Bryan S. Anderson, Esq.
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408-0420
(561) 304-5253
(561) 691-7135 (Facsimile)

April 30, 2008

VIA HAND DELIVERY
Ms. Ann Cole, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Docket No. 080245-EI
In re: Florida Power & Light Company's Petition to Determine Need for Conversion of Riviera Plant

Docket No. 080246-EI
In re: Florida Power & Light Company's Petition to Determine Need for Conversion of Cape Canaveral Plant

Dear Ms. Cole:

Enclosed for filing on behalf of Florida Power & Light Company ("FPL") are the original and fifteen (15) copies of (i) FPL's Petition to Determine Need for Conversion of Riviera Plant; (ii) FPL's Petition to Determine Need for Conversion of Cape Canaveral Plant; and (iii) testimony and exhibits of Kennard F. Kosky, Dr. Rosemary Morley, Rene Silva, Dr. Steven R. Sim, Heather C. Stubblefield, Alan S. Taylor, and Cindy Tindell, which support both petitions.

Also enclosed for filing is FPL's Motion to Consolidate the above dockets with Docket No. 080203-EI, *In re: Florida Power & Light Company's Petition to Determine Need for West County Energy Center Unit 3 Electrical Power Plant.*

Included in this submittal is a computer diskette containing both of FPL's Petitions, as well as FPL's motion to consolidate, in Word format. Please contact me if you or your Staff has any questions regarding this filing.

Sincerely,

Bryan S. Anderson
Authorized House Counsel No. 219511

CMP
COM 5
CTR 1
ECR
GCL 1
OPC 1
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BSA:ec
Enclosures

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

DIRECT TESTIMONY OF KENNARD F. KOSKY

DOCKET NO. 08_____-EI

APRIL 30, 2008

Q. Please state your name and business address.

A. My name is Kennard F. Kosky and my business address is 6241 NW 23rd Street, Suite 500, Gainesville, Florida 32653.

Q. By whom are you employed and what is your position?

A. I am employed by Golder Associates Inc., an engineering consulting firm specializing in ground engineering and environmental services. I am a Principal with the firm in the Gainesville office involved primarily in the environmental aspects of electric power plants.

Q. Please describe your educational background and professional experience.

A. I received a Bachelor of Science degree in Engineering from Florida Atlantic University, and a Master of Science degree in environmental engineering from the University of Central Florida. I also completed one and half years of doctoral-level course work in the engineering Ph.D. program at the University of Florida.

Over the last 30 years, my primary activities have involved the siting and licensing of electric power plants. I have worked on over 50,000 megawatts (MWs) of new and existing generation including nuclear generating units, conventional coal, oil and gas-fired steam generating units, combined cycle units, integrated coal gasification combined cycle (IGCC) units, simple cycle units, municipal solid waste (MSW) fired units, biomass-fired steam generating units, and diesel units. My experience also includes three conversions or repowering projects where combined cycle units replaced older steam generating units. These projects were the FPL Lauderdale, Fort Myers and Sanford Repowering Projects. My primary technical activities have involved developing air emission inventories, evaluating air pollution control technologies and performing air quality impact evaluations of these facilities. A copy of my curriculum vitae is attached as Exhibit KFK-1 to my testimony.

Q. Please describe any professional registrations or certifications that you hold in your field of expertise.

A. I am a registered Professional Engineer in mechanical engineering in the State of Florida. I have been practicing as a registered Professional Engineer since 1976.

Q. Could you please describe your responsibilities for converting FPL's existing Riviera and Cape Canaveral Plants to combined cycle technology?

A. I had the responsibility for directing feasibility studies for the Riviera and Cape Canaveral Plants. This included a Prevention of Significant

Deterioration (PSD) emission analysis for the Riviera Plant conducted in 2007 and air quality, noise and water quality feasibility analyses performed for both Riviera and Cape Canaveral Plants in 2008.

Q. Are you sponsoring any exhibits in this case?

A. Yes, I am sponsoring the following exhibits, which are attached to my direct testimony.

Exhibits KFK-1	Curriculum vitae of Kennard F. Kosky
Exhibit KFK-2	Sulfur dioxide (SO_2), nitrogen oxides (NO_x) and Particulate Matter emissions (tons/year) for Riviera Plant (before and after conversion)
Exhibit KFK-3	SO_2, NO_x and Particulate Matter emissions (tons/year) for Cape Canaveral Plant (before and after conversion)
Exhibit KFK-4	SO_2, NO_x and Particulate Matter emission rate (lb/MWh) for Riviera Plant before and after conversion
Exhibit KFK-5	SO_2, NO_x and Particulate Matter emission rate (lb/MWh) for Cape Canaveral Plant (before and after conversion)
Exhibit KFK-6	Carbon dioxide (CO_2) emission rate (lb/MWh) for Riviera Plant (before and after conversion)
Exhibit KFK-7	Carbon dioxide (CO_2) emission rate (lb/MWh) for Cape Canaveral Plant (before and after conversion)

Exhibit KFK-8 CO_2 emissions reductions in FPL's system with the conversions of Riviera and Cape Canaveral Plants

Q. What is the purpose of your testimony?

A. My understanding is that the Commission will consider and determine the need for the conversions of the existing Riviera and Cape Canaveral Plants pursuant to the utility laws and regulations that it is responsible for administering. These laws and regulations that consider and determine need do not include environmental regulation. However, because electric power plants constructed in Florida must comply with environmental regulations, the costs of compliance are part of the project. Accordingly, the purpose of my testimony is to provide the Commission an overview of the key environmental aspects of these conversion projects.

Based upon my training, experience and analysis conducted in relation to this project, my testimony reaches and supports the following key conclusions: (i) the selection of advanced combined cycle technology and environmental controls for the conversions not only meets, but is better than the extensive environmental regulatory requirements; (ii) the technology selected for the conversions is the best available alternative from an environmental perspective; and (iii) the environmental compliance costs evaluated by FPL to meet future environmental requirements reflect an appropriate estimate of possible future costs.

Q. Please summarize your testimony.

A. My testimony provides an overview of the key environmental aspects of converting Riviera and Cape Canaveral Plants. My testimony demonstrates that the use of natural gas, the cleanest fossil fuel, combined with advanced combined cycle technology and state-of-the-art air pollution control equipment for these conversions will meet or be better than the environmental regulatory requirements. Converting these plants with advanced combined cycle technology will reduce overall emissions of particulate matter (PM), sulfur dioxide (SO_2) and nitrogen oxides (NO_x), as well as carbon dioxide (CO_2) emissions in FPL's system. The conversions together with other system improvements would allow FPL's overall system CO_2 emissions to be reduced by millions of tons. Existing cooling water and land infrastructure will be utilized that allows the location of 2,500 MW of capacity in existing areas where only 1,400 MW of capacity can now be generated.

Regulation of CO_2 emissions has not been implemented, but is likely in the future. However, implementation of potential future CO_2 regulations favors conversions, since their operation would result in FPL system wide CO_2 reductions. The future environmental compliance costs considered by FPL in its analyses are reasonable and appropriate.

Q. How is your testimony organized?

A. My testimony is divided into three sections. Section I provides an overview of the major environmental requirements for converting the Riviera and Cape Canaveral Plants. Section II presents information on how the conversions will not only meet, but be better than these requirements. Section III describes the existing and possible future environmental requirements and their potential influence on future environmental compliance costs. In this section, I describe how these existing and possible future environmental costs were included in FPL's analysis.

SECTION I: ENVIRONMENTAL APPROVALS AND REQUIREMENTS

Q. What are the environmental approvals applicable to conversion of the Riviera and Cape Canaveral Plants?

A. FPL is required to obtain state and local environmental approvals for the conversions. The key environmental approvals will be from the Florida Department of Environmental Protection (FDEP), who is responsible for issuance of Air Construction Permits and modification to the Industrial Wastewater Facility Permits, which are part of federally delegated programs. Local land use and zoning approvals will also be required.

Q. Please summarize the major requirements for the environmental approvals for the conversions.

A. The conversions will result in improvements in environmental performance because less efficient and higher emitting existing steam units will be replaced. The environmental regulatory agencies will evaluate these environmental improvements and issue environmental approvals for the construction and operation of the new combined cycle units at the Riviera and Cape Canaveral Plants.

Q. What are the general timeframes for approvals?

A. The environmental approvals will likely take about 12 months after applications are submitted. Approvals can be challenged and may cause project delays. The amount of time resulting from challenges is uncertain, but historically has extended potential regulatory approvals by months.

SECTION II: ENVIRONMENTAL COMPLIANCE AND BENEFITS

Q. What general features of converting Riviera and Cape Canaveral Plants serve to meet environmental requirements?

A. The conversion of existing Riviera and Cape Canaveral Plants with advanced natural gas fired combined cycle units are an ideal opportunity to use existing power plant sites and infrastructure to achieve environmental improvements. The Riviera and Cape Canaveral Plants provide the infrastructure for a new combined cycle unit that includes an existing developed site, existing cooling

water systems, and access to the FPL transmission system. This infrastructure will minimize the environmental impacts of adding new generation. Air emissions will be minimized by the use of the cleanest fuels (natural gas and ultra low sulfur light oil), advanced combined cycle technology and installation of state-of-the-art air pollution control equipment for emissions of nitrogen oxides (NO_x). In contrast, the air emissions from the existing Riviera and Cape Canaveral Plants reflect the use of older technology and heavy fuel oil that contributes to significantly higher air emissions than a new combined cycle unit. Combined cycle technology also minimizes the use of cooling water relative to the existing steam cycle units. For example, the existing steam generating units at the Riviera and Cape Canaveral Plants require cooling water flow for all the generation produced. In contrast, new combined cycle units require cooling water for only about one-third of the generation produced. After the conversions of the Riviera and Cape Canaveral Plants are complete, the total generation of both plants combined will be about 2,500 MW on the same locations that about 1,400 MW are produced today. This is about an 80 percent increase in generation capacity at existing power plant sites without any increase in land area and with improvements in environmental performance.

Q. Will FPL's environmental compliance plan for the conversion of the Riviera and Cape Canaveral Plants meet, or be better than, the applicable environmental requirements?

A. Yes. The conversion of the Riviera and Cape Canaveral Plants will meet all applicable environmental requirements and standards. Indeed, many of the environmental controls will be better than the requirements and standards because they are based on proven technologies.

Q. What environmental benefits will result when conversions are operational?

A. There will be considerable reductions in the air emissions of particulate matter, NO_x, and SO_2. Exhibit KFK-2 shows the reduction from actual air emissions for the conversion of the Riviera Plant. As shown, the air emissions of particulate matter, NO_x, and SO_2 before the conversion is about 890 tons/year, 4,700 tons/year and 11,300 tons/year, respectively. In contrast, the cumulative amount of these air emissions will be less than 400 tons/year. More importantly, the amount of generation associated with the new combined cycle unit reflected in Exhibit KFK-2 is about 4.6 times higher than that associated with the existing Riviera Plant. Similar decreases in air emissions would occur for the conversion of the Cape Canaveral Plant as shown in Exhibit KFK-3. Particulate matter, NO_x, and SO_2 before the conversion of the Cape Canaveral Plant is about 570 tons/year, 3,500 tons/year and 6,600 tons/year, respectively. In contrast, the cumulative air emissions after the conversion to combined cycle technology will be less than

400 tons/year. The reductions directly attributable to the conversion of the Riviera and Cape Canaveral Plants will be a significant environmental benefit for Florida's future.

Q. How will the conversions of the Riviera and Cape Canaveral Plants affect FPL's emission rates as they compare to other utilities?

A. The conversions of the Riviera and Cape Canaveral Plants will continue to reduce FPL's already low emission profile compared to all other utilities in the United States. The use of highly efficient combined cycle units results in emission rates in pounds per megawatt hour (lb/MWh) that are significantly lower than the existing emission rates for particulate matter, SO_2 and NO_x. Exhibits KFK-4 and KFK-5 show the lb/MWh emission rates of the Riviera and Cape Canaveral Plants before and after the conversions are complete. As shown in these exhibits the emission rates significantly decrease with the conversions. This will further reduce FPL's system emission profile for all these air emissions by displacing emissions from less efficient units.

Q. What are greenhouse gases?

A. Greenhouse gases (GHGs) are gases in the atmosphere that trap heat. GHGs in the atmosphere are both naturally occurring and emitted by man-made activities, and include CO_2, methane, nitrous oxide (N_2O) and man-made fluorinated gases.

Q. What effect will the conversions have on FPL's emission rates of CO_2?

A. The CO_2 emission rate after the conversions of the Riviera and Cape Canaveral Plants complete will be about one-half the CO_2 emission rate prior

to the conversion. This reduction in CO_2 emission rate is a result of the efficiency of advanced combined cycle technology and the use of natural gas. The conversions will be among the most efficient natural gas fired generating units in FPL's system, which will displace generation produced by less efficient units in FPL's system and concomitantly reduce the amount of CO_2 emissions. The increased efficiency can be shown by the CO_2 emission rate in pounds of CO_2 emitted per megawatt of energy produced per hour (lb/MWh). Exhibits KFK-6 and 7 show the lb/MWh emission rates before and after the conversions for the Riviera and Cape Canaveral Plants to combined cycle technology. As shown in these exhibits, the CO_2 emission rate for the new combined cycle units will be about 750 lb/MWh, while the CO_2 emission rates for both the FPL Riviera and Cape Canaveral Plant is about 1,500 lb/MWh, or twice as much. The conversions, among other measures, will continue FPL's major efforts to reduce CO_2 emissions in FPL's system.

