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OF COUNSEL
W. ROBERT FOKES

May 31, 1991

RECEIVED

MAY 31 1991

Division of Air
Resources Management

BY HAND DELIVERY

Stephen Smallwood, Director
Division of Air Resource Management
Department of Environmental Regulation
2600 Blair Stone Road, Room 338
Tallahassee, FL 32399

Re: FPL Martin PSD Permit

Dear Steve:

Enclosed for your information are copies of the following:

1. Letter from EPA to DER dated April 12, 1991, indicating that EPA has no adverse comments on DER's proposed PSD permit for FPL's Martin project;

2. Letter from the National Park Service to DER dated May 3, 1991, indicating a desire for further study, at least in the future, of the air impacts of the proposed FPL Martin project; and

3. Our response on behalf of FPL, dated May 10, 1991, setting forth the Company's position.

These items characterize the problem which Peter Cunningham and I described to you yesterday. We appreciate your willingness to look into the matter. If at all possible, FPL would like to obtain the PSD permit today so as to keep the project on schedule. We do not consider that an unreasonable request, because the Governor and Cabinet certified the project on February 12, 1991, and the PSD permit should have been issued simultaneously under Section 403.509(3), Florida Statutes (1990).

Thanks for any help you can provide.

Sincerely,

Gary P. Sams

GPS/gs
Encls.

cc: Daniel H. Thompson (w/encls.)
Wayne Ondler
Bill Fries
Peter Cunningham

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OF COUNSEL
W. ROBERT FOKES

May 10, 1991

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Martin CG/CC Project, PSD FL-146, Response to National Park Service Letter on Preliminary Determination

Dear Clair:

I am writing on behalf of FPL to respond to the May 3, 1991 letter to you from Robert M. Baker, Southeast Regional Director of the National Park Service (NPS). That letter offered comments for DER's consideration on the Department's Preliminary Determination Document on FPL's Martin Coal Gasification Combined Cycle Project. For the reasons stated below, FPL believes that if the comments provided by NPS are given the consideration they warrant, the Department should issue the final determination and the air operating permit for the Project as proposed in DER's preliminary determination and as certified by the Governor and Cabinet in February, 1991.

NPS Notification

NPS has been aware of the Martin Project since August 1989. At that time, Tom Rogers of DER discussed with NPS staff the proposed air quality modeling for the Martin Project. It is our understanding that DER took the position during those discussions that an impact assessment for the Everglades National Park was not required since this Class I area is located more than 100 km from the project site; specifically, the Project Site is more than 140 km from the Everglades National Park. Based on the results of those discussions, FPL was not required to assess the impacts of the Project on the Everglades National Park.

The decision of whether a Class I area is likely to be affected by a particular air emission source is vested in the permitting agency under both the March 19, 1979 EPA memorandum and DER's PSD review rules, Rule 17-2.500, F.A.C. During FPL's discussions with both DER and EPA, it was never indicated that consideration of Project impacts to Class I areas would be required.

The air modeling requirements for the Martin Project were agreed upon between FPL and DER. The attached letter from Tom Rogers dated May 4, 1989 did not require modeling or other assessments of the air emission impacts in Class I areas as part of the modeling undertaken in preparation of the power plant site certification application for the Project, which included the PSD permit application. The attached modeling protocol, approved by DER, provided for use of the ISCST model with the source emissions inventory to include only sources within a 50 km radius of the Project Site. Upon filing of that application DER determined it was not necessary to send the application to NPS, as the Project Site is more than 100 km from the nearest Class I area. Newspaper notices of one-half page in size were published twice in three different newspapers advising the public and affected agencies of the pending application. The second of these notices included a statement that the application involved the issuance of a PSD permit.

A formal administrative hearing on the site certification hearing was held November 5-7, 1990. That hearing also served as the hearing on the PSD permit, during which the matter of air quality impacts, BACT and other issues were addressed. On February 12, 1991, the Governor and Cabinet granted final certification to the Martin Project. It is therefore perplexing that after 20 months of regulatory agency consideration of this Project's air quality impacts that NPS now seeks to reopen this issue on no more basis than a suggestion that some unspecified adverse impact might possibly occur at a distance beyond that which currently-accepted models can predict such impacts.

In addition to the State site certification proceeding, the Martin Project was the subject of a federal Environmental Impact Statement prepared by the Environmental Protection Agency. That EIS also included consideration of air emissions and impacts. The scoping hearing for that EIS was duly noticed in the Federal Register on March 19, 1990 (attached) affording NPS an opportunity to comment on the

analyses to be undertaken in preparation of the EIS. On December 28, 1990, EPA issued its notice of availability of the draft EIS (attached). The U.S. Department of Interior offered comments on the draft EIS on March 5, 1991, including comments on air quality issues and the Project's lack of impacts on the Everglades National Park (attached). It should be noted that the Secretary of Interior is defined as the "Federal Land Manager" for purposes of PSD permit reviews under Rule 17-2.100(79), F.A.C. Therefore, the Department of Interior, of which NPS is a part, has previously had numerous opportunities to review and comment at both the state and federal levels on the air quality impact analyses performed for the Martin Project.

DER's BACT Determination

In the May 3, 1991 letter, NPS recommends that the BACT determination be revised to further limit the maximum sulfur content of fuel oil to 0.2% from the maximum 0.5%, 0.3% annual average level determined by DER as BACT for fuel oil usage in the advanced combustion turbines (which are configured within a combined cycle unit). At page 67-68, DER's BACT determination concludes that limiting fuel oil sulfur content to an annual average of 0.3%, and a maximum sulfur content of 0.5% is consistent with BACT determinations for other similar combustion turbines listed in the BACT/LAER Clearinghouse. DER's BACT determination also limits annual oil use in the CTs to a maximum 2000 hours total for all 4 CTs (comprising Units 3 and 4 of the Project). The 0.5% sulfur is only a maximum sulfur content level that will accommodate the infrequent oil shipment of higher sulfur content. The average sulfur content of fuel oil will be 0.3%. Thus, for every gallon of fuel oil with a sulfur content over 0.3%, FPL will be required to consume a gallon of fuel oil with a content below 0.3% to achieve the 0.3% sulfur annual average. Total hourly use of oil will be limited to less than 6% of the total maximum hours of CT operation at a 100% capacity factor (2000 hours out of a total of 35,040 operating hours for the CTs). Since 0.3% sulfur oil is the most likely fuel oil to be used, a reduction to 0.2% sulfur oil represents only a 33.3% further reduction in sulfur dioxide emissions and not the 60% reduction NPS suggests will be achieved by going from 0.5% to 0.2%. Moreover, this BACT determination is only for Phase I of the Project. The BACT determination will be revisited prior to commencement of construction of Phases II and III of the Project, as reflected in the conditions of site certification.

Additional Impact Analysis

NPS also requests that cumulative increment and ambient impact analyses be performed for the Class I area for the Everglades. As noted above, DER concluded in May 1989 that such modeling was not required for such purposes. In reliance on that conclusion, FPL did not perform such analyses as part of the preparation of the PSD permit application for the Martin Project. In January, 1990, DER determined the application to be both complete and sufficient without such analyses. FPL is unaware of any other instance where such analyses were required of a potential emission source in Florida located at a comparable distance from a Class I area. Given the prior agreement on the required modeling protocol and the opportunities for others, including NPS, to comment on those requirements, it would be unfair for DER to require such modeling and impact analyses at this late stage in this proceeding.

In any event, FPL is unaware of any existing air quality dispersion model that could reliably assess impacts on the Everglades National Park or other Class I areas more than 50 km from a source. Please see the attached letter from Doug Fulle of Ebasco Environmental Services commenting on the reliability of existing models to assess impacts at long distances. The steady-state ISCST model, suggested by NPS, is inadequate for long range transport modeling as atmospheric stability conditions cannot be expected to persist for the 20 hours it would take the emission plume (traveling at a wind speed of 2 meters per second) to reach the National Park, which is over 140 km from the nearest Project site boundary. That model also assumes uniform atmospheric conditions in the vertical direction, which is not a reliable modeling assumption at such long distances as vertical distribution will change over time and distance. That model also does not effectively account for pollutant removal by wet or dry deposition or chemical reaction in the atmosphere. Therefore, a steady state model such as ISCST would excessively overstate even a conservative estimate of air quality impacts in the Everglades and not afford any reliable conclusion as to impacts in the Park. For these reasons, use of ISCST has been limited by regulatory agencies to modeling impacts within 50 km of a source. That has been concluded as the distance to which most Gaussian models, including ISCST, are considered accurate and reliable in predicting impacts.

The MESOPUFF II model suggested by NPS to assess long range impacts is not classified as a "regulatory preferred" model because it has not been extensively verified by tracer field studies or other accepted means of verification. While that model attempts to overcome some of the shortcomings of Gaussian plume models, it requires rigorous and nontrivial input data, including extensive gridded precipitation data and land use information, to execute the model. The extensive modeling effort required to run the MESOPUFF II model would be completely inappropriate and unduly burdensome at this late date.

