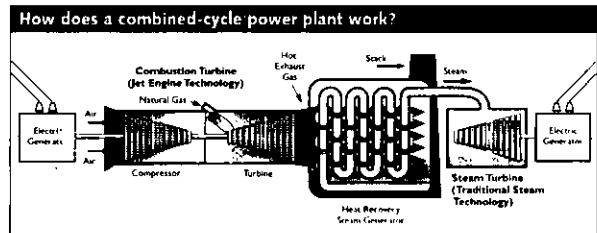
As part of that commitment, we hosted an open house on the repowering project at the convention center. We placed a newsletter on the project in the Fort Myers News Press. We made a number of presentations to neighbors and community groups. And we established a Web site where visitors can get project updates. A community advisory panel provided guidance on how the benefits of the project could be maximized for the community. Independent research also helped find the best way to provide community dialogue opportunities that would address local citizens' interests.

### Seeking approval for the repowering project

Even though the existing Fort Myers power plant has operating permits, FPL must seek approval from several govern-

ment agencies to make changes associated with replacing 1950s oil-burning technology.

Among the agencies we will work with are the Florida Department of Environmental Protection, the South Florida Water Management District, Lee County, the Florida Department of Transportation, U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers.



### Energy is produced two ways:

- One, by combustion of natural gas in a turbine — much like a jet engine.
- Two, by using the hot, jet engine exhaust to make steam.
- Both sources of energy then drive turbine generators.
- The generators produce electricity.

### Our repowering project will be highly efficient:

- It uses clean natural gas.
- It makes use of the existing plant's steam turbine generators.
- It produces more energy per unit of fuel burned.
- It enables us to produce more electricity.

We will provide information on many features of the project noted here. We'll include how the repowered plant may affect emissions to the air and water. We'll also outline what new equipment and facilities will be associated with the project. Short-term issues such as the impact construction could have on our neighbors also will be part of these discussions.

Project Timeline



Full Operation January 2002

*We at FPL want to help improve the environment in*

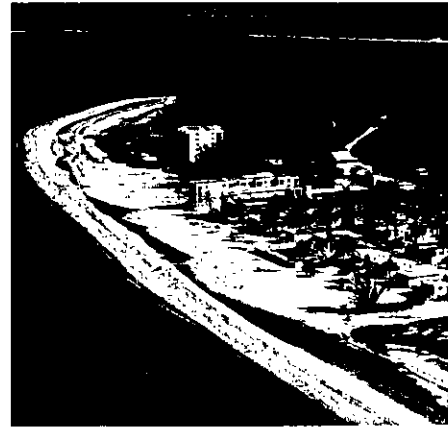
# TODAY

When we asked people about how we should communicate about our repowering proposal, Fort Myers residents told us:

"People are more likely to accept change if they know what the future holds."

## Power

- 1950s era generating technology using boilers.
- A small, but serviceable plant.
- 540 megawatt output from primary generators, enough for 125,000 homes and businesses.
- Only operates about 50 percent of the time due to inefficiencies.
- Site also includes 12 small, light-oil-fueled combustion turbines used to meet summer- and winter peaks.

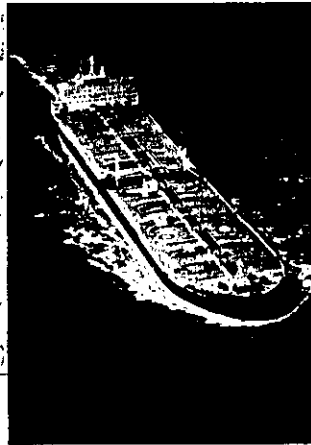


## Air quality

- A visible plume.
- Emissions maintained well within permitted levels for the plant's fuel, age and technology.

## Fuel and fuel transportation

- Fuel oil delivered by ocean-going tankers and river barges.
- Light oil (distillate) for 12 small turbines delivered by barge and truck.



## Water use and quality

- Well water used for operating purposes.
- Variable temperature discharges to the Orange River.
- Special measures taken for manatees in winter when it's not economical to run the plant.

## Land a

- 460-acre rural area.
- Natural habitat from 1950's when...
- Onsite toxic products (as...)
- Boca Grande fuel storage

## Aesthe

- Two plant structures are 300 feet tall
- Two 160 foot structures are buildings.
- Planted pa...

the region,

while working to meet the fut

# TOMORROW



## nd habitat

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de terminal used for  
and shipping.

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oot tall boiler  
id several support  
lm tree farm.

Adaptation, an ecological

*The challenge of providing more electricity should be accomplished with the goal of creating an ecological balance that contributes to a better quality of life.*

- ▣ Generation capability → 3 times more
- ▣ Nitrogen oxide → 4 times less
- ▣ Particulate matter → 2 times less
- ▣ Sulfur dioxide → 158 times less
- ▣ Carbon monoxide → 1.35 times less
- ▣ Volatile organic compounds → 1.75 times more
- ▣ Carbon dioxide → 3 times more locally
- ▣ Carbon dioxide → statewide reduction
- ▣ Discharge water temperature highs → moderated
- ▣ Oil-ash → eliminated as a solid-waste by-product

*\*Compared to historical plant performance, these are the estimated changes we expect with a repowered Fort Myers plant*

## Power

- ▣ 1990s combined-cycle technology.
- ▣ One of the most efficient plants in the state.
- ▣ 1400 megawatt repowered output, enough for more than 300,000 homes and businesses.
- ▣ Expected to run close to 90 percent of the time.
- ▣ Better match of regional power supply with customer demand.
- ▣ Continuing use of 12 small, light-oil-fueled combustion turbines to meet summer and winter peaks.

## Fuel and fuel transportation

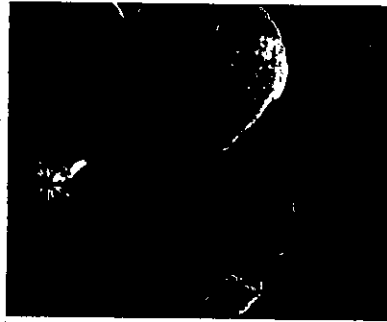
- ▣ Clean-burning natural gas.
- ▣ Underground pipeline delivery.
- ▣ A safe, reliable gas supply route.
- ▣ Potential of natural gas for other energy uses in Southwest Florida.
- ▣ No solid-waste fuel by-products.
- ▣ Light oil for small turbines delivered primarily by truck.

## Air qu

- ▣ No visible combined-
- ▣ Significant levels over
- ▣ Currently, include fine particulate dioxide and thus contribute
- ▣ Slight increase in fuel or VOC compound
- ▣ Some increase locally, but of about 1

ure energy needs of our Southwest Florida customers.

# ECOBALANCE



## Land and habitat

- Land provided for Manatee Park remains dedicated to public use.
- Boca Grande no longer needed for fuel terminal.
- Some temporary construction noise and traffic.
- Nuisance plant species removed in area of construction.
- Warm-water manatee refuge maintained in winter.
- Landscaping and native vegetation replaced and enhanced after construction.

Residents also told us: "People live

here and tourists are drawn to this

area, in part, because of this

commitment to keep the environment ecologically

sound."

## Quality

plume from new cycle units. Significantly reduced emissions of those produced during nitrogen oxide, hydrocarbons, sulfur dioxide, carbon monoxide, and particulates (soot), sulfur dioxide, carbon monoxide, and particulates contributing to cleaner air. Increase in "unburned" hydrocarbons (volatile organic compounds) and decrease in carbon dioxide. A statewide reduction of 9 percent.

