TECO

TAMPA ELECTRIC

June 25, 2004

RECEIVED

JUN 28 2004

BUREAU OF AIR REGULATION

Mr. Al Linero
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via FedEx
Airbill No. 7918 7366 9662

Re: **Tampa Electric Company**
Big Bend Station
Title V Permit Renewal Application
Permit No. 0570039-013-AV

Project No.: 0570039-017-AV

Dear Mr. Linero:

Tampa Electric Company (TEC) is submitting a request for a renewal of the Big Bend Station Title V Air Operation Permit No. 0570039-013-AV. Pursuant to Rule 62-213.420(1)(a)3 and Rule 62-4.090, F.A.C., an application for renewal of a Title V operation permit must be submitted 180 days prior to expiration. Since Title V FINAL Permit Revision No. 0570039-013-AV expires on December 31, 2004, the permit renewal application for Big Bend must be submitted no later than July 5, 2004. This application package, consisting of the Department's *Application for Air Permit – Long Form* and all required supplemental facility and emission unit information, constitutes TEC's Title V permit renewal application for Big Bend and is submitted to satisfy the requirements of Chapter 62-213.400, F.A.C. Also within the permit application as Document II.D.9 is a copy of the requested changes to the current Title V Air Operation permit submitted to the Department on January 15, 2004. This request addresses a number of minor items in the current Title V permit TEC believes can be improved through minor revisions and clarifications along with additional revisions TEC has identified since the January 15, 2004 submittal. TEC is awaiting for the DRAFT Title V permit to be issued by the Department. Please find enclosed four (4) copies of the permit renewal application signed and sealed.

TEC appreciates the cooperation and consideration of the Department in this requested Title V permit renewal application for Big Bend Station. If you have any questions or comments pertaining to this request, please direct them to Raiza Calderon at (813) 228-4369.

Sincerely,

for

Laura Crouch
Manager - Air Programs
Environmental, Health, and Safety

EA/gm/RC183

Enclosure

c/enc: Ms. Cindy Phillips, FDEP
Mr. Jerry Kissel, FDEP SW District
Mr. Jerry Campbell – EPCHC

BIG BEND POWER STATION

TITLE V OPERATION PERMIT RENEWAL APPLICATION

VOLUME II

Prepared for:

TECO

TAMPA ELECTRIC
Tampa, Florida

Prepared by:

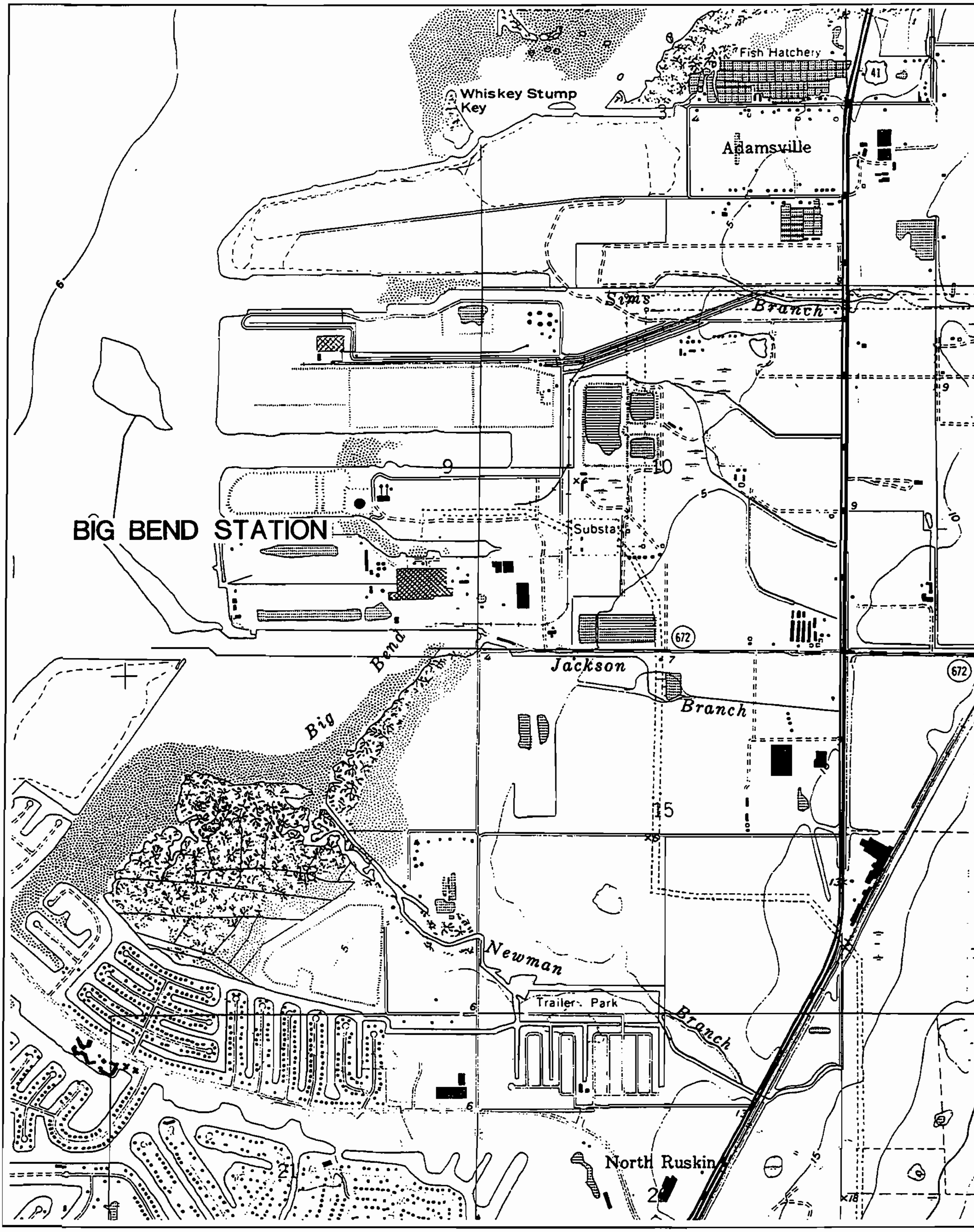
ECT
Environmental Consulting & Technology, Inc.
3701 Northwest 98th Street
Gainesville, Florida 32606

ECT No. 030612-0100

June 2004

DOCUMENT II.D.1

AREA MAP SHOWING FACILITY LOCATION



DOCUMENT II.D.1.
BIG BEND STATION AREA MAP

Source: USGS Quad, Gibsonton, FL, 1987.

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DOCUMENT II.D.2
FACILITY PLOT PLANS

Fuel Handling and Storage Sources (FH)

Description	Source ID	Figure No. Location	Figure No. Process
Barge Clamshell to Conveyor D1	FH-001	IID.2.E	II.D.3.A
Barge Bucket Elevator to Conveyor A1	FH-002	IID.2.E	II.D.3.A
Conveyor A1 to Conveyor B1	FH-003	IID.2.E	II.D.3.A
Conveyor B1 to Conveyor D1	FH-004	IID.2.E	II.D.3.A
Self-Unloading Barge to Conveyor D1	FH-005	IID.2.E	II.D.3.A
Conveyor D1 to Conveyor E1	FH-006	IID.2.E	II.D.3.A
Conveyor E1 to Conveyor Y or Conveyor F1	FH-007	IID.2.E	II.D.3.A
Conveyor Y to Conveyor Z	FH-008a	IID.2.E	II.D.3.A
Conveyor Z to West Emergency Pile	FH-008b	IID.2.E	II.D.3.A,B
Dozer Operations on West Emergency Storage Pile	FH-009	IID.2.E	II.D.3.A,B
West Emergency Storage Pile	FH-010	IID.2.E	II.D.3.A,B
Dozer Reclaim from West Emergency Pile to Portable Conveyor	FH-011a	IID.2.E	II.D.3.A
Conveyor Z to Conveyor P	FH-012	IID.2.E	II.D.3.C
Conveyor P to Intermediate Conveyor	FH-013	IID.2.E	II.D.3.C
Intermediate Conveyor to North Stacker Conveyor (G2)	FH-014	IID.2.E	II.D.3.C
North Stacker Conveyor (G2) to North/Center Storage Pile	FH-015	IID.2.E	II.D.3.C
Mobile Reclaimer to North Stacker Conveyor (G2)	FH-016	IID.2.E	II.D.3.C
North Stacker Conveyor (G2) to Conveyor P	FH-017	IID.2.E	II.D.3.C
Dozer Operations on North Storage Pile	FH-018	IID.2.E	II.D.3.C
North Storage Pile	FH-019	IID.2.E	II.D.3.C
Dozer Operations on Middle (Common) Storage Pile	FH-020	IID.2.E	II.D.3.C,D
Fuel Storage – Middle (Common) Storage Pile	FH-021	IID.2.E	II.D.3.C
Conveyor F1 to South Stacker Conveyor (G1)	FH-022	IID.2.E	II.D.3.D
South Stacker Conveyor (G1) to South/Center Storage Pile	FH-023	IID.2.E	II.D.3.D
South Reclaimer to South Reclaimer Conveyor (G1)	FH-024	IID.2.E	II.D.3.D
South Reclaimer Conveyor (G1) to Conveyor F1	FH-025	IID.2.E	II.D.3.D
Dozer Operations on South Storage Pile	FH-026	IID.2.E	II.D.3.D
South Storage Pile	FH-027	IID.2.E	II.D.3.D
Conveyor P to Conveyor J2	FH-028	IID.2.E	II.D.3.C
Conveyor J2 to Conveyor Q2	FH-029	IID.2.E	II.D.3.E
Conveyor F1 to Conveyor J1	FH-030	IID.2.E	II.D.3.D
Conveyor J1 to Conveyor Q1	FH-031	IID.2.E	II.D.3.E
Conveyors Q1 and Q2 to Blending Bins	FH-032 thru FH-035	IID.2.E	II.D.3.E
Blending Bins to Conveyors T1, T2	FH-036 thru FH-047	IID.2.E	II.D.3.E
Conveyor T1 to Crusher #1	FH-048	IID.2.E	II.D.3.F
Conveyor T2 to Crusher #2	FH-049	IID.2.E	II.D.3.F
Crusher to Conveyor W1	FH-050	IID.2.E	II.D.3.F
Crusher to Conveyor W2	FH-051	IID.2.E	II.D.3.F
Conveyor U to East Emergency Storage Pile	FH-052	IID.2.E	II.D.3.F
Dozer Operations on East Emergency Storage Pile	FH-053	IID.2.E	II.D.3.F
East Emergency Storage Pile	FH-054	IID.2.E	II.D.3.F
Conveyor W1 to Conveyor L1	FH-055	IID.2.E	II.D.3.F
Conveyor W2 to Conveyor L2	FH-056	IID.2.E	II.D.3.F
Dozer Reclaim from East Emergency Pile to "K" Feeders	FH-057	IID.2.E	II.D.3.F
"K" Feeders to Conveyors L1 or L2	FH-058	IID.2.E	II.D.3.F
Conveyors L1 and L2 to Conveyors M1 and M2, and Conveyors M1 and M2 to Coal Bunkers	FH-059 thru FH-062	IID.2.E	II.D.3.F
Dozer Operations on Storage Pile	FH-063	IID.2.E	II.D.3.B
Non-TEC Fuel Stockpile to Loadout Conveyor	FH-067	IID.2.E	II.D.3.C
Non-TEC Fuel Truck Loading	FH-068	IID.2.E	II.D.3.C
Polk Fuel Truck Loading	FH-069	IID.2.E	II.D.3.E
Long Term Storage Pile	FH-070	IID.2.E	II.D.3.D
Dozer Operations on Long Term Storage Pile	FH-071	IID.2.E	II.D.3.D
Trucks, Full	FH-072	IID.2.E	II.D.3.E
Trucks, Empty	FH-073	IID.2.E	II.D.3.E

Combustion Sources (CS)

Description	Source ID	Figure No. Location	Figure No. Process
Unit No. 1	CS-001/CS-0W1	IID.2.C	IID.3.H
Unit No. 2	CS-001/CS-0W1	IID.2.C	IID.3.H
* Unit No. 3	CS-002	IID.2.C	IID.3.H
* Unit No. 4	CS-003	IID.2.C	IID.3.H
Combustion Turbine #2	CS-005	IID.2.C	IID.3.I
Combustion Turbine #3	CS-006	IID.2.C	IID.3.I
Combustion Turbine #1	CS-007	IID.2.C	IID.3.I

Limestone Handling and Storage Sources (LSH)

Description	Source ID	Location	Process
Railcar/Truck Unloading	LSH-001	II.D.2.D	II.D.3.J
Conveyor LB to Conveyor LC	LSH-002	II.D.2.D	II.D.3.J
Conveyor LD to Conveyor LE	LSH-003	II.D.2.D	II.D.3.J
Conveyor LE to Conveyor LF	LSH-004	II.D.2.D	II.D.3.J
Conveyor LF to Conveyor LG and Storage Silo C	LSH-005, 006	II.D.2.D	II.D.3.J
Conveyor LG to Storage Silos A & B	LSH-007, 008	II.D.2.D	II.D.3.J
Trucks, Full	LSH-009	II.D.2.D	II.D.3.J
Trucks, Empty	LSH-010	II.D.2.D	II.D.3.J
Fugitive Emissions	LSH-011	II.D.2.D	II.D.3.J

Fly Ash Handling and Storage Sources (FA)

Description	Source ID	Location	Process
From Units 1 and 2 or Trucks to Silo #1	FA-001	II.D.2.F	II.D.3.K
Dry Transfer From Silo #1 to Trucks	FA-002	II.D.2.F	II.D.3.K
Wet (Pug Mill) Transfer From Silo #1 to Trucks	FA-003	II.D.2.F	II.D.3.K
From Units 1,2,and 3 to Silo #2	FA-004	II.D.2.F	II.D.3.K
Dry Transfer From Silo #2 to Trucks	FA-005	II.D.2.F	II.D.3.K
From Unit 4 to Silo #3	FA-006	II.D.2.F	II.D.3.K
Dry Transfer From Silo #3 to Trucks	FA-007	II.D.2.F	II.D.3.K
Wet (Pug Mill) Transfer From Silo #3 to Trucks	FA-008	II.D.2.F	II.D.3.K
Trucks, Full	FA-009	II.D.2.F	II.D.3.K
Trucks, Empty	FA-010	II.D.2.F	II.D.3.K
Fugitive Emissions (Silo #1 and #2)	FA-011	II.D.2.F	II.D.3.K
Fugitive Emissions (Silo #3)	FA-012	II.D.2.F	II.D.3.K

* Note:
In the integrated mode of operation, Unit No. 3 and Unit No. 4 exhaust combine and exit through Stacks CS-003 and CS-004.

DOCUMENT II.D.2.A.

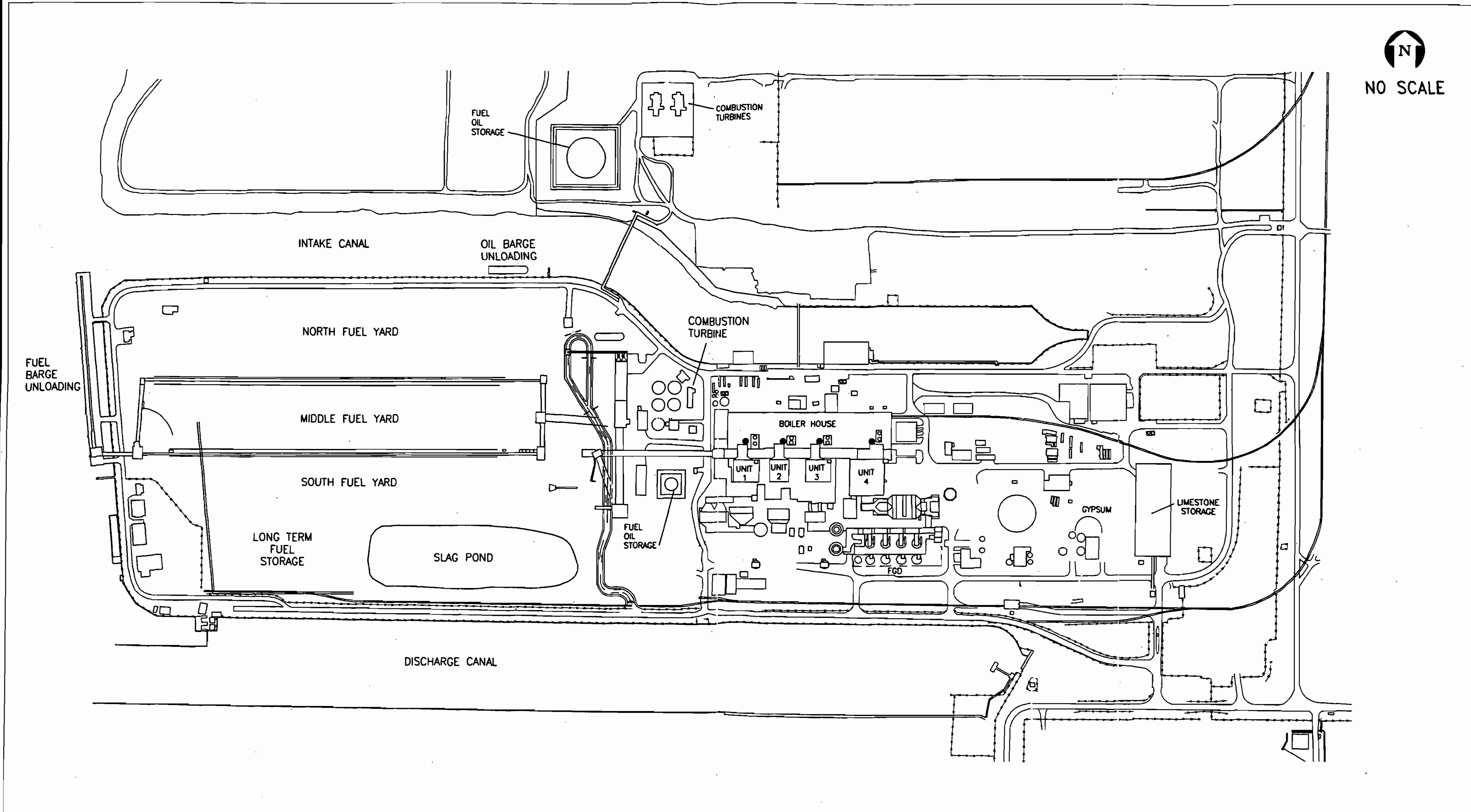
BIG BEND STATION EMISSION SOURCE IDENTIFICATION KEY SHEET

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

F:\ACAD\94500\BIGBEND\FACIL

04/30/96

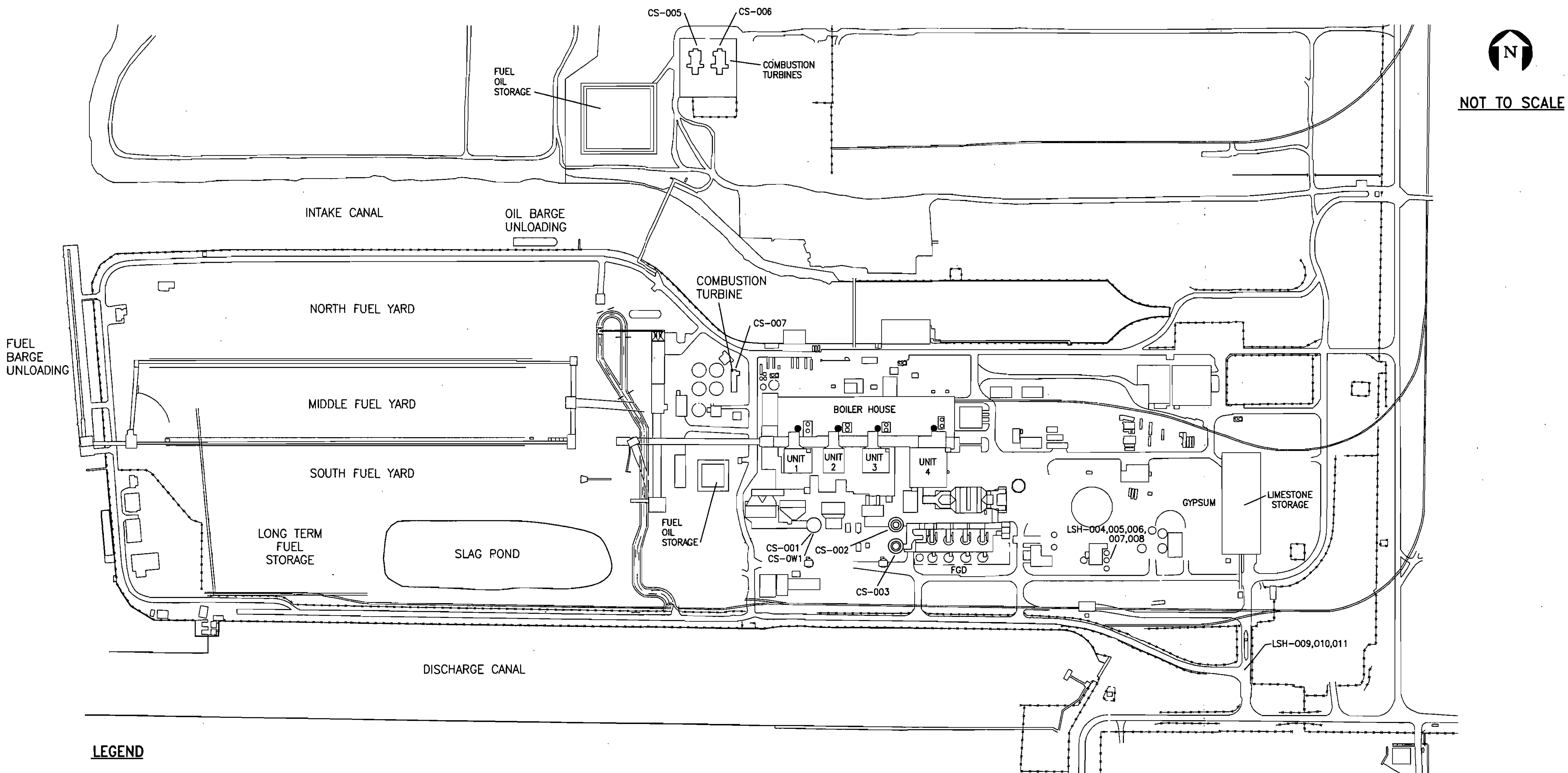


DOCUMENT II.D.2.B.

OVERALL FACILITY PLOT PLAN

Source: ECT, 1996.

TAMPA ELECTRIC
A TECO ENERGY COMPANY



LEGEND

CS-005 EMISSION POINT

NOTE: IN THE INTEGRATED MODE OF OPERATION, UNIT 3 AND UNIT 4 COMBINE AND EXHAUST THROUGH STACK CS-003.

DOCUMENT II.D.2.C.

COMBUSTION EMISSION SOURCES

Source: TEC, 1994. ECT, 2004.

ECT

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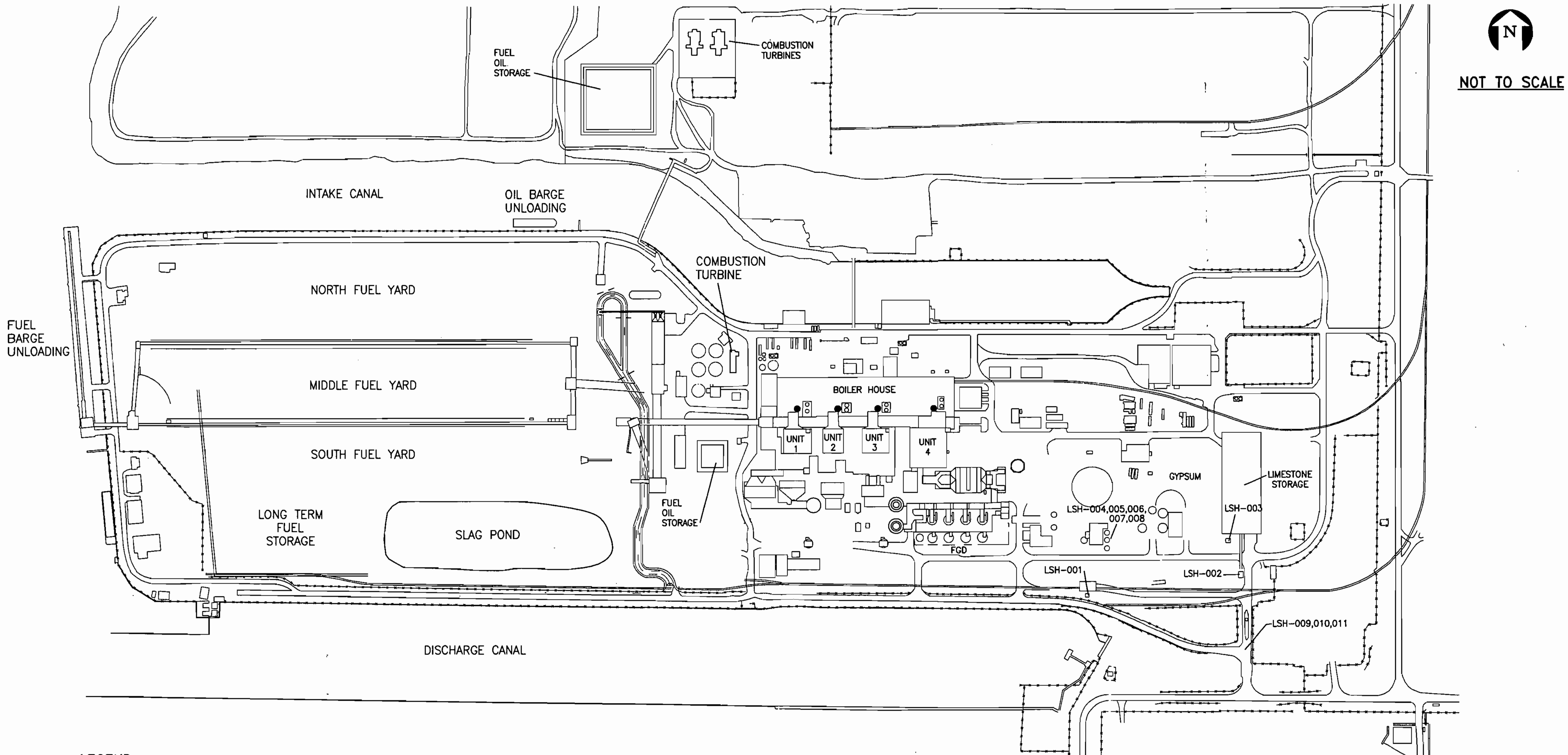

LEGEND

LSH-003 EMISSION POINT

DOCUMENT II.D.2.D.

