Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:

   Larry J. Adkins, Plant Mgr, Designated Acid Rain Rep

2. Owner/Authorized Representative or Responsible Official Mailing Address:

Organization/Firm: **Orlando CoGen Limited, L.P.**
Street Address: **8275 Exchange Drive**
City: **Orlando** State: **FL** Zip Code: **32809**

3. Owner/Authorized Representative or Responsible Official Telephone Numbers:

Telephone: **(407) 851-1350** Fax: **(407) 851-1686**

4. Owner/Authorized Representative or Responsible Official Statement:

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

Larry J Adkins
Signature

4/10/97
Date

* Attach letter of authorization if not currently on file.

RECEIVED
APR 11 1997
BUREAU OF
AIR REGULATION

4. Professional Engineer's Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [X] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [ ] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Bernard J. Kosky — 9 April 1997

Signature — Date

(seal)

Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates:
   Zone: **17** East (km): **459.5** North (km): **3146.1**

2. Facility Latitude/Longitude:
   Latitude (DD/MM/SS): **28 / 26 / 23** Longitude: (DD/MM/SS): **81 / 24 / 28**

3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
0	**A**	**49**	**4931**

7. Facility Comment (limit to 500 characters):

The Orlando CoGen Limited Facility consists of a single Combustion Turbine (CT) that exhausts through a heat recovery steam generator (HRSG) and a single stack. The CT is natural gas fired. The natural gas fired duct burners (DB) are located inside the HRSG.

Facility Contact

1. Name and Title of Facility Contact:
   Tom Hess, Environmental Engineer

2. Facility Contact Mailing Address:
   Organization/Firm: **Orlando CoGen Limited, L.P.**
   Street Address: **7201 Hamilton Blvd.**
   City: **Allentown** State: **PA** Zip Code: **18195-1501**

3. Facility Contact Telephone Numbers:
   Telephone: **(610) 481-7620** Fax: **(610) 481-2393**

D. Control Devices: (See Section V, Item 4) ***See Section 4.0 in PSD Application***

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)

E. Fuels ***See Table A-1 in PSD Application***

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas (CT)	*0.906 (59°F)*	*0.987 (20°F)*	*933.9 at 20°F*
Natural Gas (Duct Burner)	*0.106[a]*	*0.129*	*122.0*

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, others--lbs/hr.
[a]*Based on burning only natural gas for 4,500 hours/year @ 100 x 10^6Btu/hr*
Fuel Analysis:

Percent Sulfur: *1 grain/100 cubic feet (CF) of gas* Percent Ash: *Negligible*

Density: _____ lbs/gal Typical Percent Nitrogen: *Negligible*

Heat Capacity: *946 Btu/CF; 20,877* BTU/lb *NA* BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average *Not Applicable* Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

All wastewaters generated from the plant will be discharged to the Orange County Wastewater treatment POTW facility at Sandlake Road.

Table A-1. Design Information and Stack Parameters for Orlando CoGen Limited, L.P. Cogeneration Project

Data A	Gas Turbine Natural Gas 20°F - B	Gas Turbine Natural Gas 59°F - C	Gas Turbine Natural Gas 72°F - D	Gas Turbine Natural Gas 102°F - E	Duct Burner Natural Gas - F
General:					
Power (kW)	87,360.0	78,830.0	75,690.0	68,350.0	NA
Heat Rate (Btu/kwh)	10,690.0	10,870.0	10,960.0	11,270.0	NA
Heat Input (mmBtu/hr)	933.9	856.9	829.6	770.3	122.0
Natural Gas (lb/hr)	44,732.4	41,044.3	39,735.7	36,897.3	5,843.8
(cf/hr)	987,186.5	905,795.0	876,915.9	814,275.4	128,964.1
Fuel:					
Heat Content - (LHV)	20,877 Btu/lb	20,877 Btu/lb	20,877 Btu/lb	20,877 Btu/lb	20,877 Btu/lb
Sulfur	1 gr/100cf	1 gr/100cf	1 gr/100cf	1 gr/100cf	1 gr/100cf
CT Exhaust:	CT Only:	CT Only:	CT Only:	CT Only:	CT & DB Exhaust:
Volume Flow (acfm)	1,601,395	1,529,035	1,500,057	1,429,720	675,048
Volume Flow (scfm)	603,523	569,344	555,810	522,778	524,155
Mass Flow (lb/hr)	2,631,000	2,482,000	2,423,000	2,279,000	2,285,000
Temperature (°F)	941	958	965	984	220
Moisture (% Vol.)	6.10	6.70	7.10	9.30	9.20
Oxygen (% Vol.)	14.40	14.50	14.40	14.20	14.00
Molecular Weight	28.00	28.00	28.00	28.00	28.00
HRSG Stack:					
Volume Flow (acfm)	811,556	754,813	726,343		675,048
Temperature (°F)	250	240	230		220
Diameter (ft)	15.7	15.7	15.7		15.7
Velocity (ft/sec)	69.90	65.01	62.56		58.14