Air Quality Related Values

In reviewing a preliminary determination, under Rule 17-2.500(4)(a) 2.a., F.A.C., NPS, as the Federal Land Manager, may "demonstrate to the Department that the emissions from the proposed facility...would have an adverse impact on the air quality-related values (including visibility) of the Federal Class I area, notwithstanding that the change in air quality resulting from emissions from such facility...would not cause or contribute to concentrations which would exceed any allowable increase for a Class I area." The NPS has not made any showing or demonstration in its comment letter that emissions from the Martin Project will have an "adverse impact on air quality-related values" in the Everglades National Park. The NPS suggests that such adverse impacts might occur even where emissions do not exceed National Ambient Air Quality Standards. However, such a suggestion does not constitute the demonstration by NPS of an actual adverse impact as required by DER's rules. The burden rests on the NPS in this instance to demonstrate affirmatively that such adverse impacts will occur. NPS has failed to make that showing. DER therefore may not condition or decline to issue the permit based on the NPS comment letter.

Conclusion

NPS has had several prior opportunities to comment on the air quality impact analyses for the Martin Project. Extensive public and administrative notice of this Project has been given at both the State and federal level, affording NPS numerous and ample opportunities to become further informed and involved in this Project's PSD permitting. It has been six months since the certification hearing at which these issues were addressed as required and three months since the Siting Board's final action approving the Project. Now is not the time to attempt to reopen this

matter to address issues that should have been addressed, if at all, many months ago. Further, the NPS has failed to demonstrate in its May 3, 1991 letter that the Project's emissions will adversely impact the air quality in the Everglades National Park. Therefore, FPL trusts that DER will issue the final air permit for the Project, as proposed in the preliminary determination.

Sincerely,

Peter C. Cunningham

PCC/gs
Attachments

cc: Barry D. Andrews (w/attachments)
Tom Rogers (w/attachments)
Robert Baker (w/attachments)

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

May 4, 1989

Mr. Wayne Ondler
Florida Power & Light
P.O. Box 078768
West Palm Beach, Florida 33407-0768

Dear Mr. Ondler:

Subject: MARTIN CGCC PROJECT -- AIR QUALITY PROTOCOL
FPL Ref. No. FPL-JEN-DER-170-89-18

I have reviewed your air quality modeling protocol for the proposed Martin CGCC project (April 20, 1989 correspondence). My comments are as follows.

General Modeling Procedures: The approach outlined is acceptable. In general, all modeling submitted must follow the procedures in the EPA's Guideline On Air Quality Models (Revised), July 1986, with Supplement A.

Proposed Dispersion Model: The ISCST model is acceptable.

Proposed Dispersion Model Options: The options listed are acceptable.

Meteorological Data: The West Palm Beach data for the years 1982 to 1986 are acceptable. These data should be compared to the wind data being collected on-site.

Source Emissions Inventory: In a separate correspondence to Mr. Doug Fulle, I am forwarding a listing of air pollution sources within 50 kilometers of the Martin facility location. These data should be verified by inspecting the current operating permits on file at the Department's district office in West Palm Beach.

Receptor Locations: The receptor locations appear adequate. A map or drawing of the plant property line and the location of the receptors should be included.

Proposed Source Significant Impact Area Analysis: The technique used to define this area is acceptable.

PSD Increment Consumption Analysis: The methodology outlined is acceptable. A listing of major sources in the counties surrounding the proposed Martin facility which have undergone PSD review is being sent to Mr. Doug Fulle. These sources may consume some PSD increment in the proposed source area.

Ambient Air Quality Standards Impact Analysis: The methodology outlined is acceptable.

Additional Impacts Analysis: The methodology outlined is acceptable.

A copy of the modeling output must be submitted along with the air quality analysis. If you have any questions, please write or call me at (904) 488-1344.

Sincerely,

Thomas Rogers
Meteorologist,
Division of Air Resources
Management

TR/tr

cc: Buck Oven
Doug Fulle

FPL

P. O. Box 078700, West Palm Beach, FL 33407-0700

April 20, 1989

FPL-JEN-DER-170-89-18

Hamilton S. Oven
Administrator of Power Plant Siting
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Dear Mr. Oven:

Subject: MARTIN CGCC PROJECT
AIR QUALITY MODELING PROTOCOL

In accordance with our SCA Plan of Study for the subject project, we have prepared a PSD Dispersion Modeling Protocol (attached) for your review and approval. As we plan to begin certain modeling analyses by June 2, 1989, we would appreciate receiving any comments you have by May 15, 1989.

Should you have any questions, please contact Doug Pulle (404)662-2377 or Dan Adams (404)662-2371 of Envirosphere Company in Atlanta.

Very truly yours,

Wayne Ondler
Environmental Project
Coordinator

Attachment

PSD MODELING PROTOCOL
FPL MARTIN CG/CC PROJECT

I. PSD Permit Applicant Contact Person:

Mr. Wayne Ondler
Florida Power and Light Company
P.O. Box 14000
Juno Beach, Florida 33408-0420

II. Proposed Source Location:

The Martin Site is located in the western portion of Martin County, Florida, approximately 161 km. north of Miami, 64 km. northwest of West Palm Beach, 13 km. northwest of Indiantown, and 8 km. east of Lake Okeechobee. The site is also located north of state highway 76, east of U.S. Highway 98/441 and southwest of county highway 710. The proposed source is located at west longitude 80° 33' 53" and north latitude 27° 3' 26" (UTM coordinates E 543.20 km, N 2992.65 km).

III. Project Description:

The FPL generation expansion plans for the Martin Site call for the construction of four - 400 MW coal gasification combined cycle (CG/CC) units and a coal gasification facility. The CG/CC units will be primarily fired with natural gas with No. 2 fuel oil as a backup during periods of natural gas supply interruption. The coal gasification facility will be phased in later on, to serve as the source of fuel for the CG/CC units.

IV. Site Characteristics:

Topography - The site is generally typified by low elevations and broad areas of flat relief. Characteristic features include wide, gently sloping plains, shallow water-filled depressions, and moderately elevated sandy ridges. The Martin Site lies on the sandy soils of the Okeechobee Plain. The Martin Site property is generally flat with only minor relief. Elevations vary from approximately 20 feet above mean sea level over the western portion of the site to about 30 feet above mean sea level near the northeast boundary. This trend of increased elevation continues to the crest of the Orlando Ridge, which lies immediately east of the site. A topographic base map will be provided to show the change in topography over the area.

Land Use - In 1980, the area within an 8 km. radius of the Martin Power Plant was about 32 percent improved pasture, 16 percent citrus land, 7 percent planted-in-truck crops, 1 percent urban, and 22 percent vacant land, with the remainder being used for Units 1 and 2 and the associated cooling pond. With the exception of 1900 acres west of Indiantown that are zoned for industrial purposes, the majority of the area within the 8 km. radius is zoned agricultural district. The 1900-acre industrial

tract is the only major industrial district in unincorporated Martin County, and currently contains three industries. For purposes of dispersion modeling, the site exhibits rural characteristics.

Climatology - The nearest weather observation stations to the Martin Site are Belle Glade (temperature and precipitation), Okeechobee (temperature and precipitation), Port Mayaca (precipitation) and West Palm Beach (first order surface and upper-air reporting station). The Martin Site is located 43 km. north of Belle Glade, 32 km. southeast of Okeechobee, 7 km. east-northeast of Port Mayaca, and 64 km. northwest of West Palm Beach.

The average annual ambient temperature of about 73°F at the Martin Site reflects the subtropical climate of the area. Respective midday and nighttime relative humidities show little variation throughout the year, with a daytime reading close to 60 percent and an annual predawn maximum of 80 percent. The least humid month of the year is April, while the highest humidity occurs during mid-summer. Heavy fogs occur approximately 10 days per year, mostly in the cooler months; however, this condition rarely persists long after sunrise on any given day.

A significant precipitation maximum occurs at the site in the summer due to heavy, short duration convective showers and thundershowers. Sixty percent of the total annual average rainfall occurs from June through September. Thunderstorms occur with great frequency in the area and can be locally intense. They cause high winds, heavy rain, occasional hail and frequent lightning. The site experiences 80 to 90 thunderstorms per year, 65 percent of which occur in the summer season.

The prevailing winds at the Martin Site are from the east to east-southeast throughout most of the year. In the summer, the afternoon winds become more erratic as convective forces dominate the wind patterns, and a high percentage of mid-afternoon winds originate from Lake Okeechobee. Such a lake breeze is most evident on clear days when strong land warming occurs. Long-term on-site wind data are not available, but are currently being monitored in the Prevention of Significant Deterioration (PSD) air quality/meteorology monitoring program. The expected differences between the wind patterns for the site and for West Palm Beach are mainly in the addition of westerly winds from Lake Okeechobee in the warm season, and therefore, not quite as high a percentage of easterly winds as displayed by the West Palm Beach data.

Mesoscale influences of Lake Okeechobee can add to the convective instability at the Martin Site in the summer. Over the lake, sinking air suppresses the convective action of the lowest layers, creating a higher air density. The diverging lowest layer of lake air induces the warmer air over the land to be lifted as it moves ashore, and cumulus cloud formation begins. The local effects from the lake increase the rainfall of the region. The lake breeze from Lake Okeechobee may extend for 15 miles inland on a calm, hot day.

V. Source Impact Analysis:

Proposed Site Air Quality Status: Martin County is an attainment area for particulate matter, sulfur dioxide (SO_2), ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), and lead (Pb). The PSD regulations apply to the proposed generation expansion project due to the attainment status for the Martin Site. Note that Palm Beach County is the only non-attainment area (ozone) in the vicinity of the Martin Site.

General Modeling Approach - The air quality impact assessment will consist of a proposed source significant impact area analysis, a PSD increment consumption analysis, an ambient air quality standards impact analysis, and an additional impacts analysis. These analyses are discussed in greater detail below. The modeling approach will follow EPA and Florida DER modeling guidelines for determining compliance with applicable PSD increments and ambient air quality standards.