LIMESTONE HANDLING EMISSION SOURCES

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

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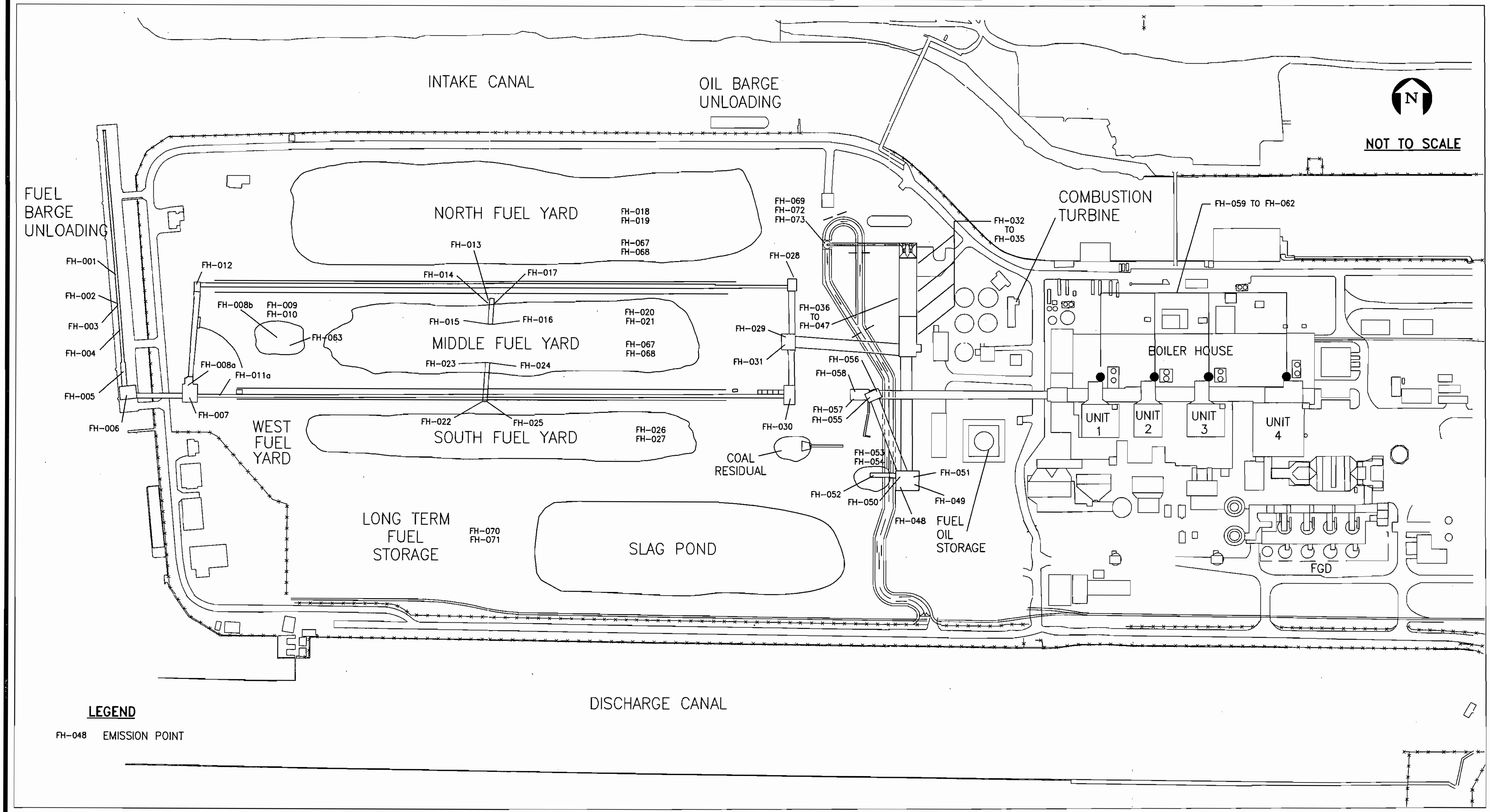

DOCUMENT II.D.2.E.

BIG BEND STATION

FUEL HANDLING AND STORAGE EMISSION SOURCES

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

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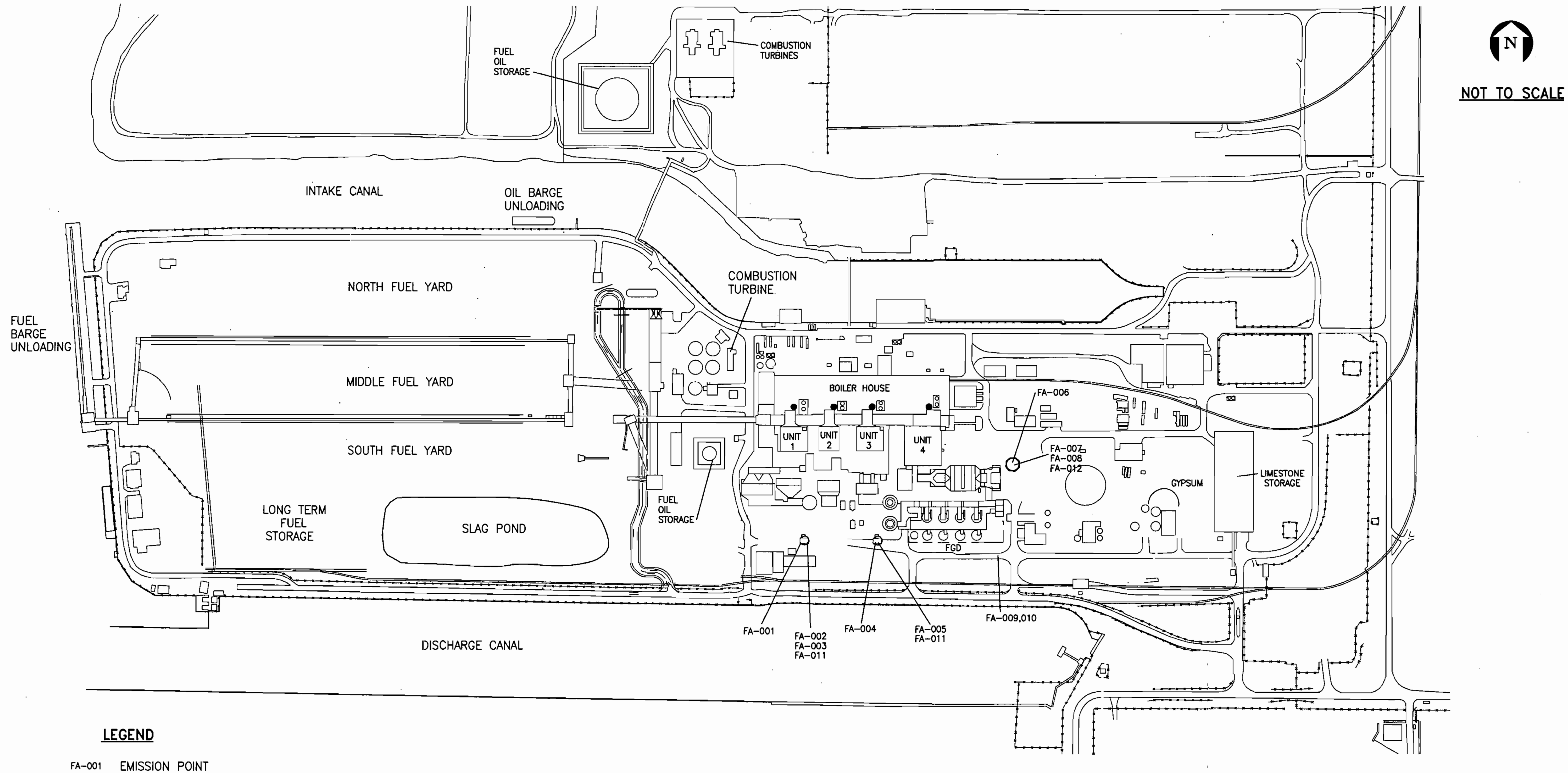

DOCUMENT II.D.2.F.

FLY ASH HANDLING AND STORAGE EMISSION SOURCES

Source: TEC, 1996. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

DOCUMENT II.D.3
PROCESS FLOW DIAGRAMS

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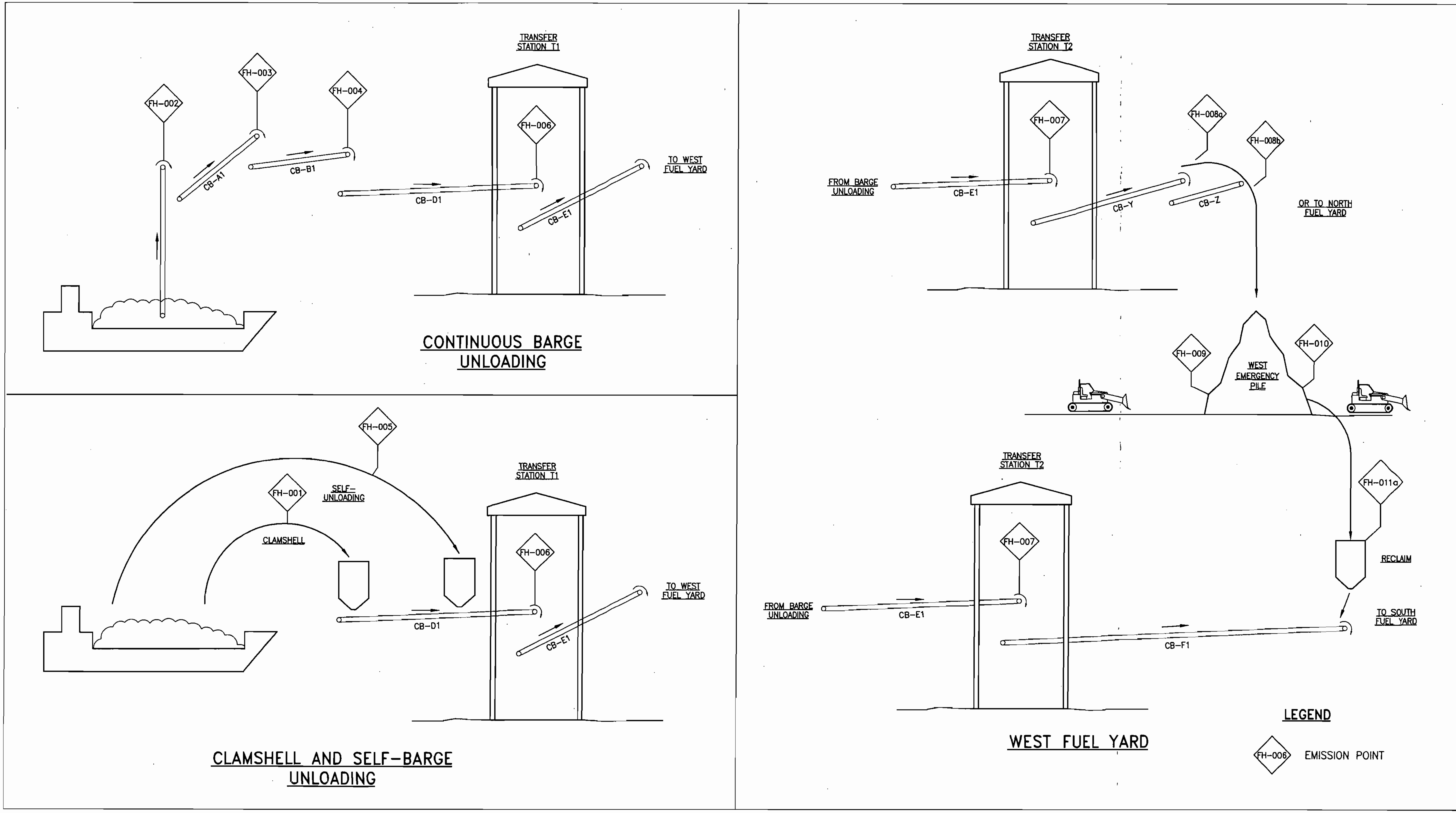
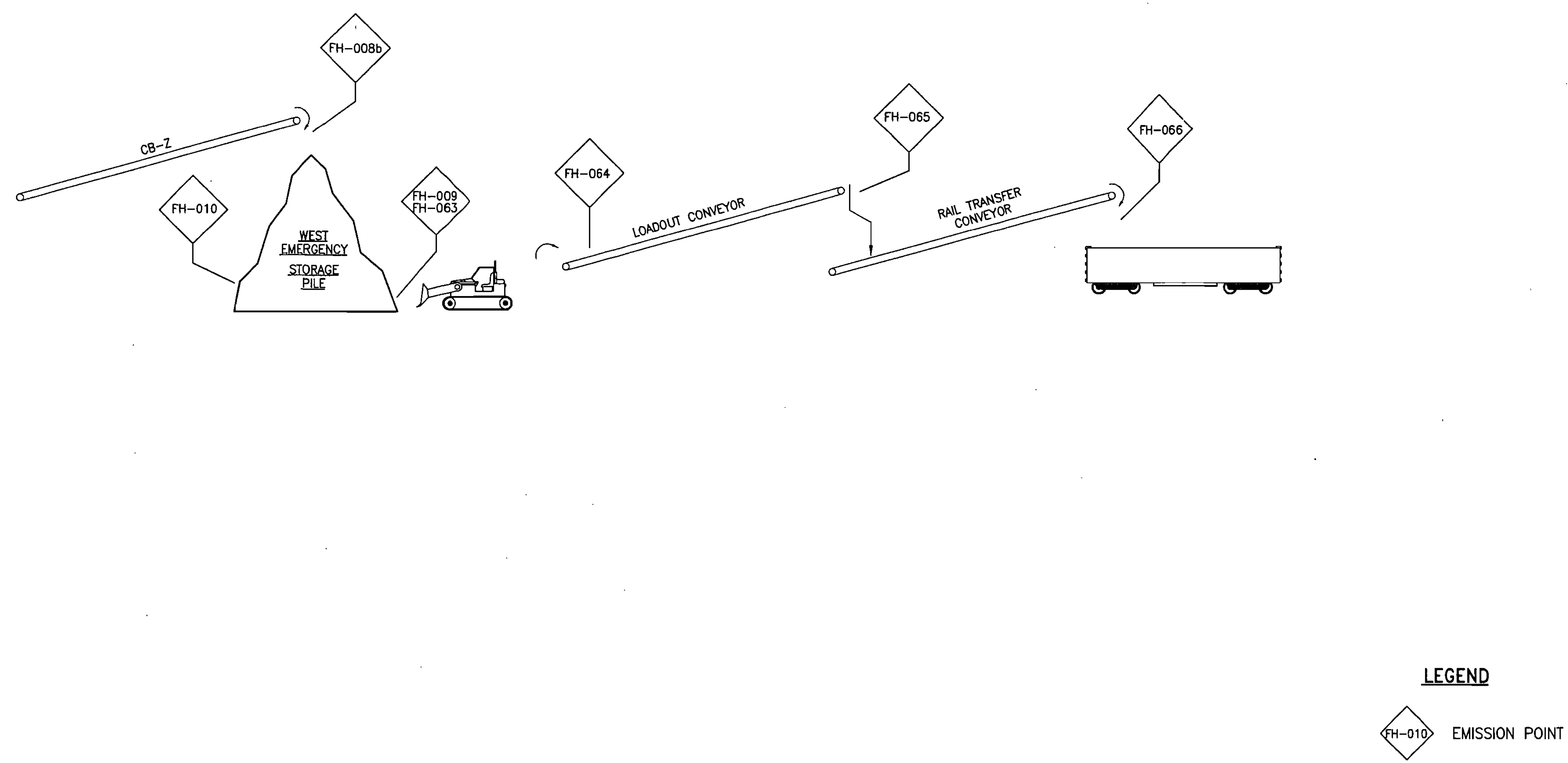


DOCUMENT II.D.3.A.

FUEL HANDLING PROCESS FLOW SCHEMATIC, BARGE UNLOADING AND WEST FUEL YARD

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

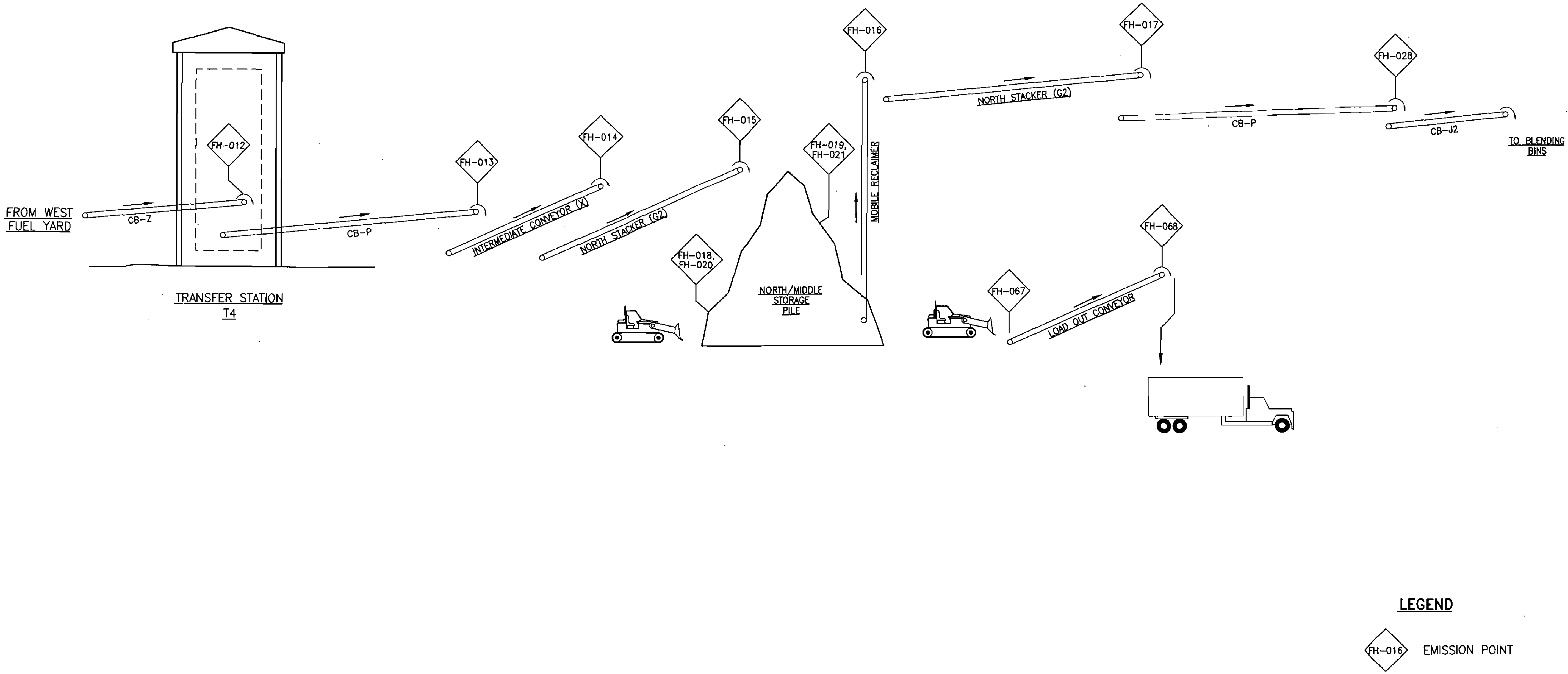


DOCUMENT II.D.3.B.

FUEL HANDLING PROCESS FLOW SCHEMATIC, RAILCAR LOADOUT

Source: TEC, 1994. ECT, 2004.

Environmental Consulting & Technology, Inc.

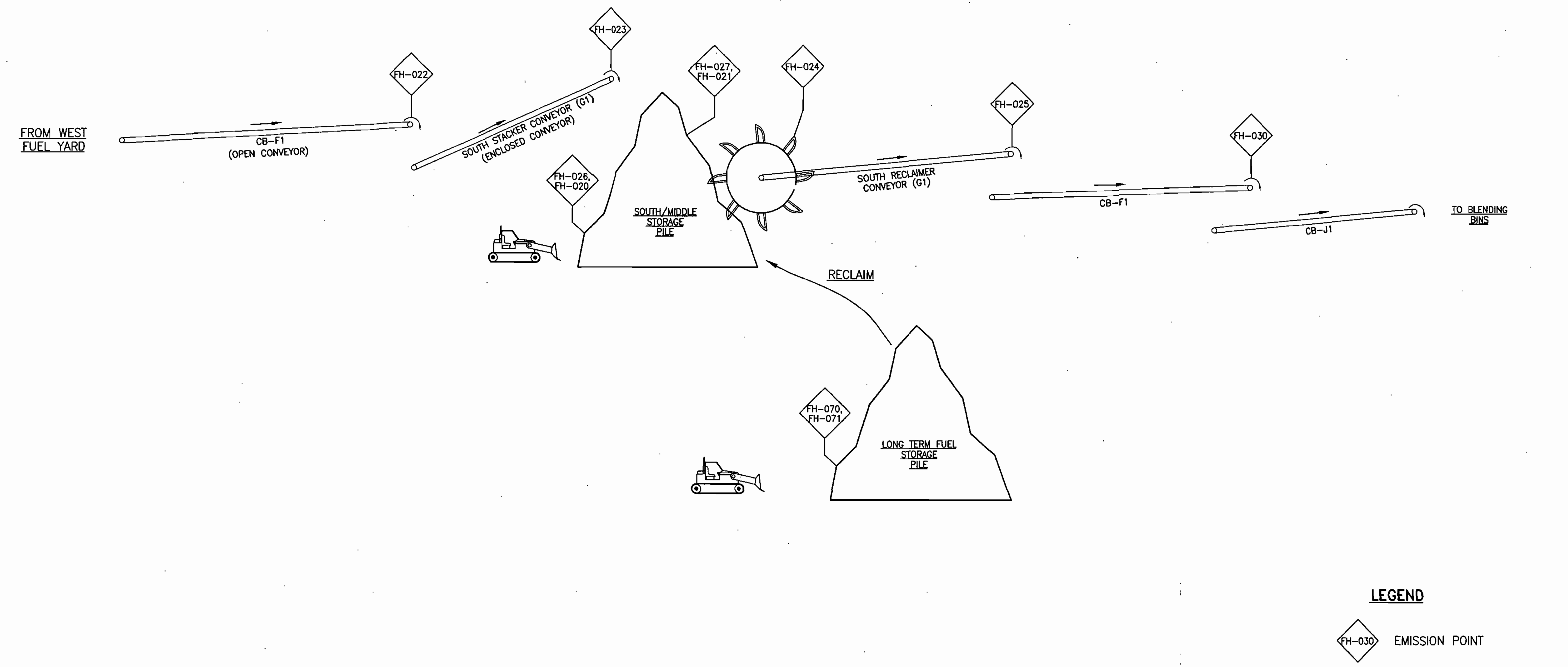


DOCUMENT II.D.3.C.

FUEL HANDLING PROCESS FLOW DIAGRAM NORTH FUEL YARD

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

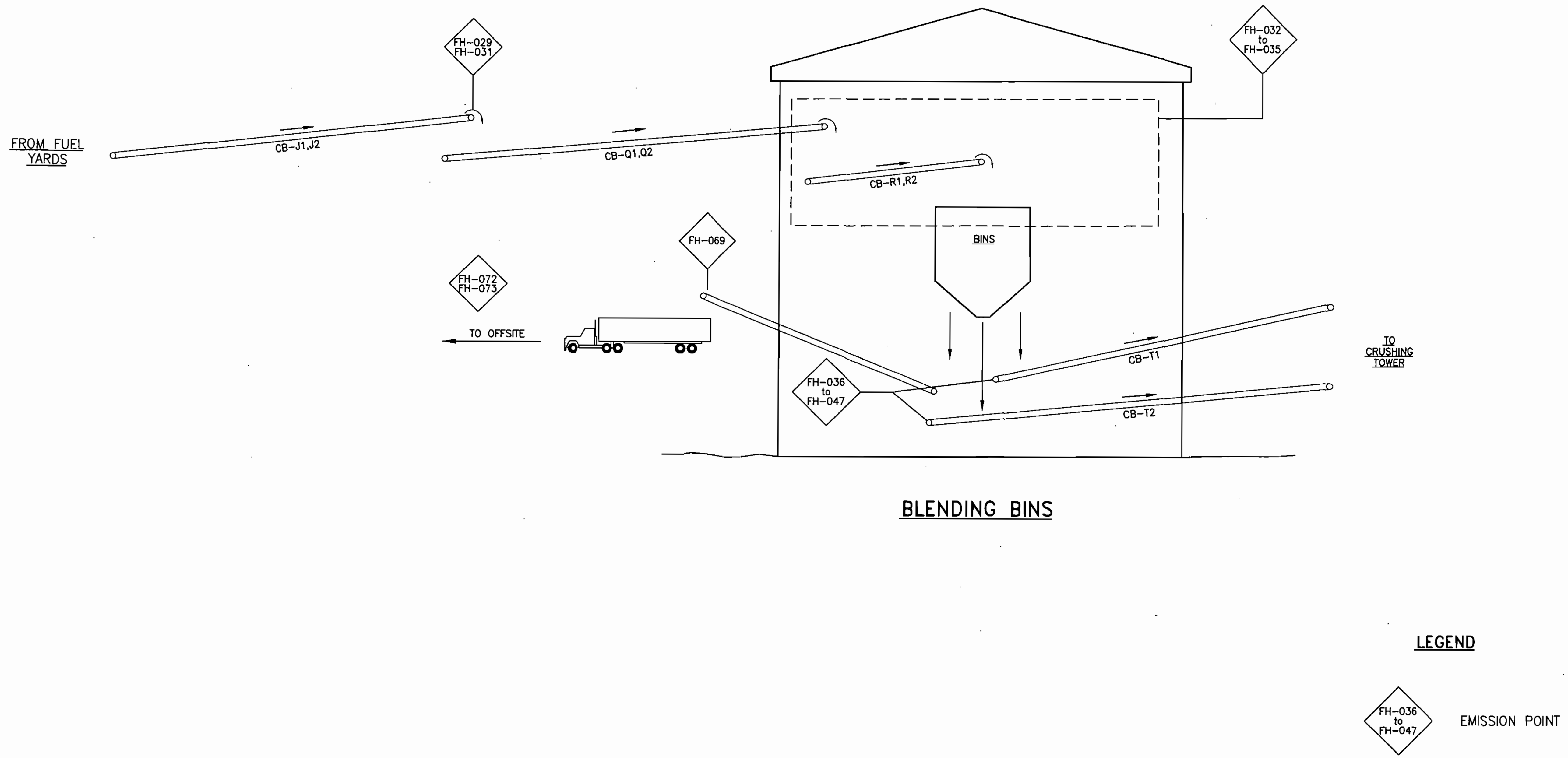


DOCUMENT II.D.3.D.