## Water use and quality

- Essentially the same use of city water in Manatee County and well water.
- Cooling systems added to reduce significant temperature fluctuations.
- More constant water discharge temperatures.

## Aesthetics

- Lower profile plant: 12 smaller stacks about 100 and 125 feet tall.
- Water vapor or mist from cooling towers sometimes visible.
- More structures and equipment to support larger plant processes.
- Electrical substation expansion.
- Transmission line additions in existing rights-of-way.



Southwest Florida

# LISTENING

## & responding

Our goal is to continue an on-going dialogue with the community.

What we do know, we'll share as we go. What we don't know now, we'll share when we do.



Like many projects with a long lead time and many engineering challenges, not every aspect of our repowering proposal has been fully developed. Here are some topics that have come up so far in our discussions with Fort Myers residents. If you have others you'd like us to address in the future, please note the various ways you can reach us. We look forward to your comments and suggestions.

■ **Will construction disrupt the neighborhood?**

We will minimize the effects of construction on our plant neighbors and the Fort Myers community. For example, we're planning longer turn lanes into our site on State Road 80, so that workers can get to-and-from work safely, and local traffic can move along with minimal inconvenience. We'll check with our neighbors regularly to make sure that we are minimizing any disruptions.

■ **How will you assure the safety and reliability of electricity supply using natural gas?**

Natural gas will be supplied to the repowered Fort Myers plant by a carefully designed and controlled underground pipeline. The pipeline will meet strict engineering and safety requirements. We will work closely with the gas pipeline company to ensure its operations meet high standards for safety and performance. FPL has safely and reliably operated natural-gas-fueled generating units for 30 years.

To meet peak demand, we also will continue to use the 12 existing, small combustion turbines fueled by light oil. Light oil is similar to diesel fuel used in some cars. It typically will be delivered to the site by trucks driven by professional drivers using approved trucking routes.

■ **Can you avoid service interruptions when you repower?**

We will do everything possible to avoid service interruptions. Electricity will be supplied from other FPL plants and power resources during construction as needed. Having multiple power plants on an interconnected electric grid helps

us maintain service reliability and flexibility. We also plan to start phasing in portions of the repowered units early in 2001. Repowering should be complete, and the new plant fully operational, by the end of the year.

■ **Will the addition of a cooling system to moderate water temperatures still protect the manatees?**

Yes. Manatees should continue to find the winter water temperatures near the plant a refuge from colder river and Gulf waters. The primary benefit of the proposed cooling system is that it would moderate discharge water temperatures during the summer. We also believe the cooling system will help contribute to a more stable environment for aquatic life.

**We'd love to hear from you. Here's how to contact us:**

■ **Visit our Web site** - About FPL - Repowering Fort Myers at [www.fpl.com](http://www.fpl.com)

■ **Call us at 1-800-DIAL FPL** if you'd like to be on a mailing list for periodic updates. Take an online tour of the project exhibits at the Community Activities section of the FPL/Repowering Web site.

■ **Call us at 941-332-9130** if you'd like an FPL employee to give a presentation on repowering to your club or civic association.

■ For a summary of our project plans and permit requirements, write or call Grover Whidden at 941-332-9130. To look over copies of our permit applications, stop by the Fort Myers public library or drop into our Fort Myers office at 1926 Victoria Avenue.

■ **Send your project comments or suggestions to:**

Grover Whidden, FPL Community Affairs Manager, 1926 Victoria Avenue, Fort Myers, FL 33901 or to Bill Reichel, FPL Plant Manager, at P.O. Box 430, Fort Myers, FL 33902.

■ **We welcome your comments and suggestions.**

Drop us a note or email: [grover\\_whidden@fpl.com](mailto:grover_whidden@fpl.com) or [bill\\_reichel@fpl.com](mailto:bill_reichel@fpl.com)

Learning More and Getting Involved





# **FORT MYERS REPOWERING PROJECT**

## **PROJECT OVERVIEW**

May 19, 1998

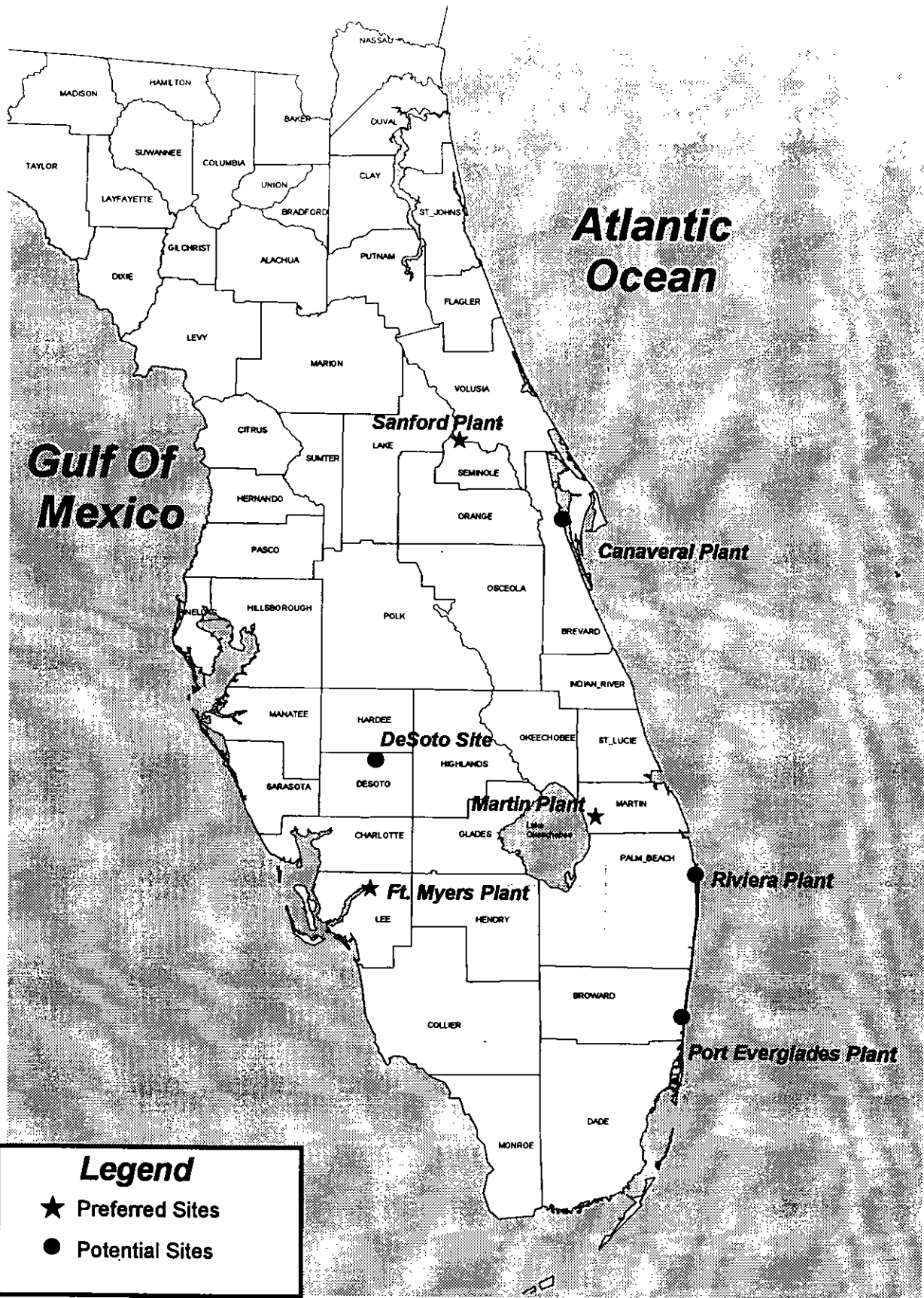
# OUTLINE

- I. INTRODUCTION
- II. PROJECT PERSONNEL
- III. PLANT LOCATION
- IV. GENERAL PROJECT DESCRIPTION
- V. TECHNOLOGY OVERVIEW
- VI. PHOTOS
  - PLANT & SURROUNDING AREA
  - BOCA GRANDE & GASPARILLA ISLAND
- VII. CONFIGURATION
  - EXISTING PLANT
  - CONCEPTUAL REPOWERED PLANT
- VIII. SCHEDULE
  - LICENSING
  - OVERALL PROJECT
- IX. LICENSING PLAN OF STUDY
- X. QUESTIONS / ISSUES