Q. What effect would the conversions of the Riviera and Cape Canaveral Plants have on FPL's system emissions of CO_2?

A. The conversions will reduce FPL's system emissions of CO_2 by 15.7 million tons from 2013 through 2040. I prepared Exhibit KFK-8, which shows the cumulative 2017 through 2040 FPL system CO_2 emissions with the conversions. As shown on the exhibit, there will be significant reduction in CO_2 emissions FPL's system as a direct result of the conversion of the Riviera and Cape Canaveral Plants.

SECTION III: FUTURE ENVIRONMENTAL CONSIDERATIONS

Q. What future environmental requirements will potentially be applicable to the conversion of the Riviera and Cape Canaveral Plants?

A. The Environmental Protection Agency (EPA) promulgated the Clean Air Interstate Rule (CAIR). CAIR establishes state limits on annual and seasonal emissions on NO_x and annual emissions of SO_2. The limits apply to 25 states, primarily in the eastern U.S., and the District of Columbia (DC). The limits were established in two timeframes: NO_x - 2009 through 2014; and 2015 and beyond, and SO_2 - 2010 through 2014; and 2015 and beyond. EPA's rule includes a cap-and-trade system that allows affected facilities to meet the requirements through either the addition of control technologies or acquisition of allowances through a market based system. The cap-and-trade system in EPA's CAIR regulations is similar to the successful Acid Rain Program referred to as Title IV that was initially developed through the 1990 amendments of the Clean Air Act. In implementing CAIR, the EPA allowed states to utilize model rules or develop specific regulations to meet the requirements of CAIR. The FDEP has adopted the EPA model rule that would allow the use of the national cap-and-trade system.

Q. How will EPA's CAIR regulations influence conversions?

A. FPL will be required to hold allowances for the actual emissions from the conversions of NO_x and SO_2 in the same manner as the existing units. The allowances would have a potential economic impact, since allowances must be obtained through a state pool or the cap-and-trade system. However, as I have shown in Exhibits KFK-2 and KFK-3, there will be decreases in emissions of SO_2 and NO_x. This will result is lower compliance costs for these air emissions after the conversions compared to the existing units.

Q. Are there any laws regulating CO_2?

A. No, there are no current laws regulating CO_2.

Q. Did FPL consider possible CO_2 regulations in the economic analysis of the conversions? If so, how?

A. Yes. Although there are no current laws regulating emissions of CO_2, FPL considered the potential future regulation of CO_2 using projections developed from federal legislative initiatives and the basic framework of the cap-and-trade system. Over the last several years there have been federal legislative initiatives that have proposed different forms of CO_2 regulation based on the cap-and-trade system. These initiatives have included both multi-sector and electric sector regulation with variable reductions of CO_2 emissions. These federal legislative initiatives formed the basis for the potential costs that may occur in the future.

Q. Please explain the compliance costs for the CAIR and potential CO_2 regulations that were included in the economic analysis of the conversions.

A. Compliance costs under a cap-and-trade system are based on the cost of allowances, which are multiplied by the amount of allowances required for the specific pollutant. The allowance costs used by FPL were based on the then-current information from ICF International in a confidential report titled "U.S. Emission & Fuel Markets Outlook 2007." The ICF report provides allowance cost forecasts that are based on integrated modeling of the electric, fuel and environmental markets in the U.S. The allowance costs used were the mid-range ICF forecasted compliance costs. The allocations of SO_2, NO_x, and mercury allowances were based on the CAIR and CAMR rules developed by the FDEP. For CO_2, it was assumed that allowances would be purchased under a cap-and-trade system similar to an auction.

Q. In your opinion, are the allowance costs used in FPL's economic evaluation of the conversions, reasonable and appropriate future environmental compliance costs?

A. Yes. I conclude that FPL considered reasonable and appropriate environmental costs that are predicted to occur in the future.

Q. Does this conclude your direct testimony?

A. Yes.

Kennard F. Kosky, M.S., P.E.

Education

M.S., Environmental Engineering, University of Central Florida, 1976
B.S.E., Ocean Engineering, Florida Atlantic University, 1970
Completed coursework (1.5 years) for Ph.D. in Environmental Engineering, University of Florida, 1982

Affiliations

Registered Professional Engineer, State of Florida, No. 14996
Air and Waste Management Association, National and Florida

Experience

1996 to Date — **Golder Associates** — **Gainesville, FL**
Principal
Principal Engineer, Project Director, and Project Manager for Permitting and Environmental Impact Assessments. Specializes in power plants, industrial facilities, and agricultural activities involving air quality. Provides oversight on permitting and licensing activities including emissions estimates and impact analyses. Provides expert testimony on pollution control quality issues and noise for a variety of electrical power, industrial, and mining activities. Note: KBN merged with Golder Associates in 1996.

1985 - 1996 — **KBN Engineering and Applied Sciences (KBN)** — **Gainesville, FL**
President and Principal Engineer
Responsible for administration of a 100-person environmental consulting firm generating about $8 million per year in revenues. Principal Engineer, Project Director, and Project Manager for Permitting and Environmental Impact Assessments for electric power and industrial facilities. Provided expert testimony on pollution control and quality issues for a variety of industrial activities.

1980 - 1985 — **Environmental Science and Engineering, Inc. (ESE), Energy and Power Programs, Project Operations Department** — **Gainesville, FL**
Vice President/Director
Directed Power Programs group that included a wide diversity of services to the power industry. Project Manager of the $3 million Florida Acid Deposition Study. Project Director and Manager for a variety of permitting and licensing projects. Provided expert testimony on a variety of projects.

1978 - 1980 — **ESE** — **Gainesville, FL**
Director, Air Science Division
Responsible for all corporate air resource activities including stack testing, permitting dispersion modeling, ambient monitoring, noise monitoring, and industrial hygiene. Staff consisted of 25 professionals in three groups: Source Testing, Ambient Monitoring, and Permitting. Project Manager for multidisciplinary power projects.

1974 - 1978 — **ESE** — **Gainesville, FL**
Group Leader, Air Quality Management, Air Sciences Division
Responsible for staff involved with ambient air monitoring, dispersion modeling, and air permitting. Project Manager for multidisciplinary power projects.

Kennard F. Kosky, M.S., P.E.

1970 - 1974 **Florida Dept. of Pollution Control** **Tallahassee/Orlando, FL**

Air Pollutant Engineer

Lead engineer in air operations involved in implementing State Implementation Plan (SIP) and air pollution regulations. Performed air permitting for over 200 facilities. Coauthor of the first Florida SIP including conducting emission inventory, ambient monitoring analysis, regulatory analysis, and regulation development.

1970 **Schlumberger Well Services** **Morgan City, LA**

Well Logging Engineer

Performed geological logging of exploratory wells for oil and/or gas production in the Gulf of Mexico.

Kennard F. Kosky, M.S., P.E.

PROJECT RELATED EXPERIENCE

Mr. Kosky has performed over 200 projects focusing on a variety of industrial activities. These projects have involved control technology evaluations, regulatory interpretation, monitoring, permitting, impact analyses, and expert testimony. The following overview and project descriptions are examples of Mr. Kosky's experience.

Major Project Experience — Multiple Sites

Type of Industrial Activities
Power Plants – 68
Landfills – 4
Chemical Plants – 7
Rubber Manufacturing – 2
Metal Coil Coating – 3
Mining – 4
Pulp & Paper – 7
Resource Recovery/Incinerator – 9
Steel Mills – 4
Printing/Coating – 4
Food/Agricultural Facilities – 15
Petroleum Exploration and Refining – 9
Aerospace – 2
Fiberglass Boat Manufacturing – 4
Superfund – 5

Type of Projects
Permitting – 92
Air Pollution Emission Estimates – 67
Air Impact Analyses – 63
Air Pollution Control – 75
Policy and Regulations – 6
Air Monitoring – 26

Domestic Experience — Multiple Sites

Mr. Kosky has directed and performed projects related to his expertise in the following states:

- Southeastern US: Florida, Georgia, South Carolina, North Carolina, Alabama, Mississippi, Tennessee, Kentucky, Louisiana, and Arkansas
- Mid-Atlantic: Maryland, Virginia, West Virginia, District of Columbia, and New Jersey
- Northeast: Connecticut and New York
- Mid-West: Illinois, Indiana, Missouri, and Iowa
- West: Texas, Nevada, California, Montana, Arizona, Alaska, and Hawaii

International Project Experience

Mr. Kosky has performed a wide variety of international projects—many associated with the Multi-Lateral (e.g., World Bank) and Bi-Lateral (e.g., USAID) organizations. Projects located in the following continents and countries:

- Asia: China, Pakistan, India, Russia, Taiwan, Thailand, and Indonesia
- Africa: Egypt and Mauritius
- Latin America and Caribbean: Guatemala, Honduras, Jamaica, Dominican Republic, Mexico, and Panama
- South America: Brazil and Argentina
- Europe: Italy, Poland, Hungary and Bulgaria, and the Czech Republic
- Middle East: Saudi Arabia

Kennard F. Kosky, M.S., P.E.

PROJECT RELATED EXPERIENCE – DOMESTIC

Dickerson, Chalk Point, and
Morgantown Generating Plants — **Montgomery, Prince Georges,**
Mirant Corporation — **and Charles Counties, MD**

Project Director of the preparation of the environmental analysis for the Certificate of Public Convenience and Necessity (CPCN) Application for the installation of flue gas desulfurization (FGD) systems on seven existing coal-fired units. Project involved assessment of New Source Review (NSR) for each plant and an analysis of emissions from material handling. An evaluation of air quality impacts performed for new stacks at each plant site. Expert testimony provided before a Public Service Commission (PSC) Hearing Examiner at public hearings.

McIntosh Power Plant
Lakeland Electric — **Lakeland, FL**

Project Manager and engineer-of-record for preparing an air permit application to obtain approval from the regulatory agencies to install low-nitrogen oxides (NO_x) burners and selective catalytic reduction (SCR) for existing 360-megawatt (MW) Unit 3. Co-lateral increase in sulfuric acid mist required the installation of sorbent injection to limit emission below prevention of significant deterioration (PSD) thresholds. Permit application and supporting material prepared. Permit issued for Low-NO_x Burners.

St. Johns River Power Park
Jacksonville Electric Authority — **Jacksonville, FL**

Project Manager and engineer-of-record for preparing air permit application to obtain approval from the regulatory agencies to install SCR for two nominal 700-MW units. Co-lateral increase in sulfuric acid mist required the installation of ammonia injection to limit emission below PSD thresholds. Permit application and supporting material prepared. Permit issued.

FPL Glades Power Park
Florida Power & Light Company (FPL) — **Glades County, FL**

Project Manager for the preparation of licensing documents for the two nominal 980-MW ultra supercritical pulverized coal fired units and associated facilities located on a 4,900 acre site in Glades County, Florida. These units are being licensed under Florida's Power Plant Siting Act. Environmental documents prepared include the Site Certification Application (SCA), Federal Aviation Administration (FAA) obstruction to navigation application, U.S. Army Corps of Engineers (USACE) dredge and fill permit application, and air permit application [including PSD application]. The SCA was submitted in December 2006.

Petroleum Coke Co-Firing
St. Johns River Power Park — **Jacksonville, FL**

Project Manager and engineer-of-record for the FDEP authorization allowing up to 30 percent petroleum coke to be co-fired with coal. The authorization allowed co-firing with petroleum coke from 20 percent to 30 percent.

West County Energy Center
Florida Power & Light Company — **Palm Beach County, FL**

Project Manager for the preparation of licensing documents for the 2,450-MW West County Energy Center, Palm Beach County, Florida. This project involved the licensing of two 3-on-1 combined-cycle units using three MHI 501G 250-MW combustion turbines (CTs) with associated heat recovery steam generators

Kennard F. Kosky, M.S., P.E.

(HRSGs), and a 440-MW steam turbine. These units are licensed under Florida's Power Plant Siting Act. Environmental documents prepared include the SCA, FAA obstruction to navigation application, USACE dredge and fill permit application, and air permit application (including PSD application). Full Governor/Cabinet approval was obtained in December 2006.

Application for Certificate of Public Convenience and Necessity, Brandon Shores Units 4 and 5, Constellation Power Source — **Ann Arundel County, MD**

Project Manager for the preparation of the CPCN Application for installation of air pollution control systems and associated facilities on the two nominal 670 MW Brandon Shores Units 1 and 2. This project involves the installation of FGD systems, fabric filters, new dual flue stack, and material handling facilities for coal, limestone and FGD byproducts. These units are licensed under Maryland's PSC. Environmental documents prepared include the CPCN and air permit application (including PSD application).

Site Certification Application and Licensing For Seminole Generating Station Unit 3
Seminole Electric Cooperative — **Putnam County, FL**

Technical direction and review for the Site Certification Application and Air Construction/PSD Permit Application for SGS Unit 3, a nominal 750 MW (net) supercritical pulverized coal-fired unit. Provided expert testimony for the local land use hearing and prepared expert testimony for the Site Certification Hearing.

Kenai Blue Sky Coal Gasification Project
Environmental Permitting Feasibility Analysis for Coal-Gasification and Pulverized Coal-Fired Power Plant
Agrium U.S., Inc. — **Kenai, AK**

Project Manager for the preparation of environmental permitting feasibility of coal-gasification and 400-200 MW pulverized coal fired power plant to be located at an existing ammonia/urea production facility. The project would involve the installation of coal gasification to product hydrogen and carbon dioxide as feedstock for the ammonia/urea production facilities. The coal-fired power plant would supply steam and energy for the gasification process and ammonia/urea production facilities, as well as supplying some power to the local grid. The coal gasification process and power plant would utilize Alaskan sub-bituminous coal.