FUEL HANDLING PROCESS FLOW DIAGRAM, SOUTH FUEL YARD

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

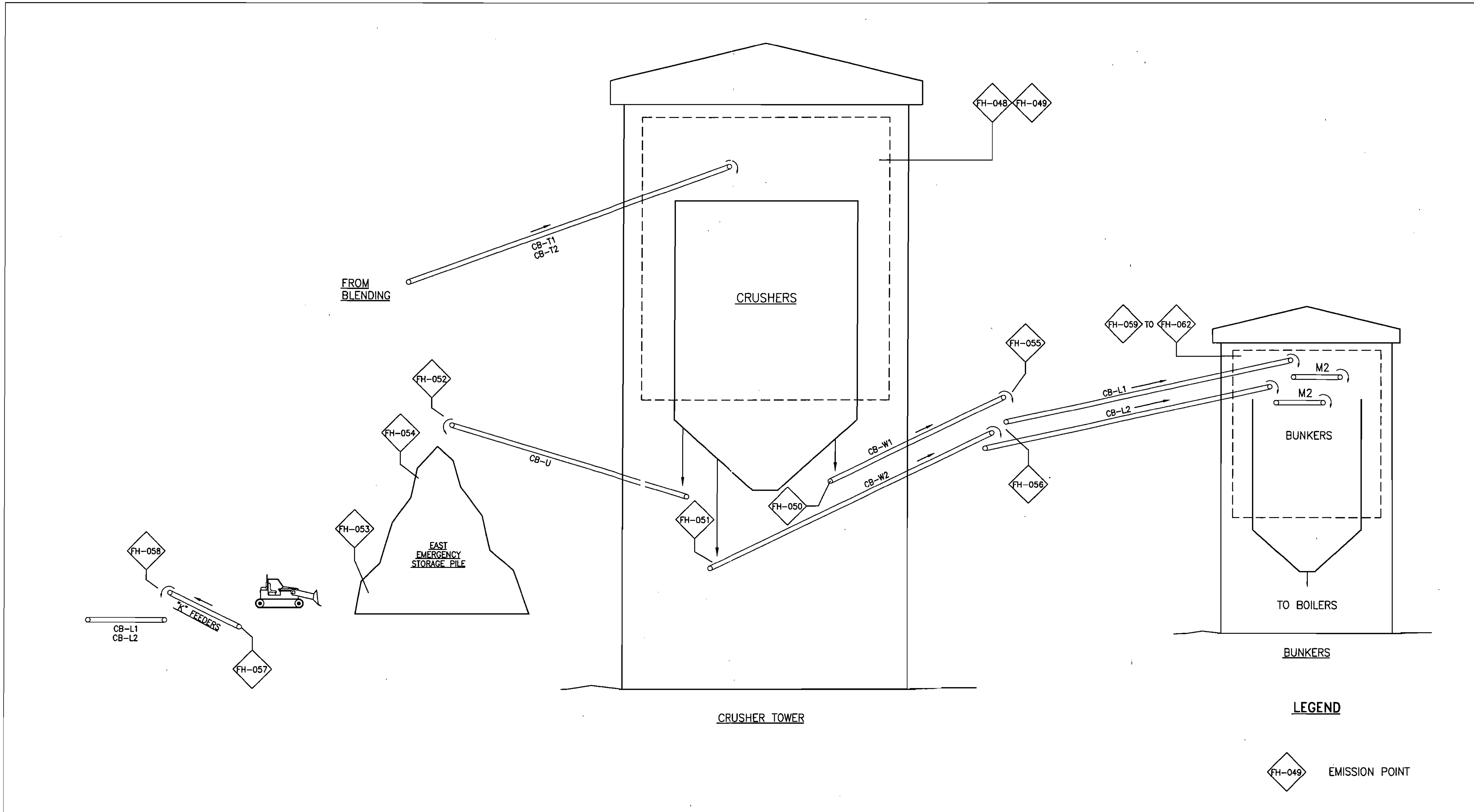


DOCUMENT II.D.3.E.

FUEL HANDLING PROCESS FLOW DIAGRAM, BLENDING BINS

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

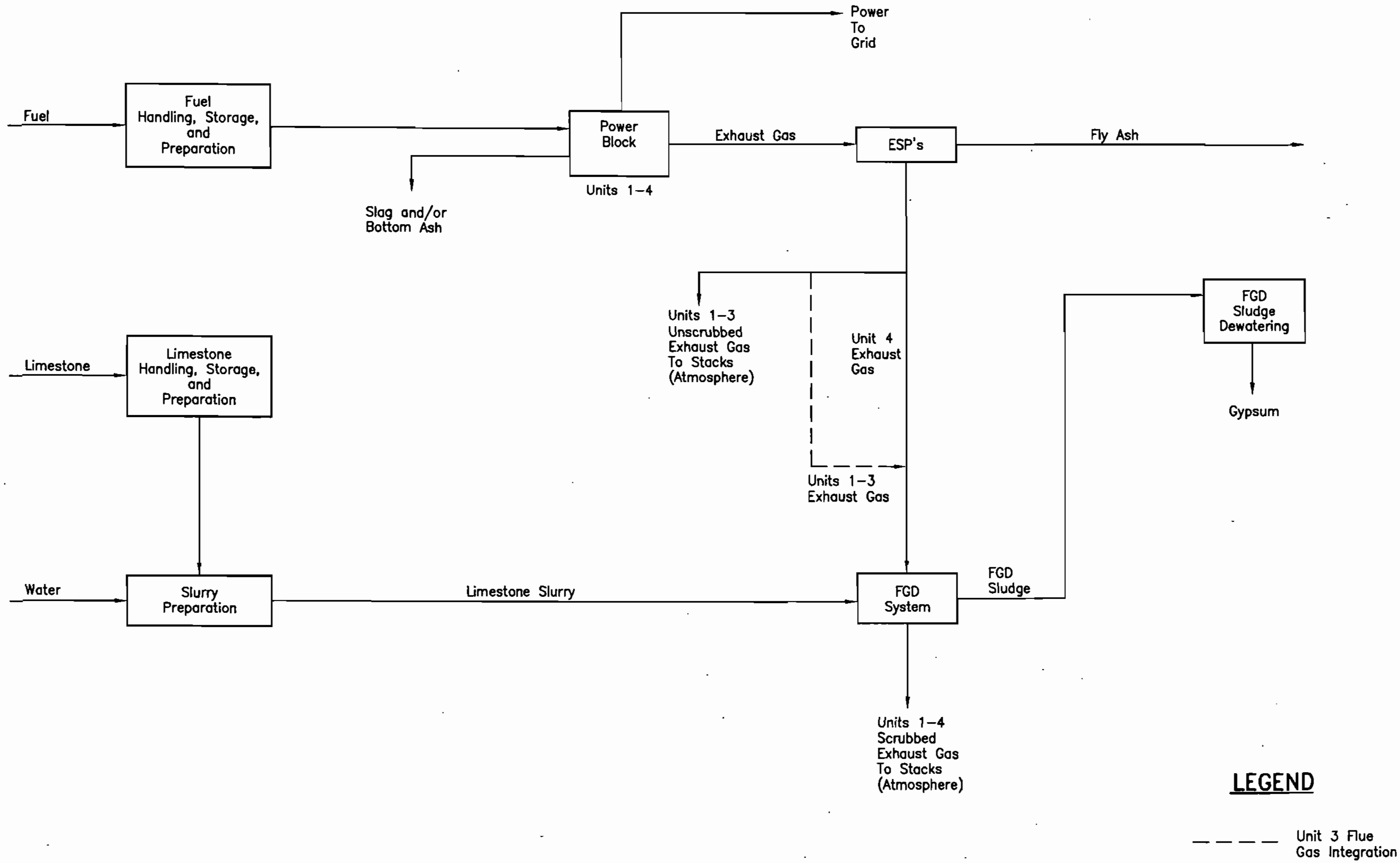


DOCUMENT II.D.3.F.

FUEL HANDLING PROCESS FLOW DIAGRAM, CRUSHER TOWER AND BUNKERS

Source: TEC, 1994. ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

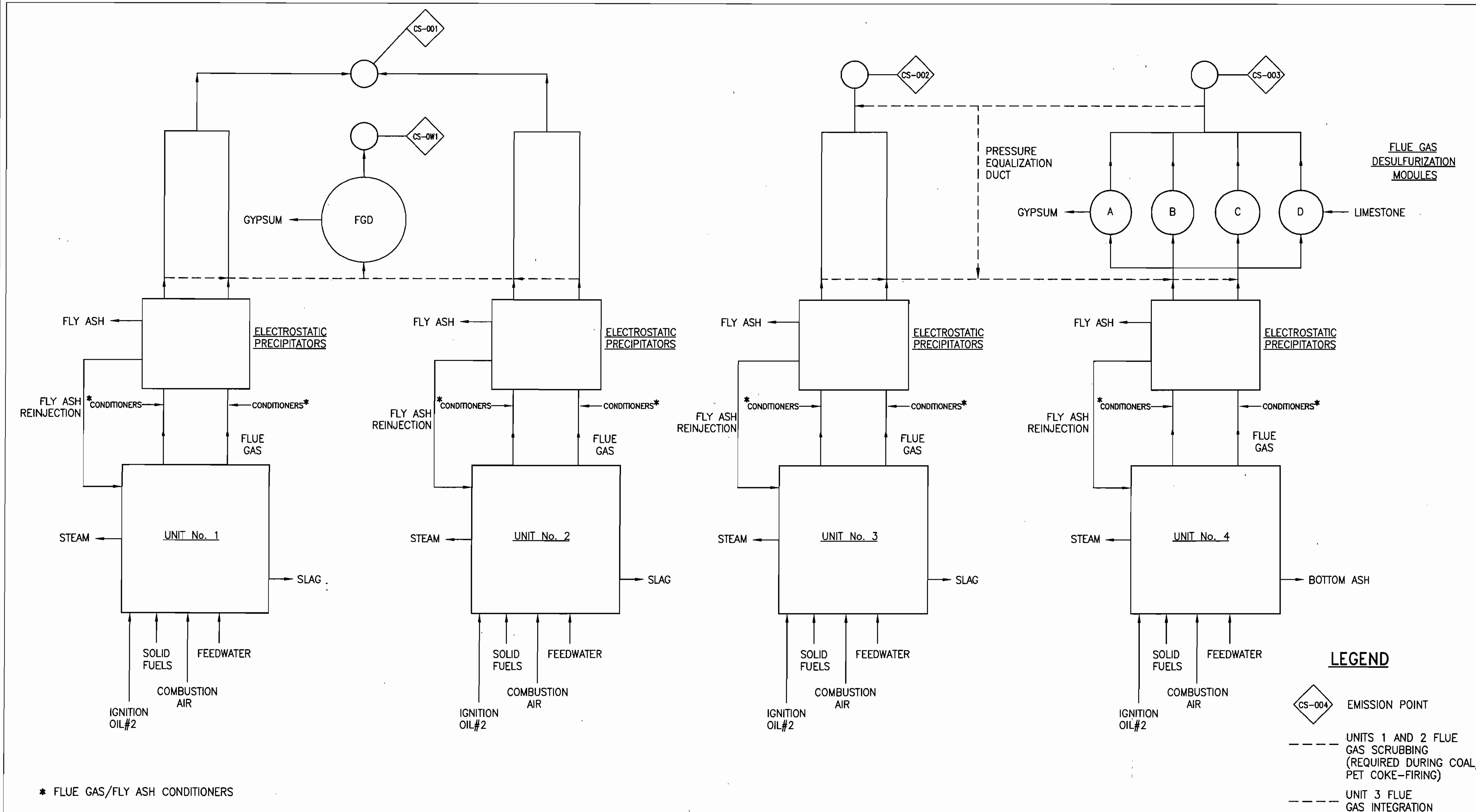


DOCUMENT II.D.3.G.

OVERALL BOILER PROCESS FLOW DIAGRAM

Source: ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

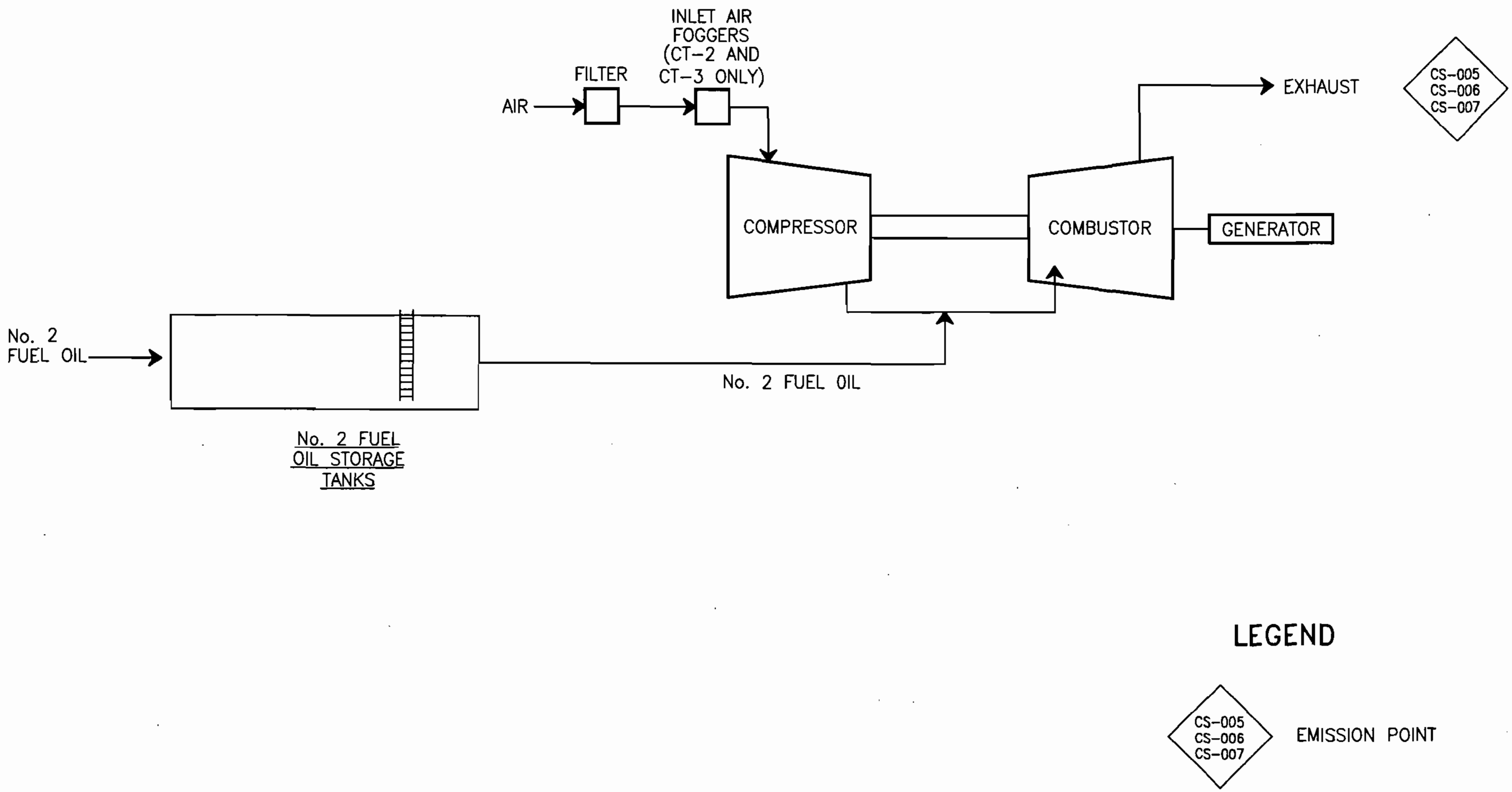


DOCUMENT II.D.3.H.

BOILER PROCESS FLOW DIAGRAM

Source: ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

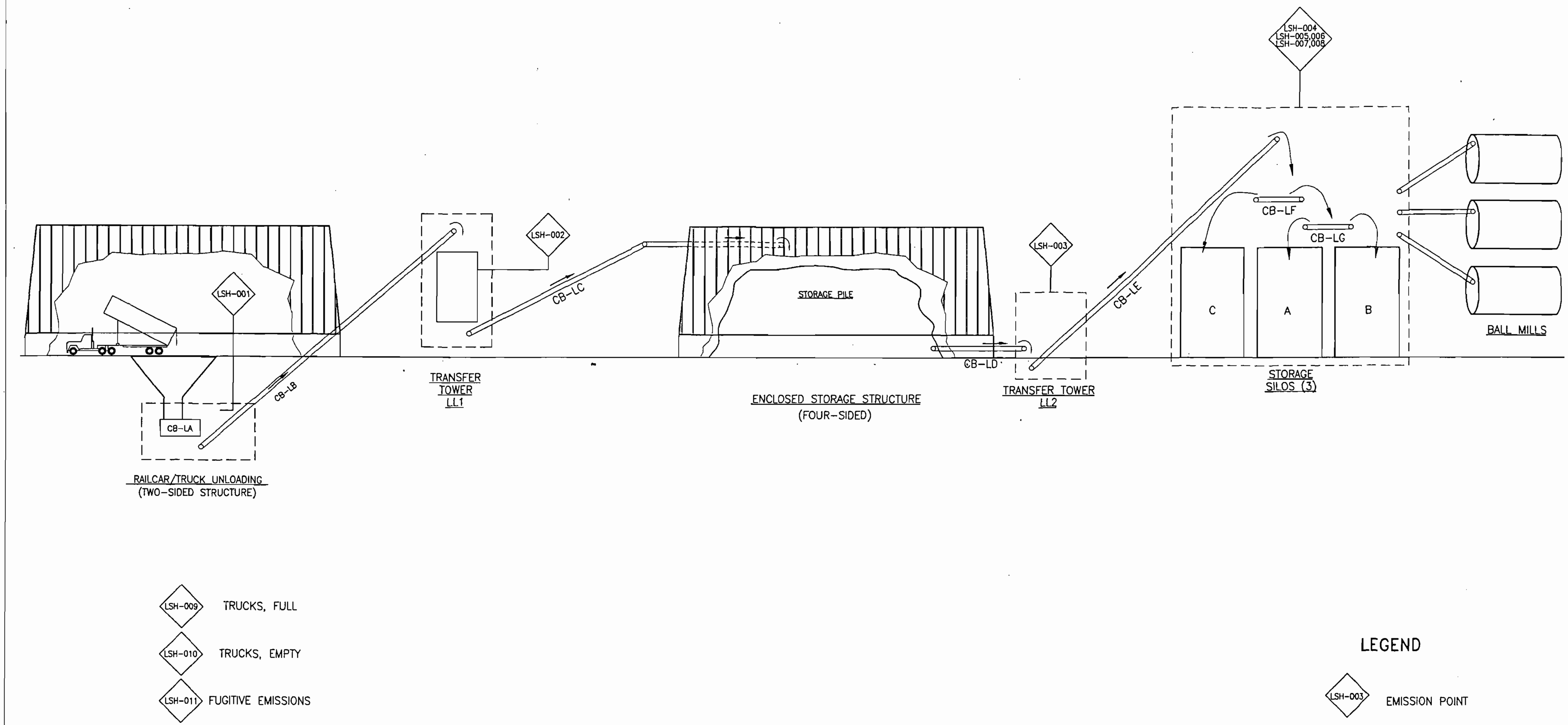


DOCUMENT II.D.3.I.

COMBUSTION TURBINE PROCESS FLOW DIAGRAM

Source: ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.



DOCUMENT II.D.3.J.

LIMESTONE HANDLING PROCESS FLOW DIAGRAM

Source: ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

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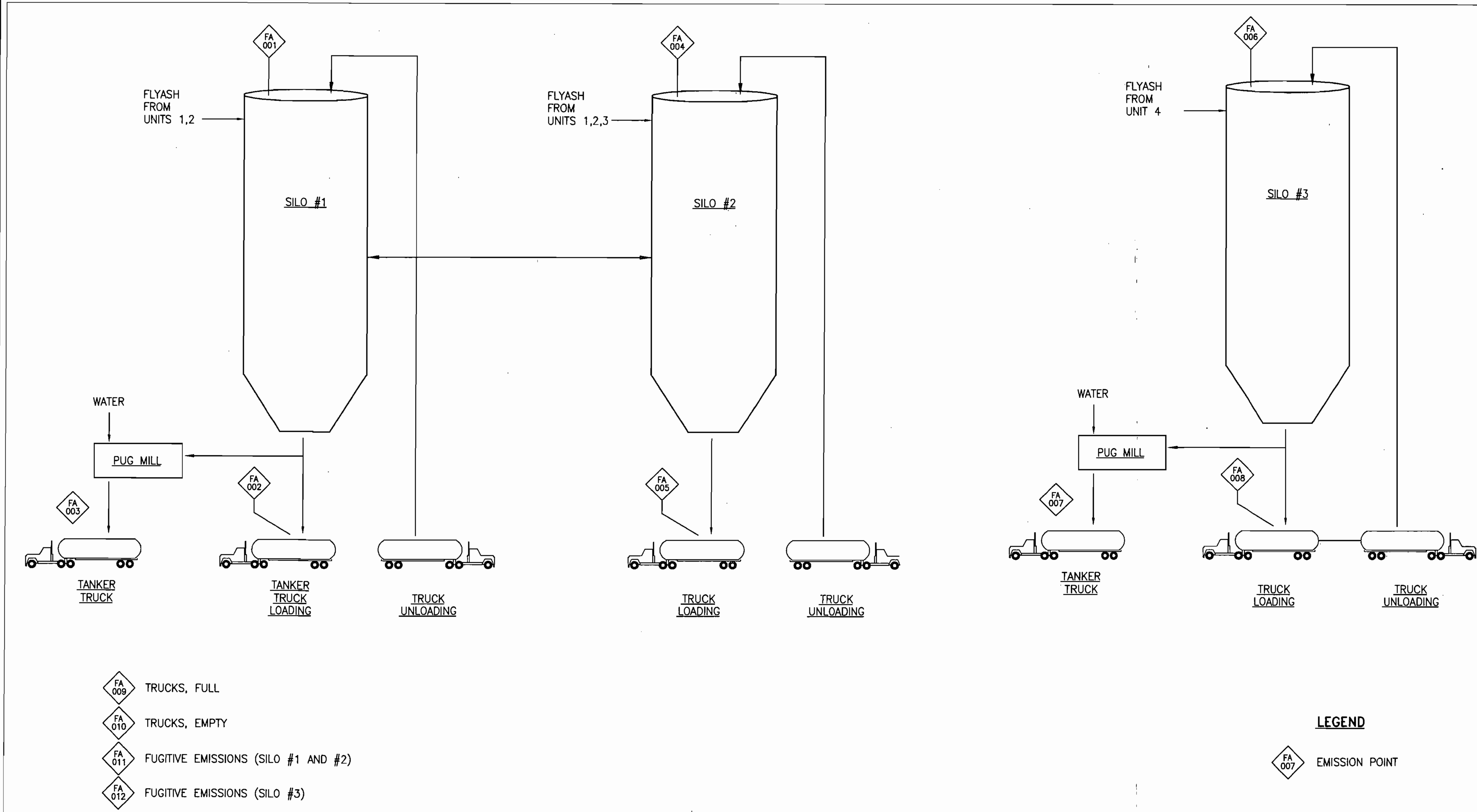


DOCUMENT II.D.3.K.

FLYASH HANDLING AND STORAGE PROCESS FLOW DIAGRAM

Source: ECT, 2004.

ECT
Environmental Consulting & Technology, Inc.

DOCUMENT II.D.4

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter emissions that may result from operations include:

- Vehicular traffic on paved and unpaved roads.
- Wind-blown dust from yard areas.
- Periodic abrasive blasting.

The following techniques will be used to prevent unconfined particulate matter emissions on an as needed basis:

- Chemical or water application to:
    - Unpaved roads
    - Unpaved yard areas
- Paving and maintenance of roads, parking area and yards.
- Landscaping or planting of vegetation.
- Confining abrasive blasting where possible.
- Other techniques, as necessary.

DOCUMENT 11.D.5

LIST OF INSIGNIFICANT ACTIVITIES

LIST OF INSIGNIFICANT ACTIVITIES

BIG BEND STATION

1. Internal combustion engines in boats, aircraft and vehicles used for transportation of passengers or freight.
2. Cold storage refrigeration equipment, except for any such equipment located at a Title V source using an ozone-depleting substance regulated under 40 CFR Part 82.
3. Vacuum pumps in laboratory operations.
4. Equipment used for steam cleaning.
5. Belt or drum sanders having a total sanding surface of five square feet or less and other equipment used exclusively on wood or plastics or their products having a density of 20 pounds per cubic foot or more.
6. Equipment used exclusively for space heating, other than boilers.
7. Laboratory equipment used exclusively for chemical or physical analyses.
8. Brazing, soldering or welding equipment.
9. One or more emergency generators located within a single facility provided:
    a. None of the emergency generators is subject to the Federal Acid Rain Program.
    b. Total fuel consumption by all such emergency generators within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.
10. One or more heating units and general purpose internal combustion engines located within a single facility provided:
    a. None of the heating units or general purpose internal combustion engines is subject to the Federal Acid Rain Program.
    b. Total fuel consumption by all such heating units and general purpose internal combustion engines within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.
11. Fire and safety equipment.
12. Degreasing units using heavier-than-air vapors exclusively, except any such unit using or emitting any substance classified as a hazardous air pollutant.
13. No. 2 and No. 6 fuel oil storage tanks.
14. No. 2 and No. 6 fuel oil truck unloading equipment.
15. Fuel oil processing/treating equipment.
16. Non-halogenated solvent storage and cleaning operations.
17. Architectural (equipment) maintenance painting.
18. Surface coating operations within a single facility if the total quantity of coatings containing greater than 5.0 percent VOCs, by volume, used is 6.0 gallons per day or less, averaged monthly, provided:
    a. Such operations are not subject to a volatile organic compound Reasonably Available Control Technology (RACT) requirement of Chapter 62-296, F.A.C.
    b. The amount of coatings used shall include any solvents and thinners used in the process including those used for cleanup.
19. Surface coating operations utilizing only coatings containing 5.0 percent or less VOCs, by volume.
20. Evaporation of nonhazardous boiler chemical cleaning waste that was generated onsite.
21. Any other emissions unit or activity that:
    a. Is not subject to a unit-specific applicable requirement.
    b. In combination with other units and activities proposed as insignificant, would not cause H.L. Culbreath Bayside Power Station to exceed any major source threshold(s) as defined by Rule 62-213.420(3)(c)1., F.A.C., unless acknowledged in a permit application.
    c. Would neither emit or have the potential to emit:
        - 500 pounds per year of lead and lead compounds expressed as lead;
        - 1,000 pounds per year or more of any hazardous air pollutant;
        - 2,500 pounds per year or more of total hazardous air pollutants; or

          5.0 tons per year or more of any other regulated pollutant.

DOCUMENT II.D.6

COMPLIANCE REPORT AND PLAN

TAMPA ELECTRIC COMPANY
BIG BEND STATION

COMPLIANCE REPORT, PLAN,
AND CERTIFICATION

1. Compliance Report and Plan

Appendix A of the initial Big Bend Station Title V operation permit application, FINAL Permit No. 0570039-012-AC, and FINAL Title V Permit Revision No. 0570039-013-AV identify the requirements that are applicable to the emission units that comprise this Title V source. Each emissions unit is in compliance, and will continue to comply, with the respective applicable requirements.

The emission units that comprise this Title V source will comply with future-effective applicable requirements on a timely basis.

2. Proposed Schedule for the Submission of Periodic Compliance Statements Throughout the Permit Term

Periodic compliance statements are proposed to be submitted on an annual basis within 60 days after the end of each calendar year pursuant to the requirements of FDEP Rule 62-213.440(3)(a)2.a, F.A.C.

3. Compliance Certification

I, the undersigned, am the responsible official as defined in Chapter 62-210.200(220), F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.