## FPL FORT MYERS REPOWERING

<b><u>Project Role</u></b>	<b><u>Name</u></b>	<b><u>Phone</u></b>	<b><u>FAX</u></b>
Project General Manager	Tom Young	(561) 694-3963	(561) 694-3960
Plant General Manager	Bill Reichel	(941) 693-4200	(941) 693-4333
Licensing Manager	Rich Piper	(561) 691-7058	(561) 691-7070
Water Issues	Jim Arkerson	(561) 691-2758	(561) 691-7031
Manatees	Jim Arkerson	(561) 691-2758	(561) 691-7031
Public Participation Program	Florette Braun Stacey Shaw	(561) 691-7059 (305) 552-4898	(561) 691-7070 (305) 552-2144
Licensing Consultants Golder Associates Inc.	Ken Kosky	(352) 336-5600	(352) 336-6603
Legal Consultants Hopping, Green, Sams & Smith	Peter Cunningham	(850) 222-7500	(850) 224-8551



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**Preferred & Potential Sites**

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# FORT MYERS REPOWERING

§ FROM ~560 MW TO ~1400 MW

§ KEEP EXISTING STEAM TURBINE-  
GENERATORS & CONDENSERS

§ AIR EMISSIONS DECREASE

§ #6 OIL SHIPMENTS CEASE

# Repowering Licensing

## § Use Power Plant Siting Act for Licensing

- Submit Application by August 28, 1998
- Obtain Final Order by November 30, 1999