Based on current EPA and Florida DER policies, the highest annual average and highest, second-highest short-term (i.e., 24 hours or less) predicted (critical) concentrations will be selected for comparison to applicable standards. The use of a five-year meteorological data base in the modeling analysis, as proposed below, allows a comparison of the predicted highest, second-highest short-term concentration to applicable short-term PSD increments and ambient air quality standards. The highest, second-highest concentration is calculated for a receptor field by:

- o Eliminating the highest concentration predicted at each receptor,
- o Identifying the second-highest concentration predicted at each receptor, and
- o Selecting the highest concentration among those second-highest concentrations.

This approach is consistent with the air quality standards and PSD increments which permit one short-term average exceedance per year at each receptor.

The general modeling approach for each air quality impact analysis will consist of a screening phase and a refined phase. The major difference between the two phases is the receptor grid used when predicting concentrations and the number of meteorological data periods evaluated. In general, concentrations for the screening phase will be predicted using a coarse mesh receptor grid and a five-year meteorological data base. The screening phase will identify the critical receptors associated with highest and highest, second-highest short-term concentrations for all applicable pollutants and averaging periods which will be evaluated further in greater detail in the refined phase of the analysis.

The refined phase of the analysis will be performed by predicting concentrations using a fine mesh receptor grid centered over each of the critical receptors identified in the screening phase of the modeling

analysis. The refined phase will use only the full years of meteorological data containing the meteorological conditions which caused the critical concentrations identified for analysis in the screening phase. This approach will be used to ensure that valid highest, second-highest (critical) short-term concentrations will be obtained for comparison to applicable air quality standards.

Proposed Dispersion Model - The Martin Power Plant site has been determined to be a rural area based upon the technique for urban/rural determinations documented in the EPA "Guideline on Air Quality Models" which applies land use criteria. Based upon this determination, the refined ISCST dispersion model (UNAMAP 6 or most recent version available) will be selected for application in the air quality impact analysis used to support the PSD permit application. The ISCST model is a referenced EPA dispersion model recommended for use in rural areas, and for application to point, area, and volume sources. The ISCST model can predict the maximum as well as the highest, second-highest concentration and period of occurrence for 1-hour, 3-hour, 8-hour, 24-hour, and annual averaging periods at each receptor for each full year of hourly meteorological data used.

Proposed Dispersion Model Options - Refer to Attachment 1 for a listing of the program control parameter data to be used in the ISCST modeling analysis. We plan to run the ISCST model without terrain adjustment data because the area in which the site is located has very little relief (e.g., a net change in ground level elevation of 10 feet). Sulfur dioxide emissions will be modeled and air quality impacts for other pollutants will be scaled with reference to SO_2 emissions on a stack-specific basis. The ISCST model will be run in a source contribution mode to allow for a determination of source-specific impacts at a critical receptor. The number of sources and source groups will not be known until we receive the requested source emissions inventory from the Florida DER.

Meteorological Data - The air quality modeling analysis will use hourly preprocessed National Weather Service (NWS) surface meteorological data and concurrent twice-daily upper air soundings from West Palm Beach, Florida for the years 1982-1986. The hourly surface data and upper air soundings will be preprocessed using the RAMMET meteorological data preprocessor computer program as required by EPA to develop an hourly sequential meteorological data file for each year of record used as input to the ISCST model. The preprocessed hourly meteorological data file for each year of record used in the analysis will contain randomized wind direction, wind speed, ambient temperature, atmospheric stability using the Turner (1970) stability classification scheme, and mixing heights. The anemometer height of 6.7 meters, to be used in the modeling analysis, was obtained from NWS Local Climatological Data summaries for West Palm Beach.

Source Emissions Inventory - Depending upon which air pollutants are expected to be emitted in major or significant quantities, the following pollutants will be considered in the air quality impact analysis: criteria air pollutants (e.g., SO_2, particulate matter, NO_x, CO, VOC (reactive hydrocarbons), lead); and non-criteria air pollutants (e.g., asbestos, beryllium, mercury, fluorides, vinyl chloride, sulfuric acid mist, hydrogen sulfide, total reduced sulfur, reduced sulfur compounds, and any other trace fuel (air toxic) components).

The proposed source will be modeled at 50%, 75%, and 100% of design load using the ISCST (polar grid) model to determine the worst-case load which will subsequently be modeled in the refined analysis. The proposed source's emission rates will be representative of Best Available Control Technology (BACT) application. Separate polar grid dispersion modeling analyses will be performed for natural gas, No. 2 fuel oil, and coal gas firing to determine the worst-case proposed source emissions scenario to be addressed in the refined modeling analysis. Other PSD sources, those stationary sources which began construction after January 6, 1975 and stationary sources constructed after December 27, 1977 (baseline date), will be modeled at the maximum allowable (permitted) emissions level to determine PSD increment consumption. We will assume that allowable emissions may be used to represent actual emissions for purposes of determining PSD increment consumption.

The proposed source will be modeled using a good engineering practice (GEP) stack height. The dimensions for all nearby structures will be obtained and used to calculate the GEP stack height credit for the proposed source to be applied in the modeling analysis. In the event it is decided to build stacks less than the GEP stack height, a building downwash dispersion modeling analysis will be performed using the building downwash algorithm in the most recent version of the ISCST model.

The ISCST model will be used to model the particulate matter impacts due to fugitive dust emissions from the Martin Site coal storage piles used to store coal for use in the coal gasification facility. We will use EPA's compilation of air pollutant emission factors for wind erosion of open aggregate storage piles (AP-42, Supplement B, Section 11.2.7, September 1988). We will assume that the unit train unloading facility and conveyor system will be enclosed and the transfer point particulate emissions vented through bag houses or other control devices and BACT implemented to preclude these sources from the fugitive dust impact analysis.

We plan to obtain an emissions inventory from Florida DER which includes other PSD sources and existing sources located in Martin, Palm Beach, Hendry, Glades, Highlands, Okeechobee and St. Lucie Counties (within a 50 km radius area around the Martin Site). This emissions inventory will consist of sources emitting greater than 10 tons/year of any of the air pollutants listed above. These sources will be modeled assuming maximum allowable (permitted) emissions rates. These emissions data will be representative of the most recent year available.

Receptor Locations - The significant impact area analysis will use a polar receptor grid centered over the proposed source. The polar receptor grid will consist of 36 radials, each separated by 10 degree increments and extending out from the fenced plant boundary line in all 36 directions. The length of the radials will depend upon the distance at which the proposed source impacts reach the significant impact levels as defined for each applicable pollutant in the PSD regulations.

The screening phase for the air quality impact analysis will use a coarse mesh cartesian receptor grid (0.50 km grid resolution) centered over the proposed source. This receptor grid will be composed of about 625 discrete receptors, or more, depending on the extent of the proposed source's significant impact area and the degree of source interaction. The receptor grid will begin coverage at the fenced plant boundary line and extend outward in all directions. The receptor grid will provide sufficient receptor coverage to determine the locations of all critical receptors to be evaluated in the refined phase of the analysis.

The refined phase of the air quality impact analysis will use a fine mesh cartesian receptor grid (0.10 km grid resolution) composed of 121 discrete receptors within a 1.0 km square grid centered over each critical receptor identified in the screening phase analysis.

Proposed Source Significant Impact Area Analysis - The proposed source will be modeled using the emissions data discussed above. The significant impact area will be defined on a pollutant-specific basis for all applicable averaging periods according to the significant impact levels defined in the PSD regulations. The greatest significant impact area resulting from an analysis of all applicable averaging periods for a given pollutant will be the significant impact area for that pollutant. The significant impact area will be used to determine the source interaction zone for the screening phase of the air quality impact analysis.

PSD Increment Consumption Analysis - The area around the Martin Power Plant site is a Class II PSD area. The nearest designated Class I PSD area is the Everglades National Park which is located about 135 km. south of the Martin Site. The PSD increment consumption analysis will consist of modeling the PSD source emissions inventory for SO_2, particulate matter, and NO_2 and comparing the highest, second-highest short-term average and highest annual average impacts to the appropriate Class II PSD increments listed in Attachment 2. The proposed source will be modeled using maximum design capacity hourly emissions data for SO_2, particulate matter and NO_2 to determine if there is a significant impact on the Everglades National Park Class I PSD area. Given that the Martin Site is located greater than 100 km. from the Everglades National Park, we would expect no significant impact on that Class I PSD area due to the proposed source.

Ambient Air Quality Standards Impact Analysis - The seven county area around the Martin Site is attainment for SO_2, particulate matter, CO, NO_2, and lead. Ozone is the only exception, in which case Palm Beach County is

a non-attainment area. The ambient air quality standards impact analysis will consist of modeling all PSD and existing sources identified on the emissions inventory for each criteria air pollutant and applicable averaging time. The highest, second-highest short-term and highest annual average impacts will be combined with appropriate background concentrations for each applicable air pollutant and averaging time and compared to the appropriate state and federal ambient air quality standards listed in Attachment 2 to determine whether the ambient air quality standards are violated. The background concentrations for each applicable air pollutant will be determined using the procedures documented in the U.S. EPA Guideline on Air Quality Models (Revised) at Section 9.2. The background concentrations will be based on on-site and/or representative Florida DER ambient air quality monitoring data.