Karen A. Sheffield
Karen Sheffield
General Manager—Big Bend Station

6/25/04
Date

DOCUMENT II.D.7

LIST OF EQUIPMENT /ACTIVITIES REGULATED UNDER TITLE VI

LIST OF EQUIPMENT/ACTIVITIES
REGULATED UNDER TITLE VI
BIG BEND STATION

Unit No.	Location	Type Refrigerant	Charge (lbs)
2144	#2 Control Room (1B)	R22	>50
2145	#2 Control Room (1A)	R22	>50
2146	#2 Cable Tray Room (2B)	R22	>50
2147	#2 Cable Tray Room (2A)	R22	>50
2395	FGD Bldg. 6^{th} Fl (B)	R22	160
2396	FGD Bldg. 6^{th} Fl (A)	R22	160
2295	#1 Control Room	R22	35
2296	#1 Control Room	R22	35
2297	#1 Control Room	R22	35

DOCUMENT III.I.1

FUEL ANALYSES

TYPICAL FUEL QUALITY PARAMETERS

BIG BEND STATION

	Range	Average
Coal		
Higher heating value	10,880—12,000	11,575 Btu/lb
Sulfur, as received	2.35—3.10	2.8%
Moisture	10.0—14.4	12.5%
Ash	5.5—12.3	7.5%
Chlorine	0.02—0.35	0.15%
Pet Coke (up to 20% of burn)		
Higher heating value	13,672—14,374	14,063 Btu/lb
Sulfur, as received	4.6—5.2	4.85%
Moisture	7.0—11.7	8.87%
Ash	0.3—1.0	0.50%
Chlorine	NA	NA
Coal Ash Analysis		
Aluminum oxide, Al_2O_3		18.00%
Calcium oxide		5.00%
Iron oxide, Fe_2O_3		19.00%
Magnesium oxide, MgO		1.00%
Phosphorus, P_2O_5		0.15%
Silicon dioxide, SiO_2		48.00%
Titanium dioxide		1.00%
Sodium oxide, Na_2O		0.65%
Potassium oxide		2.30%
Undetermined		1.60%
Sulfur		1.40%
Pet Coke Ash Analysis (typical)		
Silicon dioxide, SiO_2		32.00%
Iron oxide, Fe_2O_3		8.00%
Vanadium pentoxide, V_2O_5		32.00%
Nickel oxide, NiO		8.00%
Aluminum oxide, Al_2O_3		10.00%
Calcium oxide		2.00%

NO. 2 OIL

Parameters	Specification Minimum	Specification Maximum	ASTM Test Method
Heat content, Btu/gal	137,000	—	D-240
Sulfur, % weight	—	0.5	D-1552
Viscosity, SUS @ 100°F	32.6	40.5	D-445/2161
Ash, % weight	—	0.01	D-482
Water & sediment, % weight	—	0.05	D-2709
Flash point, °F	100	—	D-93`
API gravity @ 60°F	30	—	—
Specific gravity @ 60°F	—	0.876	D-287
Vanadium, PPM	—	0.5	D-3605-91
Sodium	—	0.5	D-3605-91

Latest ASTM or equivalent revision shall apply in reference to the above ASTM or equivalent Test Method.

DOCUMENT III.I.2

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ELECTROSTATIC PRECIPITATOR

Emission Unit:	Unit #1
Emission Point ID No.:	CS-001, CS-0W1
Manufacturer:	Joy Western
Model No.:	NA
Control Efficiency (%):	99.7
Pressure Drop (in H_2O), operating:	<1.0
Temperature, operating (°F):	330
Temperature, design (°F):	298
Inlet Air Flow Rate (acfm):	1,408,000
Collection Plate Area (ft^2):	394,600
Plate Cleaning Procedures:	Rappers (Magnetic Impact Type)

ELECTROSTATIC PRECIPITATOR

Emission Unit:	Unit #2
Emission Point ID No.:	CS-001, CS-0W1
Manufacturer:	Joy Western
Model No.:	NA
Control Efficiency (%):	99.7
Pressure Drop (in H_2O), operating:	<1.0
Temperature, operating (°F):	330
Temperature, design (°F):	301
Inlet Air Flow Rate (acfm):	1,312,000
Collection Plate Area (ft^2):	466,600
Plate Cleaning Procedures:	Rappers (Magnetic Impact Type)

ELECTROSTATIC PRECIPITATOR

Emission Unit:	Unit #3
Emission Point ID No.:	CS-002
Manufacturer:	Research Cottrell
Model No.:	N/A
Control Efficiency (%):	99.7
Pressure Drop (in H_2O), operating:	<1.0
Temperature, operating (°F):	330
Temperature, design (°F):	291
Inlet Air Flow Rate (acfm):	1,420,000
Collection Plate Area (ft^2):	429,800
Plate Cleaning Procedures:	Rappers (Magnetic Impact Type)

ELECTROSTATIC PRECIPITATOR

Emission Unit:	Unit #4
Emission Point ID No.:	CS-003
Manufacturer:	Belco
Model No.:	N/A
Control Efficiency (%):	99.7
Pressure Drop (in H_2O), operating:	<1.0
Temperature, operating (°F):	340
Temperature, design (°F):	340
Inlet Air Flow Rate (acfm):	2,200,000
Collection Plate Area (ft^2):	1,096,934
Plate Cleaning Procedures:	Rappers (Falling Hammer Type)

FABRIC FILTER

Emission Unit:	Limestone Handling Conveyor LB to LC
Emission Point ID No.:	LSH-002
Manufacturer:	Sternvent
Model No.:	DKED18003
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	800
Air to Cloth Ratio:	4.4:1
Filter Surface Area (ft^2):	180
Cleaning Procedures:	Automatic shaker

FABRIC FILTER

Emission Unit:	Limestone Handling Conveyor LD to Conveyor LE
Emission Point ID No.:	LSH-003
Manufacturer:	Sternvent
Model No.:	DKED18003
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (acfm):	800
Air to Cloth Ratio:	4.4:1
Filter Surface Area (ft^2):	180
Cleaning Procedures:	Automatic shaker

FABRIC FILTER

Emission Unit:	Limestone Handling Conveyor LE to Storage Silo A Conveyor LE to Conveyor LF
Emission Point ID No.:	LSH-004, 005
Manufacturer:	Flex Kleen
Model No.:	58-BVBC-36-IIG
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	552
Air to Cloth Ratio:	2.1:1
Filter Surface Area (ft^2):	259
Cleaning Procedures:	Pulse jet

FABRIC FILTER

Emission Unit:	Limestone Handling Conveyor LF to Storage Silo B Conveyor LF to Conveyor LG
Emission Point ID No.:	LSH-006, 007
Manufacturer:	Flex Kleen
Model No.:	58-BVBC-36-IIG
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	552
Air to Cloth Ratio:	2.1:1
Filter Surface Area (ft^2):	259
Cleaning Procedures:	Pulse jet

FABRIC FILTER

Emission Unit:	Limestone Handling Conveyor LG to Storage Silo C
Emission Point ID No.:	LSH-008
Manufacturer:	To be determined
Model No.:	To be determined
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	300
Air to Cloth Ratio:	6:1
Filter Surface Area (ft^2):	To be determined
Cleaning Procedures:	Pulse jet

FABRIC FILTER

Emission Unit:	Fly Ash Handling Silo #1
Emission Point ID No.:	FH-001
Manufacturer:	Flex Kleen
Model No.:	84UDTR-640
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	20,081
Air to Cloth Ratio:	2.4:1
Filter Surface Area (ft^2):	8,367
Cleaning Procedures:	Pulse jet

FABRIC FILTER

Emission Unit:	Fly Ash Handling Silo #2
Emission Point ID No.:	FH-004
Manufacturer:	Flex Kleen
Model No.:	84UDTR-640
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	20,081
Air to Cloth Ratio:	2.4:1
Filter Surface Area (ft^2):	8,367
Cleaning Procedures:	Pulse jet

FABRIC FILTER

Emission Unit:	Fly Ash Handling Silo #3
Emission Point ID No.:	FH-006
Manufacturer:	Flex Kleen
Model No.:	84-WRTC-80 II G
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (dscfm):	1,200
Air to Cloth Ratio:	1.4:1
Filter Surface Area (ft^2):	840
Cleaning Procedures:	Pulse jet

FLUE GAS DESULFURIZATION (FGD)

Emission Unit:	Unit #1, #2
Emission Point ID No.:	CS-OW1
Manufacturer:	Wheelabrator
Description of Control Equipment:	Single absorber module
Inlet Temp. (°F):	300
Outlet Temp. (°F):	127
Inlet Air Flow Rate (acfm):	2,820,000
Additive Liquid Scrubbing Medium:	Limestone Slurry
Total Liquid Injection Rate (gpm):	49,000 per each of four spray heads

FLUE GAS DESULFURIZATION (FGD)

Emission Unit:	Unit #4
Emission Point ID No.:	CS-003
Manufacturer:	Research-Cottrell
Description of Control Equipment:	Four absorber modules; 3 modules normally operating, 1 spare module
Inlet Temp. (°F):	300
Outlet Temp. (°F):	127
Inlet Air Flow Rate (acfm):	1,440,550
Superficial Gas Velocity (ft/sec):	9.0 (per tower)
Additive Liquid Scrubbing Medium:	Limestone Slurry
Total Liquid Injection Rate (gpm):	60 (per tower)

CYCLONE COLLECTORS

Emission Unit:	Fuel Blending Bins
Emission Point ID No.:	CH-032 through CH-035
Manufacturer:	American Air Filter
Model No.:	Type D Roto-Clone
Pressure Drop (in H_2O):	<2.0
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (acfm):	9,400 (each unit)
Control Efficiency (% removal):	75

CYCLONE COLLECTORS

Emission Unit:	Fuel Crushers #1, #2
Emission Point ID No.:	CH-048 through CH-049
Manufacturer:	American Air Filter
Model No.:	Type D Roto-Clone
Pressure Drop (in H_2O):	<2.0
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (acfm):	9,400 (each unit)
Control Efficiency (% removal):	75

CYCLONE COLLECTORS

Emission Unit:	Fuel Bunkers
Emission Point ID No.:	CH-059 through CH-062
Manufacturer:	American Air Filter
Model No.:	Type D Roto-Clone
Pressure Drop (in H_2O):	<2.0
Inlet Temp. (°F):	Ambient
Outlet Temp. (°F):	Ambient
Inlet Air Flow Rate (acfm):	9,400 (each unit)
Control Efficiency (% removal):	75

UNITS 1 – 3

LOW-NO_x BURNERS (LNB)

Big Bend Station Units 1 through 3 – NO_x Pollution Control Projects

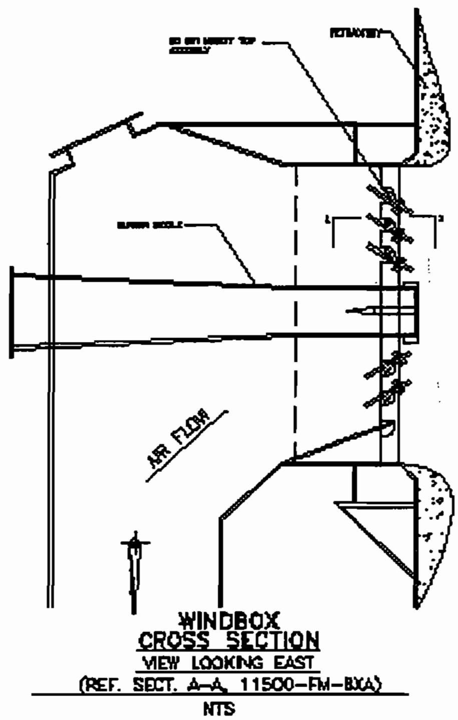
Background –

The Consent Decree entered into between the parties as defined within section IV - Emissions Reductions and Controls–Gannon and Big Bend, subsection B. Big Bend, Paragraph 35 - Early Reductions of NO_x from Big Bend Units 1 through 3, requires that Tampa Electric Company (TEC) attempt to reduce NO_x emissions from Big Bend Units 1 through 3, as referenced against 1998 emission levels. In particular, Big Bend Units 1 and 2 have a target emission reduction of 30 percent, while Big Bend Unit 3 has a target reduction of 15 percent, wherein the baseline emissions rates were 0.86 lb/MMBtu and 0.57 lb/MMBtu for Big Bend Units 1 and 2 and Unit 3, respectively. Furthermore, TEC has agreed to expend up to $3 million project dollars to obtain these objectives. The Consent Decree specifically identified that the methodology to be employed for the NO_x reduction strategy should be based upon "…commercially available combustion optimization technologies, techniques, systems, or equipment, or combinations thereof". Hence, post combustion or pre-conditioning technology assessment was not required or allowed as part of the aforementioned section of the Consent Decree.

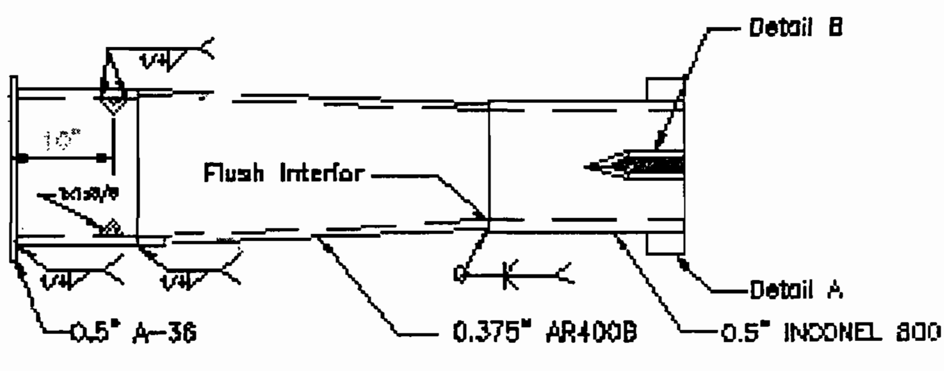
Big Bend Units 1 through 3 are Riley Stoker Turbo®Wet Bottom design, whereby TEC owns and operates the only such units. The application of commercially available technologies for these units is not possible since manufacturers have not invested research and development funds to produce components, which could be applied. Therefore, TEC has primarily relied upon the application of commercially available techniques used by other furnace manufacturers and designs thereof as the basis for compliance with the Consent Decree.

Scope of Work -

Big Bend Units 1 and 2 – TEC contracted with a computation fluid dynamic (CFD) modeling firm who has successfully modeled other facility's coal fired steam generators to reduce NO_x emissions. The modeling effort included local air staging and over-fired air (OFA) configurations to achieve the gaseous emission objective. The results of the modeling indicated that an advanced coal nozzle design in conjunction with local air staging should reduce NO_x emissions to the desired levels. The OFA modeling results proved to be too aggressive for this furnace design. The model predicted that a drop in temperature at the slag tap location would be approximately 600 degrees F, whereby the furnace would be unable to operate. Accordingly, the low NO_x burner (LNB) work for these units included the computer modeling, design, fabrication, installation and optimization of new coal nozzles suitable for low NO_x operation. Other work included modification and redesign of windbox internal components to allow for proper distribution of secondary air for local staging of combustion air. A sketch of the coal compartment is provided.



Typical Windbox Configuration



Typical Coal Nozzle

Big Bend Unit 3 – TEC in conjunction with the CFD modeling performed on Big Bend Units 1 and 2 commissioned burner modifications and OFA investigations of Big Bend 3. Not unlike Big Bend Units 1 and 2, the OFA model produced unacceptable low temperatures at the slag tap, which would prevent operation of the unit. Similar reductions in NO_x were predicted by the use of an advanced coal nozzle design and local air staging. The Big Bend Unit 3 is slightly different in design than Big Bend Units 1 and 2; however the overall concepts used for the nozzle and windbox modifications are identical. The only significant difference between Big Bend Units 1 and 2 nozzles versus Big Bend Unit 3 is that the nozzle cross section for Big Bend Units 1 and 2 is smaller than that for Big Bend Unit 3, which is in accordance with the original design provided by Riley Stoker.

UNIT 4

LOW-NO_x BURNERS (LNB)

SEPARATE OVERFIRE AIR (SOFA)

Big Bend Station Unit 4 – NO_x Pollution Control Projects

Background

Tampa Electric (TEC) and the U.S. Environmental Protection Agency, (EPA) entered into certain agreements to reduce NO_x emissions from the Big Bend coal generated facility as stipulated within the Consent Decree whose effective date was October 4, 2000. One of those stipulations as specified within section VII, paragraphs 50 and 52.C requires TEC to expend funds to ".... (i) demonstrate innovative NO_x control technologies on any of its units or boilers at Gannon or Big Bend not shutdown or on reserve/standby; and/or (ii) reduce the NO_x emission rate for any Big Bend coal-combusting unit below the lowest rate otherwise applicable to it under this Consent Decree." TEC has already petitioned and received approval from the EPA for an innovative NO_x control technology for Big Bend Unit 2, which involves a neural network based intelligent sootblowing system. This innovative NO_x plan describes work for Big Bend Unit 4 which will reduce its NO_x emissions using commercially available techniques years in advance of future requirements. This will provide substantial reductions of NO_x emissions to the environment.

Introduction

Big Bend Unit 4 is a fossil fired steam boiler electric generating system rated at 4,330 MMBtu/hour. It has a Combustion Engineering (CE) "dry" bottom tangentially fired (T-fired) pulverized coal boiler designed for 486 MW generation. The unit began operation in 1985. Big Bend Unit 4 is equipped with five elevations of coal nozzles configured in such a manner that it creates a helical fireball, whereby the coal burners are aimed at the tangential intersection with the fireball. Between each coal nozzle assembly, there is an auxiliary air compartment, which provides the vast majority of combustion air. Big Bend Unit 4 was also originally fitted with two levels of close coupled over-fired air, (CCOFA) and a refuse burner, which are located above the upper most coal nozzle.

The most widely accepted and conventional methods for in-furnace NO_x control involve staging of the combustion process to reduce NO_x emissions. There are several trade names associated with these techniques, depending upon the manufacturer. However, they basically all include the same general principles. Level I primarily consists of replacement of the coal and auxiliary air nozzles designed specifically for NO_x reduction, and the inclusion of CCOFA. Level II systems use Level I techniques, but also include single or multiple levels of separated overfired air (SOFA) ports. The latter levels of NO_x control can involve clustering of coal nozzles, and/or the addition of more SOFA ports. In all cases, the emphasis is to provide a physical separation of varying levels of combustion air from the main combustion zone. Theoretically, increasing the separation and quantities of air diverted from the combustion zone will reduce the level of NO_x generated. There is, however, negative consequences associated with the implementation of these techniques which must be managed as part of the control scheme. These include but are not limited to, water wall wastage, increased unburned carbon, slag formation patterns, and steam temperature impacts.

Scope of Work

Low NO_x Burners with CCOFA - Big Bend Unit 4 was originally fitted with a two level CCOFA system and conventional coal and air nozzles. This arrangement allowed for a NO_x emission rate of 0.45 lb/MMBtu. The upgraded system included Foster Wheeler's (FW) low NO_x designed coal and air nozzles to be used in conjunction with modifications to be made to the CCOFA, which included the addition of one CCOFA port. The work also involved modifications to the lowest air compartment to provide for isolated tile control, which is independent of the main tilt drive system. It is projected that an emission rate of 0.38 lb/MMBtu can be achieved using this system which provides for a 15.5 percent reduction as compared to the 0.45 lb/MMBtu rate.

The specific material scope of supply provided by Foster Wheeler included:

- Twenty FWEC Double Shroud, adjustable coal nozzles for CE T-fired unit complete with nozzle tip pins, seal plates and compartment restrictor plates.
- Windbox tilt kit. Includes internal levers, pins and adjusting links.
- Thirty-two air nozzle tips complete with nozzle tip pins, seal plates and restrictor plates.

This project was completed in the summer of 2001 for a cost of $805,000 and was identified in prior reports to EPA as a candidate for inclusion in TEC's NO_x compliance strategy.

Separated Over Fired Air (SOFA) – As noted above, TEC has already installed a Level I NO_x control system as part of its overall NO_x control strategy in response to the Consent Decree requirements. The next logical step for Big Bend Unit 4 is the installation of a two register SOFA system to allow for deeper staging of the combustion process and further reduction of NO_x emissions. The work involved penetrations into the existing secondary air (SA) duct assembly, the installation of four new duct take-off sections to divert approximately 20 percent of the combustion air to the SOFA system. In addition, pressure part modifications were necessary to allow for the new air nozzles to be installed above the existing windbox. New windbox assemblies were attached to the new boiler tubes along with two air nozzles per corner. The work also involved new and upgraded drive assemblies to modulate air dampers, which regulate the quantity of air delivered to each compartment and additional restrictor plates to help regulate flow. Due to the fact that the Level I system was supplied by Foster Wheeler, TEC has elected to use Foster Wheeler for the Level II upgraded system. TEC expects to achieve an additional 15 percent reduction from the Level I system, or a combined reduction of NO_x emissions from 0.45 lb/MMBtu of approximately 33 percent.

TEC's project schedule was to issue a contract to Foster Wheeler by no later than April 4, 2003, to support the planned outage whose start date was November 1, 2003. This outage concluded December 9, 2003. Due to the specific timing of this project and other work that is being conducted, final tune-up and optimization of the unit is scheduled for January 2004, which should be completed within 3-4 weeks.

The cost of the project is forecasted to be approximately $3,230,000, which includes all material and labor costs associated with providing a fully functional and optimized system. It is further expected that approximately $3,000,000 of this cost will be expended in 2003, and the balance in January 2004 for optimization and any punch list items that may require attention.

Benefits and Conclusion

The foregoing projects comply with the stipulations of paragraph 52.C of the Consent Decree which allows TEC to "... reduce the NO_x emission rate for Big Bend coal combusting unit below the lowest rate otherwise applicable to it under this Consent Decree." This is supported by the amendment to the Consent Decree, which allows for the use of either Big Bend Unit 3 or 4 for an early NO_x reduction unit. TEC has elected to use Big Bend Unit 3 as the early NO_x compliance unit, thus allowing for Big Bend Unit 4 to qualify. Additionally, Big Bend Unit 4 is not required to achieve NO_x reduction below its currently permitted level of 0.45 lb/MMBtu until June 1, 2007. The combined impact of these two projects will allow for 33 percent of the required NO_x reductions to occur well in advance of the 2007 date.

In 1998 Big Bend Unit 4 emitted approximately 6,826 tons of NO_x. The NO_x control systems discussed above will provide for a reduction in annual NO_x emissions of approximately 2,252 tons. Additionally, due to the timing of the projects the total emission reduction will be approximately 7,900 tons of NO_x, which otherwise would be released to the environment.

DOCUMENT III.I.3

PROCEDURES FOR STARTUP AND SHUTDOWN

PROCEDURES FOR STARTUP AND SHUTDOWN
UNITS 1—4

Procedures for startup and shutdown of Units 1 through 4 are as follows:

A. STARTUP

1. Boilers are purged to expel all combustible gasses.

2. Ignitors are placed in service to establish an oil fire.

3. Once the air leaving the air preheater reaches 180° F, a centrally located fuel pulverizer is activated.

4. Solid fuel feeders and ignitors are rotated in and out of service to establish an even fire.

5. As soon as fuel fire is established, electrostatic precipitator rectifiers are added as needed to control PM emissions.

6. Following boiler stabilization at minimum load, the oil ignitors are removed and the electrostatic precipitator is placed in full service.

7. Excess emissions during startup are minimized by the following activities:
   - Opacity is continuously monitored.
   - Ignitor burner tips are checked on a regular basis to ensure the ignitors remain lit and have even oil flow.
   - An adequate supply of combustion air is maintained.
   - Combustion air is manually and continuously controlled to maintain even combustion.
   - Precipitators are placed in service prior to load stabilization.

B. SHUTDOWN

1. After the decision for boiler shutdown is made, load and steam header pressure are reduced.

2. Ignitors are placed in service as permissives for solid fuel feed removal.

3. Steam turbine is "punched out" when all fuel feeders are out of service and load and steam header pressure are approximately 5 MW and 500 lbs, respectively.

4. Exhaust fans are used to expedite boiler cooling.

5. Excess emissions during shutdown are minimized by the following activities:

   - Opacity is continuously monitored.
   - Precipitators are removed from service only if precipitator maintenance is required.
   - Air flow, dampers, etc., are manually adjusted.

Unit 4 FGD System

A. STARTUP

Startup of the FGD system begins with starting up the makeup water system to provide water to the pump seals and the tower demister spray headers. The next system placed in service is the limestone reagent feed system, which supplies limestone slurry to the towers for sulfur dioxide (SO_2) removal. Once oil fired is established in the boiler, the tower absorber and quencher pumps are placed in service for Unit 4. Additional towers are placed in service for the integration of Unit 3 prior to the burning of solid fuel. Unit 3 shall be considered to have all emissions from that unit treated in the scrubber when the No. 2 Stack dampers are closed and when the scrubber inlet damper for Unit 3 is open. The absorber tower for Units 1 and/or 2 are placed in service after oil fire and prior to solid fuel fire. Units 1 and/or 2 shall be considered to have all emissions from these units treated in the scrubber when the booster fan associated with that unit is operating. The gypsum handling system is started when the gypsum slurry tanks level increases due the production of gypsum in the towers from the interaction of SO_2 and calcium carbonate (limestone).

B. SHUTDOWN

Shutdown of the FGD system is less complicated than startup and begins with the removal of unneeded tower(s) as load decreases. When the unit is off-line, all towers can be removed from service and the makeup water, limestone reagent feed system, and gypsum handling systems are shutdown.

DOCUMENT III.I.4

OPERATION AND MAINTENANCE PLAN

E.U.001., UNIT NO. 1—SOLID FUEL – FIRED STEAM GENERATOR OPERATION AND MAINTENANCE FOR PARTICULATE CONTROL

A. Process System Performance Parameters:

1. Design fuel consumption rate at maximum continuous rating: 183.5 tons fuel/hour at 11,126 Btu/lb
2. Operating pressure: 2,600 psi
3. Operating temperature: 1,000 °F
4. Maximum design steam capacity: 3,119,000 lbs/hr

B. Particulate Control Equipment Data:

1. Control equipment designator: electrostatic precipitator
2. Electrostatic precipitator manufacturer: Joy Western
3. Design flow rate: 1,408,000 ACFM
4. Primary voltage: 400 volts
5. Primary current: 245 amps
6. Secondary voltage: 55 kilovolts
7. Secondary current: 1,250 milliamps
8. Design efficiency: 99.7 percent
9. Pressure drop: < 1.0 inches H_2O (average)
10. Rapper frequency: 1/1.5 min. – ¼.0 min. (average)
11. Rapper duration: impact
12. Gas temperature: 330± 55°F (average)

C. The following observations, checks, and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

- Visible emissions (continuous opacity monitor [COM])
- Steam pressure
- Steam temperature
- Steam flow

Daily Recorded and Inspected

- Electrostatic Precipitator
    - Primary current
    - Secondary voltage
    - Secondary current

Monthly Recorded and Inspected

- Fuel input (recorded)

Inspect insulator compartment heater/blowers. Service as needed. Observe operation of all rapper and transformer/rectifier controls. Service as needed.

D. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of 2 years and shall be made available to the Florida Department of Environmental Protection or the Environmental Protection Commission of Hillsborough County upon request.

E.U.002., UNIT NO. 2—SOLID FUEL – FIRED STEAM GENERATOR OPERATION AND MAINTENANCE FOR PARTICULATE CONTROL

A. Process System Performance Parameters:

1. Design fuel consumption rate at maximum continuous rating: 183.5 tons fuel/hour at 11,126 Btu/lb

2. Operating pressure: 2,600 psi

3. Operating temperature: 1,000 °F

4. Maximum design steam capacity: 3,119,000 lbs/hr

B. Particulate Control Equipment Data:

1. Control equipment designator: electrostatic precipitator

2. Electrostatic precipitator manufacturer: Joy Western

3. Design flow rate: 1,312,000 ACFM

4. Primary voltage: 400 volts

5. Primary current: 257 amps

6. Secondary voltage: 45 kilovolts

7. Secondary current: 1,600 milliamps

8. Design efficiency: 99.7 percent

9. Pressure drop: < 1.0 inches H_2O (average)

10. Rapper frequency: 1/1.5 min. – ¼.0 min. (average)

11. Rapper duration: impact

12. Gas temperature: 330± 55°F (average)

C. The following observations, checks, and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

- Visible emissions (continuous opacity monitor [COM])
- Steam pressure
- Steam temperature
- Steam flow

Daily Recorded and Inspected

- Electrostatic Precipitator
    - Primary current
    - Secondary voltage
    - Secondary current

Monthly Recorded and Inspected

- Fuel input (recorded)

Inspect insulator compartment heater/blowers. Service as needed. Observe operation of all rapper and transformer/rectifier controls. Service as needed.

D. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of 2 years and shall be made available to the Florida Department of Environmental Protection or the Environmental Protection Commission of Hillsborough County upon request.

E.U.003., UNIT NO. 3—SOLID FUEL – FIRED STEAM GENERATOR OPERATION AND MAINTENANCE FOR PARTICULATE CONTROL

A. Process System Performance Parameters:

1. Design fuel consumption rate at maximum continuous rating: 190.3 tons fuel/hour at 10,810 Btu/lb
2. Operating pressure: 2,600 psi
3. Operating temperature: 1,000 °F
4. Maximum design steam capacity: 3,115,600 lbs/hr

B. Particulate Control Equipment Data:

1. Control equipment designator: electrostatic precipitator
2. Electrostatic precipitator manufacturer: Joy Western
3. Design flow rate: 1,420,000 ACFM
4. Primary voltage: 400 volts
5. Primary current: 241 amps
6. Secondary voltage: 45 kilovolts
7. Secondary current: 1,500 milliamps
8. Design efficiency: 99.7 percent
9. Pressure drop: < 1.0 inches H_2O (average)
10. Rapper frequency: 1/1.5 min. – ¼.0 min. (average)
11. Rapper duration: impact
12. Gas temperature: 291± 55°F (average)

C. The following observations, checks, and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

- Visible emissions (continuous opacity monitor [COM])
- Steam pressure
- Steam temperature
- Steam flow

Daily Recorded and Inspected

- Electrostatic Precipitator
    - Primary current
    - Secondary voltage
    - Secondary current

Monthly Recorded and Inspected

- Fuel input (recorded)

Inspect insulator compartment heater/blowers. Service as needed. Observe operation of all rapper and transformer/rectifier controls. Service as needed.

D. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of 2 years and shall be made available to the Florida Department of Environmental Protection or the Environmental Protection Commission of Hillsborough County upon request.

E.U.004., UNIT NO. 4 SOLID FUEL – FIRED STEAM GENERATOR OPERATION AND MAINTENANCE FOR PARTICULATE CONTROL

A. Process System Performance Parameters:

1. Design fuel consumption rate at maximum continuous rating: 206.5 tons fuel/hour at 10,495 Btu/lb
2. Operating pressure: 2,600 psi
3. Operating temperature: 1,005 °F
4. Maximum design steam capacity: 3,300,000 lbs/hr

B. Particulate Control Equipment Data:

1. Control equipment designator: electrostatic precipitator
2. Electrostatic precipitator manufacturer: Belco
3. Design flow rate: 2,200,000 ACFM
4. Primary voltage: 480 volts
5. Primary current: 193 amps
6. Secondary voltage: 45 kilovolts
7. Secondary current: 1,200 milliamps
8. Design efficiency: 99.7 percent
9. Pressure drop: < 0.5 inches H2O (average)
10. Rapper frequency: 60 sec. (average)
11. Rapper duration: cast steel hammer
12. Gas temperature: 340°F (average)

C. The following observations, checks, and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded

- Visible emissions (continuous opacity monitor [COM])
- Steam pressure
- Steam temperature
- Steam flow

Daily Recorded and Inspected

- Electrostatic Precipitator
    - Primary current
    - Secondary voltage
    - Secondary current

Monthly Recorded and Inspected

- Fuel input (recorded)

Inspect insulator compartment heater/blowers. Service as needed. Observe operation of all rapper and transformer/rectifier controls. Service as needed.

D. Records of inspections, maintenance, and performance parameters shall be retained for a minimum of 2 years and shall be made available to the Florida Department of Environmental Protection or the Environmental Protection Commission of Hillsborough County upon request.

DOCUMENT III.I.5

COMPLIANCE ASSURANCE MONITORING

INTRODUCTION

In order to be subject to the CAM Rule contained in 40 Code of Federal Regulations (CFR) Part 64, an emission unit must:

1. Be located at a major source that is required to obtain Part 70 or 71 permit per 40 CFR 64.2(a);
2. Be subject to an emission limitation or standard for the applicable pollutant per 40 CFR 64.2(a)(1);
3. Use a control device to achieve compliance per 40 CFR 64.2(a)(2);
4. Have potential pre-control emissions of the applicable regulated pollutant at least 100 percent of the major source threshold amount per 40 CFR 64.2(a)(3) and
5. Not otherwise be exempt from CAM per 40 CFR 64.2(a)(b).

A discussion of CAM applicability for the Big Bend Station regulated emissions units follows:

A. Units 1 through 4

Big Bend Station Units 1 through 4 each employ electrostatic precipitators (ESPs) to control particulate matter (PM) emissions and wet flue gas desulfurization (FGD) technology to control emissions of sulfur dioxide (SO_2). Unit Nos. 1, 2, 3, and 4 are each subject to the Acid Rain Program and are each equipped with a SO_2 CEMS certified and operated in accordance with the requirements of 40 Code of Federal Register (CFR) Part 75, Continuous Emission Monitoring. Since the existing SO_2 CEMS are required under current regulations, their use as CAM for SO_2 emission standards is mandated by §64.3(d)(1). The Unit 1 through 4 SO_2 CEMS are used to determine compliance with all of the SO_2 emission limits included in FINAL Title V Air Operation Permit Revision No. 0570039-013-AV; i.e., the SO_2 CEMS serve as a *continuous compliance determination* method for Units 1 through 4. Accordingly, Units 1 through 4 are exempt from CAM requirements with respect to SO_2 pursuant to 40 CFR §64.2(b)(vi).

Units 1 through 4 are also not subject to CAM with respect to NO_x since the units do not employ a NO_x *control device* as defined 40 CFR §64.1. The NO_x control systems employed on Units 1 through 4 (i.e., combustion modifications) constitute pollution prevention technology – this control technology is specifically excluded from the 40 CFR §64.1 definition of a control device.

B. Remaining Regulated Emission Units

None of the remaining Big Bend Station regulated emission units are subject to the 40 CFR Part 64 CAM requirements since they do not meet the general applicability criteria of 40 CFR §64.2(a).

In summary, the 40 CFR Part 64 CAM requirements for the Big Bend Station are applicable to Units 1 through 4 for PM emissions. A PM CAM Plan for Units 1 through 4 follows this introduction.

I. Background

A. Emissions Units

Unit No. 1 Steam Generator - *E.U. ID No. 001*
Description: Nominal 4,037 MMBtu/hr solid-fired steam boiler

Unit No. 2 Steam Generator - E.U. ID No. 002
Description: Nominal 3,996 MMBtu/hr solid-fired steam boiler

Unit No. 3 Steam Generator - E.U. ID No. 003
Description: Nominal 4,115 MMBtu/hr solid-fired steam boiler

Unit No. 4 Steam Generator - E.U. ID No. 004
Description: Nominal 4,330 MMBtu/hr solid-fired steam boiler

B. Applicable Emissions Limits and Current Monitoring Practices

PM Emissions Limits:

PM:

0.1 lb/MMBtu, test average, Units 1 through 3, per unit
[Basis: Permit No. 0570039-013-AV, Condition A.7.]

0.3 lb/MMBtu, 3-hour average, Units 1 through 3 during excess emissions (soot blowing and load change)
[Basis: Permit No. 0570039-013-AV, Condition A.11.(3)]

1,768 tons/year, Unit 1
1,750 tons/year, Unit 2
1,802 tons/year, Unit 3
[Basis: Permit No. 0570039-013-AV, Condition A.8.i.]

2,767 tons/year, Units 1 through 4 combined
[Basis: Permit No. 0570039-013-AV, Condition A.8.ii.]
[Basis: Permit No. 0570039-013-AV, Condition B.5.ii.]

0.03 lb/MMBtu, test average, Unit 4 except during periods of startup, shutdown, or malfunction
[Basis: Permit No. 0570039-013-AV, Condition B.5.i.]

129.9 lb/hr, 3,118 lb/day, and 569.0 tons/year, Unit 4
[Basis: Permit No. 0570039-013-AV, Condition B.5.ii.]

Opacity Limits:

Visible Emissions:	20 percent opacity, with 27 percent opacity for one six-minute period per hour, Units 1 through 3, per unit [Basis: Permit No. 0570039-013-AV, Condition A.6.]
	60 percent opacity not to exceed 3 hours in any 24-hour period during excess emissions (soot blowing and load change), Units 1 through 3, per unit [Basis: Permit No. 0570039-013-AV, Condition A.11.(3)]
	Greater than 60 percent opacity for not more than 4, six-minute periods not to exceed 3 hours in any 24-hour period during excess emissions (soot blowing and load change), Units 1 through 3, per unit [Basis: Permit No. 0570039-013-AV, Condition A.11.(3)]
	20 percent opacity (six-minute average), with 27 percent opacity for one six-minute period per hour, Unit 4 [Basis: Permit No. 0570039-013-AV, Condition B.6.]

Current Compliance Demonstration Requirements:

Unit Nos. 1, 2, and 3:

PM:	Annual stack test during both sootblowing and non-sootblowing operation conditions using EPA Reference Methods (RM) 5, 5B, 5F, or 17. (Basis: Permit No. 0570039-013-AV, Conditions A.12., A14.)
Visible Emissions:	Annual stack test during both sootblowing and non-sootblowing operation conditions using DEP Method 9 or a certified 40 CFR Part 75 transmissometer utilizing a six-minute block average. (Basis: Permit No. 0570039-013-AV, Condition A.13.)

Unit No. 4:

PM:	Annual stack test using EPA RM 5, 5B, or 17. (Basis: Permit No. 0570039-013-AV, Conditions B.27., B.30.)

Visible Emissions: Continuous opacity monitoring system (COMS)
(Basis: Permit No. 0570039-013-AV, Condition B.16.)

C. Control Technology

Electrostatic precipitator (ESP) – Units 1 through 4

II. Monitoring Approach

A. Background

Unit Nos. 1, 2, 3, and 4 are each subject to an emission limitation for PM, use a control device to meet this limitation (i.e., ESP), and have a potential pre-control PM emission rate greater than the 100 tpy major source threshold. Unit Nos. 1, 2, 3, and 4 are therefore subject to the requirements of 40 CFR 64 Compliance Assurance Monitoring (CAM) pursuant to §64.2(a). In accordance with §64.5(a)(3), the information required by §64.4 (Submittal Requirements) must be included as part of the application for a Part 70 (Title V) permit renewal.

§64.3 (Monitoring Design Criteria) specifies the CAM criteria including general and performance criteria, evaluation factors, and special criteria for the use of continuous emission monitoring systems (CEMS), continuous opacity monitoring systems (COMS), or predictive emission monitoring systems (PEMS). The general criteria requires the identification of indicators of emission control performance of the control device and the establishment of appropriate indicator ranges such that operation within the range provides a reasonable assurance of ongoing compliance. The performance criteria requires that the proposed monitoring obtains data that is representative of the emissions being monitored, verification of the operational status for new or modified monitoring equipment, implementation of quality assurance and quality control (QA/QC) procedures, and specification of the frequency, data collection procedures, and averaging period of the monitored data. The evaluation factors indicate that the proposed monitoring approach should consider site-specific factors including applicability of existing monitoring, ability of the monitoring to account for process and control device variability, reliability of the control device, and the level of actual emissions relative to the compliance limitation. The special criteria for the use of COMS, CEMS, and PEMS includes requirements for when these monitoring approaches are required and their presumptive acceptance for meeting the general design criteria of §64.3(a).

§64.4 (Submittal Requirements) lists the specific CAM information that is required to be submitted. Information required includes the proposed monitoring indictors and their ranges, the performance criteria specified by §64.3(b), indicator ranges and performance criteria for COMS, CEMS, or PEMS if applicable, justification for the proposed monitoring approach, control device and operating data obtained during compliance testing, and an implementation plan and schedule for installing and testing new monitoring equipment, if applicable.

III. Monitoring Approach Justification

A. Rationale for Selection of Indicator

Opacity is selected as the indicator for PM monitoring because it is currently measured continuously using an approved and calibrated COMS and because opacity is generally related to PM emission rates. A general trend of increasing PM emission rates with increasing opacity would be expected. Therefore, opacity data from the COMS can be used to provide reasonable assurance of continuous compliance not only with the allowable opacity limits, but also with the PM emission limitation.

Unit Nos. 1, 2, 3, and 4 are each subject to the Acid Rain Program and are each equipped with a COMS certified and operated in accordance with the requirements of 40 Code of Federal Register (CFR) Part 75, Continuous Emission Monitoring. The existing COMS are installed in Units 1 through 4 exhaust ducts and meet the location and performance criteria set forth in 40 CFR 75. The existing

COMS also provide a direct measurement of opacity for evaluation of the opacity limitation.

The Unit 1 through 4 COMS utilize optical extinction to determine opacity levels. The COMS operate using the theory of Lambert's Law that relates opacity to the specific surface area of PM, the PM concentration, and the optical path length. PM passing through the light beam is detected by measuring the variations in light transmittance. As the PM concentration increases, a greater percentage of the transmitted light is absorbed or scattered resulting in a decrease in the light detected by the photo detector; i.e., an increase in measured opacity. Accordingly, opacity is considered a reasonable surrogate for PM emissions. Use of COMS as an indicator for PM is specifically noted in 40 CFR §64.3(a)(1) and (d).

B. Rationale for Selection of Indicator Range

TEC has entered into agreements with the Florida Department of Environmental Protection (FDEP) and the U.S. Environmental Protection Agency (EPA) to reduce emissions at the Big Bend Station. These agreements (FDEP's Consent Final Judgment and EPA's Consent Decree) call for minimization and monitoring of PM emissions from Units 1 through 4 at the Big Bend Station. A major component of these agreements included the development of best operational practices (BOPs) to minimize PM emissions. The BOPs include comprehensive operating and maintenance requirements for Units 1 through 4 ESPs to ensure that the ESPs are maintained and operated properly. Implementation of the BOPs also ensures that PM emissions from Units 1 through 4 will be below the applicable Title V permit limits.

Based on plant operating experience, an excursion level of 20 percent opacity, excluding periods of startup, shutdown and malfunction pursuant to Rule 62-210.700, F.A.C., is proposed for Units 1 through 4. Use of this excursion level and on-going implementation the BOPs will ensure that the ESPs are operated properly and that PM emissions from Units 1 through 4 are below their applicable PM emission limits.

C. Summary of Proposed CAM for PM

The specific monitoring plan information required by §64.4(a) is summarized in Table 1.

Table 1. PM CAM Plan Summary—Big Bend Station Unit Nos. 1, 2, 3, and 4

A. Indicator	PM
Measurement Approach	Use of a 40 CFR 75 certified continuous opacity monitoring system (COMS) and data acquisition handling system (DAHS).
B. Indicator Range	An excursion is defined as any 3-hour average visible emission that exceeds 20 percent opacity, excluding periods of startup, shutdown and malfunction pursuant to Rule 62-210.700, F.A.C.
C. Performance Criteria	
1. Data Representativeness	The COMS locations meet the specifications of 40 CFR 75 and 40 CFR 60, Appendix B.
2. Verification of Operational Status	Not applicable, use of existing monitoring equipment is proposed.
3. QA/QC Practices and Criteria	The COMS are operated and maintained in accordance with Appendix B to Part 75, Quality Assurance and Quality Control Procedures.
4. Monitoring Frequency	Continuous
5. Data Averaging Period	3-hour average
6. Data Collection	Automated data acquisition system (DAHS)

DOCUMENT III.I.6

ALTERNATE METHODS OF OPERATION

Alternative Methods of Operation
Tampa Electric Company, Big Bend Station

Emissions Unit	Fuels					Control Equipment		Stack/ Emission Point ID	Comments
	Coal	Coal/Petroleum Coke Blend	Raw Coal Residual	Beneficiated Coal Residual	Distillate Fuel Oil No. 2	ESP	FGD		
Unit No. 1 Steam Generator (EU-001)	X					X		CS001	
	X	X	X	X		X	X	CS0W1	
					X	X		CS001	During startups and shutdowns only.
Unit No. 2 Steam Generator (EU-002)	X					X		CS001	
	X	X	X	X		X	X	CS0W1	
					X	X		CS001	During startups and shutdowns only.
Unit No. 3 Steam Generator (EU-003)	X					X		CS002	Integrated Mode (CS003)
	X	X	X	X		X	X	CS003	
					X	X		CS002	During startups and shutdowns only.
Unit No. 4 Steam Generator (EU-004)	X					X	X	CS003	
	X	X	X	X		X	X	CS003	
					X	X	X	CS003	During startups and shutdowns only.

DOCUMENT III.I.7

ACID RAIN CERTIFICATE OF REPRESENTATION

EPA

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258

Certificate of Representation

For more information, see instructions and refer to 40 CFR 72.24

This submission is: ☐ New ☒ Revised (revised submissions must be complete; see instructions)

STEP 1
Identify the source by plant name, State, and ORIS Code.

Plant Name	State	ORIS Code
Big Bend Station	FL	0645

STEP 2
Enter requested information for the designated representative.

Name: Gregory M. Nelson	
Address: P.O. Box 111 Tampa, Florida 33601	
Phone Number: (813) 228-1763	Fax Number: (813) 228-1308
E-mail address (if available): gmnelson@tecoenergy.com	

STEP 3
Enter requested information for the alternate designated representative, if applicable.

Name: Laura R. Crouch	
Phone Number: (813) 228-4104	Fax Number: (813) 228-1308
E-mail address (if available): lrcrouch@tecoenergy.com	

STEP 4: Complete Steps 5 and 6, read the certifications, sign and date.

I certify that I was selected as the designated representative or alternate designated representative, as applicable, by an agreement binding on the owners and operators of the affected source and each affected unit at the source.

I certify that I have given notice of the agreement, selecting me as the 'designated representative' for the affected source and each affected unit at the source identified in this certificate or representation, in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice.

I certify that I have all necessary authority to carry out my duties and responsibilities under the Acid Rain Program on behalf of the owners and operators of the affected source and of each affected unit at the source and that each such owner and operator shall be fully bound by my actions, inactions, or submissions.

I certify that I shall abide by any fiduciary responsibilities imposed by the agreement by which I was selected as designated representative or alternate designated representative, as applicable.

I certify that the owners and operators of the affected source and of each affected unit at the source shall be bound by any order issued to me by the Administrator, the permitting authority, or a court regarding the source or unit.

Where there are multiple holders of a legal or equitable title to, or a leasehold interest in, an affected unit, or where a utility or industrial customer purchases power from an affected unit under life-of-the-unit, firm power contractual arrangements, I certify that:

I have given a written notice of my selection as the designated representative or alternate designated representative, as applicable, and of the agreement by which I was selected to each owner and operator of the affected source and of each affected unit at the source; and

Allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in proportion to each holder's legal, equitable, leasehold, or contractual reservation or entitlement or, if such multiple holders have expressly provided for a different distribution of allowances by contract, that allowances and the proceeds of transactions involving allowances will be deemed to be held or distributed in accordance with the contract.

The agreement by which I was selected as the alternate designated representative, if applicable, includes a procedure for the owners and operators of the source and affected units at the source to authorize the alternate designated representative to act in lieu of the designated representative.

Big Bend Station Plant Name (from Step 1)	

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Signature (designated representative) [illegible]	Date 6/7/04
Signature (alternate designated representative) [illegible]	Date 6/7/04

STEP 5
Provide the name of every owner and operator of the source and identify each affected unit they own and/or operate.

Tampa Electric Company Name					[X] Owner	[X] Operator
BB01 ID#	**BB02** ID#	**BB03** ID#	**BB04** ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					[ ] Owner	[ ] Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

Name					[ ] Owner	[ ] Operator
ID#	ID#	ID#	ID#	ID#	ID#	ID#
ID#	ID#	ID#	ID#	ID#	ID#	ID#

STEP 6
For any new affected units listed at STEP 5 that have not commenced commercial operation, enter the projected date on which the unit is expected to commence commercial operation.

ID#	Projected Commence Commercial Operation Date:
ID#	Projected Commence Commercial Operation Date:
ID#	Projected Commence Commercial Operation Date:
ID#	Projected Commence Commercial Operation Date:

DOCUMENT III.I.8

ACID RAIN PART APPLICATION

Florida Department of Environmental Protection

Phase II NO_x Averaging Plan

For more information, see instructions for DEP Form No. 62-210.900(1)(a)4.and refer to 40 CFR 76.11

This submission is: ☐ New ☒ Revised

STEP 1

Identify the units participating in this averaging plan by plant name, state, and boiler ID# from NADB. In column (a), fill in each unit's applicable emission limitation from 40 CFR 76.5, 76.6, or 76.7. In column (b), assign an alternative contemporaneous annual emissions limitation in lb/mmBtu to each unit. In column (c), assign an annual heat input limitation in mmBtu to each unit. Continue to page 3 if necessary.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit
Big Bend Station	FL	BB01	0.84	0.74	35,364,120
Big Bend Station	FL	BB02	0.84	0.74	35,004,960
Big Bend Station	FL	BB03	0.84	0.53	36,047,400
Big Bend Station	FL	BB04	0.45	0.44	37,930,800

STEP 2

Use the formula to enter the Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan and the Btu-weighted annual average emission rate for the same units if they are operated in compliance with 40 CFR 76.5, 76.6, or 76.7. The former must be less than or equal to the latter.

Btu-weighted annual emission rate averaged over the units if they are operated in accordance with the proposed averaging plan		Btu-weighted annual average emission rate for same units operated in compliance with 40 CFR 76.5, 76.6 or 76.7
0.61	≤	0.74
	≤	

Where,

R_{Li} = Alternative contemporaneous annual emission limitation for unit i, in 16/mmBtu, as specified in column (b) of Step 1;

R_{li} = Applicable emission limitation for unit i, in lb/mmBtu, as specified in column (a) of Step 1;

HI_i = Annual heat input for unit i, in mmBtu, as specified in column (c) of Step 1;

n = Number of units in the averaging plan

Plant Name (from Step 1)	Big Bend Station

STEP 3

Mark one of the two options and enter dates.

☐ This plan is effective for calendar year ___________ through calendar year ___________ unless notification to terminate the plan is given.

☐ Treat this plan as ☐ identical plans, each effective for one calendar year for the following calendar years: 2004, 2005, 2006, 2007 and 2008 unless notification to terminate one or more of these plans is given.

STEP 4

Read the special provisions and certification, enter the name of the designated representative, and sign and date.

Special Provisions

Emission Limitations

Each affected unit in an approved averaging plan is in compliance with the Acid Rain emission limitation for NO_x under the plan only if the following requirements are met:

(i) For each unit, the unit's actual annual average emission rate for the calendar year, in lb/mmBtu, is less than or equal to its alternative contemporaneous annual emission limitation in the averaging plan, and

(a) For each unit with an alternative contemporaneous emission limitation less stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year does not exceed the annual heat input limit in the averaging plan,

(b) For each unit with an alternative contemporaneous emission limitation more stringent than the applicable emission limitation in 40 CFR 76.5, 76.6, or 76.7, the actual annual heat input for the calendar year is not less than the annual heat input limit in the averaging plan, or

(ii) If one or more of the units does not meet the requirements of (i), the designated representative shall demonstrate, in accordance with 40 CFR 76.11(d)(1)(ii)(A) and (B), that the actual Btu-weighted annual average emission rate for the units in the plan is less than or equal to the Btu-weighted annual average rate for the same units had they each been operated, during the same period of time, in compliance with the applicable emission limitations in 40 CFR 76.5, 76.6, or 76.7.

(iii) If there is a successful group showing of compliance under 40 CFR 76.11(d)(1)(ii)(A) and (B) for a calendar year, then all units in the averaging plan shall be deemed to be in compliance for that year with their alternative contemporaneous emission limitations and annual heat input limits under (i).

Liability

The owners and operators of a unit governed by an approved averaging plan shall be liable for any violation of the plan or this section at that unit or any other unit in the plan, including liability for fulfilling the obligations specified in part 77 of this chapter and sections 113 and 411 of the Act.

Termination

The designated representative may submit a notification to terminate an approved averaging plan, in accordance with 40 CFR 72.40(d), no later than October 1 of the calendar year for which the plan is to be terminated.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Gregory M. Nelson, P.E.		
Signature	Gregory M. Nelson	Date	6/7/04

Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit

Plant Name (from Step 1)

STEP 1

Continue the identification of units from Step 1, page 1, here.

Plant Name	State	ID#	(a) Emission Limitation	(b) Alt. Contemp. Emission Limitation	(c) Annual Heat Input Limit

DOCUMENT II.D.9

REQUESTED CHANGES TO CURRENT TITLE V AIR OPERATION PERMIT

Tampa Electric Company
Big Bend Station
Facility ID No.: 0570039
Hillsborough County

Title V Air Operation Permit Revision

FINAL Permit No.: 0570039-013-AV
Revision to Title V Air Operation Permit 0570039-010-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/921-9533

Compliance Authority:
Environmental Protection Commission
of Hillsborough County
1410 North 21 Street
Tampa, Florida 33605
Telephone: 813/272-5530
Fax: 813/272-5605

Title V Air Operation Permit Revision
FINAL Permit No.: 0570039-013-AV
Revision to Title V Air Operation Permit 0570039-010-AV

Table of Contents

Section **Page Number**

Permittee:
Tampa Electric Company
6944 US HWY 41
Apollo Beach, FL 33572-9200

FINAL Permit No.: 0570039-013-AV
Facility ID No.: 0570039
SIC Nos.: 49, 4911
Project: Title V Air Operation Permit Revision

This permit revision is for the purpose of incorporating the terms and conditions of the air construction permit, No. 0570039-012-AC, and to make some administrative corrections. This permit is for the operation of the Tampa Electric Company (TEC) Big Bend Station. This facility is located at Big Bend Road, North Ruskin, Hillsborough County; UTM Coordinates: Zone 17, 361.9 km East and 3075.0 km North; Latitude: 27° 47' 36" North and Longitude: 82° 24' 11" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213 and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-4, TITLE V CONDITIONS (version dated 2/02/02)
APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEM PERFORMANCE REPORT (version dated 7/96)
DOCUMENT III.1.6 - PROCEDURES FOR STARTUP AND SHUTDOWN UNITS 1 - 4
DOCUMENT III.1.7 - OPERATION AND MAINTENANCE PLAN (version dated 7/18/97)
40 CFR 60 Subpart A – General Provisions
40 CFR 63 Subpart A - General Provisions modified for Subpart II
40 CFR 63 Subpart II – § 63.782 Definitions
40 CFR 63 Subpart II - Figure 1. Flow diagram of compliance procedures
40 CFR 63 Subpart II - TABLE 2 VOLATILE ORGANIC HAP (VOHAP) LIMITS FOR MARINE COATINGS
40 CFR 63 Subpart II - TABLE 3 SUMMARY OF RECORDKEEPING & REPORTING REQUIREMENTS
40 CFR 63 Subpart II - APPENDIX A VOC DATA SHEET
40 CFR 63 Subpart II - APPENDIX B
DEP Form No. 62-210.900(1)(a), version 07/01/95, received 12/26/95 (signed 12/19/95).
Consent Final Judgement (DEP vs. TEC) dated December 6, 1999
Phase II NOx Compliance Plan received December 22, 1999
Phase II NOx Averaging Plan received December 22, 1999
Consent Decree (U.S. vs. TEC) dated February 29, 2000; amended October 4, 2000.