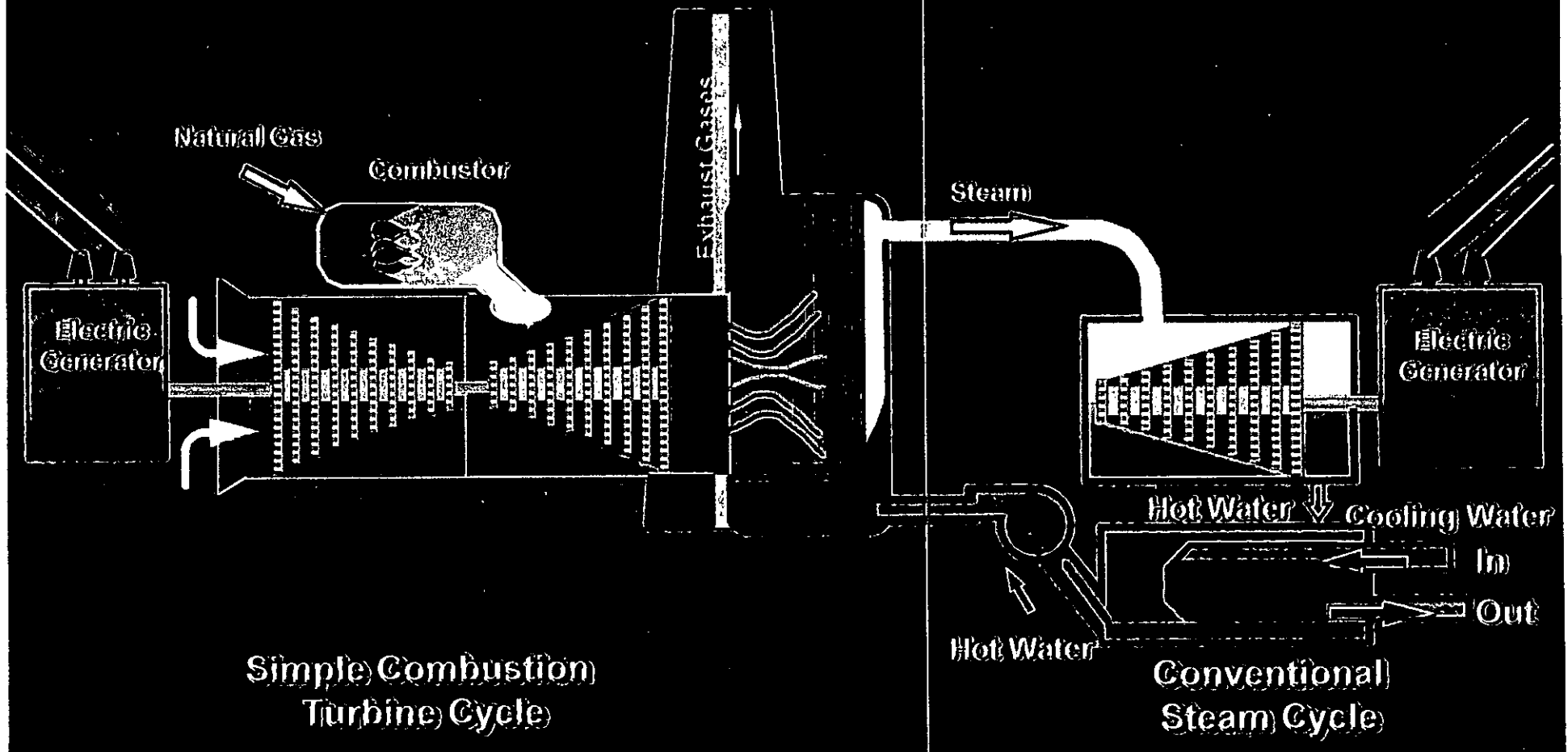
## § Extensive Public Outreach Program

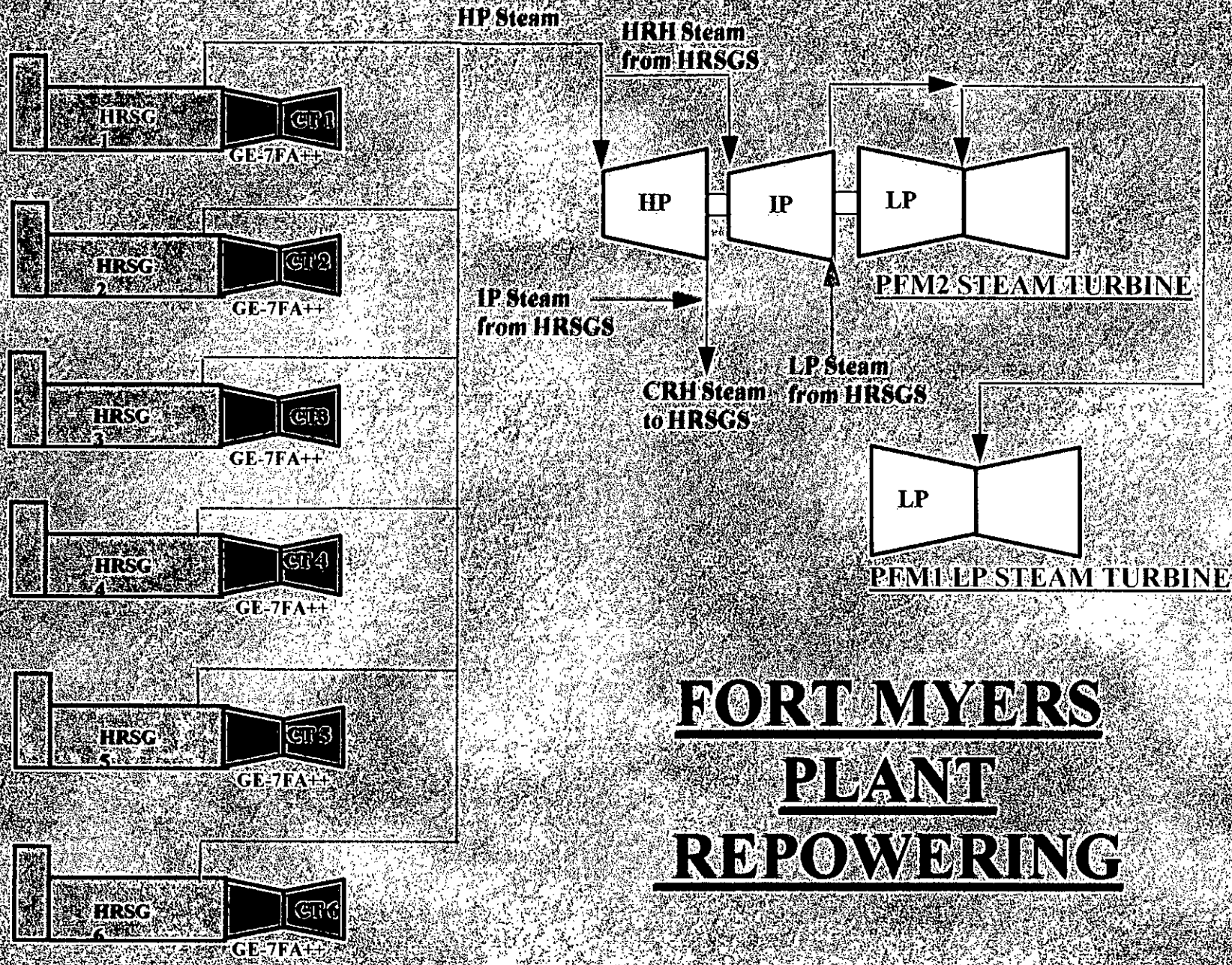
- Internal FPL
- External groups (agencies, env. grps, locals, politicians, media, customers, etc.)