Additional Impacts Analysis - Additional impacts analysis will be performed for those criteria and non-criteria air pollutants emitted or increased in significant quantities to determine air pollution impacts on soils, vegetation and visibility caused by emissions from the proposed source and emissions resulting from associated growth. Specifically, a growth projection analysis including population growth projection and industrial growth projection data will be performed. A survey of soils and vegetation types in the area will be conducted to determine vegetation with any commercial value and identify sensitive species. Finally, a visibility impairments analysis will be performed by applying a level 1 visibility screening analysis as described in EPA's "Workbook for Estimating Visibility Impairment." Visibility impacts will be assessed within the Everglades National Park Class I PSD area and within the significant impact area for the proposed source.

VI. References:

Florida Department of Environmental Regulation. Air Pollution Control Regulations, Chapter 17-2. December 5, 1988.

Turner, D.B. 1970. Workbook of Atmospheric Dispersion Estimates. U.S. Environmental Protection Agency. AP-26.

U.S. Environmental Protection Agency. Prevention of Significant Deterioration of Air Quality Regulations (40 CFR 52.21). Federal Register, Volume 45, page 52676. August 7, 1980.

U.S. Environmental Protection Agency. Prevention of Significant Deterioration Workshop Manual. October, 1980.

U.S. Environmental Protection Agency. Guideline on Air Quality Models (Revised). EPA - 450/2-78-027R. Office of Air Quality Planning and Standards. Research Triangle Park, N.C. July 1987.

U.S. Environmental Protection Agency. Industrial Source Complex (ISC) Dispersion Model User's Guide, Second Edition (Revised), Volume I. EPA-450/4-88-002a. Office of Air Quality Planning and Standards, Research Triangle Park, NC. December, 1987.

U.S. Environmental Protection Agency. Workbook for Estimating Visibility Impairment (Draft). July 1980.

U.S. Environmental Protection Agency. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources. AP-42, Supplement B. September 1988.

Attachment 1: FPL Martin ISCST Model Program Control Parameter Data

Calculate (concentration = 1, deposition = 2)		ISW(1)	=	1
Receptor grid system (cartesian = 1 or 3, polar = 2 or 4)	*	ISW(2)	=	1,4
Discrete receptor system (cartesian = 1, polar = 2)		ISW(3)	=	1
Terrain elevations are read (yes = 1, no = 0)	*	ISW(4)	=	0
Calculations are written to tape (yes = 1, no = 0)		ISW(5)	=	0
List all input data (no = 0, yes = 1, met data also = 2)		ISW(6)	=	1,2
Complete average concentration (or total deposition) with the following time periods:				
Hourly (yes = 1, no = 0)		ISW(7)	=	1
2-hour (yes = 1, no = 0)		ISW(8)	=	0
3-hour (yes = 1, no = 0)		ISW(9)	=	1
4-hour (yes = 1, no = 0)		ISW(10)	=	0
6-hour (yes = 1, no = 0)		ISW(11)	=	0
8-hour (yes = 1, no = 0)		ISW(12)	=	1
12-hour (yes = 1, no = 0)		ISW(13)	=	0
24-hour (yes = 1, no = 0)		ISW(14)	=	1
Print "N" - day tables (yes = 1, no = 0)		ISW(15)	=	1
Print the following types of tables whose time periods are specified by ISW(7) through ISW (14):				
Daily tables (yes = 1, no = 0)		ISW(16)	=	0
Highest and second-highest tables (yes = 1, no = 0)		ISW(17)	=	1
Maximum 50 tables (yes = 1, no = 0)		ISW(18)	=	1
Meteorological data input method (preprocessed = 1, card = 2)		ISW(19)	=	1
Rural-urban option (ru. = 0, ur. mode 1 = 1, ur. mode 2 = 2, ur. mode 3 = 3)		ISW(20)	=	0
Wind profile exponent values (defaults = 1, user enters = 2,3)		ISW(21)	=	1
Vertical pot. temp. gradient values (defaults = 1, user enters = 2,3)		ISW(22)	=	1
Scale emission rates for all sources (no = 0, yes > 0)		ISW(23)	=	0
Program calculates final plume rise only (yes = 1, no = 2)		ISW(24)	=	1
Program adjusts all stack heights for downwash (yes = 2, no = 1)		ISW(25)	=	2
Program uses buoyancy induced dispersion (yes = 1, no = 2)		ISW(26)	=	1

0060

Attachment 1: FPL Martin ISCST Model Program Control Parameter Data (continued)

Concentrations during calm periods set = 0 (yes = 1, no = 2)		ISW(27) = 1
Regulatory default option chosen (yes = 1, no = 2)		ISW(28) = 1
Type of pollutant to be modeled (1 = SO_2, 2 = other)	*	ISW(29) = 1
Debug option chosen (yes = 1, no = 2)		ISW(30) = 1
Above ground (flagpole) receptors used (yes = 1, no = 0)		ISW(31) = 0
Number of input sources	*	NSOURC = ?
Number of source groups (=0, all sources)	*	NGROUP = ?
Time period interval to be printed (=0, all intervals)		IPER = 0
Number of X (range) grid values	*	NXPNTS = 25
Number of Y (theta) grid values	*	NYPNTS = 25
Number of discrete receptors		NDWYPT = 625
Source emission rate units conversion factor		TK = 1 X 10^6
Height above ground at which wind speed was measured	*	ZR = 6.7 meters
Logical unit number of meteorological data		IMET = 9
Decay coefficient for physical or chemical depletion		DECAY = 0.0
Surface met. station number		ISS = 12844
Year of surface met. data		ISY = 1982-1986
Upper air met. station number		IUS = 12844
Year of upper air met. data		IUY = 1982-1986

* - See modeling protocol text for details

Attachment 2: PSD Increments and Ambient Air Quality Standards

Pollutant	Averaging Time	Federal NAAQS ($\mu g/m^3$)	Florida AAQS ($\mu g/m^3$)	Class I PSD Increment ($\mu g/m^3$)	Class II PSD Increment ($\mu g/m^3$)
Particulate Matter[1]	24-hour	150	150	10	37
	Annual	50	50	5	19
SO_2	3-hour	1300[2]	1300[2]	25	512
	24-hour	365	260	5	91
	Annual	80	60	2	20
NO_2	Annual	100	100	2.5	25
CO	1-hour	40,000	40,000	-	-
	8-hour	10,000	10,000	-	-
Ozone	1-hour	235	235	-	-
Lead	Quarterly	1.5	1.5	-	-

[1] Ambient air quality standards are based on PM_{10} and PSD increments are based on total suspended particulates until such a time as EPA promulgates PM_{10} PSD increments.

[2] The 3-hour average SO_2 ambient air quality standard is a secondary (welfare-related) standard. All of the other Federal and Florida ambient air quality standards are primary (health-related) standards.

ENVIRONMENTAL PROTECTION AGENCY

[ER-FRL-3748-4]

Martin County Expansion Project, Florida Power & Light Company (FP&L); Notice of Intent To Prepare an Environmental Impact Statement

AGENCY: U.S. Environmental Protection Agency (EPA).

ACTION: Notice of Intent to prepare an Environmental Impact Statement (EIS) in conjunction with the State of Florida Department of Environmental Regulation (FDER) to identify potential environmental impacts involving expansion of FP&L's existing Martin County Electric Generating Plant.

PURPOSE: Pursuant to 40 CFR 1501.7 and in accordance with section 511(c) of the Clean Water Act (CWA) and section 102(2)(c) of the National Environmental Policy Act (NEPA), EPA has identified a need to prepare an EIS and therefore issues this Notice of Intent. Notice of the NPDES new source determination was published in the Federal Register on December 28, 1989 (NPDES Permit No. FL0030988).

FOR FURTHER INFORMATION AND TO BE PLACED ON THE PROJECT MAILING LIST, CONTACT: Heinz J. Mueller, Chief, Environmental Policy Section, Federal Activities Branch, FAB-5, U.S. EPA Region IV, 345 Courtland Street, NE, Atlanta, Georgia 30365. Telephone: 404/347-3776 or FTS 257-3776.

NEED FOR ACTION: FP&L is proposing to construct and operate four combined cycle generating modules of about 400 megawatts (MW) of generating capacity each as part of an expansion at FP&L's existing plant site in Martin County, Florida, where two 800 MW generating units are already in operation. Approximately 1,100 MW of the new generation will be achieved through combustion turbines (CTs) which will be capable of burning coal gas, natural gas, oil or some combination of those fuels. The otherwise wasted heat from the CTs also will be captured and directed through heat recovery steam generators (HRSGs) to generate an additional 500 MW. The expansion project will allow for construction of coal gasification plants which could be constructed at the same time as the CTs and HRSGs or later, depending on technological constraints and economic requirements. Both the HRSGs and the coal gasification units will utilize the existing onsite cooling pond as the source and discharge point for cooling water.

ALTERNATIVES: The EIS will examine the feasible alternatives to the project, including the No Federal Action alternative.

SCOPING: Participation in the EIS process is invited from individuals, organizations, and government agencies. Preliminary project scoping is underway. The EPA will hold a public scoping meeting at 7 p.m. on Tuesday, May 1, 1990 at Indiantown Middle School, Indiantown, Florida. A general description of the project and its goals will be presented. Comments and questions are encouraged and relevant issues identified in the scoping process will be addressed in the EIS. Issues to be addressed include ambient air quality, groundwater use, construction waste disposal, noise, surface water quality and hydrology, aquatic and terrestrial ecology, land use impacts, socioeconomic and cultural resources.

ESTIMATED DATE OF DEIS RELEASE: December, 1990.

RESPONSIBLE OFFICIAL: Greer C. Tidwell, Regional Administrator.