Southwest St. Lucie Power Project
Florida Power & Light Company — **St. Lucie County, FL**

Project Manager for the preparation of licensing documents for the 1,700-MW Southwest St. Lucie Power Project to be located in St. Lucie County, Florida. The project involved two nominal 850 MW supercritical pulverized coal fired units and associated facilities. Portions of the SCA was completed but not submitted.

Application for Certificate of Public Convenience and Necessity, Crane Generating Station, Constellation Power Source — **Baltimore County, MD**

Project Manager for the preparation of the CPCN Application for installation of coal barge unloading facility for the Crane Generating Station. This project involved the refurbishment of an existing oil unloading dock and coal handling equipment. These units are licensed under Maryland's PSC. Environmental documents prepared include the CPCN and air permit application.

Kennard F. Kosky, M.S., P.E.

Site Certification Application and Licensing of the Turkey Point Expansion Project for Florida Power & Light Company — **Miami-Dade County, FL**

Project Manager for the preparation of licensing documents for the 1,150-megawatt (MW) Turkey Point Expansion Project, Miami-Dade County, Florida. This project involved the licensing of 4-on-1 combined-cycle units using four GE Frame 7FA 170-MW CTs with associated HRSGs, and a 440-MW steam turbine. These units are licensed under Florida's Power Plant Siting Act. Environmental documents prepared include the SCA, FAA obstruction to navigation application, USACE dredge and fill permit application, and air permit application (including PSD application). Full Governor/Cabinet approval was obtained in February 2005.

Burner Replacement for Gerdau-Ameristeel — **Baldwin, FL**

Obtained a non-PSD determination from the Florida Department of Environmental Protection (FDEP) for a burner replacement project associated with an electric arc furnace. Project involved site visit, technical support, and discussions with FDEP.

Petroleum Coke Co-Firing at the Cedar Bay Cogeneration Project — **Jacksonville, FL**

Project Manager and engineer-of-record for the FDEP authorization allowing up to 35 percent petroleum coke to be co-fired with coal. The Cedar Bay facility consists of three 75-MW circulating fluidized bed (CFB) boilers fired with coal and located in Jacksonville, Florida. The authorization allowed co-firing with petroleum coke.

Hines Energy Center Power Block 3 for Progress Energy (formerly Florida Power Corporation) — **Polk County, FL**

Project Manager and engineer-of-record for the air construction and PSD permit application for a 530-MW combined-cycle power project located in Polk County, Florida. Directed preparation of SCA sections related to air emission, best available control technology (BACT), air impacts, and noise impacts. Testified on all air quality and noise aspects at the SCA Hearing.

Air Construction Permits for Tropicana Products, Inc. — **Bradenton, FL**

Project Manager and engineer-of-record for various projects at Tropicana's Bradenton Citrus Processing Plant. The projects involved replacing the GE LM5000 aero-derivative gas turbine with the larger GE LM6000 turbine, like-kind replacement of the duct burner system on the cogeneration facility, and the installation of a stand-by boiler.

Air Construction Permit for Hydro Aluminum of North America — **St. Augustine, FL**

Project Manager for the preparation of two air construction permits for secondary aluminum foundry. Project involved physical changes to the melting furnace and increasing production limits. Project was able to net out of PSD review.

Site Certification Application and Licensing of Expansion Projects for Florida Power & Light Company — **Martin and Manatee Counties, FL**

Project Manager of the preparation of licensing documents for two 1,150-MW Expansion Projects. These projects involved the licensing of 4-on-1 combined-cycle units using four GE Frame 7FA 170-MW CTs

with associated HRSGs, and a 440-MW steam turbine. These units were licensed under Florida's Power Plant Siting Act. Environmental documents prepared include the SCA, FAA obstruction to navigation application, and air permit application (including PSD application).

Application for Certificate of Public Convenience and Necessity, Dickerson Units 4 and 5, Mirant Corporation **Montgomery County, MD**

Project Manager for the preparation of the Certificate of Public Convenience and Necessity (CPCN) Application for the 1,100-MW Units 4 and 5 Project. This project involved the licensing of two 2-on-1 combined-cycle units using two existing GE Frame 7F 160-MW CTs and adding two GE Frame 7FA 170 MW CTs, four associated HRSGs, and two 220-MW steam turbines. These units are licensed under Maryland's PSC. Environmental documents prepared include the CPCN, FAA obstruction to navigation application, USACE dredge and fill permit application, and air permit application (including PSD application).

Application for Certificate of Public Convenience and Necessity, Chalk Point Units CT7 through CT10, Mirant Corporation **Charles County, MD**

Project Manager of the preparation of the CPCN Application for the 320-MW CT Project. This project involved the licensing of four GE Frame 7EA 80-MW simple-cycle units. These units are licensed under Maryland's PSC. Environmental documents prepared include the CPCN, FAA obstruction to navigation application, and air permit application (including PSD application).

Greenhouse Gas Life-Cycle Analysis for Bitor America Corporation **Boca Raton, FL**

Project Manager for the preparation of a life-cycle analysis of greenhouse gas (GHG) emissions from various fossil fuels and technologies. The life-cycle analysis compared GHG emissions from the use of coal, natural gas, LNG, oil, and Orimulsion. The technologies evaluated included conventional steam generation, Integrated Gasification Combined-Cycle (IGCC), and combined-cycle.

Odor Evaluations for Sea Ray Boats, Inc. **Palm Coast, FL**

Project Manager for the evaluation of odor impacts from styrene emissions associated with an existing fiberglass boat manufacturing facility in Flagler County, Florida. Project involved meteorological monitoring, styrene monitoring using SUMA canisters, air dispersion modeling and conceptual design of exhaust stack. Involved in negotiations with regulatory agency on consent order requirements and made public presentations to citizens group.

Odor Evaluations for Sea Ray Boats, Inc. **Merritt Island, FL**

Project Manager for the evaluation of odor impacts from styrene emissions associated with three co-located fiberglass boat manufacturing plants located in Brevard County, Florida. Project involved air dispersion modeling and conceptual design of exhaust stacks for two facilities. Involved in negotiations with regulatory agency and made public presentations to citizens group.

Lone Oak Energy Center for Calpine Eastern Corporation **Lowndes County, MS**

Project engineer for the air construction and PSD permit application for an 800-MW combined-cycle power project.

Calhoun County Peaker Project for FPL Energy **Calhoun County, AL**

Project Manager for the air construction and PSD permit applications and environmental permits for a 680-MW simple-cycle power project.

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Hillabee Energy Center for Calpine Eastern Corporation **Tallapoosa County, AL**
Project engineer for the air construction and PSD permit applications for a 700-MW combined-cycle power project.

Auburndale Peaker Project for Calpine Eastern Corporation **Polk County, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for a 130-MW simple-cycle power project.

Hines Energy Center Power Block 2 for
Florida Power Corporation **Polk County, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for a 530-MW combined-cycle power project.

Osprey Energy Center for Calpine Eastern Corporation **Polk County, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for a 530-MW combined-cycle power project. Provided technical oversight for the preparation of the SCA.

Simple-Cycle Power Projects for
Florida Power & Light Company **Martin and Ft. Myers, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for two 170-MW simple-cycle units located at the existing FPL Martin and Ft. Myers Power Plant sites. Each project also required an evaluation of the noise impacts. The project at the Martin Plant required a modification of the SCA.

Shady Hills Generating Station for IPS
Avon Park Corporation and El Paso Energy **Hardee County, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for a 510-MW simple-cycle power project.

Odor and Air Quality Consulting for the Viera Company **Brevard County, FL**
Lead technical consultant in providing oversight on the air permitting of a waste scrap shredder. Project involved specifying procedures and reviewing results of source tests and impact analyses.

Installation of Citrus Fruit Extractors for Tropicana Products, Inc. **Ft. Pierce, FL**
Project manager and engineer-of-record for the air construction and PSD permit applications for the addition of fruit extractors at the Tropicana Plant. Detailed air dispersion modeling was required.

DeSoto Power Project for IPS Avon Park
Corporation and Entergy Power Group **DeSoto County, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for a 680-MW simple-cycle power project.

Air Construction Permit Preparation and Review for Solutia, Inc. **Pensacola, FL**
Preparation of air construction permits for various process additions to the Solutia nylon production plant. This included new adipic acid production intermediates. Assisted Solutia in the review and comments to

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FDEP on the Title V permit application. Prepared an air permit application for an inlet fogging system for Solutia's cogeneration facility.

Sea Ray Boats, Inc., Cape Canaveral Plant **Brevard County, FL**
Project Manager for a BACT evaluation and air modeling impact analysis for a new fiberglass boat manufacturing facility. Project involved negotiations with regulatory agency on permit conditions.

Heard County Power Project for Dynergy, Inc. **Hardee County, FL**
Project engineer for the air construction and PSD permit applications for a 510-MW simple-cycle power project.

Fogger Installation at Combustion Turbine Sites **Jacksonville, FL**
Project Manager for the preparation of air permit applications for the installation of inlet cooling "foggers" on simple-cycle CTs at Jacksonville Electric Authority's (JEA) Northside and Kennedy Plant sites. Project involved developing strategy for "netting out" of PSD.

Palmetto Power Project for Dynegy, Inc. **Hardee County, FL**
Project Director and engineer-of-record for the air construction and PSD permit applications for a 510-MW simple-cycle power project.

Vandolah Power Project for IPS Avon Park Corporation and El Paso Energy **Hardee County, FL**
Project Manager and engineer-of-record for the air construction and PSD permit applications for a 680-MW simple-cycle power project.

Fogger Installation at Combustion Turbine Sites for Florida Power & Light Company **Multiple Sites, FL**
Project Manager for the preparation of air permit applications for the installation of inlet cooling "foggers" at the Ft. Myers, Putnam, and Martin Plant sites. Project involved developing strategy for "netting out" of PSD.

Independent Power Projects for Tenaska, Inc. **Multiple Sites**
Project Director and engineer-of-record for the preparation of PSD and air permit applications the following projects: Heard County, Georgia – 850-MW simple-cycle; Autauga County, Alabama, Two Projects – an 800-MW combined-cycle and an 8870-MW combined-cycle project located on adjacent sites; Lakefield, Minnesota – 480-MW simple-cycle (BACT); Coosa County, Alabama Project – 540-MW simple-cycle project.

Oleander Power Project for Constellation Energy **Brevard County, FL**
Project Manager for the preparation of PSD and Air Permit Applications for the Oleander Power Project. Project consisted of 5 General Electric Frame 7FA simple-cycle CTs (nominal 850 MW). Project involved providing expert testimony.

Repowering Project for Florida Power & Light Company **Sanford, FL**
Project Manager for the preparation of air permit applications for conversion of two existing steam electric units (Units 4 and 5) at the FPL Sanford Plant to combined cycle using 8 General Electric Frame 7FA CTs. The repowering would produce a nominal 2,200 MW of gas-fired combined-cycle generation. The project involved the preparation of the PSD and Air Permit Applications, noise evaluation, and FAA Notifications.

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Generation Project for Thermal EcoTek, Corporation **Lake Worth, FL**
Project Manager for the preparation of the PSD and Air Permit Applications for the Lake Worth Generation Project. Project consisted of the repowering of 2 existing steam units with a nominal capacity of 74 MW using a General Electric Frame 7FA CT (170 MW).

Repowering Project Licensing for Florida Power & Light Company **Ft. Myers, FL**
Project Manager for environmental licensing documents for the conversion of the existing steam electric units (Units 1 and 2) at the FPL Ft. Myers Plant to combined cycle using 6 General Electric Frame 7FA CTs. The repowering would produce a nominal 1,500 MW of gas-fired combined-cycle generation. The project involved the preparation of the PSD and Air Permit Applications, Environmental Resource Permit (ERP) Application, Wastewater Discharge Permit Application (i.e., the SPDES), FAA Notifications, and county applications.

Lakeland Electric (City of Lakeland) McIntosh Unit 5 **Lakeland, FL**
Project Manager for the preparation of the PSD and air permit applications for the McIntosh Unit 5 simple-cycle project. Included preparation of the Modification Request to Site Certification for McIntosh Unit 3. Project consisted of the first Westinghouse 501G CT with a nominal capacity of 250 MW.

Title V Permit Applications for Eagle-Picher Corporation **Multiple Sites**
Project Director for the preparation of Title V Permit applications or Federally Enforceable Synthetic Minor Operating Permit applications for 9 facilities in 6 states. The facilities include activities associated with metal coil coating, rubber part manufacturing, and printing. The states where the facilities are located include Connecticut, Florida, Michigan, New Jersey, Pennsylvania, and New York.

Odor and Noise Monitoring for North and South Broward Resource Recovery Facilities **Broward County, FL**
Project director for noise and odor studies at two large municipal waste combustors. The studies were based on ASTM methods to demonstrate conformance with requirements of regulatory approvals.

Destin Dome Natural Gas Development Project for Chevron U.S.A. Production Company **Pensacola, FL**
Project Manager for the OCS air permit application submitted to the U.S. Environmental Protection Agency (EPA) to develop the natural gas reserves in a 33-square-mile area offshore of Pensacola. The projects involved preparation of permit applications including emission estimates of well drilling and production facilities. Air emission sources included two drilling rigs, one central production facility, and 16 satellite production facilities. The project included PSD evaluations to determine BACT and air impact analysis using the OCD air dispersion model.