Effective Date: January 1, 2001
Revision Effective Date: April 6, 2004
Renewal Application Due Date: July 5, 2004
Expiration Date: December 31, 2004

Michael G. Cooke, Director,
Division of Air Resources Management

MGC/CLP

Section I. Facility Information.

Subsection A. Facility Description.

TEC Big Bend is a nominal ~~2,028~~ 1,998 MW electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4); four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3); solid fuels, fly ash, limestone, gypsum, slag, and bottom ash storage and handling facilities, and fuel oil storage tanks. Units No. 1, 2, 3, and 4 have nominal maximum heat inputs of 4037, 3996, 4115 and 4330 million BTU per hour, respectively. Units No. 1 through 4 are fired with coal and with petcoke in a mixture with coal up to 20.0% petcoke/80.0% coal (by weight), or a coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. The combustion turbines are fired with No. 2 distillate fuel oil. ~~In addition, there is a ship surface coating operation.~~

Also included in this permit are miscellaneous unregulated emissions units and insignificant emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Overview of the facility's operation:

Solid fuel is unloaded from ship/barge into the solid fuel yard, blending bins or directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending ~~tower~~ bins, which consists of six storage bins, where the solid fuel ~~is~~ may be blended for use at the plant, or transloaded into trucks for shipment off site. ~~From the solid fuel yard conveyors, the solid fuel is screw conveyed into the bins.~~ Particulate matter (PM) emissions from the conveyors in the ~~solid fuel yard~~ blending bins are controlled by ~~3~~ 4 rotoclones, one at the conveyor drop and one for every 2 bins. ~~PM emissions from the screw conveyor are controlled by the fourth rotoclone.~~ Storage bins can either ~~Each has 2 hoppers, which~~ feed the transloader, or ~~are~~ can convey~~ed~~ solid fuel, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

From the ~~solid fuel yard~~ tripper room~~, the solid fuel is conveyed to the tripper room where~~ 2 trippers bunker the solid fuels (coal, petcoke, and/or residual) into 4 solid fuel bunkers. Each unit has its own respective bunker. ~~Solid fuel samples are taken every 15 minutes during bunking, and composited for analysis.~~ From the bunkers, the solid fuel is gravity fed into 14 ~~crushers~~ mills~~, and then gravity fed into the boilers~~. There are 3 ~~tall crushers~~ ball mills on~~,~~ each ~~for~~ Unit Nos. 1 – 3, and 5 bowl ~~crushers~~ mills on ~~for~~ Unit No. 4. From the ~~crushers~~mills, the solid fuel is pneumatically ~~fed~~ transported into classifiers, two for each ~~crusher~~ mill on Unit Nos. 1-3 and one for each mill on Unit No.4 for a total of 23~~8~~ classifiers~~,~~. ~~and~~ The fuel is then fed into the respective boilers.

PM emissions from Boiler Nos. 1-~~3~~4 are controlled by individual Electrostatic Precipitators (ESPs). Unit Nos. 1-4 ~~PM emissions are controlled by an ESP, and the~~ SO_2 emissions are controlled by a~~n~~ flue gas desulfurization (FGD) scrubber system. When Unit Nos. 1-3 burn~~s~~ petroleum coke, the exhaust gases, following particulate matter removal by the units's ESPs, ~~will be~~ are routed to the inlet of the ~~Unit No. 4 flue gas desulfurization (~~FGD~~)~~ ~~system~~ scrubber system. ~~In this integrated mode, Unit No. 3 will meet the same sulfur dioxide emissions limitations as Unit No. 4.~~ The FGD scrubber will continue to treat the exhaust gas from Unit No. 4. The FGD scrubber outlet stream, consisting of the combined Unit No. 3 and Unit No. 4 treated exhaust, ~~will then be~~is split and discharged through stacks CS002 and CS003.

Fly ash from Units No. 1 and No. 2 is vented into Fly Ash Silo #1 ~~which is controlled by a baghouse~~. Fly ash from Unit No. 3 is vented into Silo #2, which can also receive fly ash from Units No.1 and 2. ~~while f~~Fly ash from Unit No. 4 is vented into Silo #3 or into a fly ash pond. The fly ash from each silo is then loaded into trucks and transported off site, while the bottom ash and slag from Unit Nos. 1-4 are ~~is~~ conveyed ~~across Big Bend Road south of the Big Bend facility~~ to ~~a~~ settling ponds. Each fly ash silo is controlled by a baghouse.

The byproduct gypsum is ~~conveyed~~ pumped as a slurry to the east side of the plant for ~~diverting~~ dewatering and onsite storage or transporting off site. Limestone is unloaded to an underground hopper conveyor belt system to the limestone storage building on the east side of the by-product gypsum area. ~~Particulate matter emissions from the limestone trucks unloading is controlled by a baghouse.~~ From the storage building, limestone is belt conveyed into ~~2~~ 3 storage silos and then gravity fed into the mill room. ~~Two~~ Three rotary mills grind the limestone and mix it with water to form a slurry that is stored in ~~2~~ 3 storage tanks for use in the FGD. The slurry is then pumped to the ~~4~~ 5 reaction tanks of Unit Nos. 1-4. ~~that are located directly south of and adjacent to the absorption towers of the FGD scrubber. Most of the by-product gypsum is wallboard grade, however, gypsum that is produced during start-up, shutdown or upset conditions is de-watered and belt conveyed across the street to the southeast of the plant for drying and transportation off site.~~ Gypsum is sold and transported offsite and can be stored south of Big Bend road prior to offsite removal. Gypsum is stacked out north of Big Bend road for truck loading.

There are 3-combustion turbines (CTs) manufactured by Westinghouse. They are all fired on No. 2 fuel oil. ~~Unit~~CT No. 1 is ~~near the plant~~ west of Unit No. 1 and ~~Unit~~CT Nos. 2 and 3 are on the north side of the property. There is a large No. 2 fuel oil storage tank near ~~Unit~~CT Nos. 2 and 3 and a small day tank near ~~Unit~~CT No. 1.

TEC Rationale for Revision: Administrative corrections to process descriptions.

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U. ID No.	**Brief Description**
-001	Unit No. 1 Steam Generator
-002	Unit No. 2 Steam Generator
-003	Unit No. 3 Steam Generator
-004	Unit No. 4 Steam Generator
-005	Combustion Turbine No. 2
-006	Combustion Turbine No. 3

-007	Combustion Turbine No. 1
-008	Fly Ash Silo No. 1 Baghouse (2 Baghouses)
-009	Fly Ash Silo No. 2 Baghouse (2 Baghouses)
-010	Solid Fuel Yard, Fugitive Emissions
-011	Truck Unloading of Limestone
-012	Limestone Silo A with one baghouse and one backup baghouse
-013	Limestone Silo B with one baghouse and one backup baghouse
-014	Fly Ash Silo No. 3 Baghouse (1 Baghouse)
-015	Unit No. 1 Coal Bunker
-016	Unit No. 2 Coal Bunker
-017	Unit No. 3 Coal Bunker
-018	Flyash Silo No. 1 Truck Loadout
-019	Flyash Silo No. 2 Truck Loadout

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions. (continued)

E.U. ID No.	**Brief Description**
-020	Drops from limestone handling conveyors LE, LF, and LG and silo C belt feeder with baghouse
-021	Silo C with one baghouse
-022	Lime silo with one baghouse for the waste water treatment plant for the chloride bleed stream
-023	Limestone Handling Conveyor LB to Conveyor LC with baghouse Limestone Handling Conveyor LD to Conveyor LE with baghouse
~~-024~~	~~Limestone Handling Conveyor LE to South Storage Silo with baghouse~~ ~~Limestone Handling Conveyor LE to North Storage Silo with baghouse~~
-025	Limestone Storage and Handling Fugitive Emissions
-026	Fly Ash Handling and Storage Fugitive Emissions from Unit Nos. 1-3 (all except silos)
-027	Fly Ash Silo No. 3 Truck Loadout
-028	Fly Ash Handling System Fugitive Emissions from Unit No. 4
-029	Cyclone collectors for fuel blending bins (FH-032 and FH-035)
-030	Cyclone collectors for fuel crushers (FH-048 and FH-049)
~~-031~~	~~Cyclone collectors for bunkers (FH-059 through FH-062)~~
~~-032~~	~~Surface coating of miscellaneous metal parts~~
~~-033~~	~~Abrasive Blast Booth with baghouse~~
~~-034~~	~~Abrasive Blast Media Storage with baghouse~~
~~-035~~	~~Surface coating of ships~~
-037	Coal Residual Storage Building
-038	Coal Residual Transfer System
-039	Unit No.4 Coal Bunker
-036	Unregulated Emissions Units and/or Activities

TEC Rationale for Revision: The emission units addressed by Emission Unit ID No. 024 are also addressed by Emission Unit ID 020. The emission units addressed by Emission Unit ID No. 031 are also addressed by Emission Unit IDs 015, 016, 017, and 039. Accordingly, deletion of duplicate Emission Unit ID Nos. 024 and 031 is requested. For consistency with Units 1-3, addition of an Emission Unit ID No. 39 for Unit No. 4 Coal Bunker (now addressed by Emission Unit ID No. 031) is

requested. The emission units addressed by Emission Unit ID Nos. 031-035 are no longer in service and should be deleted from the permit.

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

<u>These documents are provided to the permittee for information purposes only:</u>
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History

<u>These documents are on file with the permitting authority:</u>
Initial Title V Permit issued December 28, 2000.
<u>TEC request received February 7, 2001 to revise vanadium limitation wording in PSD-FL-040</u>
<u>TEC request received February 16, 2001 to revise vanadium limitation wording in Title V permit</u>
Title V Permit Revision issued August 15, 2001.
Application for a Title V Air Operation Permit Revision received July 1, 2002.
Additional Information Request dated August 29, 2002.
Form dated November 5, 2002, changing the Responsible Official.
Additional Information Response October 8, 2003.
Letter dated November 12, 2003, adding an Alternate Designated Representative.
<u>NOx Projects permit application</u>

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. Not federally enforceable. <u>General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited.</u> No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. <u>General Particulate Emission Limiting Standards. General Visible Emissions Standard.</u>
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be

discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
{Permitting Note: Although the Permittee is not required to perform a visible emissions compliance test to demonstrate compliance with the facility-wide limitations annually or before renewal, if the Department believes that the general visible emissions standard is being violated, the Department may require that the owner or operator perform a visible emissions compliance test per Chapter 62-297.310(7)(b), Special Compliance Tests. In addition, Department personnel who are certified to perform visible emissions tests may determine compliance with the general visible emissions standard.}

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434

and,
b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Nothing was deemed necessary and ordered at this time.
[Rule 62-296.320(1)(a), F.A.C.]

8. Emissions of Unconfined Particulate Matter. Unconfined particulate matter emissions that may result from operations include: vehicular traffic on paved and unpaved roads; wind-blown dust from yard areas; and periodic abrasive blasting. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS):

The following requirements are "not federally enforceable": The following techniques will be used to prevent unconfined particulate matter emissions on an as needed basis:

a. Chemical or water application to: unpaved roads and unpaved yard areas;
b. Paving and maintenance of roads, parking areas and yards;
c. Landscaping or planting of vegetation;
d. Confining abrasive blasting where possible; and
e. Other techniques, as necessary.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by the applicant in the initial Title V permit application received June 14, 1996.]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS)}

11. The Consent Final Judgement (DEP vs. TEC) dated December 6, 1999; and the Consent Decree (U.S. vs. TEC) dated February 29, 2000, including the October 4, 2000 amendment; are attached hereto and made a part of this permit. The permittee shall comply with the Consent Final Judgement and the Consent Decree. Wherever the Consent Decree conflicts with this permit the terms and conditions of the Consent Decree control. Upon expiration of the Consent Decree the Title V permit shall be modified to incorporate any terms and conditions that are deemed necessary by the permitting authority for the continued operation of the facility.
[Rules 62-4.070(3)&(5) and 62-213.440, F.A.C.]

12. Unless otherwise stated in a specific condition, averaging times for specified emission standards are based on the run time of the test method(s) used for determining compliance.
[Rule 62-4.070(3), F.A.C.]

13. a. The permittee shall submit all compliance related notifications and reports required of this permit to the Environmental Protection Commission of Hillsborough County:

Environmental Protection Commission
of Hillsborough County
1410 North 21 Street
Tampa, Florida 33605
Telephone: 813/272-5530
Fax: 813/272-5605

b. The permittee shall provide timely notification to the Environmental Protection Commission of Hillsborough County prior to implementing any changes that may result in a modification to this permit. The changes may include, but are not limited to, the following, and may also require prior authorization before implementation:

1. Alteration or replacement of any equipment* or parameter listed in the Facility or Subsection descriptions.
2. Installation or addition of any equipment* which is a source of air pollution.
3. Any changes in the method of operation, raw materials, products of fuels.

*Not applicable to normal maintenance and repairs, and vehicles used for transporting material.
[Rules 62-4.070(3) and 62-210.300, F.A.C.]

14. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155, Fax: 404/562-9163

15. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

Section III. Regulated Emissions Units Conditions.

Subsection A. Steam Generators Units Nos. 1, 2, & 3

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-001	Unit No. 1 Steam Generator
-002	Unit No. 2 Steam Generator
-003	Unit No. 3 Steam Generator

Descriptions. The fuel fired in Units No. 1, No. 2, and No. 3 consists of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station.

Unit No. 1 is a fossil fuel fired steam boiler generating unit rated at 4037 MMBtu/hour with an electrical generating capacity of 445 MW. It is a "wet" bottom utility boiler manufactured by Riley Stoker Corporation. Unit No. 1 began commercial operation in 1970.

Unit No. 2 is a fossil fuel fired steam boiler generating unit rated at 3996 MMBtu/hour with an electrical generating capacity of 445 MW. It is a "wet" bottom utility boiler manufactured by Riley Stoker Corporation. Unit No. 2 began commercial operation in 1973.

Unit No. 1 and Unit No. 2 share two common stacks (Stacks CS001 and CS0W1). Particulate emissions generated during the operation of the units are controlled by dry electrostatic precipitators (ESPs) manufactured by Western Precipitator Division, Joy Manufacturing Corporation. ESP control efficiency is 99.7%. Stack gases from Unit No.1 and Unit No.2 are routed directly to the flue gas desulfurization (FDG) scrubber system and exit out stack CS0W1. Whenever either unit is ~~fired~~ bunkered with petcoke in any amount up to the allowable ratio (20% petcoke/80% coal, by wt.), its flue gases must be directed from its ESP to the FGD system and then to stack CS0W1. Otherwise, if petcoke is not ~~fired~~ bunkered, ~~the flue gases may bypass the FGD system and stack CS0W1, and~~ the flue gases ~~are~~ can be routed from the ESP directly to stack CS001 (de-integration).

Unit No. 3 is a fossil fuel fired steam boiler generating unit rated at 4115 MMBtu/hour with an electrical generating capacity of 445 MW. It is a "wet" bottom utility boiler manufactured by Riley Stoker Corporation. Operation of this unit may include diverting all of the flue gas into the existing Big Bend Unit No. 4 flue gas desulfurization (FGD) system for sulfur dioxide emission reduction. Petcoke bunkering is not allowed while unit is unscrubbed. ~~Sulfur dioxide emissions that are generated and not diverted through the Unit No. 4 FGD system are uncontrolled.~~ Particulate matter emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Research-Cottrell, Inc. The ESP control efficiency is 99.7%. Unit No. 3 began commercial operation in 1976.

{Permitting note: Units No. 1, No. 2, and No. 3 are regulated under the ~~f~~Federal Acid Rain Program for Phase II SO_2 and NO_x, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and regulated under 62-296.405, F.A.C. These units were also formerly regulated under the ~~f~~Federal Acid Rain Program as Phase I SO_2 substitution units.}

TEC Rationale for Revision: Administrative corrections to process descriptions.

The following specific conditions apply to the emissions units listed above:

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

A.1. Capacity. The maximum permitted heat input rate for each unit is as follows:

Unit No.	MMBTU/hr
1	4037
2	3996
3	4115

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.]

{Permitting note: The heat input limitations have been placed in this permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity ~~(or to limit future operation to 110 percent of the test load)~~, to establish appropriate emission limits and to aid in determining future rule applicability. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Regular recordkeeping, other than annual, is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods to calculate average hourly heat input during the test. Annual heat input must be calculated in order to determine annual emissions of pollutants whose limits are based upon heat input.}

TEC Rationale for Revision: Administrative correction.

A.2. Methods of Operation - Fuels.

a. Normal operation: The fuel fired in Units No. 1, No. 2, and No. 3 shall consist of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight.. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm vanadium. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis. The permittee shall maintain and submit to the Department, and to the Environmental Protection Commission of Hillsborough County, on an annual basis for the years 2001, 2002, 2003, 2004, and 2005 data demonstrating that removal of the sulfur content limit and the revision of the vanadium content limit in the petroleum coke fired did not result in a significant increase in the representative actual annual emissions of any regulated pollutant.

b. Other operation:

1. In addition to the fuels allowed to be burned during normal operation, each unit may also burn new No. 2 fuel during startup, shutdown, flame stabilization, and during the start of a mill on an already operating unit.
2. Evaporation of up to 150,000 gallons per year, total at the facility, is allowed of non-hazardous, but potentially HAP-emitting, mineral acid solution boiler chemical cleaning waste which was generated on site.

c. Beneficiated, or refined, coal residual: The total amount of beneficiated, or refined, coal residual fired at Big Bend Station (all Unit Nos. 1-4 combined) shall be limited to 500 tons per day.
The beneficiated, or refined, coal residual results from using the beneficiated process, described in permit application 0570039-012-AC, to wash and screen the raw coal residual to remove fines and oversized materials. This beneficiation process shall be performed at Polk Power Station, not Big Bend Station.

d. Raw coal residual: The total amount of raw coal residual fired at Big Bend Station (all Unit Nos. 1-4 combined) shall be limited to 200 tons per day. The raw coal residual is a by-product of the gasification of coal at the Polk Power Station. At the time of the issuance of permit 0570039-012-AC on October 4, 2001, there were approximately 100,000 tons of raw coal residual stored at Polk Power Station.

Once this raw coal residual pile has been fired, TEC shall only fire raw coal residual in the event of a significant beneficiation process malfunction. TEC shall document all beneficiation process malfunctions and record the amount of raw coal residual, if any, fired at Big Bend Station. These records should be kept on site at Big Bend and made readily available to the Department and the Environmental Protection Commission of Hillsborough County upon request.
[Rules 62-4.070(3), 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; 0570039-012-AC]

{Permitting note: "Flame stabilization" is defined as the use of new No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, new No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged, or equipment is otherwise damaged, that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame "puff". In this situation, new No. 2 fuel oil must be used for stabilization to prevent flame "puffing" and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., Load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}

TEC Rationale for Revision: Administrative correction.

A.3. FGD Operation Required for Petcoke and Coal Residual:

a. Whenever emissions Unit No. 1 or No. 2 is fired with petcoke in any amount up to the allowable percentage, or any amount of coal residual, its flue gases shall be directed to FGD system for Units No. 1 and No. 2.

[Permit Nos. 0570039-003-AC, 0570039-004-AC, and 0570039-012-AC]

{Note: The owner or operator may operate each emissions unit without directing its emissions to the FGD system whenever neither petcoke nor coal residual is being ~~fired~~ bunkered in the emissions unit.}

{Note: The excess emissions provisions of specific condition A.11. of this permit are also applicable to the FGD system operation.}

b. The permittee is allowed to divert and integrate all of Unit No. 3 flue gas for purposes of treating that flue gas in the existing Unit No. 4 flue gas desulfurization (FGD) system. At all times while firing any permitted amount of petroleum coke or coal residual, Unit No. 3 shall operate only in the integrated mode except during startups, shutdowns, and/or malfunctions during all of which best operational practices shall be employed including the cessation of petroleum coke and/or coal residual bunkering.

[Rule 62-4.070(3), F.A.C., 40 CFR 60.40a; and Permit Nos. PSD-FL-040 and 0570039-012-AC]

TEC Rationale for Revision: Administrative correction.

A.4. Limit on Petcoke Bunkering: The owner or operator at any given time shall not bunker more than the amount of petcoke that may be fired in each emissions Unit No. 1 or No. 2 in one day. [0570039-003-AC and 0570039-004-AC]

[Note: This condition is intended to limit possible excess emissions in the event of an unexpected breakdown of the FGD system that requires its shutdown while either emissions unit is firing petcoke.]

A.5. Hours of Operation. Unit No. 1, Unit No. 2, and Unit No. 3 are each allowed to operate continuously, i.e., 8760 hours/year.
[Rule 62-210.200, F.A.C., Definitions (PTE)]

EMISSION LIMITATIONS AND STANDARDS

A.6. Except as provided in Specific Condition No. A.11., visible emissions from each unit shall not exceed 20% opacity except for one six-minute period per hour during which opacity shall not exceed 27%.
[Rule 62-296.405(1)(a), F.A.C.]

A.7. Except as provided in Specific Condition No. A.11., the particulate matter emission rate for each unit shall not exceed 0.1 pounds per million BTU heat input. {Permitting note: The averaging time for the emissions standard in this condition shall be equal to the cumulative run time required by the specified test method. The Consent Final Judgement (DEP vs. TEC) dated December 6, 1999; and the Consent Decree (U.S. vs. TEC) dated February 29, 2000, including the October 4, 2000 amendment; which are part of this permit, supercede this specific condition. Wherever the Consent Decree conflicts with this permit condition, the Consent Decree takes precedence.}
[Rule 62-296.405(1)(b), F.A.C.]

TEC Rationale for Revision: Administrative correction.

A.8.
i. Unit Particulate Matter Emission Limits: Based on the maximum permitted heat input rates listed in Specific Condition A.1., the maximum permitted particulate matter annual emission rate for each unit is as follows:

Unit No.	tons/yr
1	1768
2	1750
3	1802

In the event that a maximum permitted heat input rate for a unit is reduced, the maximum annual permitted particulate matter emission rate for that unit shall also be reduced accordingly.
{Permitting Note: The Consent Final Judgement (DEP vs. TEC) dated December 6, 1999; and the Consent Decree (U.S. vs. TEC) dated February 29, 2000, including the October 4, 2000 amendment; which are part of this permit, supercede this specific condition. Wherever the Consent Decree conflicts with this permit condition, the Consent Decree takes precedence.}
[Rule 62-296.700(4)(b)1., F.A.C.]

ii. Facility-wide Particulate Matter Emission Limit: In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Steam Generator Units 1-4 shall not exceed an annual

emissions cap of 2,767 tons per year of PM/PM_{10}. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility.
{Permitting Note: The Consent Final Judgement (DEP vs. TEC) dated December 6, 1999; and the Consent Decree (U.S. vs. TEC) dated February 29, 2000, including the October 4, 2000 amendment; which are part of this permit, supercede this specific condition. Wherever the Consent Decree conflicts with this permit condition, the Consent Decree takes precedence.}
[Rule 62-212.400(2)(g) and Permit No. 0570039-012-AC]

A.9.
i. Unit Sulfur Dioxide Emission Limits. {Permitting Note: The Consent Final Judgement (DEP vs. TEC) dated December 6, 1999; and the Consent Decree (U.S. vs. TEC) dated February 29, 2000, including the October 4, 2000 amendment; which are part of this permit, supercede this specific condition. Wherever the Consent Decree conflicts with this permit condition, the Consent Decree takes precedence.}

a. Units No. 1, No. 2, and No. 3, each shall not emit more than 6.5 pounds of sulfur dioxide per million BTU heat input on a two-hour average; nor shall Units No. 1, No. 2, and No. 3, in total, emit more than 31.5 tons per hour of sulfur dioxide on a three-hour average and 25 tons per hour of sulfur dioxide on a 24-hour block average (midnight to midnight).
[Rules 62-296.405(1)(c)2.b. and 3., F.A.C.; and Rule 62-204.240(1), F.A.C.]

b. Integrated Operation - While in the integrated mode Units No. 3 and 4 shall meet the pounds per million Btu and percent reduction sulfur dioxide limitations that are applicable to Unit No. 4. (Specific Conditions B.7. and B.8.). Unit 3 will be operated in this integrated mode except during unit or FGD startups, shutdowns, maintenance and/or malfunctions, during all of which best operational practices shall be employed, including the cessation of bunkering fuels that would emit higher than 6.5 lb SO_2 per MMBtu.

c. Units No. 1 and No. 2, in total, shall not emit more than 16.5 tons per hour of sulfur dioxide on a 24-hour block average.

d. Unit No. 3 shall not emit more than 8.5 tons per hour of sulfur dioxide on a twenty-four hour block average.

e. While scrubbing sulfur dioxide emissions, the following table lists the sulfur dioxide emissions limits (lbs/hr) for six different operating scenarios:

	Operating Mode, Emission Limits (lbs/hour)			**Averaging**
Operating Scenario	**Unit 1**	**Unit 2**	**Unit 3**	**Period (Calendar day basis)**
1	Scrubbed, 3310	Scrubbed*, 3277	Unscrubbed*, 14814	24 hours
2	Scrubbed, 3310	Unscrubbed, 9590	Unscrubbed, 9876	24 hours
3	Scrubbed, 3310	Scrubbed, 3277	Scrubbed, 3374	24 hours
4	Scrubbed, 3310	Unscrubbed, 11588	Scrubbed, 3374	24 hours
5	Unscrubbed, 11707	Scrubbed, 3277	Scrubbed, 3374	24 hours
6	Unscrubbed,	Scrubbed,	Unscrubbed,	24 hours

	9689	3277	9876	

*"Scrubbed" refers to operation while directing flue gas to the FGD system. "Unscrubbed" refers to operation while not directing flue gas to the FGD system.

[40 CFR 60.40a; Permit Nos. PSD-FL-040, 0570039-003-AC, and 0570039-004-AC; Applicant request.]

TEC Rationale for Revision: Administrative correction.

ii. Facility-wide Sulfur Dioxide Emission Limit. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Steam Generator Units 1-4 shall not exceed an annual emissions cap of 71,810 tons per year of SO_2. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility.
[Rule 62-212.400(2)(g) and Permit No. 0570039-012-AC]

A.10. Unit No. 3 shall not emit more than 0.70 of a pound of nitrogen oxides (expressed as NO_2) per million BTU heat input based upon a 30-day rolling average. [Rule 62-296.405(1)(d)4. and Rule 62-296.405(1)(e)4., F.A.C.]

A.11. *Excess Emissions.*

(1) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (a) best operational practices to minimize emissions are adhered to and (b) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department or the Environmental Protection Commission of Hillsborough County (EPCHC) for longer duration.

(2) Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

(3) Excess emissions from existing fossil fuel steam generators resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not exceed Number 3 of the Ringelmann Chart (60 percent opacity), and providing (a) best operational practices to minimize emissions are adhered to and (b) the duration of excess emissions shall be minimized. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this specific condition A.11.(3), for boiler cleaning and load changes, at units which have installed and are operating continuous opacity monitors. Particulate matter emissions shall not exceed an average of 0.3 lbs. per million BTU heat input during the 3-hour period of excess emissions allowed by this specific condition A.11.(3).

(4) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

(5) In case of excess emissions resulting from malfunctions, TECO shall notify the EPCHC in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the permitting authority or the EPCHC.
[Rule 62-210.700, F.A.C.]