Dated: March 14, 1990.

Richard E. Sanderson,

Director, Office of Federal Activities.

[FR Doc. 90-6205 Filed 3-16-90; 8:45 am]

BILLING CODE 6560-M

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
SCOPING MEETING
MAY 1, 1990, 7 pm

MARTIN COUNTY EXPANSION PROJECT
ENVIRONMENTAL IMPACT STATEMENT
FLORIDA POWER AND LIGHT

I. INTRODUCTION

Heinz J. Mueller, Chief
Environmental Policy Section
U.S. Environmental Protection Agency
Region IV, Atlanta, Georgia

II. EIS PROCESS AND DRAFT OUTLINE

Marion D. Hopkins
Project Monitor
Environmental Policy Section
U.S. Environmental Protection Agency

III. FPL MARTIN COUNTY EXPANSION PROJECT

Florida Power and Light Company

IV. PUBLIC COMMENTS

V. CLOSING REMARKS

Heinz J. Mueller, Chief
Environmental Policy Section
U.S. Environmental Protection Agency
Region IV, Atlanta, Georgia

Please send questions, comments, and requests for information to:

U.S. Environmental Protection Agency
OPM/FAB-5/Environmental Policy Section
345 Courtland Street, NE
Atlanta, Georgia 30365

ATTN: Marion Hopkins

Or call: 404/347-3776

OUTLINE

DRAFT EIS

EXECUTIVE SUMMARY

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- A. US EPA'S AND FDER'S RESPONSIBILITY FOR THE SAR/EIS
- B. OTHER FEDERAL REQUIREMENTS
- C. COORDINATION BETWEEN US EPA AND FDER
- D. BACKGROUND OF THE PROJECT
- E. NEED FOR THE PROJECT
- F. ISSUES TO BE ADDRESSED IN THE SAR/EIS

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  - 2. OIL AND NATURAL GAS
  - 3. OTHER ALTERNATIVES
- E. SITE ALTERNATIVES
- F. ALTERNATIVE PLANT SYSTEMS
  - 1. COOLING SYSTEMS
  - 2. WASTEWATER TREATMENT ALTERNATIVES
  - 3. AIR POLLUTION CONTROL SCHEMES
  - 4. SOLID WASTE DISPOSAL SCHEMES
- G. MANAGEMENT ALTERNATIVES
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- D. GEOLOGICAL RESOURCES
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- G. CULTURAL RESOURCES
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D. GROUNDWATER IMPACTS
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H. IMPACTS ON CULTURAL RESOURCES
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   1. POPULATION IMPACTS
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CHAPTER 8. LIST OF PREPARERS

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APPENDIX C. SECTION 10/404 PERMIT (US COE)
APPENDIX D. FDER CONDITIONS OF CERTIFICATION

PUBLIC NOTICE

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, NE
ATLANTA, GEORGIA 30365

December 28, 1990

TO: ALL INTERESTED AGENCIES, PUBLIC GROUPS AND CITIZENS

Availability of the Draft Environmental Impact Statement (DEIS) entitled "Florida Power & Light Company, Martin Coal Gasification/ Combined Cycle Project" is being noticed in the Federal Register on January 4, 1991, by the U.S. Environmental Protection Agency (EPA). Pursuant to the National Environmental Policy Act, this DEIS is made available for public comment during a 45-day review period.

Florida Power & Light Company (FPL) proposes additional electric generation facilities at their existing Martin County site and has requested that EPA modify the existing National Pollutant Discharge Elimination System (NPDES) permit. Project alternatives proposed by FPL are acceptable to EPA with mitigation. EPA's preferred permit action is to issue a modified NPDES permit with conditions.

In order to solicit further public participation on the proposed project, a Public Hearing is scheduled for February 7, 1991, and will begin at 7:00 p.m. at the Seminole Country Inn, 15885 Warfield Boulevard, Indiantown, Florida 34956. Both oral and written comments will be accepted, and a transcript of the proceedings will be made. For accuracy of the record, written comments are encouraged. The Hearing Chairman reserves the right to fix reasonable limits on the time allowed for oral statements.

Persons who do not provide comments at the Public Hearing, or Public Hearing attendees who wish to make additional comments, may respond in writing on or before the close of the public comment period on February 19, 1991 to:

Heinz J. Mueller, Chief
Environmental Policy Section
Federal Activities Branch
U.S. Environmental Protection Agency
Region IV
345 Courtland Street, NE
Atlanta, GA 30365

404/347-3776
FAX 404/347-5056

Facsimile transmittals are acceptable if followed by a hard copy postmarked within the comment period.

(MORE ON BACK)

A Final EIS (FEIS) will be published after the close of the public comment period. The FEIS will be comprised of the following: a revised DEIS, EPA's decision on the preferred alternative, responses to comments received on the DEIS, the transcript of the Public Hearing (or a summary thereof), and any other relevant information or evaluations developed after publication of the DEIS.

Copies of the DEIS are available for review at the following locations:

Florida Power and Light Company
851 Johnson Avenue
Stuart, Florida 34994

Martin County Library
701 East Ocean Boulevard
Stuart, Florida 34994

Indiantown Middle School
Media Center
16303 SW Farm Road
Indiantown, Florida 34956

Indiantown Telephone Company
15925 SW Warfield Blvd.
Indiantown, Florida 34956

A limited number of copies are available upon request from EPA at the afore-mentioned address.

Detailed information supporting the assessments and conclusions of the DEIS is contained in a Technical Reference Document (TRD) which is the second volume of the DEIS. The TRD contains numerous appendices, including a copy of the Draft NPDES permit and fact sheet (Appendix B).

rec'd via fax 3 May 1991, FRI 14:22

United States Department of the Interior

NATIONAL PARK SERVICE
SOUTHEAST REGIONAL OFFICE
75 Spring Street, S.W.
Atlanta, Georgia 30303

IN REPLY REFER TO:

N3615 (SER-ODN)

RECEIVED
MAY 03 1991
MAY 8 1991
Division of Air Resources Management

Mr. C.H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

We have reviewed your Technical Evaluation and Preliminary Determination Document (TEPDD) regarding Florida Power and Light Company's (FPL) proposed Martin Coal Gasification-Combined Cycle project at its Martin Power Plant site in Martin County, Florida. The Martin facility is located approximately 141 km north of Everglades National Park (EVER), a class I air quality area administered by the National Park Service. Our comments on the best available control technology (BACT), air quality, and air quality related values (AQRVs) analyses with respect to the proposed project's potential impacts on EVER are discussed in detail in the enclosed technical review document, and summarized below. We ask that you consider these comments before making a final determination regarding the proposed project.

With respect to your BACT analysis, we do not agree that the proposed 0.5 percent maximum sulfur content oil is consistent with what has been established as BACT on a national basis nor for recent permitting of gas turbines in Florida. Just recently, the Florida Department of Environmental Regulation (FDER) determined that BACT for a combustion turbine proposed by the City of Lakeland is burning a fuel oil with a maximum sulfur content of 0.20 percent. Also, we have reviewed other combustion turbine projects that were permitted to burn No. 2 fuel oil with a maximum sulfur content of 0.20 percent. Therefore, we recommend that the FDER lower the maximum sulfur content for the FPL turbines from 0.5 percent to 0.20 percent.

Regarding the air quality modeling analysis, FPL only modeled out to a distance of 50 km from the Martin facility. Consequently, they did not address air quality impacts at EVER (141 km away). Because impacts were not predicted for EVER, we do not know if the proposed emissions, in combination with all other increment-consuming sources, would cause class I increment exceedances at the park. We also do not know what the total ambient pollutant concentrations would be at the

park. The results of our modeling analyses show that the impacts of the FPL emissions alone could be substantial (i.e., up to 66 percent of the class I, 3-hour sulfur dioxide increment).

Contrary to statements in your TEPDD, for regulatory applications with potential impacts on class I areas, use of dispersion models is not necessarily limited to 50 km. Using a 50 km cutoff for modeling class I impacts would be inconsistent with EPA's modeling guidelines. Therefore, we have determined that the FPL air quality analysis is deficient because it does not address class I increment or total ambient impacts at EVER.

If you lower the maximum sulfur content of the oil to 0.20 percent as we recommend, we would feel more confident that the proposed emissions would not cause increment exceedances at the park. However, because the increment status at EVER would still be uncertain even under the lower emissions scenario, we recommend that the FDER include a condition in the FPL permit that makes it clear that class I impacts must be adequately assessed before construction of Phases II and III may commence.

If FPL is not willing to lower the maximum sulfur content of the fuel oil, they should model their emissions, plus all other increment-consuming emissions, to determine whether the emissions from the proposed Martin project would cause or contribute to class I increment exceedances at EVER. The incremental impacts, when added to the impacts from all other background sources, should then be used to evaluate the effects on the sensitive air quality related values in EVER.

Regarding potential impacts on AQRVs at EVER, the FDER concludes that since the proposed project would not cause any exceedances of the secondary National Ambient Air Quality Standards (NAAQS), which were designed to protect vegetation from the adverse impacts of air pollutants, there would not be any effect on vegetation. We wish to clarify that there are documented effects below the NAAQS, and that compliance with the NAAQS does not ensure that there will be no negative impacts. There may be instances, and ongoing studies are confirming this, where adverse effects to AQRVs can occur at levels below the NAAQS.