Note: CT and duct burner will fire natural gas only.
Duct burner maximum firing will be 450,000 MM Btu/year; i.e., 4,500 hours at 100 MM Btu/hr.
Duct burner operation is planned when ambient temperature is greater than 59°F.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: SO2
2. Total Percent Efficiency of Control: %
3. Potential Emissions: 2.82 lb/hour 12.4 tons/year
4. Synthetically Limited? [ ] Yes [X] No
5. Range of Estimated Fugitive/Other Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr
6. Emission Factor: 1 grain/100 cf Reference: Based on Natural Gas
7. Emissions Method Code: [ ] 0 [ ] 1 [X] 2 [ ] 3 [ ] 4 [ ] 5
8. Calculation of Emissions (limit to 600 characters): 987,209 cf/hr x 1 grain S/100 cf x 1 lb/7,000 grains x 2 lb SO2/165 = 2.82 lb/hr; 2.82 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb = 12.4 tons/yr
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Potential SO2 emissions are the same as presented in air construction application at 20 °F. SO2 is limited by 40CFR60.333.

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Pollutant Detail Information:

1. Pollutant Emitted: **PM**

2. Total Percent Efficiency of Control: %

3. Potential Emissions: **9** lb/hour **39.4** tons/year

4. Synthetically Limited? [ ] Yes [**X**] No

5. Range of Estimated Fugitive/Other Emissions:

   [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/yr

6. Emission Factor: **0.01 lb/mmBtu**

   Reference: **AC 48-206720**

7. Emissions Method Code:

   [**X**] 0 [ ] 1 [ ] 2 [ ] 3 [ ] 4 [ ] 5

8. Calculation of Emissions (limit to 600 characters):

   For 59°F: 857 MMBtu/hr x 0.01 lb/MMBtu = 9 lb/hr; 9 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb.
   For 20°F: 934 MMBtu/hr x 0.01 lb/MMBtu = 9 lb/hr; 9 lb/hr x 8,760 hr/yr x 1 ton/2,000 lb

9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):

   Potential hourly emissions based on 20 °F conditions and potential annual emissions based on 59°F conditions.

Attachment OR-E03-B6
Trivial (TR) / Exempt by Rule (ER) Facility-Wide Fugitive and De Minimis (FD) Activities List
Unregulated (UR)
Title V Project - Insignificant Activities List, Orlando Cogen Limited, L.P. Cogeneration Facility

Area	Emission Unit Description	Type
	Nalco 1371D Tank 1 @ 2,000 gal	TR
	Nalco 1360 Tank 1 @ 2,000 gal	TR
	Sodium Hydroxide (NaOH) 1 @ 1,500 gal	TR
	Sulfuric Acid Dry Tank 1 @ 50 gal	TR
	NaOH Day Tanks 1 @ 50 gal	TR
	Brine Feed Tank	TR
	Decarbonator/Degasifier Removes CO2 from raw water	TR
	Neutralization Basin and Pumps	TR
COOLING TOWER	Fresh Water Cooling Tower	ER
	Cooling Water Pumps	TR
CHILLER AREA	Refrigeration Chiller	TR
	Chiller Condensate Tank	TR
	Various pumps (Booster, condensate)	TR
GENERAL SITE	Surface Coating < 6.0 gal/day	ER
	Repairing Surfaces Brazing, Soldering or Welding	ER
	Plant Grounds Maintenance	ER
	Routine Maintenance	TR
	Non-halogenerated Solvent	TR
	Backup Generator 150 kW Natural Gas Fired	UR
	Natural Gas Meter Station	TR
OFFICE SHOP AREA	Office Equipment Operation	TR
	Routine Repairs	TR

TURBINE INLET COMPRESSOR CLEANER
MSDS SHEET

Turbotect

Turbotect

GAS TURBINE COMPRESSOR CLEANER

ON LINE
927

Solvent based for ON LINE and OFF LINE use

TURBOTECT 927 is a high quality, solvent based gas turbine compressor cleaner designed for ON LINE and OFF LINE cleaning. It is specifically formulated from organic solvents, surfactants, and emulsifiers designed to remove grease, oil, soot, and other deposits commonly found on gas turbine compressors. The ash free ingredients in TURBOTECT 927 have been carefully selected to insure that no incremental contamination of the hot section of the gas turbine can occur.