Title V Permit Applications for Potomac Electric Power Company **Multiple Sites**
Project Manager for the preparation of Title V Permit applications or Federally Enforceable Synthetic Minor Operating (FESOP) Permit applications for 7 facilities in 2 states and 1 jurisdiction. The Title V facilities consist of 6 power plants with coal and oil fossil fuel-fired steam generating units, CTs, and diesel units. The FESOP is for a service facility. The facilities are located in Maryland (3 plants and the service facility), Virginia (1 plant) and the District of Columbia (2 plants).

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Air Permitting for Destin Dome Blocks 57 and 96, Chevron U.S.A. Production Company Outer Continental Shelf — **Pensacola, FL**

Project Manager for the Outer Continental Shelf (OCS) air permits issued by the EPA to conduct well drilling within the U.S. boundary, offshore of Florida. The projects involved preparation of permit applications including emission estimates of well drilling activities. The applications were the first in the Eastern U.S. under 40 Code of Federal Regulation (CFR), Part 55. These regulations were promulgated as a result of the 1990 Amendments of the CAA Amendments. Presented information on the emissions and impacts of the activity at an EPA sponsored public hearing.

Kaiser Aluminum-Gramercy and Baton Rouge Cogeneration Plants — **Baton Rouge, LA**

Project Manager for obtaining air permits on two cogeneration facilities. The facilities were required to obtain PSD approval and meet NSPS requirements.

PSD Approval for Cogeneration Facility at Borden Chemical — **Baton Rouge, LA**

Project Director for an 80-MW cogeneration facility constructed for Borden Chemical. The project involved obtaining PSD approval from the state agency.

Site Certification Application for Orimulsion Conversion — **Manatee County, FL**

Project Director for the licensing of Orimulsion firing at FPL's Manatee Power Plant. The plant consists of two nominal 800-MW units. Technical activities focused on the preparation of BACT evaluation and air pollution control aspects of the project.

Petroleum Coke and Title V Application for City of Lakeland Department of Electric and Water Utilities — **Lakeland, FL**

Project Manager and engineer-of-record for providing technical assistance to obtain approval for co-firing petroleum coke (20 percent) and coal (80 percent) at McIntosh Power Plant, Unit 3. McIntosh Unit 3 is a 364-MW coal-fired facility. Project Manager and engineer-of-record for preparation of Title V applications.

Coal and Petroleum Coke Co-firing Permit for St. Johns River Power Plant — **St. Johns County, FL**

Project Manager and engineer-of-record for obtaining approval from the regulatory agencies to co-fire up to 20 percent of petroleum coke by weight with coal in two nominal 700-MW units. Permit application and supporting material prepared. Performed emissions estimates and impact analyses of potentially toxic air emissions (metals). Provided support and presentations to local chapter of Sierra Club who intervened in the permit proceeding. Performed post-test analyses to demonstrate compliance with settlement agreement.

Title V Economic Evaluation for Florida Electric Power Coordinating Group — **Tampa, FL**

Performed an economic evaluation for Florida Electric Power Coordinating Group (FCG) on the cost to prepare Title V permits as initially proposed by FDEP and presented the results of the evaluation at the FDEP Title V Workshop. The presentation assisted in modifying the FDEP requirements to more closely follow EPA requirements.

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Electric Utility Regulatory Requirements for
Florida Electric Power Coordinating Group **Tampa, FL**
Lead the effort to prepare a comprehensive list of regulatory requirements specific for the electric utility industry. The list, which includes all applicable and non-applicable requirements, forms the basis for compliance statements required of the responsible official.

Title V Permit Recommendations for
Florida Electric Power Coordinating Group **Tampa, FL**
Providing recommendations for preparation of Title V permits for the FCG. This includes interfacing with FDEP and providing comments on insignificant activities and application form submittal. Also provided FDEP comments on data input requirements and suggestions that will make the application form easier to develop.

Florida Power Corporation Title V Applications **Multiple Sites**
Project Director and engineer-of-record for Title V applications for 11 facilities. The facilities include coal-, oil-, and gas-fired fossil fuel steam generator units, simple-cycle CT units, combined-cycle unit, and diesel generators. Project involved regulatory requirements, emissions inventories, trivial activity lists and application preparation.

Title V Permits for Florida Power & Light Company Facilities **Multiple Sites**
Assisting FPL in the preparation of Title V permit applications for all facilities. This includes 11 power plants and several minor facilities. Engineer-of-record for the applications, and responsible for overseeing the applications' preparation. Also providing input on regulatory requirements and emissions. Currently, one permit application has been completed in draft form.

Title V Permit Implementation Plan for Tennessee Valley Authority **Multiple Sites**
Assisted Tennessee Valley Authority (TVA) in developing a comprehensive list of applicable requirements in three states (Tennessee, Kentucky, and Alabama) for 10 facilities. Also performed site visits for four major plants (7,550-MW coal-fired with CTs) to develop a list of major sources and insignificant activities. The result was a comprehensive Title V plan, which is currently being implemented by TVA. Performed reviews of Title V applications for three power facilities.

Gulf Power Company Title V Applications **Multiple Sites**
Project Manager and engineer-of-record for Title V applications for three coal-fired facilities. Performed site visits for each facility and developed listing of regulatory requirements.

Title V Database for Various Clients **Multiple Sites**
Developed a Title V database built around the FDEP Title V permit application form. The database is designed to manage the data and print out a form identical to the FDEP form. The database will provide a format suitable for electronic submittal to FDEP.

Emissions Inventory and Title V Applications for
Potomac Electric Power Company (PEPCO) **Multiple Sites in Maryland**
Project Manager for the development of a comprehensive emissions inventory and preparation of Title V applications for all of PEPCO facilities. This includes 6 power plants (4 coal-fired plants, 1 oil/gas plant, and 1 CT plant) located in three regulatory jurisdictions. The inventory will involve the development of an emission inventory management system that will manage the data.

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Site Certification Application at Hardee Power Station,
Seminole Electric Cooperative Incorporated **Hardee County, FL**

Project Director for SCA and environmental assessment (EA) for a 660-MW combined-cycle electric-generating plant. Responsible for the technical, budgetary, and scheduling aspects of the project. The permitting documents prepared were designed to fulfill requirements of the PSC and the U.S. Department of Agriculture (USDA) Rural Electrification Administration (REA). Provided expert testimony for the project.

Transmission Line Corridor Siting at Hardee Power Station for
Seminole Electric Cooperative Incorporated **Hardee County, FL**

Project Director for siting and licensing of three 230-kilovolt (kV) transmission lines (total of 78 miles) to connect the Hardee Power Station to the Florida transmission grid. Siting of the transmission line corridors was accomplished using the PC ARC/INFO® geographic information system (GIS). Developed all required information and impact analyses for the Florida SCA to be presented to the Florida Department of Environmental Regulation (FDER) and PSC.

Site Certification Application and Licensing of the
Lauderdale Repowering Project for
Florida Power & Light Company **Ft. Lauderdale, FL**

Project Manager for the preparation of licensing documents for the Lauderdale Repowering Project, Broward County, Florida. This project involved replacing two existing steam generators with advanced CTs and HRSGs. The repowered units were designed to have a capacity of approximately 960 MW, approximately 640 MW resulting from the addition of the advanced CTs. Environmental documents prepared include the SCA, National Pollutant Discharge Elimination System (NPDES) application, FAA obstruction to navigation application, USACE dredge and fill permit application, and air permit application (including PSD application).

Test Burn of Orimulsion Fuel for
Florida Power & Light Company **Sanford, FL**

Project Manager for a test burn to discover if Orimulsion fuel had the potential to displace No. 6 fuel oil in steam electric power plants at Sanford Unit 4. Project provided the opportunity to evaluate the technical and operational features associated with burning Orimulsion fuel under utility operating conditions.

Air Construction Permit Application for TransPac, Inc. **Santa Rosa County, FL**

Project Manager for project requiring permit to construct an air pollutant source. Developed report supplementing the application to construct a minor-source waste storage and treatment facility. The objective of this report was to evaluate the impact of the facility based on a comparison of the proposed facility's impacts to the FDER's proposed toxic air pollutant guidelines.

Air Quality Impacts of Siting 1,050-MW CTs for
Florida Power Corporation **Multiple Sites**

Project Manager of air quality impact analyses performed to evaluate locating CTs at six potential sites in Florida: Intercession City, DeBary, Avon Park, Turner, Bartow, and Anclote. The analyses were undertaken to determine compliance with ambient air quality standards (AAQS) and PSD increments for the maximum proposed plant size (i.e., 1,050 MW).

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Particulate Matter Air Quality Assessment of
Helper Cooling Towers for Florida Power Corporation **Citrus, FL**

Project Manager of project to determine the impacts of the proposed cooling towers on ambient particulate matter (PM) levels, considering all PM emissions associated with the CT units, cooling towers, helper cooling towers, and coal- and ash-handlers already existing onsite. Impacts were addressed in regard to allowable PSD increments for PM [as total suspended PM, i.e., PM(TSP)] and AAQS for PM [as particulate with an aerodynamic diameter less than 10 micrometers (μm), i.e., PM_{10}].

Site Evaluation of 1,000-MW CT Project for
Florida Power Corporation **Multiple Sites in FL**

Project Manager responsible for evaluating the availability of water-supply sources, raw water treatment requirements, and wastewater disposal options at six facilities for the 1,000-MW CT siting project. Water supply sources were evaluated to determine their feasibility for use and included existing permitted groundwater and surface water withdrawals, new groundwater sources, new surface water withdrawals, and secondary effluent from nearby municipal wastewater treatment facilities.

CT Site Evaluation and Chalk Point Environmental Assessment
for Potomac Electric Power Company **Chalk Point, MD**

Project Manager of project to provide alternative site and environmental information required under the Maryland PSC rules for receiving a CPCN for a new generation facility. The two primary objectives of the report were to identify and evaluate suitable sites for accommodating approximately four CTs and to evaluate the environmental baseline information and potential impacts of locating the CTs at the preferred site.

Gator Power Cogeneration Facility PSD
Review for Florida Power Corporation **Gainesville, FL**

Project Manager for PSD review for a cogeneration facility consisting of a CT and HRSG. The report addressed the new source review (NSR) requirements contained in air quality regulations on both the state and federal levels.

Fog Visibility Study for Parsons, Brinkerhoff,
Quade, and Douglas, Inc. **Charleston, SC**

Project Manager responsible for study designed to obtain meteorological and fog/visibility data on the I-526 Cooper River Crossing in North Charleston. Objectives of the program were to document the frequency and duration of fog and the meteorological conditions during which it occurs; to identify and differentiate the fog plume created by the cooling towers from that of other sources; and to correlate the data collected with data observed at the National Weather Service (NWS) station in Charleston.

Site-Specific Environmental Evaluation for
Potomac Electric Power Company **Multiple Sites in Maryland**

Project Manager responsible for presenting the methodology and results of a site-specific environmental evaluation. The objective of the site environmental evaluation was to determine the environmental suitability of CT units with projected early 1990s in-service dates. The candidate site environmental evaluation consisted of analyzing candidate sites based on six environmental factors.

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PSD Permit Application for Environmental Incineration Systems, Inc. — **Duval County, FL**

Project Manager of permitting activities for proposed municipal solid waste recycling/volume reduction facility. The facility was designed to reduce the amount of solid waste input to landfills in Duval County by up to 175,200 tons per year (TPY). The proposed facility was classified as a "major" source under federal and state air pollution control regulations and was subject to the PSD provisions of the regulations.

PSD Permit Application for Cogeneration Project for Tropicana Products, Inc. — **Bradenton, FL**

Project Manager responsible for permitting a cogeneration facility consisting of a CT, a HRSG, and an associated auxiliary steam generator. The report addressed the NSR requirements contained in the state and federal regulations.

Crystal River PSD Analysis for Florida Power Corporation — **Crystal River, FL**

Project Manager of air dispersion modeling analyses performed to determine the TSP impacts of PM emissions from the cooling towers at FPC's Crystal River facility. A modeling protocol was prepared by KBN and reviewed and commented upon by the EPA.

EMSoft II®, Permit Manager for Manatee County Public Health Unit — **Manatee County, FL**

Designed and developed the EMSoft II®, a software package for micro-computers designed to assist end users in managing environmental permits and requirements through a relational database capable of generating a series of specific reports.

Agrico Chemical Company Mine — **Hillsborough County, FL**

Project Manager for the EA for a phosphate mine located in eastern Hillsborough County, Florida. The project involved the development of baseline conditions including monitoring of air, water, and ecological conditions. Impact analyses involving various environmental disciplines were conducted using approved regulatory techniques.

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PROJECT RELATED EXPERIENCE – INTERNATIONAL

Best Available Control Technology Assessment and Toxic Air Emission Evaluation for Coleson Cove Refurbishment Project, New Brunswick Power Corporation — **New Brunswick, Canada**

Senior consulting engineer for developing a best available control technology (BACT) assessment and toxic air emission inventory for the conversion of the 1,050-MW Coleson Cove plant from residual oil to Orimulsion. Project involved a detailed assessment of control equipment for sulfur dioxide (SO_2), PM, nitrogen oxides (NO_x) and sulfuric acid mist (SAM). Develop a toxic air emissions inventory. Provided presentations at multi-agency meetings and public hearings.

Combined-Cycle Projects for Southern Energy, Inc. — **Multiple Sites in Italy**

Provided technical review and assistance for two 370-MW combined-cycle projects to be located in east central Italy. Reviewed the designs and impact methodologies to provide senior oversight of projects.