# PROPOSED TECHNOLOGY: GAS-FIRED COMBINED CYCLE

## New Equipment

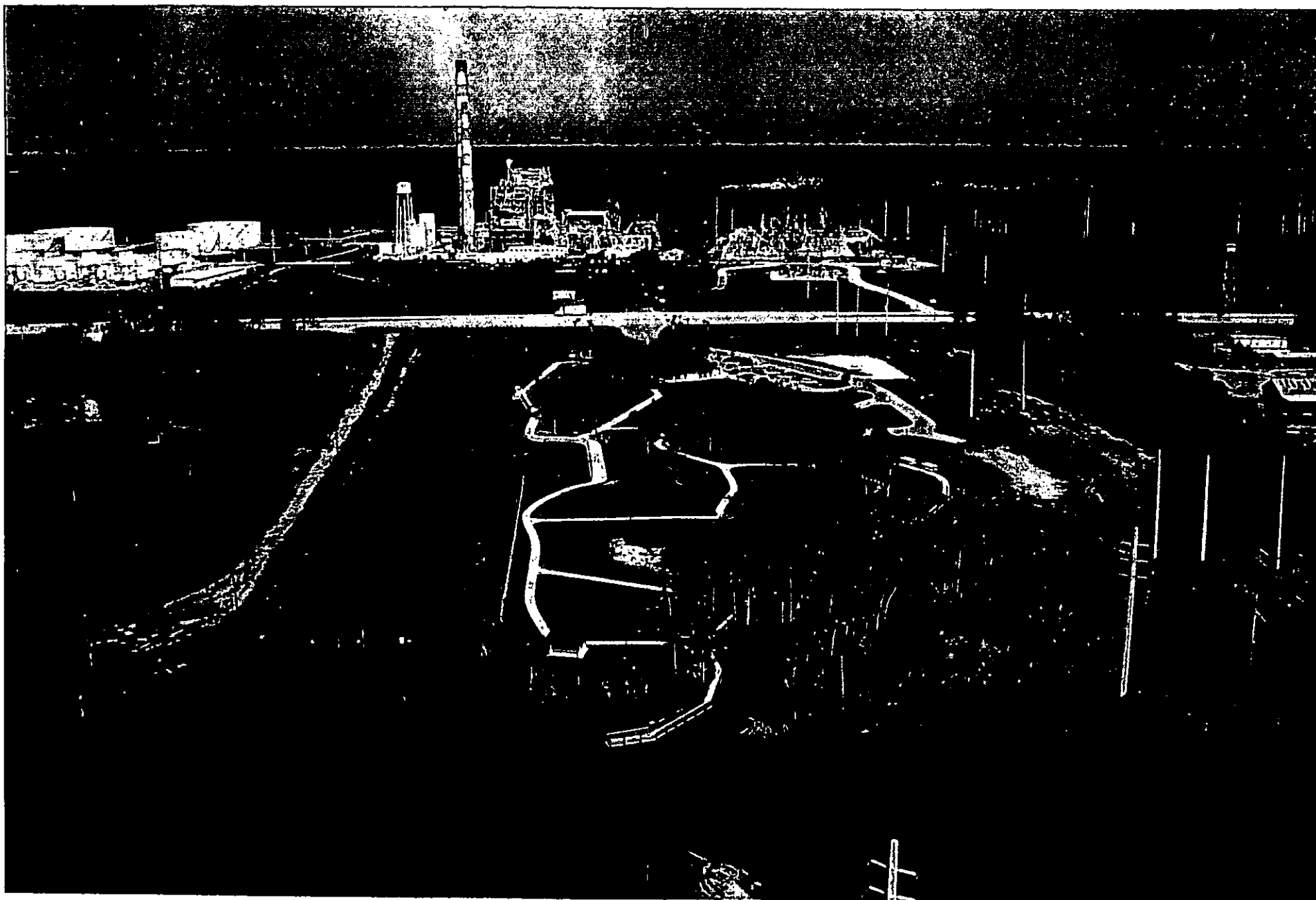
## Existing Equipment



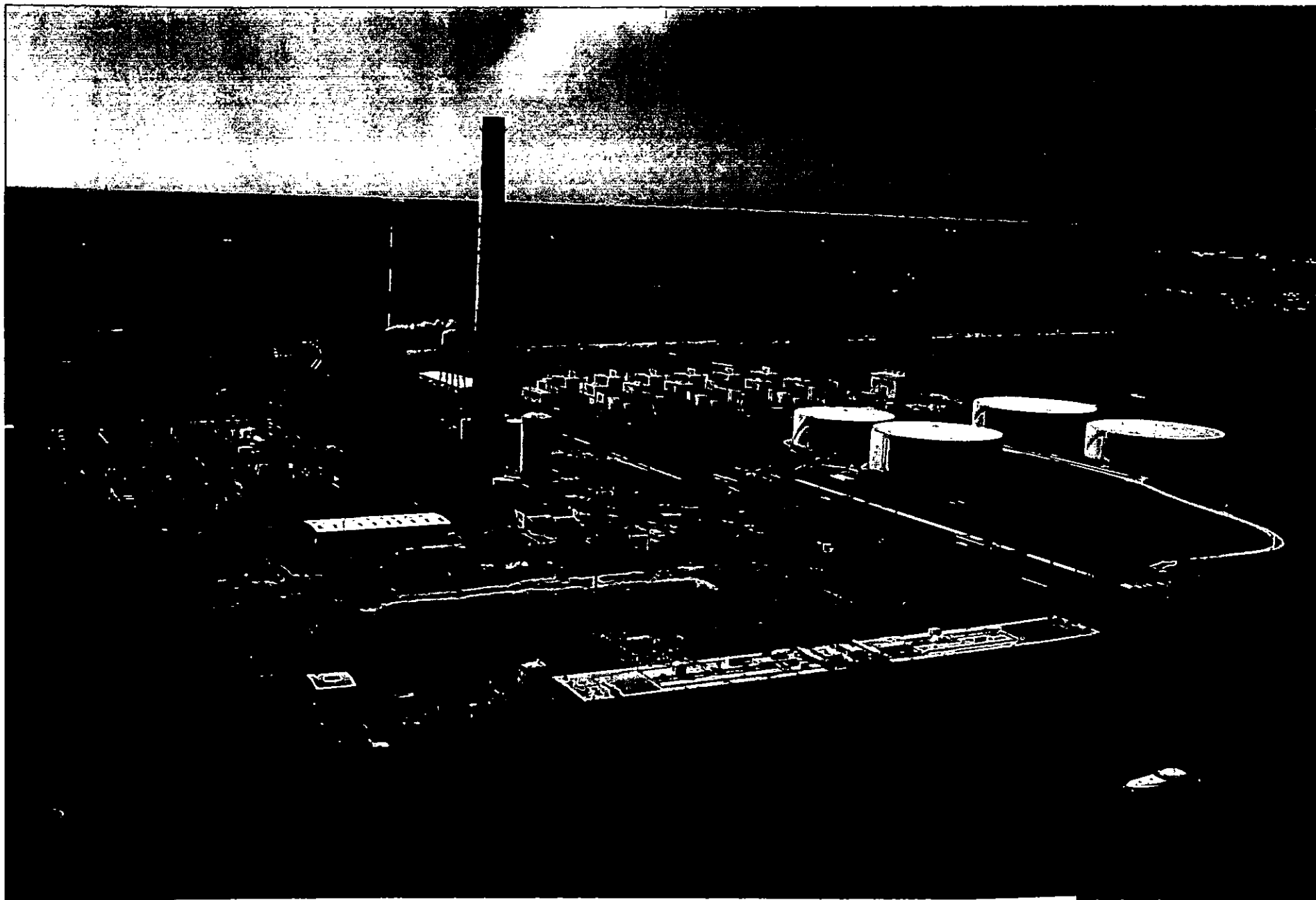


# FORT MYERS PLANT REPOWERING





FORT MYERS PLANT VIEW FROM THE ORANGE RIVER



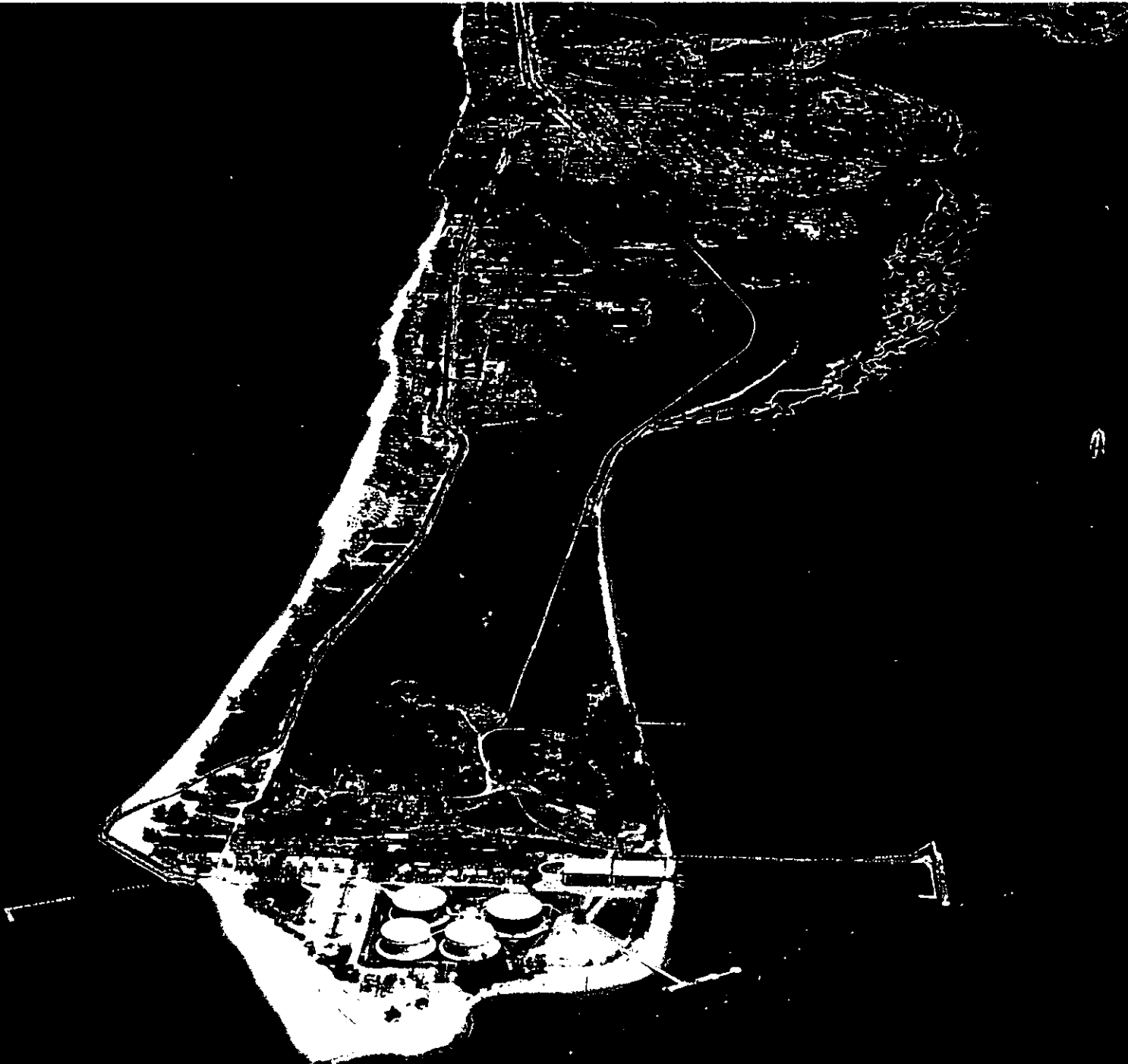
FORT MYERS PLANT VIEW FROM CALOOSAHATCHEE RIVER