TEST METHODS AND PROCEDURES

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.12. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the TEC shall have formal compliance tests conducted on each Steam Generator Unit. Unit No. 1, Unit No. 2, and Unit No. 3 shall each be individually stack tested for particulate matter and visible emissions~~, under both sootblowing and non-sootblowing operation conditions~~. When testing in CS0W1~~ or when testing in CS001~~, Unit No. 1 shall either be non-integrated or not be in operation during the compliance testing of Unit No. 2, and Unit No. 2 shall either be non-integrated or not be in operation during the compliance testing of Unit No. 1.~~, but when testing in the ductwork between CS001 and the scrubber tower inlet, Unit No. 1 may operate during the compliance testing of Unit No. 2 and Unit No. 2 may operate during the compliance testing of Unit No. 1. Testing of Unit No. 3 emissions shall be prior to their mixing with the exhaust from the scrubber for Unit No. 4.~~ When testing in CS003, Unit No. 3 shall either be non-integrated or not be in operation during the compliance testing of Unit No. 4, and Unit No. 4 shall not be in operation during the compliance testing of Unit No. 3.
[Rules 62-297.310(7)(a)2. and 4., and 62-4.070(3), F.A.C.]

TEC Rationale for Revision: Administrative correction.

A.13. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. In lieu of Method 9 testing, a transmissometer utilizing a 6-minute block average for opacity measurement may be used, provided such transmissometer is installed, certified, calibrated, operated and maintained in accordance with the provisions of 40 CFR Part 75.
[Rule 62-296.405(1)(e)1., F.A.C., and request of applicant.]

A.14. The test methods for particulate emissions shall be EPA Methods 17, 5, 5B, or 5F, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature at no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. The owner or operator may use EPA Method 5 to demonstrate compliance. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen base F-factor computed according to EPA Method 19 is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17.
[Rule 62-296.405(1)(e)2., F.A.C.]

A.15. Compliance testing for particulate matter emissions and visible emissions may be conducted either: (a) without fly ash re-injections occurring, or (b) while fly ash collected by the electrostatic precipitator is being re-injected into the boiler at a rate which is representative of the maximum anticipated fly ash re-injection rate. If the most recent particulate and visible emission compliance tests were conducted without fly ash re-injection occurring, and fly ash re-injection occurs for any reason other than a malfunction, then

the results from new particulate and visible emissions compliance tests, conducted while fly ash collected by the precipitator is being re-injected into the boiler at a rate which is representative of the maximum anticipated fly ash re-injection rate, shall be submitted to the EPCHC within 60 days of the date that such fly ash re-injection occurred. The EPCHC may, for good cause shown, grant an extension of the 60-day time limit on a case-by-case basis.
[AO29-219924, AO29-179912, and AO29-179911]

~~A.16. Petcoke Sulfur Content: The owner or operator shall measure the sulfur content of representative samples of all petcoke received using appropriate ASTM methods to demonstrate compliance with the sulfur content limit of this permit. [Permit Nos. 0570039-003-AC & 0570039-004-AC]~~

TEC Rationale for Revision: Obsolete permit condition. SO2 CEMS is used for compliance purposes in lieu of fuel sulfur analyses.

A.17. Monitor Petcoke Usage: The owner or operator shall operate and maintain equipment to record and calculate the weight percentage of petcoke and coal bunkered and fired in each emissions unit, to verify compliance with the bunkering limit and the percentage limitation on petcoke usage of this permit. [Rule 62-4.070(3), F.A.C.]

A.18. The permittee shall demonstrate compliance with the sulfur dioxide limits in Specific Condition A.9. by means of continuous emissions monitoring systems (CEMS). In addition to any other requirements associated with the operation and maintenance of these CEMS (i.e., Acid Rain requirements), operation of the CEMS shall be in accordance with the requirements listed in Specific Condition A.19. The annual calibration RATA associated with these CEMS may be used in lieu of the required annual EPA Reference Method 6, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.). [Applicant request.]

A.19. Continuous Monitor Performance Specifications. If continuous monitoring systems are required by rule or are elected by the permittee to be used for demonstrating compliance with the standards of the Department, they must be installed, maintained and calibrated, either:

(a) in accordance with the EPA performance specifications listed below. These Performance Specifications are contained in 40 CFR 60, Appendix B, and are adopted by reference in Rule 62-204.800, F.A.C.

(1) [Reserved]

(2) Performance Specification 2--Specifications and Test Procedures for SO_2 Continuous Emission Monitoring Systems in Stationary Sources.

(3) [Reserved], Or,

(b) in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Excess emissions pursuant to Rule 62-210.700, F.A.C., shall be determined using the 40 CFR part 75 CEMS.

[Rule 62-297.520, F.A.C.; 40 CFR 75; and, Applicant request.]

A.20. Compliance with nitrogen oxides emission limit for Unit No. 3 shall be demonstrated continuously based upon a 30-day rolling average. The 30-day rolling average shall be determined by calculating the arithmetic average of all hourly emission rates for NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, and malfunction. The calculations shall be consistent with the equations in 40 CFR 60, Appendix A, Reference Method 19. For the purpose of calculating a 30-day

rolling average, a boiler operating day is defined as a 24-hour period (between 12:01 a.m. and 12:00 midnight) during which fossil fuel is combusted in a steam operating unit for the entire 24-hours.
[Permit No. AO29-179911 (July 29, 1994 amendment); 40 CFR 60.46a(g)]

A.21. The continuous emission monitors shall meet the quality assurance requirements and performance specifications contained in 40 CFR 75.
[Rule 62-296.401(1)(e)4., F.A.C.]

A.22. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
[Rule 62-296.401(1)(e)5., F.A.C.]

A.23. For Units. No. 1, No. 2, and No. 3, TEC shall operate, calibrate, and maintain a continuous monitoring system, and record the output of the system for ~~continuously monitoring opacity~~ measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Department and the EPCHC.)
For Unit Nos. 1-3, TECO shall also operate calibrate, and maintain a continuous monitoring system for continuously monitoring nitrogen oxides (expressed as NO_2). In addition, TEC shall operate calibrate, and maintain a continuous monitoring system for continuously monitoring sulfur dioxide for Unit Nos. 1, 2, and 3 in a manner sufficient to demonstrate compliance with the emission limits of this permit. Performance specifications, location of monitor, data requirements, data reduction and reporting requirements shall conform with the requirements of 40 CFR Part 51, Appendix P, adopted and incorporated by reference in Rule 62-204.800(2), F.A.C., and 40 CFR Part 60, Appendix B, adopted by reference in Rule 62-204.800(7), F.A.C.
[Rule 62-296.401(1)(f), F.A.C.]

TEC Rationale for Revision: Administrative correction.

A.24. An oxygen or carbon dioxide continuous monitoring system shall be operated for Units No. 1-3. Measurements of oxygen or carbon dioxide in the flue gas shall be utilized to convert nitrogen oxides and sulfur dioxide continuous emission monitoring data to units of pounds per million BTU heat input for proof of compliance.
[Rule 62-296.401(1)(f)1.d., F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

A.25. Records of Operation: The owner or operator shall make and maintain a daily record of operation of each emissions unit showing the date, fuel(s) used, whether flue gas was directed to the FGD system, and the duration of all startups, shutdowns and malfunctions. Records of fuel bunkering and petcoke usage (weight percent of petcoke fired) shall also be made on at least a daily basis. Data that verifies compliance with the percentage limitation on petcoke usage shall be submitted with the annual operating report. [Rule 62-4.070(3), F.A.C.]

~~A.26. Records of Petcoke Sulfur Content: The owner or operator shall maintain records of petcoke sampling and analysis results performed as required by Specific Condition A.16. of this section. [Rule 62-4.070(3), F.A.C., and permit nos. 0570039-003-AC & 0570039-004-AC]~~

TEC Rationale for Revision: Obsolete permit condition. SO_2 CEMS is used for compliance monitoring in lieu of fuel sulfur analyses.

A.27. Quarterly Reporting Requirements: The owner or operator shall submit to the Department a written report of emissions in excess of emission limiting standards of this permit for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file for a period of five years. Copies of all submittals shall be submitted to the Air Management Division, Hillsborough County Environmental Protection Commission. [Rules 62-4.070(3) and 62-296.405(1)(g), F.A.C.]

A.28. For each unit, TEC shall submit to the EPCHC a written report of emissions in excess of the emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excessive emissions shall be explained. This report does not relieve TEC of the legal liability for violations. All recorded data shall be maintained on file for a period of at least 5 years. The report shall be submitted within 30 days following each calendar quarter.
[Rule 62-296.405(1)(g) and Rule 62-213.440(1)(b)2.b., F.A.C.]

A.29. For Unit No. 1-3, gravimetric instrument data verifying that the 20.0% maximum petroleum coke content by weight has not been exceeded shall be maintained for two years and submitted to the Department and the EPCHC with each annual operating report. Also to be maintained and available for inspection shall be a record of operation showing the date, fuel used, mode of operation (integrated/non-integrated), and the duration of all startups, shutdowns and malfunctions.
[Rule 62-4.070(3), F.A.C.]

TEC Rationale for Revision: Administrative correction.

~~A.30. For Unit No. 3, TEC shall maintain and submit to the Department and the EPCHC on an annual basis for a period of 5 years from the date the unit begins firing petroleum coke, data demonstrating that the operational change did not result in an emissions increase.~~
~~[Rule 62-4.070(3), F.A.C.]~~

TEC Rationale for Revision: Deletion of this obsolete recordkeeping condition is requested. This condition has already been demonstrated and complied with for 5 years.

A.31. For Unit No. 3, TEC shall submit a quarterly report to the Department and the EPCHC within 30 days following each calendar quarter. This report shall contain the 30-day NO_x rolling average, all time periods of boiler operation as well as a statement of CEM and/or boiler malfunction, start-up or shutdown. [Permit No. AO29-179911 (July 29, 1994 amendment)]

A.32. Continuous Emission Monitoring Network and Alarms:

To demonstrate compliance with emission limits that are protective of AAQS, data inputs will consist of hourly CEM data from the SO_2, flow, and CO_2 monitors for Units 1-3 at Big Bend Station. TEC will use CEM data from common stack CS0W1 and/or CS001 to represent combined unit compliance with the emission limitations for each Unit 1 and Unit 2. When Unit 3 is operated in the integrated mode, TEC will use apportioned CEM data from both common stacks CS002 and CS003 to represent individual unit compliance with the emission limitations for Unit 3. In the event any monitor fails, TEC will comply with 40 CFR 75, Subpart D – Missing Data Substitution Procedures.
[Applicant request.]

A.33. Compliance Plan Verification:

1. *Frequency* – Reporting of compliance status shall be performed on a quarterly calendar basis. Reports will be due no later than 45 days following the last day of the reporting quarter.
2. *Content* – Quarterly reports will consist of:
   a. two-hour average SO_2 emissions rate for each Units 1, 2, and 3 in lb/MMBtu;
   b. three-hour average SO_2 emissions for Units 1-3 in ton per hour;
   c. 24-hour average SO_2 emissions for Units 1-3 in tons per hour; and
   d. 24-hour average SO_2 emissions for Units 1-2 and Unit 3 in tons per hour.

[Applicant request.]

Subsection B. Steam Generator Unit No. 4 (and No. 3 in integrated mode)
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-004	Unit No. 4 Steam Generator
-003	Unit No. 3 Steam Generator, only when operated in integrated mode.

Descriptions. Unit No. 4 is a 4330 MMBTU/hour, dry-bottom tangentially fired utility boiler. The generator nameplate capacity is 486 MW. Unit No. 4 began commercial operation in 1985. Particulate matter emissions generated during the operation of the unit are controlled by a dry electrostatic precipitator (ESP) manufactured by Belco. The control efficiency of the ESP is 99.7%. Sulfur dioxide emissions are controlled by flue gas desulfurization equipment manufactured by Research-Cottrell. The fuel fired in Unit No. 4 consists of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station.

~~As an option, Unit No. 3 exhaust gas, following particulate matter removal by the unit's ESP, will be routed to the inlet of the Unit No. 4 flue gas desulfurization (FGD) system scrubber. In this integrated mode, Unit No. 3 will meet the same sulfur dioxide emissions limitations as Unit No. 4. The FGD scrubber will continue to treat the exhaust gas from Unit No. 4. The FGD scrubber outlet stream, consisting of the combined Unit No. 3 and Unit No. 4 treated exhaust, will then be split and discharged through stacks CS002 and CS003. Stack CS002 does *not* include a recirculation duct to return exhaust gas to the inlet of the FGD scrubber.~~ Gases from Unit No. 3 and Unit No. 4, following particulate matter removal by the unit's ESP, are routed to the flue gas desulfurization (FGD) inlet duct. This duct feeds the FGD booster fans and also allows recirculation from the CS003 stack back to the FGD inlet. This recirculation duct also can serve as an FGD bypass (reverse flow). This FGD bypass connects Unit No. 3 ductwork to the FGD inlet ductwork and the CS003 stack and is a required safety feature to prevent over-pressurization of the boiler system. To ensure compliance with the Title V permit and the intent of the Consent Decree and to provide clarification on the gas flow of the Unit Nos. 3 and 4 boilers when scrubbing, TEC operates the flue gas system to meet the removal efficiency 30-day rolling average of 93 % whenever Unit No. 3 and 4 is scrubbed together and 95% whenever Unit No. 3 is operated and scrubbed alone.

Continuous opacity monitoring systems (COMS) will be located at the outlet of Unit No. 3 and Unit No. 4 ESPs. Continuous SO_2 and CO_2 emissions monitoring systems (CEMS) will be located in stacks CS002 and CS003. Continuous NOx emissions monitoring systems (CEMS) will be located in the inlet ducts of each unit. These monitoring systems will be used to determine compliance with all current applicable requirements.

TEC Rationale for Revision: Administrative corrections to process description.

{Applicable regulations for Unit No. 4: 40 CFR 60 Subpart Da, and the federal Acid Rain Program, Phase II SO_2 and NO_x, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; PA79-12, PSD-FL-040 and an ASP for Coal Sampling.}

The following conditions apply to the emissions unit listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Capacity. The maximum permitted heat input rate for Unit No. 4 is 4330 MMBTU/hr.
[Rules 62-4.160(2), and 62-4.070(3), F.A.C.]
{Permitting note: The heat input limitation has been placed in this permit to identify the capacity of ~~the~~ each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity ~~(or to limit future operation to 110 percent of the test load)~~, to establish appropriate emission limits and to aid in determining future rule applicability. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity (i.e., at less than 90 percent of the maximum operation rate allowed by the permit); in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Regular recordkeeping, other than annual, is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods to calculate average hourly heat input during the test. Annual heat input must be calculated in order to determine annual emissions of pollutants whose limits are based upon heat input.}

TEC Rationale for Revision: Administrative correction.

B.2. Methods of Operation - Fuels.

a. Normal operation: The fuel fired in Unit No. 4 shall consist of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station. In any case, the petroleum coke content of any fuel blend shall not exceed 20% by weight.. The vanadium content of the petroleum coke fired shall not exceed 2660 ppm vanadium. The ash content of the petroleum coke fired shall not exceed 0.76% by weight on a dry basis. The permittee shall maintain and submit to the Department, and to the Environmental Protection Commission of Hillsborough County, on an annual basis for the years 2001, 2002, 2003, 2004, and 2005 data demonstrating that removal of the sulfur content limit and the revision of the vanadium content limit in the petroleum coke fired did not result in a significant increase in the representative actual annual emissions of any regulated pollutant.

b. Other operation:

1. In addition to the fuels allowed to be burned during normal operation, UnitNo. 4 may also burn new No. 2 fuel during startup, shutdown, flame stabilization and during the start of an additional solid fuel ~~pulverizer~~ mill on an already operating unit.
2. Evaporation of up to 150,000 gallons per year, total at the facility, is allowed of non-hazardous, but potentially HAP-emitting, mineral acid solution boiler chemical cleaning waste which was generated on site.

c. Coal shall not be burned in Unit No. 4 unless both the electrostatic precipitator and limestone scrubber are operating properly.

~~d. Coal burned in Unit No. 4 shall be washed before it is transported to the plant site. TEC shall maintain records of all coal washing and preparation activities for any coal which is to be fired in Big Bend Unit No. 4. These reports shall be submitted to the Department on a quarterly basis.~~

<u>TEC Rationale for Revision</u>: Administrative correction and obsolete permit condition. SO_2 CEMS is used for compliance monitoring. EPA Consent Decree and FDEP Consent Final Judgment supersede coal washing requirement. Proposed June 6, 2003 modifications to Unit 4 Conditions of Certification delete requirement for coal washing.

e. TEC shall maintain a daily log of the amounts and types of fuels used and copies of fuel analyses containing information on sulfur content, ash content and heating values.

f. Beneficiated, or refined, coal residual: The total amount of beneficiated, or refined, coal residual fired at Big Bend Station (all Unit Nos. 1-4 combined) shall be limited to 500 tons per day. The beneficiated, or refined, coal residual results from using the beneficiated process, described in permit application 0570039-012-AC, to wash and screen the raw coal residual to remove fines and oversized materials. This beneficiation process shall be performed at Polk Power Station, not Big Bend Station.

g. Raw coal residual: The total amount of raw coal residual fired at Big Bend Station (all Unit Nos. 1-4 combined) shall be limited to 200 tons per day. The raw coal residual is a by-product of the gasification of coal at the Polk Power Station. At the time of the issuance of permit 0570039-012-AC on October 4, 2001, there were approximately 100,000 tons of raw coal residual stored at Polk Power Station. Once this raw coal residual pile has been fired, TEC shall only fire raw coal residual in the event of a significant beneficiation process malfunction. TEC shall document all beneficiation process malfunctions and record the amount of raw coal residual, if any, fired at Big Bend Station. These records should be kept on site at Big Bend and made readily available to the Department and the Environmental Protection Commission of Hillsborough County upon request.

h. No coal residual shall be fired in any Unit when the corresponding scrubber is not in operation.
[Rules 62-4.070(3), 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; PSD-FL-040; Power Plant Siting Certification PA 79-12; Permit No. 0570039-012-AC]

{Permitting note: "Flame stabilization" is defined as the use of No. 2 fuel oil to stabilize a flame during times of unexpected poor coal quality or equipment failure such as coal piping pluggage. Flame stabilization due to poor coal quality occurs when coal is wet or does not provide the necessary heat to maintain a stable flame. In this situation, No. 2 fuel oil is combusted to provide the additional required heat input to maintain a stable flame. Flame stabilization due to equipment failure occurs when coal piping is plugged, or equipment is otherwise damaged, that results in an inconsistent amount of coal reaching the burners. Under certain conditions, this may result in the burners intermittently seeing large amounts of fuel at one time, causing a potentially explosive flame "puff". In this situation, No. 2 fuel oil must be used for stabilization to prevent flame "puffing" and ensure safe operation. Combustion of No. 2 fuel oil is also necessary during periods of load change to initialize and stabilize the flame until coal flow to the burners reaches steady state. As defined in 62-210.700(3), F.A.C., Load change occurs when the operational capacity of a unit is in the 10 to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.}

B.3. <u>Mode of Operation.</u> Tampa Electric Company is allowed to divert and integrate all of the flue gas from Unit No. 3 for purposes of treating that flue gas in the existing Unit No. 4 flue gas desulfurization (FGD) system.
[Rule 62-4.070(3), F.A.C., 40 CFR 60.40a, and Permit No. PSD-FL-040]

B.4. Hours of Operation. Unit No. 4 is allowed to operate continuously, i.e., 8760 hours/year.
[Rule 62-210.200, F.A.C., Definitions (PTE)]

Emission Limitations and Standards

B.5.i. Unit Particulate Matter Emission Limits:

a. Particulate matter emissions from Unit No. 4 shall not exceed 0.03 lb/million Btu heat input. This standard applies at all times except during periods of startup, shutdown, or malfunction.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.42a(a); 40 CFR 60.46a(a); 40 CFR 60.46a(c)]

b. Based on the maximum permitted heat input rate listed in Specific Condition B.1., particulate matter emissions from Unit No. 4 shall not exceed 129.9 lbs/hour, 3118 lbs/day, and 569.0 tons/year.
ii. Facility-Wide Particulate Matter Emission Limit:
[PSD-FL-040 and Rule 62-296.700(4)(b)1., F.A.C.]

ii. Facility-wide Particulate Matter Emission Limit: In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Steam Generator Units 1-4 shall not exceed an annual emissions cap of 2,767 tons per year of PM/PM_{10}. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility.
[Rule 62-212.400(2)(g) and Permit No. 0570039-012-AC]

{Permitting note: The averaging time for the emissions standard in this condition shall be equal to the cumulative run time required by the specified test method.}

B.6. Visible emissions from Unit No. 4 shall not exceed 20% ~~(twenty) percent~~ opacity ~~(6-minute average)~~, except for one ~~6~~six-minute period per hour during which opacity shall not exceed ~~of not more than~~ 27% ~~(twenty-seven) percent opacity~~.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.42a(b); PSD-FL-040]

TEC Rationale for Revision: Administrative correction.

B.7. Unit Sulfur Dioxide Emission Limits.

a. Sulfur dioxide emissions from Unit No. 4 when combusting solid fuel shall not exceed 0.82 lb/million Btu heat input and 10 percent of the potential combustion concentration (90 percent reduction). Based upon a heat input of 4330 million Btu/hour, SO_2 emissions shall not exceed 3551 lb/hr.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.43a(a)(1); PSD-FL-040]

b. Compliance with sulfur dioxide emission limitations and percent reduction requirements is determined on a 30-day rolling average basis. TEC will use CEM data from common stack CS002 and/or CS003 to represent individual combined unit compliance with the emission limitations for each Unit 3 and Unit 4. When Unit 3 is operated in the integrated mode, TEC will use apportioned CEM data from both common stacks CS002 and CS003 to represent individual unit compliance with the emission limitations for Unit 4.

[Rule 62.204.800(7)(b)2., F.A.C.; 40 CFR 60.43a(g)]

TEC Rationale for Revision: Administrative correction.

B.8. Facility-wide Sulfur Dioxide Emission Limit. In order to provide reasonable assurance that a significant net emission rate increase will not occur as a result of combusting raw and beneficiated coal residual at Big Bend, the combined emissions from Steam Generator Units 1-4 shall not exceed an annual emissions cap of 71,810 tons per year of SO_2. This cap corresponds to the average emissions of the years 1999 and 2000. Any relaxation in this limit that increases the facility's potential to emit by at least 1 ton of pollutant per year will result in a reevaluation of PSD applicability for the facility as though construction had not yet commenced at the facility.
[Rule 62-212.400(2)(g) and Permit No. 0570039-012-AC]

B.9. Nitrogen dioxide emissions from Unit No. 4 when combusting bituminous or anthracite coal, or a coal/petroleum coke blend, shall not exceed 0.60 lb/million Btu heat input. Based upon a heat input of 4330 million Btu/hour, NO_x emissions shall not exceed 2598 lb/hr. These emission limits are based on a 30-day rolling average. These standards apply at all times except during periods of startup, shutdown, or malfunction.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.44a(a); 40 CFR 60.4a(c), PSD-FL-040]

B.10. Carbon monoxide (CO) emissions from Unit No. 4 shall not exceed 0.029 lb/million Btu heat input, and shall not exceed 124 lb/hr.
[PSD-FL-040 (October 9, 1985 modification)]
{Permitting note: The averaging time for the emissions standard in this condition shall be equal to the cumulative run time required by the specified test method.}

Compliance provisions.

B.11. The sulfur dioxide emission standards in specific condition B.7. apply at all times except during periods of startup, shutdown, or when both emergency conditions exist and the following procedures in specific condition B.12. are implemented.
[Rule 62-296.800(7)(b)2., F.A.C.; 40 CFR 60.46a(c)]

B.12. During emergency conditions in the principal company, an affected facility with a malfunctioning flue gas desulfurization system may be operated if sulfur dioxide emissions are minimized by:

(1) Operating all operable flue gas desulfurization system modules, and bringing back into operation any malfunctioned module as soon as repairs are completed,

(2) Bypassing flue gases around only those flue gas desulfurization system modules that have been taken out of operation because they were incapable of any sulfur dioxide emission reduction or which would have suffered significant physical damage if they had remained in operation~~, and~~

~~(3) Operating a *spare* flue gas desulfurization system module. The Department or EPCHC may at their discretion require TEC within 60 days of notification to demonstrate spare module capability. To demonstrate this capability, the owner or operator must demonstrate compliance with the appropriate requirements of specific conditions B.5. and B.7. for any period of operation lasting from 24 hours to 30 days when:~~

~~(i) Any one flue gas desulfurization module is not operated,~~

~~(ii) The affected facility is operating at the maximum heat input rate,~~

~~(iii) The fuel fired during the 24 hour to 30 day period is representative of the type and average sulfur content of fuel used over a typical 30 day period, and~~
~~(iv) TEC has given the Department or EPCHC at least 30 days notice of the date and period of time over which the demonstration will be performed.~~
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.46a(d)]

TEC Rationale for Revision: Obsolete permit conditions. Common FGD scrubbing of Units 3 and 4, EPA Consent Decree, and FDEP Consent Final Judgment supersede requirements for a spare flue gas desulfurization module.

B.13. Compliance with the sulfur dioxide emission limitations and percentage reduction requirements in specific condition B.7., and the nitrogen oxides emission limitations in specific condition B.9., is based on the *average emission rate* for 30 successive boiler operating days. A ~~separate performance test~~ calculation is completed at the end of each boiler operating day after the initial ~~performance test~~ calculation, and a new 30 day *average emission rate* for both sulfur dioxide and nitrogen oxides and a new percent reduction for sulfur dioxide are calculated to show compliance with the standards.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.46a(e)]

TEC Rationale for Revision: Administrative correction.

B.14. Compliance is determined by calculating the arithmetic average of all hourly *emission rates* for SO_2 and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO_x only), or emergency conditions (SO_2 only). Compliance with the percentage reduction requirement for SO_2 is determined based on the average inlet and average outlet SO_2 emission rates for the 30 successive boiler operating days.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.46a(g)]

B.15. If TEC has not obtained the minimum quantity of emission data as required in the following emission monitoring specific conditions B.16. through B.25, compliance of Unit No. 4 with the sulfur dioxide and nitrogen oxides standards for the day on which the 30-day period ends may be determined by the Administrator by following the applicable procedures in section 7 of Method 19, *Determination of Compliance When Minimum Data Requirement Is Not Met.*
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.46a(h); 40 CFR 60, Appendix A, Method 19]

Emission Monitoring.

B.16. TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Department and the EPCHC.)
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(a)]

B.17. TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring sulfur dioxide emissions as follows:
(1) Sulfur dioxide emissions are monitored at both the inlet and outlet of the sulfur dioxide control device.
(2) An "as fired" fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19, Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates, may be used to determine potential sulfur dioxide emissions in place of a continuous sulfur dioxide emission monitor at the inlet to the sulfur dioxide control device as required in the preceding specific condition B.17.(1).
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(b); 40 CFR 60, App. A, Method 19]

B.18. TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(c)]

B.19. TEC shall calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen and/or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored. The sulfur dioxide, nitrogen dioxide, oxygen and/or carbon dioxide, and opacity monitoring devices shall meet the applicable requirements of Section 62-214, F.A.C., 40 CFR 60.47a., and 40 CFR 75.). The opacity monitor shall be placed in the duct work between the electrostatic precipitator and the FGD scrubber. ~~When Units 3 and 4 are operating in the integrated mode (Unit 3 flue gases routed through the Unit 4 FGD system), t~~The continuous monitoring system will measure sulfur dioxide emissions at the inlet of each unit and outlet of the ~~Unit 4~~ FGD system and from the ~~Unit 3~~ common stacks ~~(~~CS002~~)~~ and CS003. ~~, while E~~Eemissions of nitrogen oxides, oxygen and/or carbon dioxide, and opacity shall be measured in the Unit No.3 and 4 ducts prior to the FGD system. When Unit 4 is operating and Unit 3 is not operating in the integrated mode, the continuous monitoring system will measure only Unit 4's inlet duct and common stack CS003 for SO_2 emissions. The emissions of nitrogen oxides and opacity shall be measured in the Unit 4 duct prior to the FGD system. The emissions of oxygen and/or carbon dioxide and sulfur dioxide are both measured in the inlet and outlet ducts.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(d); Power Plant Siting Certification PA 79-12D]

TEC Rationale for Revision: Administrative correction.