Environmental Due Diligence — **Campeche, Mexico**

Project Director for the environmental due diligence for the Cantarell Nitrogen Project located near Campeche, Mexico. Project is the largest nitrogen plant in the world with an associated 400-MW power complex to provide power for the nitrogen plant. Review licensing reports and documents for conformance with Mexican regulations and "world norms". Review being conducted for international financial institutions.

Environmental Benchmarking of Power Facilities, Worldwide, Confidential Client — **Multiple Sites**

Project Manager assisting an international energy company in the evaluation of their environmental conformance with international accepted norms of all of their facilities worldwide. This involved evaluating over 10,000 MWs at approximately 12 different power facilities including hydro. These plants were located in Asia, South America, North America, and Europe. Evaluation was to assist with the development of an environmental management system for all of the company's facilities.

Shanghai Municipal Electric Power Company Waigaoqiao Environmental Assessment — **Shanghai, China**

Project Manager for World Bank EA of the addition of two 1,000-MW coal-fired super-critical units to the Waigaoqiao Power Plant site. This was referred to as Phase II, while Phase I, the existing plant, consists of four 300-MW units. The EA also considered the addition of a Phase III which would be identical to Phase II (i.e., another two 1,000-MW units). The EA was prepared to meet World Bank guidelines and involved developing information and performing analyses for Phases I, II, and III.

Baley Gold Mine Project — **Western Russia**

Task Manager for the environmental assessments relating to the potential air and noise impacts from a gold mine project located in Eastern Russia. The task involved developing emissions and impact estimates for mining 25 million tonnes of material from an open pit mine. Impacts were determined using EPA dispersion models. Noise impacts from mine activities were determined using the NOISECALC model.

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Nickel and Cobalt Mine Project **Cupey, Cuba**
Working through Golder's Mississauga Office provided air impact analyses for a nickel and cobalt mine located in Cupey, Cuba. The major emissions from the project were from the ore processing, which contained PM and SO_2. The EPA dispersion model ISC3ST was used to estimate impacts using a 1-year meteorological data base. Impacts were compared to the World Bank ambient guidelines.

Ambient Air Monitoring Laboratories and Training Program for the Electricity Generating Authority of Thailand **Bangkok, Thailand**
Project Director responsible for designing and constructing two mobile laboratories as well as providing air quality and meteorological equipment. Equipment will be installed in specialty-designed cubicles, and mounted on a Nino truck chassis. The intensive training program will consist of 2 months training in the United States for three EGAT engineers.

Air Resources Studies, Mae Moh Power Plant and Lignite Mine for the Electric Generating Authority of Thailand **Mae Moh Valley, Thailand**
General Consultant for Air Quality/Project Manager managing activities within an environmental program for proposed plant and mine development in Mae Moh Valley, Northern Thailand.

Environmental Licensing Studies for the Electricity Generating Authority of Thailand **Bangkok, Thailand**
Air Resources, Subproject Manager, responsible for studies of coal-fired power plant. Managed air resources investigations as part of overall environmental studies of proposed coal-fired power plant to be located on the Gulf of Thailand, 70 kilometers (km) southeast of Bangkok.

Ambient Monitoring Network for the Electricity Generating Authority of Thailand **Gulf of Thailand**
Project Director/Air Resources, Subproject Manager, performing environmental licensing studies for a 2400-MW, coal-fired plant.

Environmental Assessment of Gas Turbine Electrical Generating Facility, World Bank **Hunts Bay, Jamaica**
Air Engineer responsible for developing mitigation and monitoring measures based on the results of air modeling to reduce the impacts from SO_2 and NO_x in the Hunts Bay area.

Development of Air Quality Standards for the Government of Mauritius for the World Bank **Mauritius**
Project Manager tasked with assisting the government of Mauritius in developing air quality standards and designing appropriate monitoring programs required for regulatory enforcement.

Environmental Assessment for 60-MW Diesel-Powered Facility **Rockfort, Jamaica**
Air Engineer responsible for developing mitigation and monitoring measures based on the results of air modeling to reduce the impacts from sulfur dioxide and nitrogen oxides in the Rockfort project area.

Environmental Assessment of the Gas/Coal Electrical Generating Facility in Mauritius for the World Bank **St. Aubin, Mauritius**
Project Director responsible for conducting all field work for the environmental assessment of a coal- and gas-fired electrical generating facility at St. Aubin in air quality, water quality, and ecology.

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Environmental Screening of Four Proposed Power Plant Sites for the World Bank — **Kingston, Jamaica**

Air Engineer responsible for conducting the air quality components of an environmental screening of four potential sites for a 60-MW diesel electrical generating facility.

Technical Cooperation Mission for the World Bank — **Multiple Sites in Bulgaria**

Team Member on the World Bank Mission to determine the major environmental problems in Bulgaria and to identify potential areas for World Bank funding. Responsible for portions of the mission involving toxic/hazardous waste and air pollution. Contributed to the mission's Aide Memoire and directed the preparation of an overall report summarizing the state of the environment in Bulgaria.

Environmental Strategy Study of Air Quality, World Bank — **Multiple Sites in Hungary**

Team Member on mission providing an overview of key air quality problems in Hungary; a description and assessment of regulatory institutions, regulations, and policy; and identification of initial approaches and investment opportunities for improving air quality. During the mission, discussions were held with relevant governmental organizations, various industries, and environmental interest groups (non-governmental organizations) throughout Hungary. Project focused on preparation of an Aide Memoire and summary report dealing with industrial pollution.

Environmental Project for World Bank — **Katewice/Krakow, Poland**

Team Member of the World Bank Mission that recommended and defined an environmental project for the Katewice/Krakow area. Interviewed various governmental personnel to determine needs and developed a comprehensive program for a $7-million loan. Developed request for quotations for various components of the recommended study. The focus of the study was air quality.

Multidisciplinary Electric Power Plant Projects for the U.S. Agency for International Development(USAID) — **Multiple Sites, Pakistan**

Project Manager for several multidisciplinary projects involving the development of electrical power plants in Pakistan. The projects included the Lakhra Mine and Power Plant EA, the Jamshoro Oil-Fired Power Plant EA, the Guddu Combined-Cycle Expansion Project, the Kalifia Point Private Sector Power Project, and the Environmental Guidelines for Electric Power Development in Pakistan.

Private Sector Power Project for USAID — **Multiple Sites, Pakistan**

Project Manager responsible for performance of an air quality impact evaluation to investigate a large coal-fired power plant planned by the Government of Pakistan and a 1,200-MW oil-fired power plant proposed by a group of private firms. Determined the air quality effects of each plant, as well as the cumulative effects of both plants, on the area's ambient air quality. Prepared guidelines providing the private sector proposer a framework for preparing an EA from which significant environmental impacts and alternative designs to mitigate them can be determined. Project also included the establishment of a framework for future assessments of the respective plants, a preliminary evaluation of cooling water requirements, and a determination of potential water quality and ecological impacts.

Guddu Environmental and Social Soundness Assessment for Gibbs & Hill, Inc. — **Guddu, Pakistan**

Project Manager of an Environmental and Social Soundness Assessment (ESSA) associated with the construction and operation of a proposed 300-MW addition to a 600-MW combined-cycle power plant in Guddu, Pakistan. The ESSA, designed to provide decision makers with a full discussion of significant

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environmental effects associated with the power plant expansion, included an evaluation of alternatives or mitigating measures.

Duri Field EA for Caltex Pacific **Duri Field, Indonesia**

Project Manager of the air quality assessment of the Duri Field steam-flood project. This project was the largest steam-flood project in the world and involved an assessment of over 300 steam generators using Duri Crude. Directed all activities and presented the results of the study to the newly formed Ministry of Environment.

EAs of Electrical Generating Facilities for
Electricity Generating Authority of Thailand (EGAT) **Multiple Sites, Thailand**

Project Manager for 8 years of numerous multidisciplinary projects involving EAs of electrical generating facilities in Thailand. The projects included an assessment of a 600-MW coal-fired power plant in Ao Pai; an assessment of constructing 600 MW of additional generation at the Mae Moh site; an assessment of a combined-cycle power plant at Khanom; and a mine and power plant mitigation assessment for the Mae Moh facility.

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EXPERT/EXPERT WITNESS TESTIMONY EXPERIENCE

Mr. Kosky has provided expert testimony in over 50 Cases. He has testified in the following types of proceedings:

- Hearing Officers and Administrative Law Judges (ALJs);
- Public Service Commissions;
- Circuit Court;
- Federal District Court;
- Governor of Florida;
- State and County Environmental Commissions;
- Environmental review Boards;
- County Commissions;
- Land Use Commissions; and
- EPA.

Mr. Kosky has been accepted as an expert in the following areas:

- Air Quality Impact Analyses;
- Air Pollution Control Technology (Design and Engineering);
- Best Available Control Technology;
- Air Pollution Emission Estimates;
- Air Regulation and Compliance; and
- Noise Evaluation and Impact Analyses.

Mr. Kosky has been accepted as an expert in proceeding held in the following states:

- Florida,
- Maryland,
- Georgia,
- South Carolina,
- Hawaii,
- California, and
- Louisiana.

Agrico Chemical Company **Bartow, FL**
Florida Department of Environmental Regulation Administrative Hearing. Provided assistance to attorneys at hearing for cross examination of opposing witnesses. Case involved permits for prilled sulfur terminal. 1979.

Fugitive Emissions Expertise **Alachua County, Florida**
Circuit Court. Provided expert testimony on the impacts of fugitive dust related to highway construction.

AstraZeneca **Tarpon Springs, FL**
EPA ASTDR. Provided technical support for Stauffer Chemical Company Superfund Site. Technical expertise provided in air monitoring and air impact analyses. 2001 to present.

Baltimore Gas and Electric Company **Baltimore, MD**
Provided expert testimony for the following:

- Presentation for Maryland PSC staff and hearing examiners on the technical issues related to BACT. 1992.

Kennard F. Kosky, M.S., P.E.

- Hearing Examiner. Provided direct and supplemental written expert testimony for 800-MW combined-cycle Perryman Project. Testimony required for the PSC CPNC. Testimony focused on air emissions and BACT for the project. 1990 to 1991.

Broward County Resource Recovery Office **Broward County, FL**
Hearing Examiner. Preparation and presentation of testimony for the North and South Broward County Resource Recovery projects on BACT. Testimony was part of a power plant site certification project. 1985 to 1986.

Calpine Eastern Corporation **Auburndale, FL**
Administrative Law Judge. Provided expert testimony on a 500-MW combined-cycle unit located at the Osprey Energy Center in Auburndale, Polk County, Florida. Testimony focused on air emissions, BACT, and noise. 2001.

Chevron, Inc. **Pensacola, FL**
Presentation before an EPA Region IV panel regarding the air emissions and impacts of drilling rig as part of Outer Continental Shelf Air Permit (40 CFR 55). The project was located in Destin Dome, which is located about 30 miles offshore from Pensacola. Permit was granted.

City of Jacksonville **Jacksonville, FL**
Circuit Court. Provided technical support for a class certification involving the air quality impacts of incinerators operating from about 1950 to 1970. Provided technical analysis and presented opinions at a deposition. 2004.

City of Lakeland Utilities **Lakeland, FL**
Provided expertise for the following:

- Administrative Law Judge. Presented expert testimony on the addition of the steam cycle for McIntosh Unit 5. As Project Manager for the project, the testimony covered all environmental disciplines including air emissions, BACT, and general environmental impacts.
- Hearing Examiner. Presented technical information and the results of modeling during hearings on site certification for a new electrical generating plant.

Constellation Energy **Ann Arundel County, MD**
Public Service Commission Hearing Officer. Provided expert testimony for an application for a Certificate of Public Necessity and Convenience (CPCN) for the installation of air pollution control systems and boiler/turbine upgrades for the Brandon Shores Generating Station. Testified on air quality including BACT, noise and visual aspect of the application.

Constellation Energy **Brevard County, FL**
Administrative Law Judge. Provided expert testimony for the air pollution controls and BACT for an 850-MW simple-cycle power plant to be located in Brevard County.

Confidential Clients
Provided expertise for the following (only partially listed):

- Provided technical expertise in anticipation of litigation for dioxin contamination from a refinery. Performed air impact analysis and assessment.
- Provided expert technical expertise for cases filed against facilities by Justice Department related to EPA's New Source Review regulations. 1998 to present.

Kennard F. Kosky, M.S., P.E.

Del Monte Fresh Produce, Inc. Power & Light Company **Oahu. HI**
Jury Trial. Provided testimony in the United States District Court, District of Hawaii, related to air emission and impacts from pesticides. 2004.

Delmarva Power & Light Company **Dorchester, MD**
Hearing Examiner. Provided direct and supplemental written and oral testimony for nominal 300-MW coal-fired power plant located in Dorchester, Maryland. Case was part of the CPCN before the Maryland PSC. Testimony was related to the air pollution control technology, Lowest Achievable Emission Rate (LAER) and BACT. 1994.

Florida Department of Environmental Regulation **Multiple Sites, FL**
Provided expertise for the following:

- Hearing Examiner. FDER. Provided expert testimony regarding NO_x emission limits for fossil fuel steam generators. Three hearings involved and ultimately lead to the NO_x task force. 1973.
- Hearing Examiner. Florida Environmental Regulation Commission (FERC). Administrative Hearing. Testified on impacts of rule change on phosphate rock dryers. Testimony related to air quality impacts and control technology. 1973.
- Hearing Examiner. FDER Administrative Hearing. Prepared testimony on air quality impacts of control strategy for pulp mill. Testimony involved dispersion modeling and control techniques. 1973.
- FERC. Testimony on emergency action plans and compliance schedules for the State Implementation Plan. Testimony given at six locations throughout Florida. 1973.