FUNCTION

TURBOTECT 927 forms a stable emulsion when mixed with the recommended amount of water (deionized or distilled water is required by most engine manufacturers for ON LINE cleaning) which is usually 1 part TURBOTECT 927 to 4 parts water.
For ON LINE cleaning TURBOTECT 927 is injected into the compressor section of the turbine while it is operating. Average power loss is reduced and periodic OFF LINE cleaning intervals can be extended. For OFF LINE cleaning TURBOTECT 927 is used at the same dilution strength, and following normal rinse and soak procedures the power recovery is normally significant.
TURBOTECT 927 has been treated with special inhibitors to insure compatibility with aluminum alloys, cadmium, magnesium-chrome alloys, nickel, nickel-cadmium, stainless steel, titanium alloys and common coatings.

NOTE: Engine manufacturer should be consulted prior to ON LINE cleaning to determine if cleaning at low ambient temperature is appropriate. Note that the freezing temperature of the cleaning mixture at above recommended dilution ratio (1:4) is -1°C (30°F)

HANDLING AND STORAGE

TURBOTECT 927 should be handled and stored as any hydrocarbon solvent. It should not be used full strength. TURBOTECT 927 is completely consumed during ON LINE use.

Following an OFF LINE wash, the dirty effluent should be disposed of in compliance with local regulations. We recommend that the oil fraction of the wash water be treated as used oil. It can be separated by breaking the emulsion.

SAFETY PRECAUTIONS

TURBOTECT 927 is an industrial chemical and should be handled with care, using the same precautions as with ordinary petroleum distillates. Do not spill or drain into sewage, streams or other bodies of water. Avoid open flame. Do not take internally and avoid skin and eye contact or prolonged exposure to vapor. For contact with eyes, flush with large amounts of clean water. In case of ingestion, do not induce vomiting and seek medical attention. Do not store near foodstuffs.

AVAILABILITY

TURBOTECT 927 is available in concentrated form in non-returnable steel drums containing approximately 208 liters (55 US Gallons).

TYPICAL SPECIFICATIONS

Appearance	*clear, amber liquid*
Specific gravity (g/cm^3)	*0.96*
Density (lb/gal)	*8.00*
Viscosity (cST @ 25.7° C)	*25*
Flash Point (Pensky Martens CC)	*85° C (185° F)*
Pour Point	*-1°C (30°F)*
Biodegradability of detergents	*95% **
Ash Content	*<0.005%*

6/93

* Contains hydrocarbon solvents

Spraytec, Inc.
P.O. Box 676, Brookfield, CT. 06804
Tel 203-775-2802 FAX 203-775-9339

Representative:
Contact Inc. 332 Federal Rd., Brookfield, CT U.S.A.
Telephone 203-775-8445
Telex 643078 CONTEC

MATERIAL SAFETY DATA SHEET

TURBOTECT 927

SPRAYTEC, INC.
P.O. Box 676
Brookfield, CT 06804

Chemtrec no.: 800/424-9300
Emergency Phone: 203/775-8445
Date: 7 June 1995

SECTION I- GENERAL INFORMATION

UN ID NUMBER:	None (Not Restricted by IATA)
NFPA HAZARD RATING:	[Health:1] [Flammability: 2] [Reactivity: 0]
GENERIC DESCRIPTION:	Detergents and surfactants suspended in petroleum distillate water.

SECTION II- HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

COMPONENT:	CAS NO.	TLV-ACGIH:
Dipropylene glycol methyl ether	34590-94-8	100 ppm
Hexylene glycol	107-41-5	25 ppm

THIS PRODUCT DOES NOT CONTAIN CARCINOGENS (NTP, IARC, or OSHA)

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT:	177°C (350°)F
SPECIFIC GRAVITY:	0.96 GM/CM^3 at 25°C (77° F)
VAPOR PRESSURE:	< 1 mm Hg at 25°C (77°F)
VAPOR DENSITY:	> 1 (Air = 1)
SOLUBILITY IN WATER:	Complete
APPEARANCE AND ODOR:	Clear amber liquid; Mild aromatic hydrocarbon odor.