It is important to note that AQRVs are affected not only by the incremental impacts of a proposed source, but by the total pollutant concentrations that they will experience. Therefore, to perform a proper AQRVs analysis, permit applicants should perform a cumulative air quality modeling analysis of all sources in the area, which incorporates any measured ambient levels. As mentioned above, FPL prepared no such analysis.

Finally, we would like to point out that we received notification of the Martin project on April 11, 1991. Perhaps one reason that we did not receive prior notice of the FPL project is the project's distance to EVER. Generally, Federal Land Manager (FLM) notification of projects impacting class I areas is provided if such project is located within 100 km of the area. However, guidance provided by EPA regarding FLM notification also recognizes the possible impacts of sources located more than 100 km from a class I area. In a March 19, 1979, policy memorandum, EPA states:

> ".....notice should be provided (to the FLM) for any facility which will be located within 100 km of a Class I area. Very large sources, however, may be expected to affect air quality related values at distances greater than 100 kilometers. The appropriate Federal Land Manager should be notified if such impacts are expected on a case-by-case basis".

There is no specific guidance on what constitutes a "very large" source, but we would consider the 30,000 tons per year of sulfur dioxide emissions proposed for the FPL project to be such a source. In the future, we ask that you contact us to determine if we would be interested in reviewing a project located greater than 100 km from a class I area. In addition, it follows from the notification guidance that if EPA intended the FLM to be notified of certain projects located more than 100 km from a class I area, it also intended the potential impacts of these sources on the class I area to be assessed, i.e., modeled.

We will await your response regarding our comments on this matter. In the meantime, please direct any questions to John Bunyak of our Air Quality Division in Denver at (303) 969-2071.

Sincerely,

for Robert M. Baker
Regional Director
Southeast Region

Enclosure
cc: B. Andrews
S. Rogers

Review of Technical Evaluation and
Preliminary Determination Document for
Florida Power and Light Company's
Martin Coal Gasification/Combined Cycle Project

by

Policy, Planning, and Permit Review Branch
Air Quality Division, National Park Service

INTRODUCTION

Florida Power and Light Company (FPL) is proposing a generation expansion project at its Martin Power Plant site in Martin County, Florida. The expansion project is called the Martin Coal Gasification/Combined Cycle (CG/CC) project, and consists of four, 400 MW CG/CC units. Each combined cycle unit will consist of two combustion turbines and two heat recovery steam generators. The Martin facility is located 13 km northwest of Indiantown, and 141 km north of Everglades National Park (EVER), a class I air quality area administered by the National Park Service.

The Martin CG/CC project will be built in three phases. Phase I will consist of the addition of two new combined cycle units (Units 3 and 4), to be fired primarily by natural gas, with No. 2 distillate fuel oil as a backup fuel. Phase II will consist of the addition of the other two combined cycle units (Units 5 and 6). In Phase III, coal gasification facilities will be added, which will include four units to serve as the source of fuel for the four combined cycle units installed in Phases I and II.

The proposed project also consists of two auxiliary steam boilers (60,000 lb/hr each) for start-up and two, 750 KW diesel generators for emergency electricity. In addition, at the site there are two existing 863 MW No. 6 fuel oil/natural gas fired boilers.

The significant emission increases that would result from the Martin CG/CC project are estimated as follows:

Pollutant	Emissions Increase (tons/year)
Sulfur Dioxide (SO_2)	30,065
Nitrogen Oxides (NO_x)	15,172
Carbon Monoxide (CO)	4,785
Sulfuric Acid Mist (H_2SO_4)	3,677
Particulate Matter (PM)	2,264
PM_{10}	2,264
Volatile Organic Compounds (VOC)	774
Lead (Pb)	11.5
Mercury (Hg)	0.98
Inorganic Arsenic (As)	0.62
Beryllium (Be)	0.02

Following are our comments on the best available control technology analysis, the air quality analysis, and the proposed project's potential impacts on the air quality related values at EVER.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) ANALYSIS

To minimize emissions of all the pollutants listed above (except NO_x) from the proposed turbines, FPL proposes to utilize proper combustion techniques and to fire the turbines with clean fuels (initially, natural gas and low sulfur oil). We agree that these measures constitute BACT for these pollutants. However, we do not agree that the proposed 0.5 percent maximum sulfur content No. 2 fuel oil (average of 0.3 percent sulfur) is the "best" fuel oil that is available. In addition, we do not agree with the statement in the Florida Department of Environmental Regulation's (FDER) BACT discussion that this sulfur content is consistent with what has been established as BACT on a national basis and for recent permitting of gas turbines in Florida. Just recently, the FDER determined that BACT for a combustion turbine proposed by the City of Lakeland is burning a fuel oil with a maximum sulfur content of 0.20 percent. Also, we have reviewed other combustion turbine projects that were permitted to burn No. 2 fuel oil with a maximum sulfur content of 0.20 percent. In fact, New Jersey has recently issued combustion turbine permits that specified kerosene with a maximum sulfur content of 0.04 percent as the turbine backup fuel. Because the proposed FPL turbines would be permitted to fire fuel oil only up to 500 hours per year per turbine, the added costs associated with burning a lower sulfur content oil should not be prohibitive. Therefore, given the potential SO_2 class I increment problems discussed below (see Air Quality Analysis section), the potential impacts on sensitive air quality related resources at the park (see Air Quality Related Values Analysis section), and the fact that lower sulfur content oils are being required for other gas turbine projects, we recommend that the FDER lower the maximum sulfur content for the FPL turbines from 0.5 percent to 0.20 percent.

For control of NO_x emissions, FPL proposes to use a dry low NO_x combustor turbine design. The resulting NO_x rate proposed for the turbines is 25 parts per million (ppm) for gas firing, 42 ppm for coal derived gas firing, and 65 ppm for oil firing. Florida Power and Light and the FDER also considered Selective Catalytic Reduction (SCR) as an alternative NO_x control system. For natural gas firing, the SCR technology could reduce NO_x emissions from the proposed turbines to less than 9 ppm, but at a substantial cost. The FDER calculated a cost effectiveness of $7,590 per ton of NO_x removed to reduce the turbine NO_x emissions from the proposed 25 ppm level to 9 ppm. Based on this cost effectiveness value, the FDER determined that the use of SCR technology is not justified at this time. However, for coal derived gas firing, which is proposed for Phase III, the cost effectiveness of using SCR to reduce NO_x

emissions from 42 ppm to 9 ppm is only $3,506 per ton, which appears reasonable. Consequently, we are pleased that the FDER will require an in-depth cost analysis for SCR when FPL elects to proceed with the permitting for Phase III of the project.

If the proposed "low NO_x combustor" design, rather than a "standard" combustor design (42 ppm NO_x for gas firing), is used as the base case in the BACT determination, we agree that SCR technology is not cost effective on a dollars per ton basis. We also agree that with the 500 hours per year per turbine fuel oil limitation, SCR is not cost effective for the FPL turbines. However, although SCR will not be required at this time, we also believe that this technology should be given serious consideration for the coal derived gas option, and for future permit applications for combined-cycle gas turbine projects as well.

It is interesting to note that if the cost effectiveness calculation for SCR is made assuming a standard combustor turbine design, the use of SCR could be considered reasonable. For example, as mentioned above, using the SCR costs provided by FPL, the cost effectiveness to reduce NO_x emissions from 42 ppm to 9 ppm with SCR would only be $3,506/ton. In essence, by choosing an "intermediate" NO_x control strategy, and using this strategy as the base case, FPL is not being required to use SCR when firing natural gas. However, it is also evident that the BACT process is driving emissions downward, and that applicants are looking for ways to inherently lower emissions, rather than opting for add-on flue gas cleaning technologies. Assuming this process continues, and inherently lower emitting systems are developed, such an approach may be preferred from a total environmental standpoint.

AIR QUALITY ANALYSIS

Florida Power and Light used EPA's Industrial Source Complex Short Term (ISCST) model to predict air quality impacts of the proposed project. The analysis examined five years of West Palm Beach, Florida, National Weather Service (NWS) data from 1982-1986. Florida Power and Light only modeled out to a distance of 50 km from the Martin facility. Consequently, they did not address air quality impacts at EVER (141 km away). The results of FPL's analysis show that the proposed emissions would not cause or contribute to violations of the class II PSD increments or the National Ambient Air Quality Standards. However, because impacts were not predicted for EVER, we do not know if the proposed emissions, in combination with all other increment-consuming sources, would cause class I increment exceedances at the park. We also do not know what the total ambient pollutant concentrations would be at the park.

On page 54 of the FDER's Technical Evaluation and Preliminary Determination Document, it states:

> "Although the proposed source has a significant impact for SO_2 at a distance greater than 50 km from its site, the model is limited to use within a 50 km distance for regulatory applications. However, given the predicted impacts at 50 km for each of these pollutants, and the long distance to the Everglades, it is unlikely that the proposed source would significantly impact the Class I Area."

We disagree with both of these statements. First, for regulatory applications with potential impacts on a class I area, use of the ISCST model is not necessarily limited to 50 km. Using a 50 km cutoff for modeling class I impacts would be inconsistent with EPA's modeling guidelines.

While it is true that EPA has provided guidance on the use of dispersion models and generally limits the application of air quality models to a downwind distance of no more than 50 km, it should be noted that an exception was made to these guidelines for cases when a class I area might be impacted. Referring to the 50 km limitation, EPA states, "... since the 1977 Amendments provide special concern for class I areas, any reasonably expected impacts for these areas must be considered irrespective of the 50 kilometer limitation or the above significance levels." (See June 19, 1978, Federal Register, p. 26398).