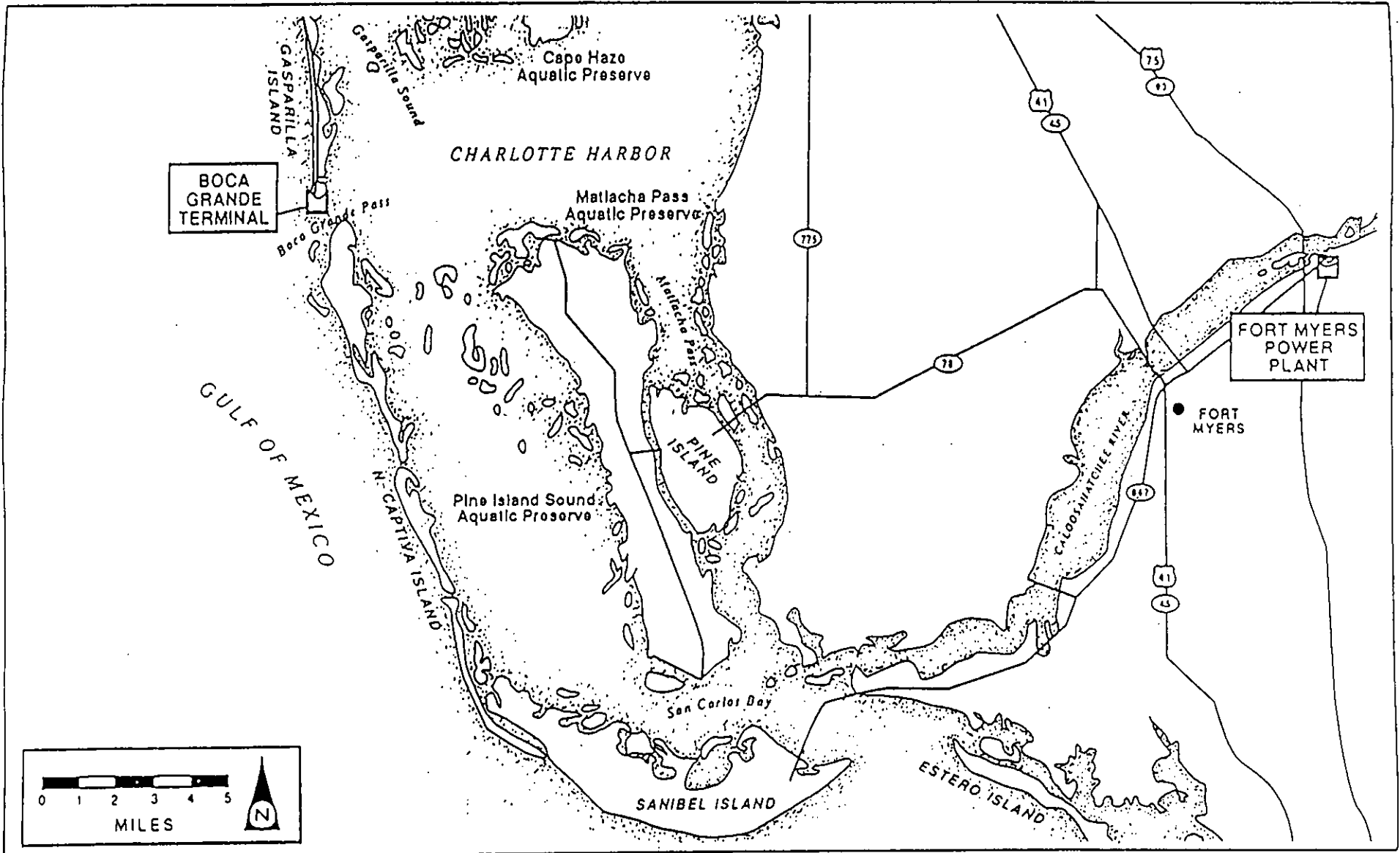
FORT MYERS PLANT VIEW FROM STATE ROAD 80