NOTE: The above information is not intended for use in preparing product specifications. Contact Spraytec, Inc. before writing specifications.

SECTION IV- FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 85°C (185°F) (PMCC)
LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: Water fog, Dry Chemical, or Carbon dioxide
SPECIAL FIRE FIGHTING PROCEDURES: Self contained breathing apparatus and protective clothing should be used in fighting fires involving chemicals.

SECTION V- REACTIVITY DATA

STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	Will not occur
MATERIALS TO AVOID (INCOMPATIBILITY):	Strong oxidizing agents such as liquid chlorine, concentrated oxygen, sodium hypochlorite or calcium hypochlorite.

SECTION VI- HEALTH HAZARD DATA

EYES: Can cause temporary irritation, redness, tearing, blurred vision.
SKIN: Prolonged or repeated contact can cause irritation, drying, or dermatitis.
INHALATION: Can cause nasal and respiratory irritation, dizziness, fatigue, headache, unconsciousness or asphyxiation.
SWALLOWING: Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Aspiration of material into lungs can cause mild to severe injury or chemical pneumonitis which can be fatal.

TURBOTECT 927

SECTION VII- EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with large amounts of clean water. Seek medical attention.
SKIN: Thoroughly wash exposed areas with soap and water.
INHALATION: If affected, remove from exposure and seek immediate medical attention. If breathing is difficult or has stopped, administer artificial resuscitation and oxygen if available.
INGESTION: DO NOT Induce vomiting. Seek medical attention.

SECTION VIII- SPILL OR LEAK PROCEDURES

Shut off and eliminate all ignition sources. Keep people away. Stop spill at source. Dike off area to prevent spreading, and prevent run-off from entering sewers, streams, or other bodies of water. Pump or recover any free product to salvage tanks. Minimize breathing of vapors and ventilate confined spaces. Add sand, earth, or absorbent material to remaining material. Assure conformity with applicable government regulations.

SECTION IX- WASTE DISPOSAL/EMPTY CONTAINERS

Empty containers retain hazardous product residue and vapor. Do not pressurize, cut, weld, braze, drill, grind, or expose containers to heat. Do not reuse empty drums or attempt to clean. Empty drums should be drained, properly bunged and returned to a drum reconditioner or disposed of in accordance with governmental regulations.

SECTION X- PROTECTION AND PRECAUTIONS

VENTILATION: Use only with adequate ventilation to prevent exceeding exposure.
RESPIRATION: Use self-contained approved breathing apparatus in confined or enclosed space.
GLOVES: Use chemical-resistant gloves to avoid prolonged or repeated skin contact.
EYE PROTECTION: Use splash goggles or face shield where eye contact may occur. Keep containers closed when not in use. Do not store near head, open flames, or strong oxidants.
OTHER PRECAUTIONS: Keep containers closed when not in use. Do not store near head, open flames or strong oxidants.

SECTION XI- STATE COMPLIANCE IDENTITY INFORMATION

COMPONENT:	CAS NO.
Water	7732-18-5
Petroleum Distillate	64742-18-5
Nonylphenoxypoly (ethyleneoxy) ethane	9016-45-9
Triethanolamine	102-71-6
Hexylene glycol	107-41-5
Dipropylene glycol methyl ether	34590-94-8

SECTION XII- ECOLOGICAL INFORMATION

This product contains a petroleum distillate. Treat effluent as "oily waste," separating the oil phase by processing in an oily water separator or breaking the emulsion. Dispose of oil phase as oily waste in accordance with local regulations. Water phase effluent contains biodegradable detergents and should be disposed of in accordance with local regulations. See also Section IX "Waste Disposal/Empty Containers".

SARA TITLE III, SECTION 313

This Spraytec product contains no toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372 in excess of the applicable de minimus concentration.

The information and recommendations contained herein are, to the best of Spraytec's knowledge and belief, accurate and reliable. Spraytec does not warrant or guarantee their accuracy or reliability, and Spraytec shall not be liable for any loss or damage arising out of the use thereof.