Florida Electric Power Coordinating Group **Multiple Site, FL**
Provided expertise for the following:

- FERC and Honorable Bob Graham, Governor of Florida. Two Hearings. Prepared technical information that allowed suspension of emissions for 120 days due to energy emergency. Approval given by all parties. 1979.
- FERC. Prepared report and testimony and presented support of a rule change for three southeast Florida counties. Rule change involved elevating ambient air quality standards. The rules were changed to be consistent with the rest of the state. 1975.
- FERC. Prepared report and testimony presented in support of a rule change that would allow the use of fuel with a higher sulfur content. Project involved approximately 10,000 MW of fossil-fueled steam generators. The rule was changed. 1975.

Florida Power Corporation (Progress Energy) **Multiple Sites, FL**
Provided expertise for the following:

- Administrative Law Judge. Provided expert testimony on a gas and distillate oil-fired 500-MW combined-cycle unit located at the Hines Energy Center in Polk County, Florida. Testimony focused on air emissions, BACT, air impacts, and noise. Certification issued by Governor and Cabinet. 2001.
- Administrative Law Judge. Provided expert testimony for the use of petroleum coke with coal in two units at the Crystal River Power Plant. Focus of testimony was regulatory applicability of PSD rules to the use of petroleum coke. 1997.
- Hearing Examiner. FDER Administrative Hearing. Presented testimony on environmental impacts of Crystal River Units 4 and 5 (1,400-MW, coal-fired power plant). Permit approved. 1978.

Kennard F. Kosky, M.S., P.E.

Florida Power & Light Company **Multiple Sites, FL**

Expert testimony provided for the following:

- Florida Public Service Commission. Provided expert testimony on the environmental impacts and future environmental costs (CAIR, CAMR, and potential greenhouse gas legislation) in the need case for the FPL Glades Power Project. 2007.
- Administrative Law Judge. Provided expert testimony for the West County Energy Center, a 2,450-MW Power Plant located in Palm Beach County, Florida. Testimony included air emissions (toxics), air quality impacts, and noise. 2006.
- St. Lucie County Board of County Commissioners. Provided expert testimony at the land use hearing before the St. Lucie County Commission of the emissions and air quality impacts of the 1,700 MW Southwest St. Lucie Power Project.
- Administrative Law Judge. Provided expert testimony for Turkey Point Expansion Project, an 1,100-MW Power Plant located in Miami-Dade County, Florida. Testimony included air emissions (toxics), air quality impacts, and noise. 2004.
- Administrative Law Judge. Provided expert testimony for Manatee Expansion Project, an 1,100-MW Power Plant located in Manatee County, Florida. Testimony included air emissions (toxics), air quality impacts, and noise. 2003.
- Administrative Law Judge. Provided expert testimony for Martin Expansion Project a 1,100-MW Power Plant located in Martin County, Florida. Testimony included air emissions (toxics), air quality impacts, and noise. 2003.
- Manatee County Planning Commission and Manatee County Board of County Commission. Provided testimony on environmental issues related to land use for the Manatee Combined-Cycle Project. 2002.
- PSC for South Carolina. Provided expert testimony for the Cherokee Falls simple-cycle power project. Testimony covered all environmental matters related to the project. 2002.
- Administrative Law Judge. Provided expert testimony for Manatee Orimulsion Conversion Project. Focus of testimony was BACT and air emissions (including toxics). 1998.
- Administrative Law Judge. Provided expert testimony for Manatee Orimulsion Conversion Project. Focus of testimony was BACT and air emissions (including toxics). 1995.
- Hearing Examiner. Provided expert testimony for the Martin combined-cycle project (1,600-MW combined-cycle coal gasification facility). Provided testimony on air emissions and BACT for Site Certification issued by Governor and Cabinet. 1990.
- Hearing Examiner. Expert testimony provided for the Lauderdale Repowering Project (800-MW combined-cycle facility). Testimony provided on air emissions, BACT, and noise. 1990.
- FDER Official. Expert testimony provided for SIP revision, various PSD aspects of test firing Orimulsion in a 400-MW gas-/oil-fired power plant. Air emissions and impacts presented. 1990.
- Hearing Examiner. Presented expert testimony for FPL to assess impacts from atmospheric downwash at 225-MW oil/natural gas-fired power plant. 1984.
- Broward County Commission. Prepared and presented testimony concerning the air quality impacts of using 2.5-percent sulfur fuel in FPL's 1,200-MW Port Everglades Plant. 1982.
- Dade County Environmental Resource Management Board. Prepared and presented testimony concerning the air quality impact of using 2.5-percent sulfur fuel in FPL's 800-MW Turkey Point Plant. Two hearings were held. The impacts to a PSD Class I area were at issue. 1982.
- Manatee County Commission. Prepared and presented testimony on the air quality impact of using 2.5-percent sulfur fuel in FPL's 1,600-MW Manatee Plant. Two hearings were involved. 1981.
- FDER. Presented testimony related to air quality impacts for particulate variance for FPL's Sanford, Ft. Myers, and Canaveral power plants. Variance extended. 1981.

Kennard F. Kosky, M.S., P.E.

- FERC. Testified before the FERC concerning the impacts of Sanford Unit 4 firing with coal-oil mixture (COM). FPL's request was for a temporary variance in particulate emissions so that full scale testing of COM could be performed. 1980.
- Dade County Commission. Prepared testimony and presented the results of modeling and technical information in support of a rule change on ambient air quality standards. 1977.
- FERC. Prepared testimony and presented the results of atmospheric dispersion modeling and other technical data at two separate hearings before the FERC in support of the contention that FPL's Manatee Plant was an existing source and thus could burn higher sulfur fuel. Approval given by both state and EPA. 1976.

Florida Sugar Cane League **Multiple Sites, FL**

Expertise provided for the following:

- Palm Beach County Commission. Testified in opposition to proposed special emission limits on the sugar cane industry in Palm Beach County. 1976.
- Florida Congressional Representative Paul Rogers. Presented technical information pertaining to CAA Amendments. Presentation in support of the League's position with respect to a proposed rule governing the significant deterioration of air quality. 1976.
- FERC. Presented testimony on the results of modeling and other technical information in support of the SO_2 rule change for three Florida counties. 1975.

Gold Kist **Live Oak, FL**

Local district court. Prepared reports, testimony, and interrogatories on case involving air pollution impacts on local car dealer. 1975 to 1979.

Lake Worth Utilities **Lake Worth, FL**

Hearing Examiner. Presented technical information and the results of modeling during hearings on site certification for a new electrical generating plant. 1977.

Maxwell House Division, General Foods Corporation **Jacksonville, FL**

District Administrator of the Occupational Safety and Health Administration (OSHA). Testified in support of the noise reduction program at the Maxwell House can plant. 1975.

McGowan Working Partners **Jefferson Parrish, LA**

Judge for the Second Parish Court. Provided expert testimony related to the air emissions and dispersion of a short-term spill of 31% hydrochloric acid from a tank.

Metropolitan Dade County **Dade County, FL**

Provided expert testimony in the following:

- PSC. Provided direct written and oral testimony for an addition to the Metropolitan Dade County Resource Recovery Facility, Florida. Case was part of the Site Certification under Florida's Power Plant Siting Act and ruled before the Governor and Cabinet acting as the Siting Board. In these proceedings, the PSC certifies the need for the project. Testimony was related to the purpose and need for the addition to the facility. This included compliance with state rules and legislative intent related to the project. 1993.
- Hearing Examiner. Presented expert testimony on the environmental impacts of Dade County Resource Recovery Facility consisting of four steam generators and associated turbines generating 77 MW by firing refuse-derived fuel. Permit granted. 1977.

Kennard F. Kosky, M.S., P.E.

Mirant Corporation **Multiple Sites, MD**

Provided expert testimony for the following:

- PSC Hearing Officer. Provided testimony on air quality aspects of the installation of FGD systems for the Morgantown Generating Plant Units 1 and 2. 2007
- PSC Hearing Officer. Provided testimony on air quality aspects of the installation of FGD systems for the Chalk Point Generating Plant Units 1 and 2. 2007.
- PSC Hearing Officer. Provided testimony on all air-related analyses for the installation of FGD systems on Dickerson Generating Station Units 1 through 3. 2007.
- PSC Hearing Officer. Provided testimony on all air-related analyses for the Chalk Point Simple-Cycle Project.
- PSC Hearing Officer. Provided testimony on all air related analyses for the Dickerson Combined-Cycle Project. 2001 and 2002.

Montenay Power Corporation **Miami-Dade County, FL**

Miami-Dade County Community Zoning Appeals Board. Provided expert testimony on the potential impacts of an existing resource recovery facility on a parcel of land being re-zoned from industrial to residential. Testimony included air quality impacts from fugitive dusts and odors as well as noise.

O.K.C. Cement **Sumter County, FL**

FDER Administrative Hearing. Testified about the results of atmospheric dispersion modeling and air quality analysis during hearings about significant deterioration. 1977.

Potomac Electric Power Company — Provided expert testimony for the following:

- Hearing Examiner. Provided expert testimony for Chalk Point CTs (two 100-MW and two 80-MW). Testimony focused on siting and overall environmental impacts. 1988 to 1989.
- Hearing Examiner. Preparation and presentation of direct and rebuttal testimony on the environmental aspects of siting a coal gasification combined-cycle power plant. Case involved the Maryland Public Service Commission. 1987 to 1988.

Seminole Electric Cooperative Incorporated

Provided expert testimony for the following:

- Hearing Examiner. Provided direct written and oral testimony for 440-MW combined-cycle power plant located in Hardee County, Florida. Case was part of the Site Certification under Florida's Power Plant Siting Act and ruled before the Governor and Cabinet acting as the Siting Board. Testimony was related to the air pollution control technology, BACT, and noise impacts. 1995.
- Hearing Examiner. Provided expert testimony on air emissions, noise, and BACT for the Hardee Power Station, a 600-MW combined-cycle facility in central Florida. 1990.

Tampa Electric Company (TECO) **Tampa, FL**

Provided expertise for the following:

- FERC. Prepared testimony based on the results of modeling and other technical data in support of the contention that TECO's Big Bend Unit 3 was an existing source and thus could burn higher sulfur fuel. 1976.
- Fifth Circuit Court of Appeals. Assisted in the preparation of legal briefs for litigation of the EPA's ruling concerning SIP revision. Case involved atmospheric dispersion modeling. 1976.
- Hillsborough County Environmental Regulatory Commission. Prepared reports and testimony on air quality standards and significant deterioration. 1976.

Kennard F. Kosky, M.S., P.E.

- FDER Administrative Hearing. Prepared testimony in support of TECO's proposed use of high sulfur fuel. Technical information and the results of atmospheric dispersion modeling were presented during hearings on significant deterioration of air quality. 1976.
- EPA Region IV Administrator. Testified in opposition to the Administrator's ruling regarding TECO's proposed use of high sulfur fuel. 1975.

TexasGulf, Inc. **NC**

Assisted senior counsel in responding to a Notice of Violation from the State of North Carolina. Provided technical expertise and reports for submittal to court. 1981.

The Viera Company **Brevard County, FL**

Assisted senior counsel in the mediation involving odors and air quality impacts of a revised air pollution permit. Provided technical expertise and review of reports. 1999.

Woodward Hall & Primm **Houston, TX**

Assisted senior counsel in the toxic tort suit involving the Motco Superfund Site. Technical expert for air monitoring and air quality impacts. Provided technical expertise, review of plaintiff's reports, and provided independent reports.

Kennard F. Kosky, M.S., P.E.