LEE COUNTY MANATEE PARK

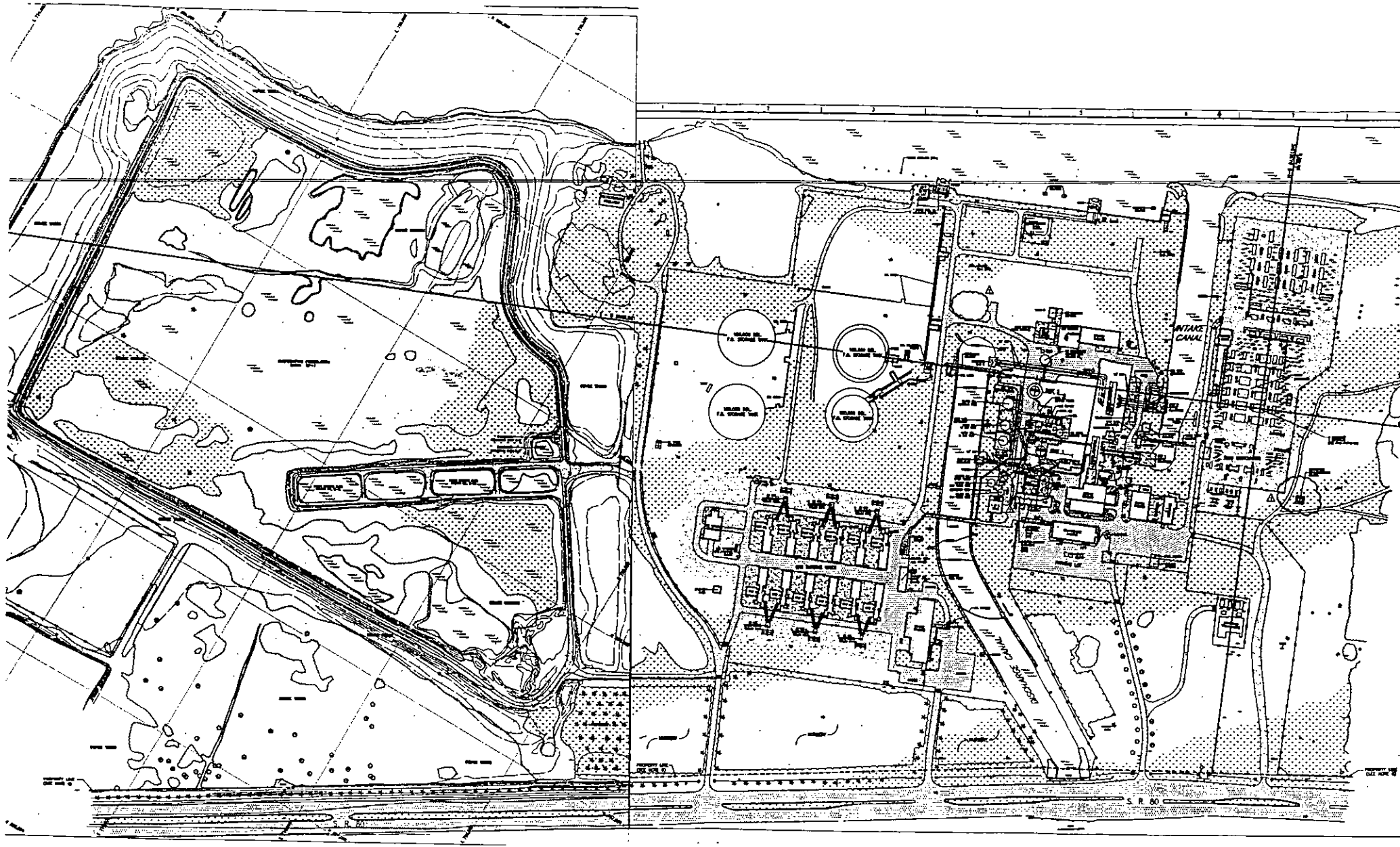


**BOCA GRANDE FUEL OIL TERMINAL    GASPARILLA ISLAND**

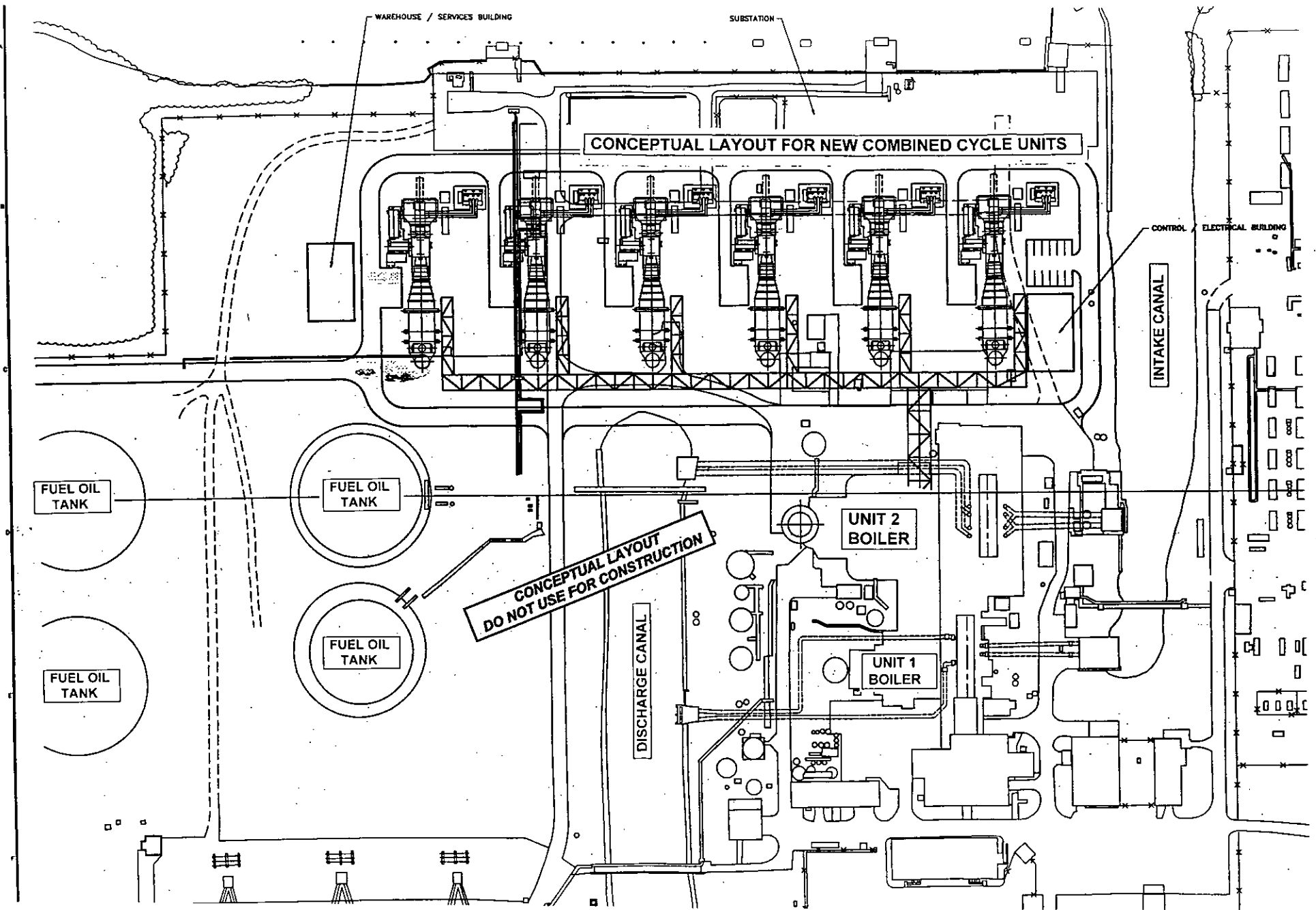


FORT MYERS PLANT IN RELATION TO  
BOCA GRAND TERMINAL



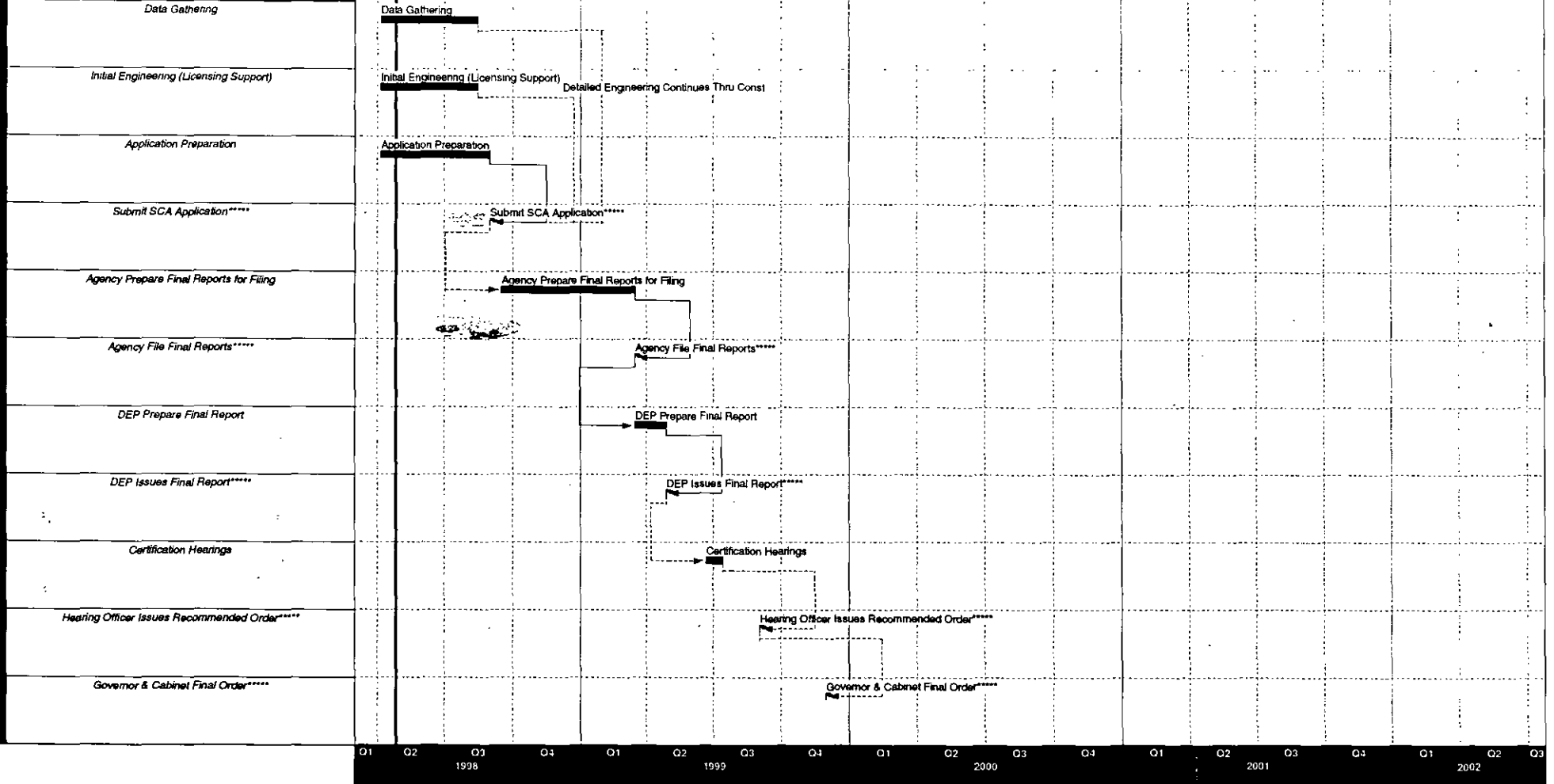


EXISTING FACILITY LAYOUT





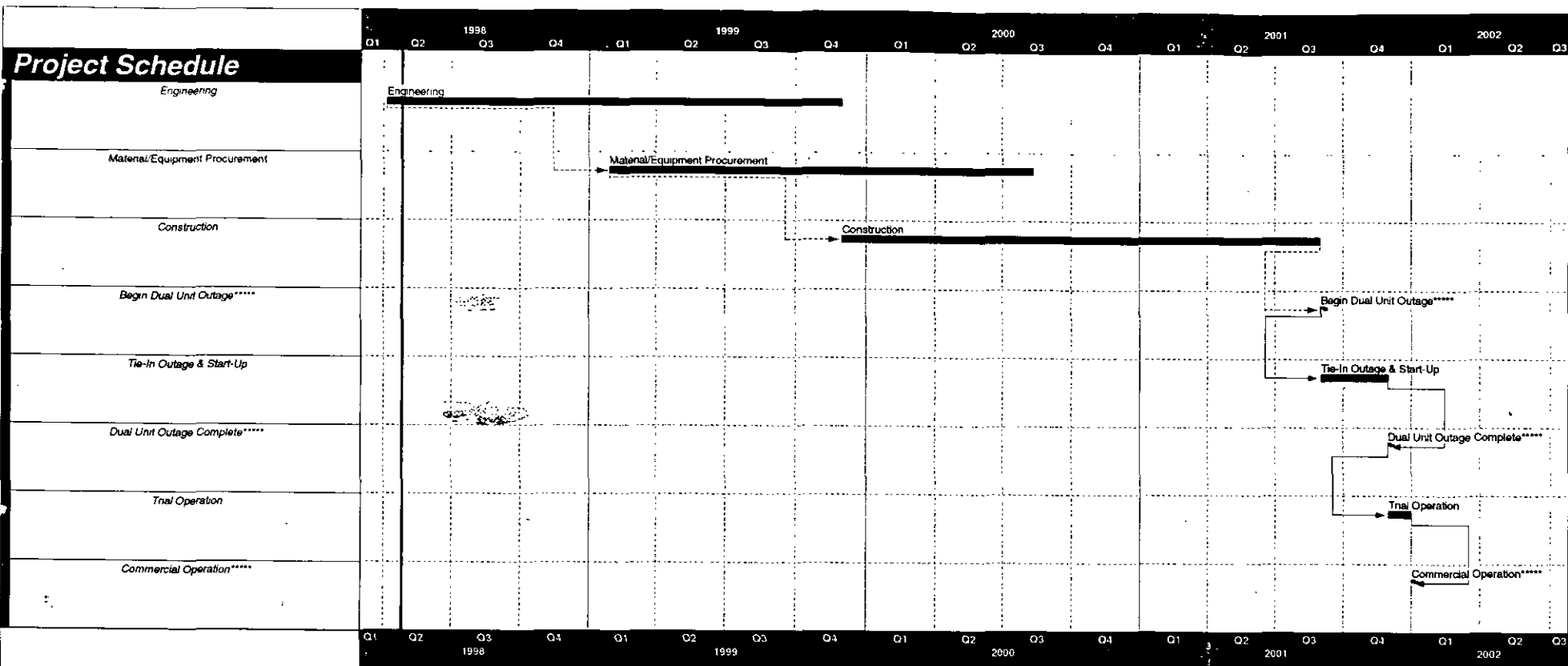
# Licensing Schedule



Start date 01JAN98  
 Finish date 31DEC01  
 Data date 27APR98  
 Run date 26APR98  
 Page number 1A  
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## Florida Power & Light Co. Ft. Myers Repowering Project

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point



Start date 01JAN98  
 Finish date 31DEC01  
 Date date 27APR98  
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 Page number 2A  
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## Florida Power & Light Co. Ft. Myers Repowering Project

- Early bar
- Progress bar
- Critical bar
- Summary bar
- Start milestone point
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Florida Power & Light Company  
700 Universe Blvd.  
Juno Beach, FL 33408  
561 691-7058 Phone  
561 691-7070 Fax  
1 800 447-2433 #5140 FPL Beeper  
rich\_piper@fpl.com

Richard G. Piper  
Senior Environmental Specialist  
Environmental Services

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Florida Power & Light Company  
700 Universe Blvd.  
Juno Beach, FL 33408  
561 691-7059 Phone  
561 691-7070 Fax  
1 800-447-2433 #8556 FPL Beeper  
florete\_braun@email.fpl.com

Florette Braun  
Senior Environmental Specialist  
Environmental Services

an FPL Group company  
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Florida Power & Light Company  