In addition, Section 7.2.6 of EPA's "Guideline on Air Quality Models", revised July 1986, states in part:

> "Section 165(e) of the Clean Air Act requires that suspected significant impacts on PSD Class I areas be determined. However, the useful distance to which most Gaussian models are considered accurate for setting emission limits is 50 km. Since in many cases Class I areas may be threatened at distances greater than 50 km from new sources, some procedure is needed to (1) determine if a significant impact will occur, and (2) identify the model to be used in setting an emission limit if the Class I increments are threatened (models for this purpose should be approved for use on a case-by-case basis as required in Section 3.2). This procedure and the models selected for use should be determined in consultation with the EPA Regional Office and the appropriate Federal Land Manager (FLM)."

Second, we do not agree with the statement that it is unlikely that the proposed emissions would significantly impact EVER. In order

to assess the class I SO_2 and NO_2 increment consumption at EVER as a result of the proposed FPL emissions, we performed a dispersion modeling analysis using the ISCST model and 1986 West Palm Beach, Florida, surface and upper air NWS meteorological data. For our short-term analyses (3-hour, 24-hour averaging times), we modeled the proposed emissions from the eight turbines assuming fuel oil firing (0.5 percent sulfur content). The tail gas incinerators associated with Phase III, the emergency backup diesel generators, and the start-up steam boilers were **not** modeled. This source configuration provides a realistic evaluation of actual conditions since the emergency generator and start up boilers will not normally operate simultaneously with the gas turbines, and the turbines will not fire oil when the coal derived gas is being produced (i.e., when the tail gas incinerators are in operation).

The emissions used in this analysis were those found in Table 3, "Maximum Pollutant Emissions for the Proposed Project", on page 51 of the FDER's air quality analysis. The stack parameters applied were those also provided by the FDER (Table 2, page 50). The ISCST model was run using polar coordinates and receptors at the northern boundaries of EVER. The directions and distances from the Martin facility used in the analysis are as follows: 170 degrees - 205 km; 180 degrees - 141 km; 190 degrees - 164 km; 200 degrees - 152 km; 210 degrees - 157 km. Based on the results of our analysis, using the one year of 1986 meteorological data, a total of 76 days at these 5 receptors will experience a 24-hour concentration of greater than 1 ug/m^3, which is the level that is often incorrectly cited as the class I significant impact level. The highest concentration modeled was 3.06 ug/m^3 at 200 degrees - 152 km, on day 235. The maximum class I 3-hour and annual SO_2 concentrations predicted were 16.47 ug/m^3 and 0.14 ug/m^3, respectively. The annual NO_2 Class I increment impact was 0.082 ug/m^3. The SO_2 3-hour and 24-hour predicted concentrations are 66 percent and 61 percent of the total allowable class I increments, respectively. Modeling of only the four turbines proposed for Phase I indicates 3-hour and 24-hour average impacts of 8.25 ug/m^3 and 1.53 ug/m^3, which are still 33 percent and 31 percent of the allowable class I increments, respectively.

We realize that use of the ISCST model at a distance of 141 km may be stretching the validity of this model. However, use of this model to calculate a 24-hour average concentration may be considered conservative because of plume integrity at this distance. Plume integrity for 3 hours cannot be considered an issue. Review of the highest 24-hour period (day 235 at 200 degrees) indicates that for 5 hours, the atmospheric stability and wind speed were nighttime E and F stability and 2 to 4.6 m/sec wind speed. Stable conditions with moderate wind speeds are conducive to a plume remaining intact over flat terrain, and therefore, long range transport is probable. If they so choose, FPL can address

long range impacts for Phase I of the project, as well as for Phases II and III, with the EPA Appendix 'B' model MESOPUFF II. We are available to discuss the use of this model.

It is important to note that our analysis only included emissions from the proposed FPL turbines. No other increment-consuming sources were included in our analysis. If such sources were modeled, it is possible that the proposed emissions could cause or contribute to class I increment exceedances (especially for the SO_2, 3-hour and 24-hour averaging times) at EVER.

As mentioned above, our short-term analyses included SO_2 emissions based on firing the proposed 0.5 percent maximum sulfur content fuel oil. Because the predicted SO_2 concentrations are directly proportional to the SO_2 emissions, which are, in turn, directly proportional to the sulfur content of the fuel, the predicted ambient concentrations could be lowered by lowering the sulfur content of the oil. For example, if the maximum sulfur content of the backup fuel oil was lowered from 0.5 percent to 0.20 percent, as recommended above (see BACT section), the estimated SO_2 emissions would be reduced by 60 percent, resulting in a 60 percent reduction in predicted SO_2 concentrations at EVER.

If such reductions occurred, we would feel more confident that the proposed emissions would not cause increment exceedances at the park. However, because the increment status at EVER would still be uncertain even under the lower emissions scenario, we recommend that the FDER include a condition in the FPL permit that makes it clear that class I impacts must be adequately assessed before construction of Phases II and III may commence.

In addition to not predicting increment impacts at EVER, FPL also failed to estimate the total ambient concentration levels at the park. To assess potential impacts on sensitive air quality related values, it is important for us to know the <u>total</u> ambient concentrations (increment plus background) at the class I area. A cumulative analysis should include all permitted and existing sources within 50 km of the facility's impact area that could potentially impact the class I area (this is especially important for annual effect determinations).

In conclusion, we have determined that the FPL air quality analysis is deficient because it does not address class I increment or total ambient impacts at EVER. Unless FPL is willing to lower the maximum sulfur content of the fuel oil to 0.20 percent, they should model their emissions, plus all other increment consuming emissions, to determine whether the emissions from the proposed Martin CG/CC project would cause or contribute to class I increment exceedances at EVER. Such an analysis should use all five years of meteorological data. The incremental impacts, when added to the

impacts from all other background sources of SO_2, NO_2, and ozone should then be used to evaluate the effects on the sensitive air quality related values in EVER (see Air Quality Related Values Analysis below).

AIR QUALITY RELATED VALUES (AQRVs) ANALYSIS

Terrestrial and Aquatic Effects

The FDER's Technical Evaluation and Preliminary Determination Document (page 56) states that since the proposed project would not cause any exceedances of the secondary National Ambient Air Quality Standards (NAAQS), which were designed to protect vegetation from the adverse impacts of air pollutants, there would not be any effect on vegetation. We wish to clarify that there are documented effects below the NAAQS, and that compliance with the NAAQS does not ensure that there will be no negative impacts. The secondary NAAQS are based primarily on effects on cash crops, such as wheat and tobacco, and may not reflect a level of protection for all AQRVs such as native vegetation found in class I areas. In addition, the secondary NAAQS are national levels set to protect against effects due to multiple and diverse sources and may not provide adequate protection for sensitive species found in only one area of the country, nor do they address synergistic effects of multiple pollutants. Therefore, there may be instances, and ongoing studies are confirming this, where adverse effects to AQRVs can occur at levels below the NAAQS.

The location of EVER at the southern tip of the Florida peninsula allows for a unique ecosystem whose native communities reflect both temperate and subtropical influences. Much of south Florida's vegetation is shaped by two competing forces: 1) recurring winter freezes that limit the northward expansion of subtropical species, and 2) in mild years, the lack of cold weather that many temperate species require to break dormancy. Studies have shown that fertilization can decrease the frost hardiness of certain plant species. We are concerned that the nitrates resulting from emissions would favor more frost tolerant species, thereby causing major shifts in community composition and structure. For example, South Florida slash pine (Pinus elliotti var. densa) is a major constituent of the upland park community, and is the predominant canopy tree species. The slash pines in the park grow on a limestone-derived soil, and they are most likely nitrogen limited. Fertilization by anthropogenic nitrogen could cause the pines to continue growing into the winter, increasing the likelihood of frost damage. Over time, the slash pines could be replaced by a tree species that is less responsive to fertilization.

We are also concerned about the roles that NO_x and VOC emissions play as ozone precursors. Fumigation studies conducted in chambers have shown that slash pine seedlings are particularly sensitive to ozone injury. The seedlings showed reductions in root growth even before visible foliar injury was observed. We have not yet duplicated the experiment in the field to determine if current ozone levels in EVER induce the same degree of growth reductions as were observed in the chambers.

Lichens and bryophytes are common in the park, and due to their unique morphology, are particularly sensitive to air pollutants such as SO_2. The nitrates in acid rain may also be harmful to bryophytes, particularly to tank bryophytes which accumulate rainwater in a cup-shaped basin formed by overlapping leaves. Two species of epiphytes found in the park, Tillandsia flexuosa, a bromeliad, and Epidendrum nocturnum, an orchid, are considered threatened under the Preservation of Native Flora of Florida Act. The sensitivity of these two threatened species to air pollutants is not known at this time.

Nitrogen oxide and SO_2 emissions may lead to the acidification of the huge wetland system that comprises much of the park. Acidification leads to changes in the flora and fauna of an aquatic ecosystem. The abundance and biomass of benthic invertebrates decreases and the community composition changes as the pH of the water drops. The loss of prey can result in a decline in fish populations. Additionally, many amphibian and fish species are unable to reproduce at low pH levels. This has a profound effect on consumers higher up the food chain. The federally endangered Everglade kite, peregrine falcon, southern bald eagle, brown pelican, and American crocodile found in EVER all depend, to a lesser or greater extent, on an abundant supply of fish and amphibians for food.

Finally, we are concerned about the high levels of mercury that have been found in the federally endangered Florida panther and other animals in the park. It is not known at this time what the source of the mercury is, but we encourage the FDER to limit mercury emissions in the vicinity of the park until the source can be identified and remedial action taken.