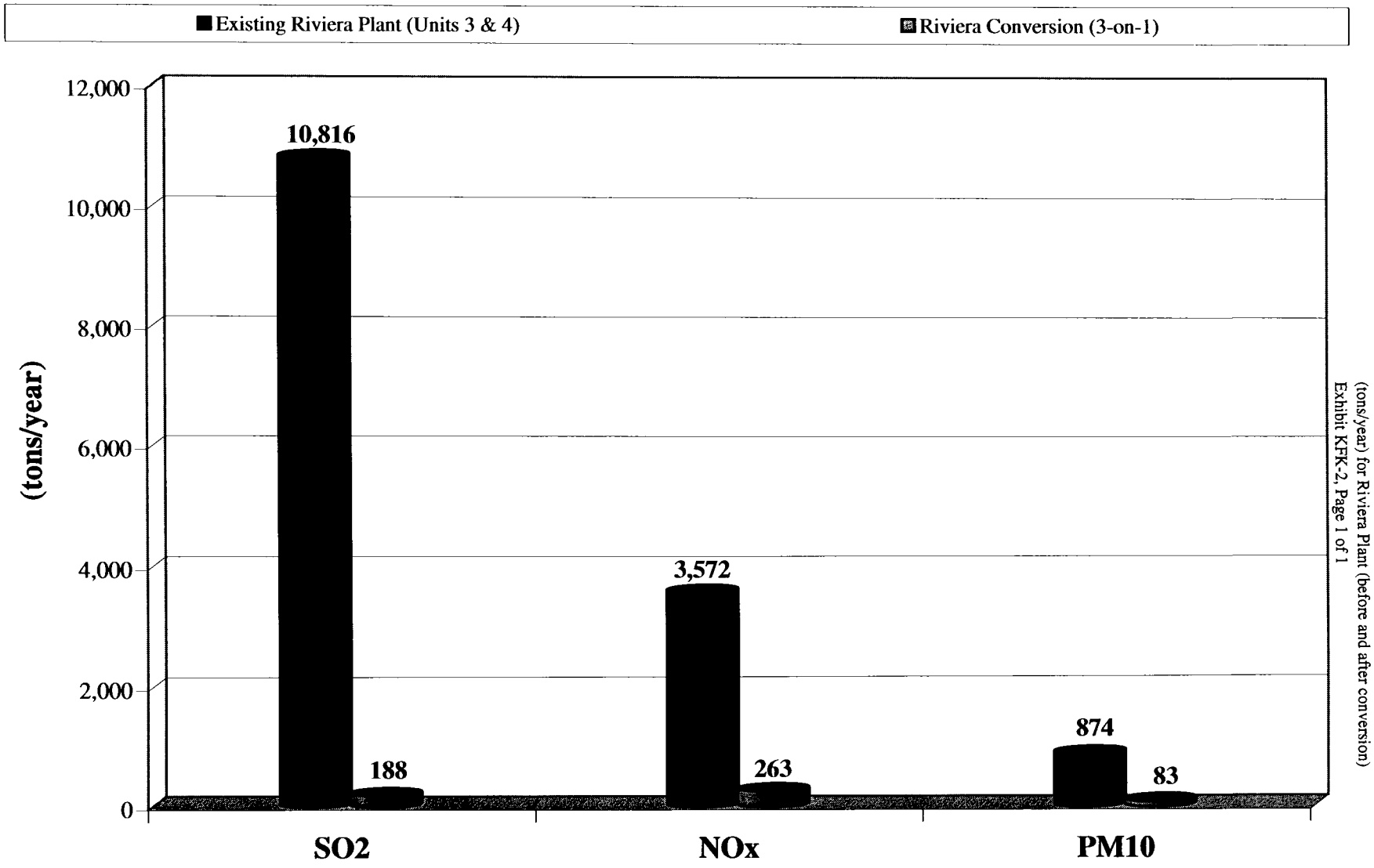
PUBLICATIONS

Mr. Kosky has authored and coauthored hundreds of reports and permits submitted to regulatory agencies. He has authored and coauthored over a dozen articles related to air pollution topics (i.e., emission estimates, air impacts, and permitting) and licensing power generation facilities.

LANGUAGES

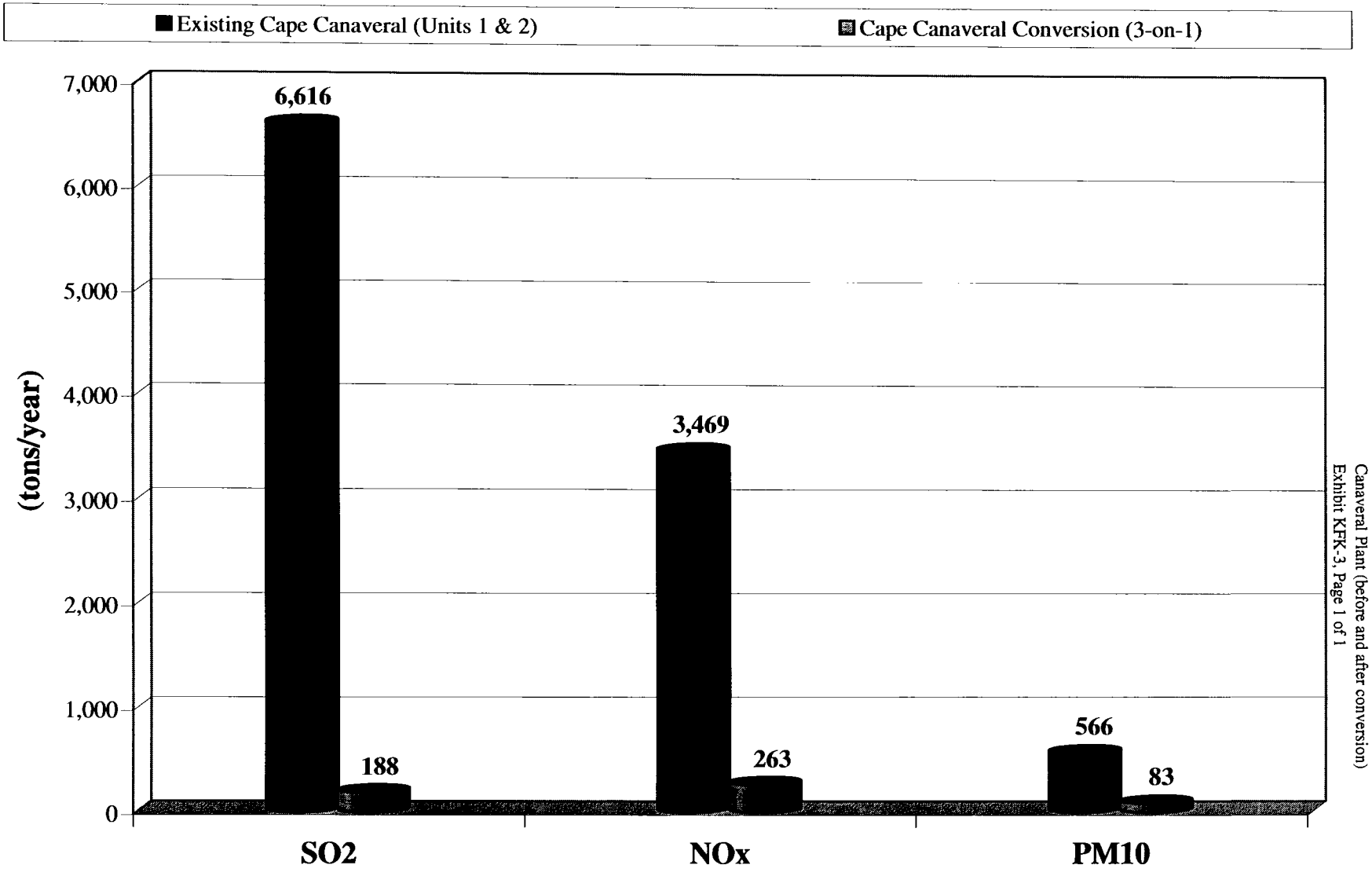
English (Native Speaker)
Spanish (Read)

SO_2, NO_x, and PM Emissions (tons/year) for Riviera Plant



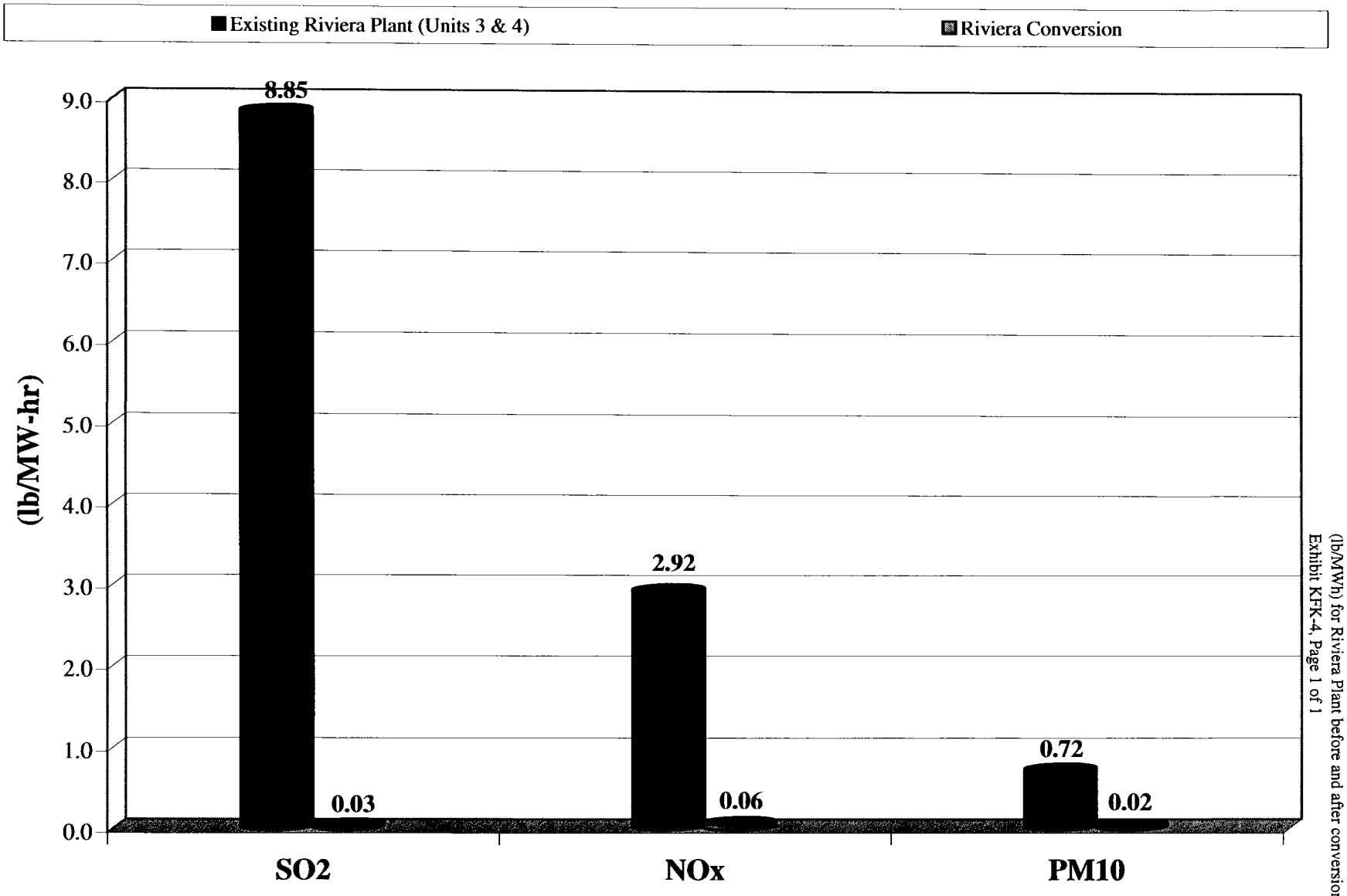
Docket No. 08____-EI
Sulfur dioxide (SO2), nitrogen oxides (NOx) and Particulate Matter emissions (tons/year) for Riviera Plant (before and after conversion)
Exhibit KFK-2, Page 1 of 1

SO_2, NO_x, and PM Emissions (tons/year) for Cape Canaveral Plant



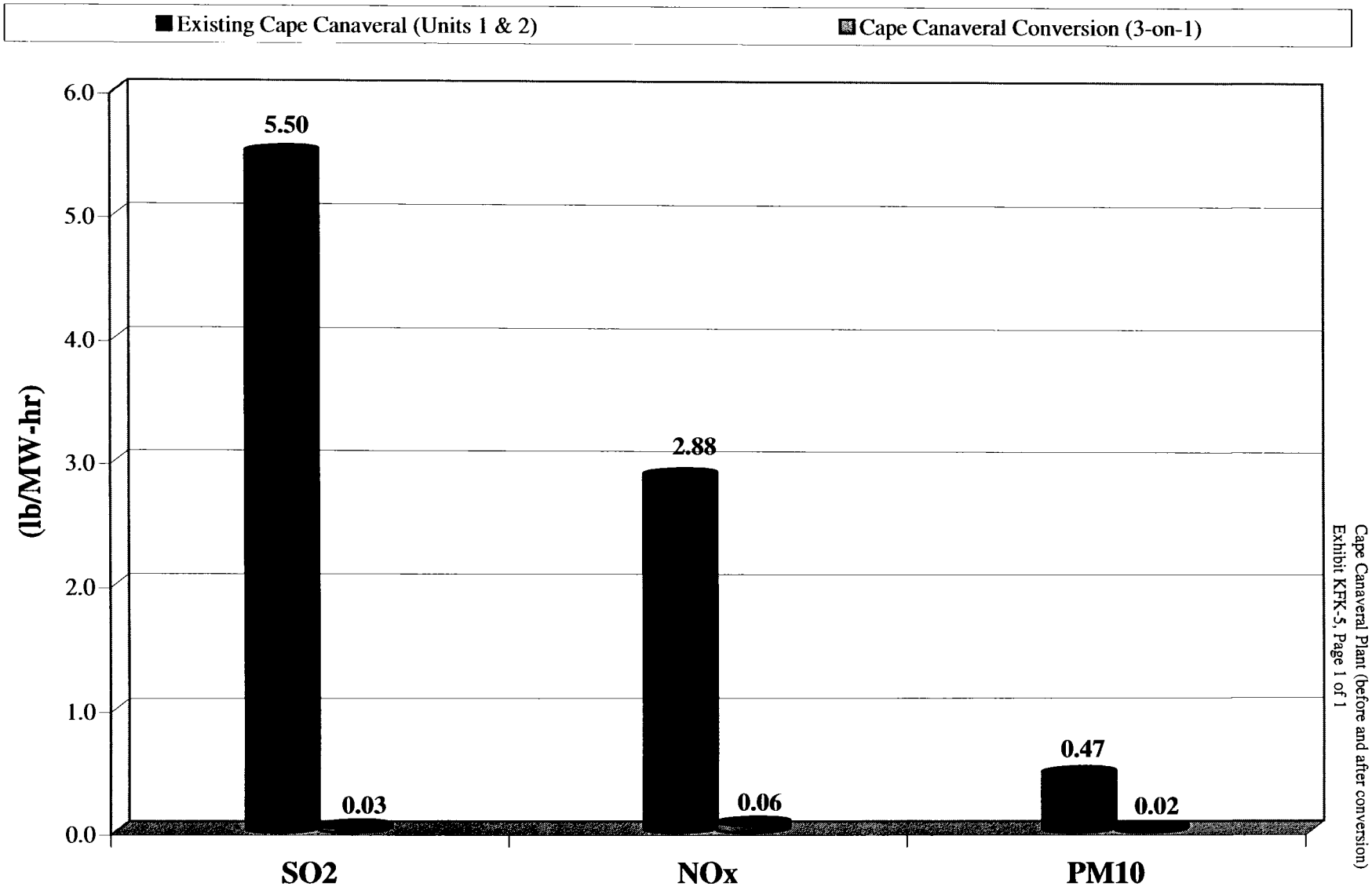
Docket No. 08____-EI
SO2, NOx and Particulate Matter emissions (tons/year) for Cape Canaveral Plant (before and after conversion)
Exhibit KFK-3, Page 1 of 1