P. O. Box 14000  
Juno Beach, FL 33408-0420  
561 694-3963 Fax: 561 694-4282  
tom\_young@email.fpl.com

Tom Young  
Manager  
Power Delivery Services

an FPL Group company  
Recycled Paper



Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, FL 33408-0420  
561 691-2758 FPL Pager: 6440  
Fax: 561 691-7031  
jarkerson@fpl.com

Jim Arkerson  
Power Generation Business Unit

an FPL Group company  
Recycled Paper

PETER C. CUNNINGHAM

HOPPING GREEN SAMS & SMITH  
PROFESSIONAL ASSOCIATION  
ATTORNEYS AND COUNSELORS (850) 222-7500  
123 SOUTH CALHOUN STREET FAX (850) 224-8551  
POST OFFICE BOX 6526 DIRECT (850) 425-2305  
TALLAHASSEE, FLORIDA 32314 pcunningham@hgss.com

CAROLYN S. RAEPPEL

HOPPING GREEN SAMS & SMITH  
PROFESSIONAL ASSOCIATION  
ATTORNEYS AND COUNSELORS (850) 222-7500  
123 SOUTH CALHOUN STREET FAX (850) 224-8551  
POST OFFICE BOX 6526 FAX (850) 425-3415  
TALLAHASSEE, FLORIDA 32314 RAEPPLEC@HGSS.COM

DOUGLAS S. ROBERTS

HOPPING GREEN SAMS & SMITH  
PROFESSIONAL ASSOCIATION  
ATTORNEYS AND COUNSELORS (850) 222-7500  
123 SOUTH CALHOUN STREET FAX (850) 224-8551  
POST OFFICE BOX 6526 FAX (850) 425-3415  
TALLAHASSEE, FLORIDA 32314 robertsd@hgss.com



Florida Power & Light Company  
P. O. Box 430  
Ft. Myers, FL 33902-0430  
941 693-4200 Fax: 941 693-4333  
bill\_reichel@email.fpl.com

William M. Reichel  
Plant General Manager

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Florida Power & Light Company  
700 Universe Blvd.  
P. O. Box 14000  
Juno Beach, FL 33408  
561 691-7127 Fax: 561 691-7135  
diana\_davis@email.fpl.com

Diana Davis  
Attorney  
Law Department

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