Visibility Impacts

Florida Power and Light did perform a visibility analysis using the VISCREEN model for a Level 1 screening analysis. Based on this analysis, the FDER concluded that no impact on visibility is expected at EVER as a result of the proposed facility. However, the FDER did not include any of the data used in the analysis, such as background ozone concentrations or visual range.

As we have indicated in past reviews, the broad conclusion that no visibility impacts are expected based on a VISCREEN analysis cannot be justified based on the type of model that was used. VISCREEN is a plume visual impact screening model intended for use in evaluating the potential for visibility impairment due to plume impacts. In this case, the modeling results only allow a conclusion that there is low potential for visibility impairment due to plumes in the class I area as a result of emissions from the proposed project. VISCREEN cannot determine a source's potential to contribute to regional haze, which is the most insidious visibility problem in EVER and the surrounding region. Visibility in the southern and eastern U. S. has degraded steadily since the early 1950s, with the most dramatic changes occurring in the summer months. On an annual average basis, sulfates are responsible for nearly 40 percent of the mass budget and over 50 percent of the light extinction budget in the park; nitrates contribute about 15 percent to light extinction; and organics account for between 15 percent to 25 percent of the light extinction, depending on assumptions about the hygroscopic characteristics of these compounds. There is some seasonal variability of visibility-reducing aerosols, but sulfates predominate as the most important contributor to visibility reduction in every season, with contributions ranging from 42 percent in the summer to as high as 64 percent in the spring. Nitrates and organics continue to be next in importance. Monitoring and recently developed models may provide a means of assessing the contribution of individual sources to this problem.

We encourage the FDER to take all steps possible to reach national and State visibility goals by limiting pollutants, such as SO_2, NO_x, and PM, that contribute to visibility degradation not only in EVER, but in the whole region.

CONCLUSIONS AND RECOMMENDATIONS

1. Given the potential SO_2 class I increment problems and the potential impacts on sensitive air quality related resources at EVER, and the fact that lower sulfur content oils are being required for other gas turbine projects, we recommend that the FDER lower the maximum sulfur content for the FPL turbines from 0.5 percent to 0.20 percent.

2. We recommend that the FDER seriously consider Selective Catalytic Reduction to control turbine NO_x emissions for the coal derived gas option, and for future permit applications for combined-cycle gas turbine projects as well.

3. Considering the potential class I increment violations and impacts to visibility and other air quality related values at EVER, if the FDER does not lower the FPL fuel oil limitation

to 0.20 percent, FPL should perform cumulative increment and ambient impact analyses for EVER.

4. The FDER should include a permit condition in the FPL permit that makes it clear that class I impacts must be adequately assessed before construction of Phases II and III may commence.

5. The State of Florida should take all steps possible to reach national and State visibility goals by limiting pollutants, such as SO_2, NO_2, and PM, that contribute to visibility degradation not only in EVER, but in the whole region.

6. In order for us to be able to adequately assess potential impacts on sensitive air quality related values, future class I impact analyses should include estimates of the <u>total</u> ambient concentrations (increment plus background) at the class I area.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____

To: _____ Location: _____

To: _____ Location: _____

From: _____ Date: _____

Interoffice Memorandum

TO: Barry Andrews & Tom Rogers

FROM: Stephanie Brooks & Tom Tittle

DATE: April 26, 1991

RE: FP & L Technical Evaluation & Preliminary Determination PSD-FL-146

Comments as follows:

1. Page 61

   ... For VOC emissions neither BACT nor LAER review is required since the area is attainment for ozone.

   PSD/NSR & BACT for VOC

   not LAER or NSR/NAA

2. Special Condition #4 (and Page 73)

   a) Please explain calculation of combined total. After review of the emissions numbers it appears that a 91% availability factor was used.

   b) Why at 40°F?

   c) Wouldn't "(except as allowed under Rule 17-2, FAC, for malfunctions, startup and shutdown) be better? The way the condition reads now there is no emission limit during startup and shutdown; so the excess emission rule would not apply (nothing to be in excess of) during startup and shutdown.

   d) Are annual limits EPA enforceable now?

   e) Would operation with oil for the allowed 2,000 hours, with coal gasification for the remainder, result in more TPY than shown in the table? Would this be allowed?

3. Specific Condition #1

   If the heat input limitations are changed, shouldn't BACT or PSD be reviewed?

4. Specific Condition #3

   Define "light" distillate oil

5. Specific Condition #7

   "And boilers and diesel generator shall operate only during startup and shutdown, periodic maintenance testing and for emergency power generator, respectively"

   Are both the boilers and generators subject to testing? Respectively is for one or the other and there are three separate instances in this specific condition.

   Is the sulfur content on an annual <u>average</u> basis?

6. Specific Condition #10

   How will the compliance engineers determine that each turbine will operate within 10% of the maximum heat rate input?

   Is particulate testing required on both fuels initially and then annually on oil?

   Is sulfuric acid testing required on initial testing only?

7. Specific Condition #11

   Shouldn't the Specific Condition say ASTM D 2880-71 or <u>equivalent method</u> (like Specific Condition 10.h.)?

8. Specific Condition 13 c.

   What about process equipment outages and malfunctions.

9. Specific Condition [illegible]

   The requirement for quarterly CEM summaries should be addressed here.

10. Specific Condition #19

What equipment requires literature and are they allowed to use equipment for which there is no literature?

11. Specific Condition #24

The emission limit is not enforceable as written. The insertion of "deemed to comply with this limit if operations at the facility comply with operation limits and if these sources are..." after the words "sources shall be" (in the last sentence) would be more appropriate.

12. Specific Condition #25

Wouldn't an EPA Method 22 limit be better?

13. Specific Condition #26

Two typos -

"All" and ... "but not limited to"

14. Add Specific Condition #29

Any regulation subsequently adopted by the Department which is applicable to existing facilities and also applicable to this facility, shall apply to the extent that these requirements are new or more stringent than the regulations which formed the basis for this permit.

701 U.S. Hwy. 1, Suite 200, North Palm Beach, FL 33408

FPL

April 17, 1991

FPL-JEN-FDER-170-91-29

Mr. Barry D. Andrews
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Re: **Review of FDER's Technical Evaluation and Preliminary PSD Determination for FPL Martin Expansion Project**

Dear Mr. Andrews:

Following are FPL comments on the Department's Technical Evaluation and Preliminary PSD Determination which FDER transmitted to EPA on April 5, 1991.

1. The projected emissions of beryllium (Be) in Table 8 on page 60 should be .018 (or .02, if rounded) tons per year in the "Maximum Total" column rather than .01.

2. The difference in Be emissions noted above, seem to have carried through to the impact tables. We believe that the maximum predicted concentration for Be for the 24- hour averaging time should be .00004 ug/m^3 in Table 4 on page 53, rather than .00002 ug/m^3. Similarly, we believe the maximum predicted impact concentrations for Be in Table 8 on page 57 should be .00006, .00004, and .000008 mg/m^3 for the 8-hour, 24-hour and annual averaging periods, respectively.

3. The last sentence in the second paragraph on page 65 should include arsenic.

4. The fourth paragraph on page 68 should be modified to read: "The applicant has stated that BACT for nitrogen oxides will be met by using dry low-No_x combustors, supplemented as necessary with wet (water or steam) injection, to limit emissions to 65 ppmvd at 15% oxygen when burning No. 2 fuel oil, 42 ppmvd at 15% oxygen when burning coal derived gas, and 25 ppmvd at 15% oxygen for natural gas firing."

5. We respectfully disagree with the suggestion at page 70, first complete paragraph, of the Preliminary Determination that SCR might constitute BACT for NO_x when firing coal-derived gas. However, we also recognize that this suggestion is not a final determination and accordingly reserve the right to address the question fully upon proceeding with coal-derived gas fuel phases.

FPL is hopeful that the Martin Expansion Project PSD permit issuance can be given priority since a Preliminary Determination on the project was noticed in October 1990, which included a 30-day comment period at that time.

It is FPL's understanding that EPA concurs with the Department's Preliminary Determination of October, 1990, as evidenced in the Draft Environmental Impact Statement where EPA supports use of "hybrid-low NO_x" combustors for NO_x emission control. Furthermore, EPA has indicated that the FEIS will indicate dry-low NO_x combustors and those emission controls established in the state record and FDER Conditions of Certification.

Your assistance in expediting the issuance of the PSD permit is necessary at this time since EPA wants to include the PSD permit in the FEIS which is scheduled for printing on April 26, 1991.

Sincerely,

Wayne Ondler

Wayne C. Ondler
Principal Specialist
Environmental Affairs Department

cc: Gary Sams
D. Rogers

WCO/kc

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

4APT-AEB

APR 12 1991 RECEIVED

APR 15 1991

DER - BAQM

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: FPL Martin Coal Gasification/Combined Cycle Project (PSD-FL-146)

Dear Mr. Fancy:

This is to acknowledge receipt of your preliminary determination and draft Prevention of Significant Deterioration (PSD) permit for the above referenced facility by letter dated April 5, 1991. We have reviewed the package as requested and have no adverse comments.

Thank you for the opportunity to review and comment on this package and for the effort that you and your staff have put forth in resolving the issues related to the permitting of this source. If you have any questions or comments, please contact Mr. Gregg Worley of my staff at (404) 347-2904.

Sincerely yours,

Douglas Neeley

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: J. Rogers
J. Goldman
C. Shaver, NPS
D. Andrade