SO_2, NO_x, and PM Emission Rates (lb/MW-hr) for Riviera Plant



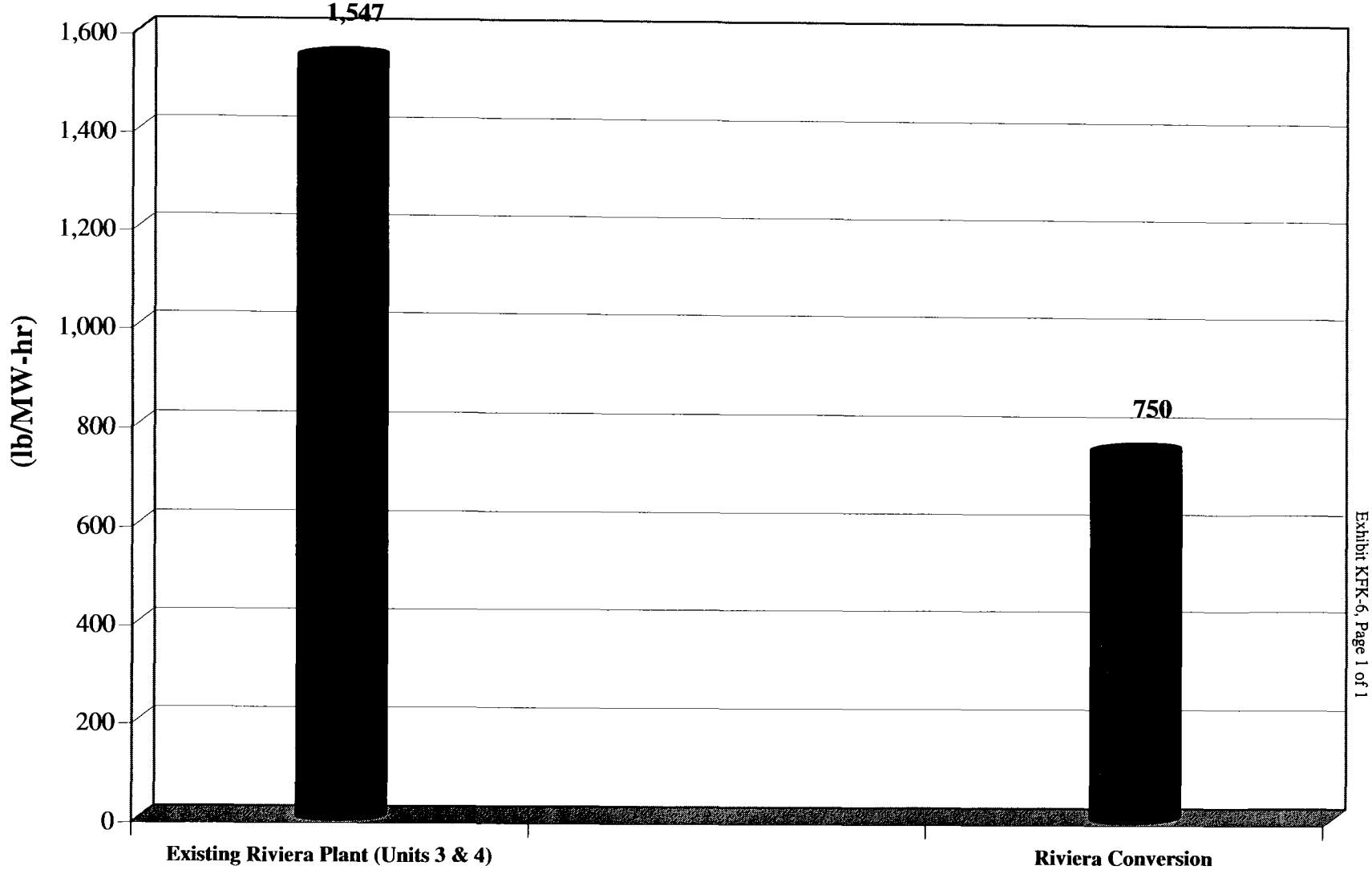
Docket No. 08____-EI
SO2, NOx and Particulate Matter emission rate (lb/MWh) for Riviera Plant before and after conversion
Exhibit KFK-4, Page 1 of 1

SO_2, NO_x, and PM Emission Rate (lb/MW-hr) for Cape Canaveral



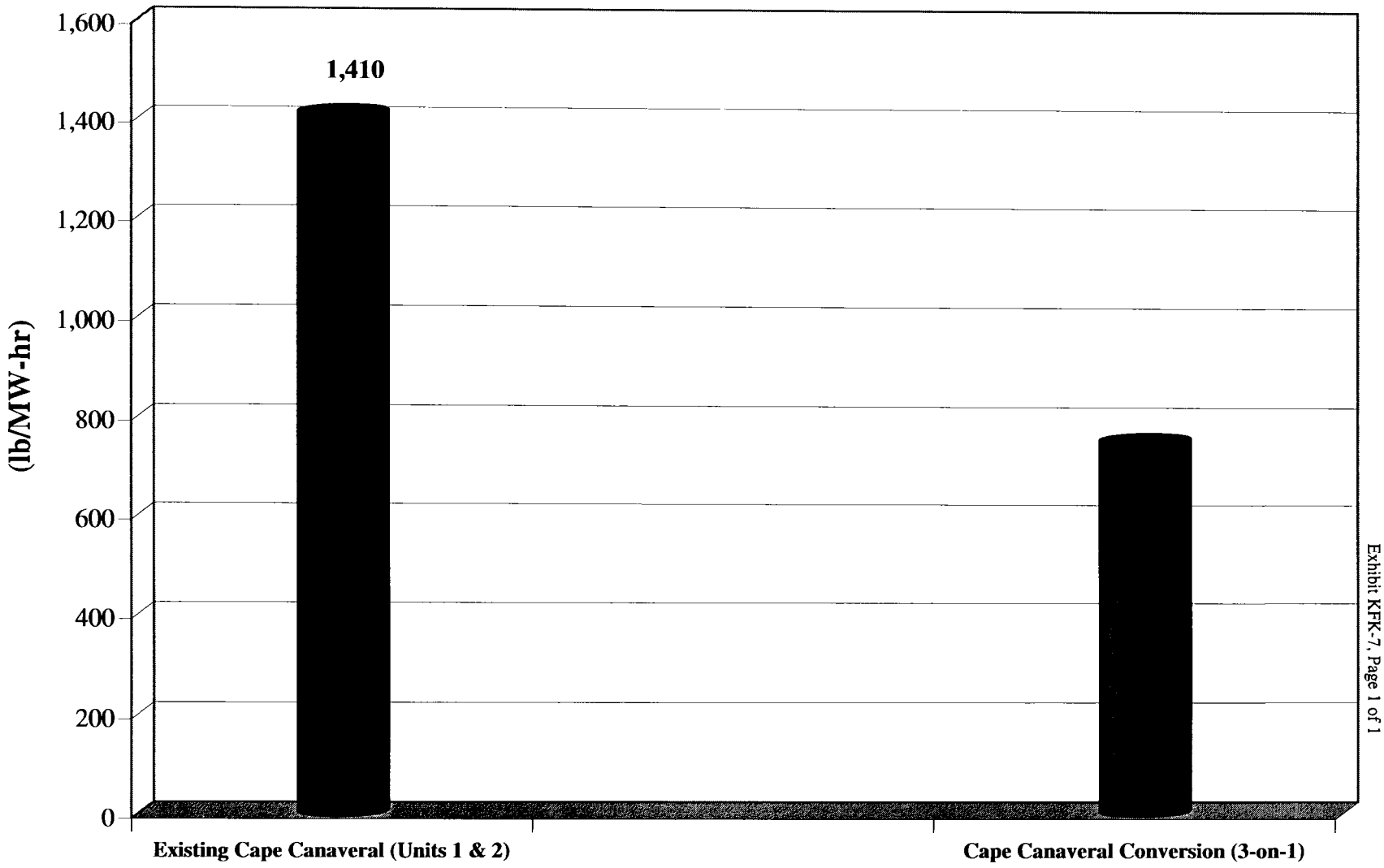
Docket No. 08____-EI
SO2, NOx and Particulate Matter emission rate (lb/MWh) for Cape Canaveral Plant (before and after conversion)
Exhibit KFK-5, Page 1 of 1

CO_2 Emission Rates (lb/MW-hr) for Riviera Plant

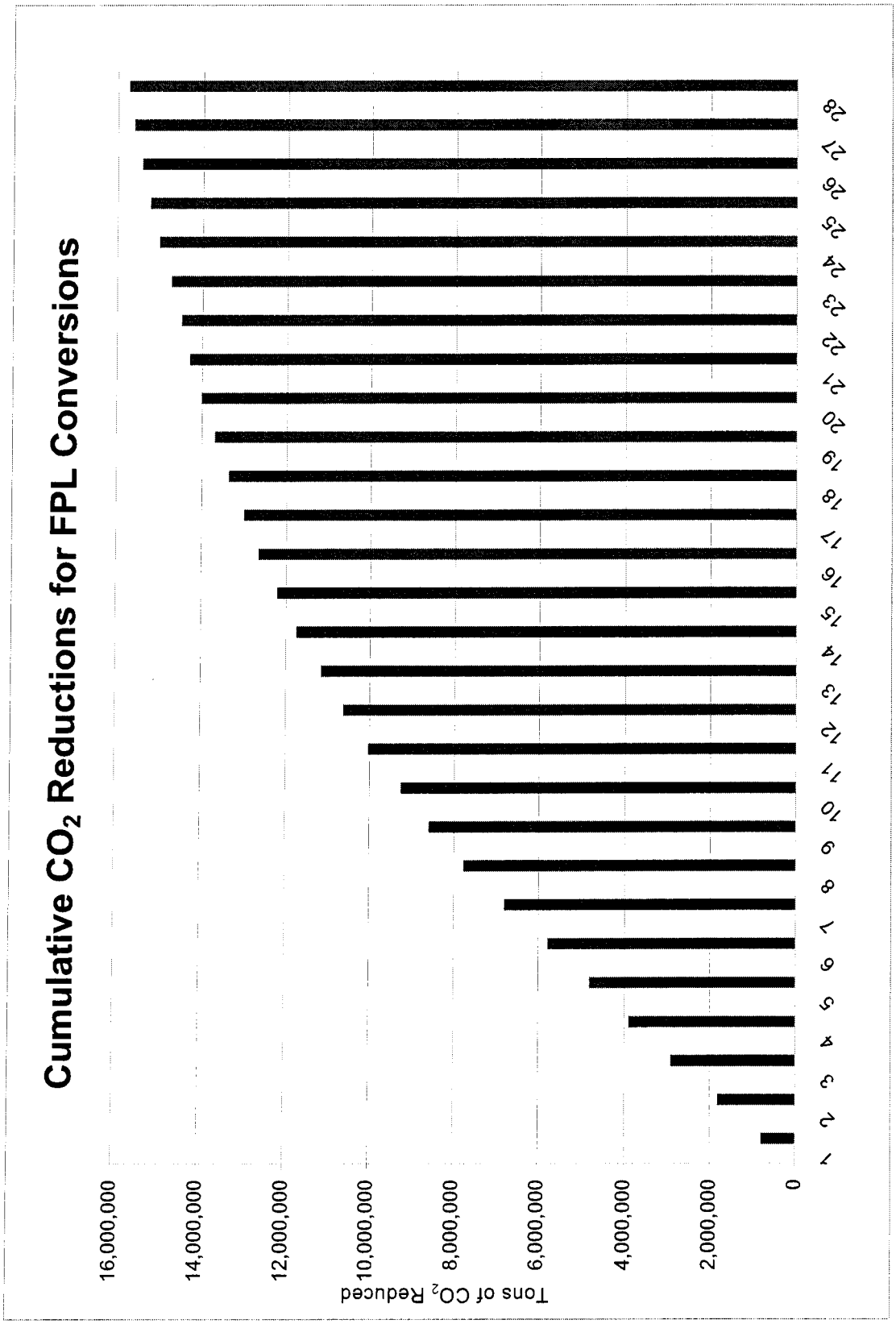


Docket No. 08____-EI
Carbon dioxide (CO2) emission rate (lb/MWh) for Riviera Plant (before and after conversion)
Exhibit KFK-6, Page 1 of 1

CO_2 Emissions Rates for Cape Canaveral (lb/MW-hr)



Docket No. 08____-EI
Carbon dioxide (CO2) emission rate (lb/MWh) for Cape Canaveral Plant (before and after conversion)
Exhibit KFK-7, Page 1 of 1


Cumulative CO_2 Reductions for FPL Conversions
Tons of CO_2 Reduced
16,000,000
14,000,000
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
0
1
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3
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