B.20. The continuous monitoring systems required in specific conditions B.17., B.18., and B.19., shall be operated and record data during all periods of operation of Unit No. 4 including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(e)]

B.21. TEC shall obtain emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with a continuous monitoring system, TEC shall supplement emission data with other monitoring systems approved by the Department or the EPCHC, or the reference methods and procedures as described in Specific Condition B.23.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a (f)]

B.22. The 1-hour averages required under 40 CFR 60.13(h), *Monitoring Requirements*, are expressed in lbs/million Btu heat input and used to calculate the average emission rates required in specific conditions B.13. and B.14. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(b), *Monitoring Requirements*. At least two data points must be used to calculate the 1-hour averages.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(g)]

B.23. When it becomes necessary to supplement continuous monitoring system data to meet the minimum data requirements in specific condition B.21., TEC shall use the following reference methods and procedures. Acceptable alternative methods and procedures are given in specific condition B.25.

(1) Method 6 shall be used to determine the SO_2 concentration at the same location as the SO_2 monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.

(2) Method 7 shall be used to determine the NO_x concentration at the same location as the NO_x monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.

(3) The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B shall be used to determine the O_2 or CO_2 concentration at the same location as the O_2 or CO_2 monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.

(4) The procedures in Method 19 shall be used to compute each 1-hour average concentration in lb/million Btu heat input.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(h); 40 CFR 60, Appendix A, Methods 3B, 6, 7, and 19]

B.24. TEC shall use the following methods and procedures to conduct the monitoring system performance evaluations required under *40 CFR 60.13(c), Monitoring Requirements,* and the calibration checks required under *40 CFR 60.13(d), Monitoring Requirements.* Acceptable alternative methods and procedures are given in specific condition B.25.

(1) Methods 6, 7, and 3B, as applicable, shall be used to determine O_2, SO_2, and NO_x concentrations

(2) SO_2 or NO_x (NO), as applicable, shall be used for preparing the calibration gas mixtures (in N_2, as applicable) under 40 CFR 60 Appendix B, Performance Specification 2.

(3) The span value for a continuous monitoring system for measuring opacity is between 60 and 80 percent and for a continuous monitoring system measuring nitrogen oxides is determined as follows

Fossil fuel	Span value for nitrogen oxides (ppm)
Solid..............................	1,000

(4) Reserved

(5) For affected facilities burning fossil fuel alone or in combination with non-fossil fuel, the span value of the sulfur dioxide continuous monitoring system at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the sulfur dioxide control device is 50 percent of maximum estimated hourly potential emissions oil fuel, alone or in combination with non-fossil fuel, the span value of the fuel fired.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(i); 40 CFR 60.13; 40 CFR 60 Appendix A, Methods 3B, 6, and 7; 40 CFR 60 Appendix B, Performance Specification 2.]

B.25. TEC may use the following as alternatives to the reference methods and procedures specified in conditions B.23. and B.24.:

(1) For Method 6, Method 6A or 6B (whenever Methods 6 and 3 or 3B data are used) or 6C may be used. Each Method 6B sample obtained over 24 hours represents 24 1-hour averages. If Method 6A or 6B is used under specific condition B.24., the conditions under 40 CFR 60.46(d)(1) apply; these conditions do not apply under specific condition B.23.

(2) For Method 7, Method 7A, 7C, 7D, or 7E may be used. If Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour.

(3) For Method 3, Method 3A or 3B may be used if the sampling time is 1 hour.

(4) For Method 3B, Method 3A may be used.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.47a(j); 40 CFR 60.46(d)(1), 40 CFR 60 Appendix A, Methods 3, 3A, 3B, 6, 6A, 6B, 6C, 7, 7A, 7C, 7D, and 7E]

Compliance determination procedures and methods.

B.26. In conducting the performance tests required in *40 CFR 60.8*, the owner or operator shall use as reference methods and procedures the methods in appendix A of 40 CFR 60 or the methods and procedures as specified in conditions B.27. through B.30., except as provided in *40 CFR 60.8(b). 40 CFR 60.8(f)* does not apply to specific conditions B.28 and B.29. for SO_2 and NO_x. Acceptable alternative methods are given in specific condition B.30.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(a); 40 CFR 60.8]

B.27. TEC shall determine compliance with the particulate matter standards in specific condition B.5. as follows:

(1) The dry basis F factor (O_2) procedures in Method 19 shall be used to compute the emission rate of particulate matter.

(2) For the particular matter concentration, Method 5B shall be used after **wet** FGD systems.

(i) The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160±14 °C (320±25 °F).

(ii) For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O_2 concentration. The O_2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O_2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O_2 traverse points. If the grab sampling procedure is used, the O_2 concentration for the run shall be the arithmetic mean of all the individual O_2 concentrations at each traverse point.

(3) Method 9 and the procedures in *40 CFR 60.11* shall be used to determine opacity.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(b); 40 CFR 60.11, 40 CFR 60 Appendix A, Methods 1, 3B, 5B, 9, and 19]

~~B.28. TEC shall determine compliance with the SO_2 standards in specific condition B.7. as follows:~~

~~(1) The percent of potential SO_2 emissions (%Ps) to the atmosphere shall be computed using the following equation:~~

~~$\%P_s = [(100 - \%R_f)(100 - \%R_g)]/100$~~

~~where:~~
~~$\%P_s$ = percent of potential SO_2 emissions, percent.~~
~~$\%R_f$ = percent reduction from fuel pretreatment, percent.~~
~~$\%R_g$ = percent reduction by SO_2 control system, percent.~~

~~(2) The procedures in Method 19 may be used to determine percent reduction ($\%R_f$) of sulfur by such processes as fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel oil, etc.), coal pulverizers, and bottom and flyash interactions. This determination is optional.~~
~~(3) The procedures in Method 19 shall be used to determine the percent SO_2 reduction ($\%R_g$ of any SO_2 control system. Alternatively, a combination of an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in Method 19, may be used if the percent reduction is calculated using the average emission rate from the SO_2 control device and the average SO_2 input rate from the "as fired" fuel analysis for 30 successive boiler operating days.~~
~~(4) The appropriate procedures in Method 19 shall be used to determine the emission rate.~~
~~(5) The continuous monitoring systems specified in conditions B.17. and B.19. shall be used to determine the concentrations of SO_2 and CO_2 or O_2.~~
~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a (c); 40 CFR 60 43a; 40 CFR 60.47a(b) and (d); 40 CFR 60 Appendix A, Method 19]~~

<u>TEC Rationale for Revision</u>: Obsolete permit condition. SO_2 CEMS is used for compliance monitoring. Common FGD scrubbing of Units 3 and 4, EPA Consent Decree, and FDEP Consent Final Judgment supersede coal washing requirement. Proposed June 6, 2003 modifications to Unit 4 Conditions of Certification delete requirement for coal washing.

B.29. TEC shall determine compliance with the NO_x standards in specific condition B.9. as follows:
(1) The appropriate procedures in Method 19 shall be used to determine the emission rate of NO_x.
(2) The continuous monitoring systems specified in specific conditions B.18. and B.19. shall be used to determine the concentrations of NO_x and CO_2 or O_2.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(d); 40 CFR 60.44a; 40 CFR 60.47a(c); 40 CFR 60.47a(d)]

B.30. TEC may use the following as alternatives to the reference methods and procedures specified in condition B.27:
(1) For Method 5 or 5B, Method 17 may be used at Unit No. 4 if the stack temperature at the sampling location does not exceed an average temperature of 160 °C (320 °F). The procedures of sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if it is used after wet FGD systems. Method 17 shall not be used after wet FGD systems if the effluent is saturated or laden with water droplets.
(2) The F_c factor (CO_2) procedures in Method 19 may be used to compute the emission rate of particulate matter under the stipulations of *40 CFR 60.46(d)(1)*. The CO_2 shall be determined in the same manner as the O_2 concentration.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.48a(e); 40 CFR 60.46(d)(1); 40 CFR 60 Appendix A, Methods 5, 5B, 17, and 19]

Reporting requirements.

~~B.31. For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the initial performance test and from the performance evaluation of the continuous monitors (including the transmissometer) shall be submitted to the Department and the EPCHC.~~
~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(a)]~~

TEC Rationale for Revision: Obsolete permit condition. Initial performance test has been completed.

B.32. For sulfur dioxide and nitrogen oxides the following information shall be reported to the Department and the EPCHC for each 24-hour period.

(1) Calendar date.

(2) The average sulfur dioxide and nitrogen oxide emission rates (lb/million Btu heat input) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.

(3) Percent reduction of the potential combustion concentration of sulfur dioxide for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

(4) Identification of the boiler operating days for which pollutant or dilutent data have not been obtained by an approved method for at least 18 hours of operation of the facility; justification or not obtaining sufficient data; and description of corrective actions taken.

(5) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, malfunction (NO_x only), emergency conditions (SO_2 only), or other reasons, and justification for excluding data for reasons other than startup, shutdown, malfunction, or emergency conditions.

(6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(7) Identification of times when hourly averages have been obtained based on manual sampling methods.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system which could affect the ability of the continuous monitoring system to comply with 40 CFR 60 Appendix B, Performance Specifications 2 or 3.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(b); 40 CFR 60 Appendix B]

B.33. If the minimum quantity of emission data, as required by the emission monitoring specific conditions B.16. through B.25., is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of specific condition B.15. shall be reported to the Administrator for that 30-day period:

(1) The number of hourly averages available for outlet emission rates (n_o) and inlet emission rates (n_i) as applicable.

(2) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.

(3) The lower confidence limit for the mean outlet emission rate (E_o*) and the upper confidence limit for the mean inlet emission rate (E_i*) as applicable.

(4) The applicable potential combustion concentration.

(5) The ratio of the upper confidence limit for the mean outlet emission rate (E_o*) and the allowable emission rate (E_{std}) as applicable.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(c); 40 CFR 60 Appendix A, Method 19]

B.34. If any sulfur dioxide standards under specific condition B.7. is exceeded during emergency conditions because of control system malfunction, the owner or operator of the affected facility shall submit a signed statement:

(1) Indicating if emergency conditions existed and requirements under specific condition B.14. were met during each period, and

(2) Listing the following information:

(i) Time periods the emergency condition existed;

(ii) Electrical output and demand on the owner or operator's electric utility system and the affected facility;

(iii) Amount of power purchased from interconnected neighboring utility companies during the emergency period;

(iv) Percent reduction in emissions achieved;

(v) Atmospheric emission rate (ng/J or lb/MMBtu) of the pollutant discharged; and

(vi) Actions taken to correct control system malfunction.

[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(d); 40 CFR 60.43a; 40 CFR 60.46a(d)]

~~B.35. If fuel pretreatment credit is claimed toward the sulfur dioxide emission standards in specific condition B.7. TEC shall submit a signed statement:~~

~~(1) Indicating what percentage cleaning credit was taken for the calendar quarter, and whether the credit was determined in accordance with the provisions of specific condition B.28. and Method 19 (Appendix A of 40 CFR 60); and~~

~~(2) Listing the quantity, heat content, and date each pretreated fuel shipment was received during the previous quarter; the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the previous quarter.~~

~~[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(e), 40 CFR 60.48a(e)]~~

<u>TEC Rationale for Revision</u>: Administrative correction and obsolete permit condition. SO_2 CEMS is used for compliance monitoring. EPA Consent Decree and FDEP Consent Final Judgment supersede coal washing requirement. Proposed June 6, 2003 modifications to Unit 4 Conditions of Certification delete the requirement for coal washing.

B.36. For any periods for which opacity, sulfur dioxide or nitrogen oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(f)]

B.37. The owner or operator of the affected facility shall submit a signed statement indicating whether:

(1) The required continuous monitoring system calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

(2) The data used to show compliance was or was not obtained in accordance with approved methods and procedures of this part and is representative of plant performance.
(3) The minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.
(4) Compliance with the standards has or has not been achieved during the reporting period.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(g)]

B.38. For the purposes of the reports required under *40 CFR 60.7*, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under specific condition B.6. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Administrator each calendar quarter.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(h)]

B.39. The owner or operator of an affected facility shall submit the written reports required under this section and subpart A to the Department and the EPCHC for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.
[Rule 62-204.800(7)(b)2., F.A.C.; 40 CFR 60.49a(i)]

B.40. Gravimetric instrument data verifying that the 20.0% maximum petroleum coke content by weight has not been exceeded shall be maintained for five years and submitted to the Department and the EPCHC with each annual operating report. Also to be maintained and available for inspection shall be a daily record of operation showing the date, fuel used, mode of operation (integrated/non-integrated), and the duration of all startups, shutdowns and malfunctions. TEC shall maintain copies of fuel analyses containing information on sulfur content, ash content, and heating values.
[PSD-FL-040; Rules 62-4.070(3), 62-213.440(1)(b)2.b., F.A.C., and Power Plant Siting Certification PA 79-12]

B.41. TEC shall submit to the Department a standardized plan or procedure that will allow the permittee to monitor emission control equipment efficiency and enable the permittee to return malfunctioning equipment to proper operation as expeditiously as possible.
[Power Plant Siting Certification PA 79-12]

~~B.42. Pursuant to Rule 62-212.200(2)(d), F.A.C., the actual emissions of the No. 4 Unit shall equal the representative actual emissions as defined in 40 CFR 52.21(b)(33). TEC shall maintain and submit to the Department and the EPCHC on an annual basis for a period of 5 years from the date the unit begins firing petroleum coke, data demonstrating that the operational change did not result in an emissions increase.~~
~~[PSD-FL-040; PA 79-12, Conditions of Certification]~~

<u>TEC Rationale for Revision</u>: Obsolete permit condition. The 5 year period from the date the unit began firing petroleum coke has been demonstrated.

B.43. <u>Stack height</u>. The height of the boiler exhaust stack for Unit No. 4 (CS003) shall not be less than 490 ft. above grade.
[Power Plant Siting Certification PA 79-12]

The following requirements of 40 CFR 60, Subpart A - General Provisions Requirements, apply to Unit No. 4:

B.44. Definitions. For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.
[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

40 CFR 60.7 Notification and record keeping.

B.45. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
[40 CFR 60.7(a)(4)]

B.46. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7(b)]

B.47. Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:
(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

B.48. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance} (electronic file name: figure1.doc)

[40 CFR 60.7(d)(1) and (2)]

B.49. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next

appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).
[40 CFR 60.7(e)(1)]

B.50. Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (five) years following the date of such measurements, maintenance, reports, and records.
[40 CFR 60.7(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

40 CFR 60.8 Performance tests.

B.51. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
[40 CFR 60.8(c)]

B.52. The owner or operator of an affected facility shall provide the Administrator at least ~~30~~ 15 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present.
[40 CFR 60.8(d)]

TEC Rationale for Revision: Administrative correction.

40 CFR 60.11 Compliance with standards and maintenance requirements.

B.53. Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined in accordance with performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
[40 CFR 60.11(a)]

B.54. Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5).
[40 CFR 60.11(b)]

B.55. The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
[40 CFR 60.11(c)]

B.56. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

B.57. The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of EPA Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he or she shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which EPA Method 9 data indicates noncompliance, the EPA Method 9 data will be used to determine opacity compliance.
[40 CFR 60.11(e)(5)]

40 CFR 60.12 Circumvention.

B.58. No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.
[40 CFR 60.12]

40 CFR 60.13 Monitoring requirements.

B.59. For the purposes of 40 CFR 60.13, all continuous monitoring systems (CMS) required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous

monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
[40 CFR 60.13(a)]

B.60. If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, Appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in Appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 60.8 and as described in 40 CFR 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 60.8 is conducted.
[40 CFR 60.13(c)(1)]

B.61. (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.
[40 CFR 60.13(d)(1) and (2)]

B.62. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
[40 CFR 60.13(e)(1) and (2)]

B.63. All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.
[40 CFR 60.13(f)]

B.64. When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems (CMS) on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.
[40 CFR 60.13(g)]

B.65. Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).
[40 CFR 60.13(h)]

<u>B.66. *Excess Emissions.*</u>

<u>(1) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (a) best operational practices to minimize emissions are adhered to and (b) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department or the Environmental Protection Commission of Hillsborough County (EPCHC) for longer duration.</u>

(2) Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

(3) Excess emissions from existing fossil fuel steam generators resulting from boiler cleaning (soot blowing) and load change shall be permitted provided the duration of such excess emissions shall not exceed 3 hours in any 24-hour period and visible emissions shall not exceed Number 3 of the Ringelmann Chart (60 percent opacity), and providing (a) best operational practices to minimize emissions are adhered to and (b) the duration of excess emissions shall be minimized. A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more. Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this specific condition A.11.(3), for boiler cleaning and load changes, at units which have installed and are operating continuous opacity monitors. Particulate matter emissions shall not exceed an average of 0.3 lbs. per million BTU heat input during the 3-hour period of excess emissions allowed by this specific condition A.11.(3).

(4) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

(5) In case of excess emissions resulting from malfunctions, TECO shall notify the EPCHC in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the permitting authority or the EPCHC.

[Rule 62-210.700, F.A.C.]

TEC Rationale for Revision: Addition of condition. TEC requests a similar condition to Condition A.11 be added to Subsection B to facilitate a clear understanding of excess emissions and to allow for consistency of approach across the station.

Subsection C. Combustion Turbines
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-007	Combustion Turbine No. 1
-005	Combustion Turbine No. 2
-006	Combustion Turbine No. 3

Descriptions
Combustion Turbine No. 1 is a self-contained combustion turbine generating unit. The unit is a predesigned integrated simple-cycle, single-shaft, three-bearing machine with the load connected at the exhaust end of the unit. The turbine is fired on No. 2 distillate fuel oil and operated for intermittent peaking and emergency services only. The generator nameplate capacity is 18 MW. Unit No. 1 began commercial operation in 1969.

Combustion Turbine No. 2 is a self-contained Westinghouse combustion turbine generating unit. The unit is a predesigned integrated simple-cycle, single-shaft, three-bearing machine with the load connected at the exhaust end of the unit. The turbine is fired on No. 2 distillate fuel oil and operated for intermittent peaking and emergency services only. The generator nameplate capacity is 78 MW. Unit No. 2 began commercial operation in 1974.

Combustion Turbine No. 3 is a self-contained Westinghouse combustion turbine generating unit. The unit is a predesigned integrated simple-cycle, single-shaft, multi-bearing machine with the load connected at the exhaust end of the unit. The turbine is fired on No. 2 distillate fuel oil and operated for intermittent peaking and emergency services only. The generator nameplate capacity is 78 MW. Unit No. 3 began commercial operation in 1974.

{Permitting note: These are pre-NSPS combustion turbines.}

The following conditions apply to the Emissions Units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Methods of Operation - Fuels. The combustion turbines shall be fired on No. 2 distillate fuel oil and operated for intermittent peaking and emergency services only.
[Rule 62-4.160(2), F.A.C., Construction application request]

C.2. Hours of Operation. Operation of each gas turbine shall not exceed 3650 hours of operation during any consecutive 12 months. [Design; Rule 62-210.200, F.A.C. (Definitions - PTE), Permit No. 057-0039-006-AC]

C.3. Inlet Fogger Operation: Combined operation of the inlet air foggers for both gas turbines CT-2 and CT-3 shall not exceed 1365 total hours during any consecutive 12 months. [Design; Rule 62-212.400, F.A.C. (BACT); Rule 62-210.200, F.A.C. (Definitions - PTE), Permit No. 057-0039-006-AC]

C.4. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of this permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the Compliance Authority by phone, FAX, or letter as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include pertinent information as to the cause of the problem, the steps being taken to correct the problem and prevent future recurrence, and the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C., Permit No. 057-0039-006-AC]

Emission Limitations and Standards

C.5. Visible emissions from each combustion turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.]

C.6. During each federal fiscal year (October 1 - September 30) the Tampa Electric Company shall have formal compliance tests conducted on each combustion turbine for opacity. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.
[Rule 62-296.712, Rule 62-297.310(7)(a)4.a., , and Rule 62-297.310(7)(a)8., F.A.C.]

C.7. The test methods for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

Recordkeeping and Reporting Requirements

C.8. If TEC chooses to conduct a visible emissions compliance test only once per five-year period, per Rule 62-297.310(7)(a)8., daily recordkeeping of the hours of operation is required to show that the 400-hour annual limit is not exceeded each year during the five-year period.
[Rule 62-297.310(7)(a)8., and Rule 62-4.070(3), F.A.C.]

C.9. Documentation of the type, quantity, and analysis of the fuel oil used/received is required. Records shall be kept for five years.
[Rules 62-4.070(3) and 62-213.440(1), F.A.C.]

C.10. The average daily and total annual hours of operation for each combustion turbine shall be submitted in an annual operation report. In addition, for each combustion turbine, annual emissions reporting requirements, apply to emissions of each pollutant that a turbine emits in the following quantities:

(1) for PM_{10}, sulfur oxides, VOC, and nitrogen oxides - 25 tons per year or more,
(2) for carbon monoxide - 250 tons per year or more,
(3) for lead or lead compounds, measured as elemental lead - 5 tons per year or more.
[62-210.370(3), F.A.C., 40 CFR 51.322(b)]

Tampa Electric will evaluate emissions from the turbines through the use of AP-42 emission factors or another equivalent method such as fuel analysis. [USEPA objection resolution.]

Compliance Demonstrations

C.11. Records: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to DEP representatives upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

C.12. Monthly Operations Summary: By the ~~fifth~~ fifteenth calendar day of each month, the permittee shall record the following information in a written log for the previous month of operation and for the previous 12 months of operation: the number of operational hours for each gas turbine; the number of hours of inlet air fogging for each gas turbine; and the total combined number of hours of inlet air fogging for both gas turbines. The Monthly Operations Summary shall be maintained on site in a legible format available for inspection at the Department's request. [Rule 62-4.160(15), F.A.C.]

TEC Rationale for Revision: Administrative correction.

Subsection D. Flyash Handling and Storage

This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-008	Fly Ash Silo No. 1 Baghouse
-018	Fly Ash Silo No. 1 Truck Loadout
-009	Fly Ash Silo No. 2 Baghouse
-019	Fly Ash Silo No. 2 Truck Loadout
-026	Fly Ash Handling and Storage Fugitive Emissions (all except silos)

Descriptions

Fly Ash Silo No. 1 handles fly ash from Steam Generator Units No. 1 and No. 2. Fly ash is pneumatically conveyed from the individual electrostatic precipitators to Silo No. 1. Also, the fly ash may be pneumatically conveyed from tanker trucks to ~~and/or from Silo No. 2 to~~ Silo No. 1. The sum total loading rate to the silo for all the processes combined is 44.5 tons per hour. Fly ash from Silo No. 1 is discharged in either a wet or dry state. The dry fly ash is gravity fed by tubing into totally enclosed tanker trucks. The ~~wet~~ fly ash ~~is~~ can be processed through a pugmill and then unloaded wet into a dump truck. Particulate matter emissions generated by silo loading and silo unloading to a tanker truck are controlled by a 20,081 DSCFM Flex Kleen Model No. 84 UDTR-640 baghouse in addition to reasonable precautions. All fly ash handled is generated on-site.

Fly Ash Silo No. 2 handles fly ash from Steam Generator Units Nos. 1, 2, and/or 3. Fly ash is pneumatically conveyed in a series of pipes from the individual unit precipitators (Units 1, 2, and/or 3~~, only two units at any time~~) to the silo for temporary storage. Also, the fly ash may be pneumatically conveyed from tanker trucks to Silo No.2. The sum total loading rate to the silo for all the processes combined is 44.5 tons per hour. From the silo, the dry fly ash is gravity fed by tubing into closed tanker trucks and transported to an off-site consumer. The fly ash can be processed through a pugmill and then unloaded wet into a dump truck. Particulate emissions generated during silo loading operation and from the tanker truck loadout chutes are controlled by a 20,081 DSCFM Flex Kleen, Model No. 84 UDTR-640 baghouse in addition to reasonable precautions.

TEC Rationale for Revision: Administrative corrections to process description.

The following conditions apply to the Emissions Units listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Capacity. The maximum permitted loading rate for all Fly Ash Silo No. 1 processes combined is 44.5 tons per hour. The maximum permitted loading rate for all Fly Ash Silo No. 2 processes combined is 44.5 tons per hour. ~~For Fly Ash Silo No. 2, the maximum permitted loading rate is the simultaneous maximum transfer of flyash from boiler Units 1, 2, and 3.~~ Separate testing of emissions from each ~~unit~~ silo shall be conducted with each ~~emissions unit~~silo operati~~o~~ng at 90 to 100 percent of the maximum permitted ~~heat input rate~~ capacity. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the ~~test load~~ capacity until a new test is conducted. Once the unit is so limited, operation at

higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[AC29-194516; AO29-161082; Rule 62-4.160(2), and.Rule 62-297.310(2), F.A.C.]
{Permitting note: The material loading limitations have been placed in each permit to identify the capacity of each emissions unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular recordkeeping is not required for material loading. Instead the owner or operator is expected to determine material loading whenever the emission testing is required, to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emission tests. Material loading demonstrations may be based on best engineering evaluation of the operating requirements necessary to achieve 90 to 100 percent of the rated loading, unless such operating conditions are otherwise specified by permit condition.}

<u>TEC Rationale for Revision</u>: Provides clarification of maximum loading rate for Fly Ash Silo No. 2 consistent with the permit language used for Fly Ash Silo No. 1.

D.2. <u>Hours of Operation.</u> Fly Ash Silos No. 1 and No. 2 are each allowed to operate continuously, i.e., 8760 hours/year.
[Rule 62-210.200, F.A.C., Definitions (PTE)]

<u>Emission Limitations and Standards</u>

D.3. Visible emissions from each silo baghouse shall not be equal to or greater than 20 percent opacity. Visible emissions from each silo truck loadout shall not be equal to or greater than 20 percent opacity.
[Rule 62-296.320(4)(b)1., F.A.C.]

D.4. Visible emissions from the flyash handling system and flyash silos are limited to 5% opacity.
[Power Plant Siting Certification PA 79-12]

D.5. Total maximum allowable emissions of particulate matter from the each silo baghouse shall not exceed 0.03 grains/DSCF, 5.16 lbs./hr. and 22.62 tons/yr. based on a design flow rate of 20,081 DSCFM. The requirement of formal particulate matter compliance testing as provided in specific condition D.6. shall be waived if the baghouse meets the alternative standard of 5% opacity. If the Department or the Environmental Protection Commission of Hillsborough County has reason to believe that the particulate weight emission standard is not being met, the agency shall require that compliance be demonstrated by EPA Method 17 specified in Rule 62-297, F.A.C.
[Rule 62-4.160(2) and Rule 62-297.620(4), F.A.C.; AO29-160255; AO29-161082]

<u>Test Methods and Procedures</u>

D.6. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the Tampa Electric Company shall have formal compliance tests conducted on each silo baghouse for opacity and particulate matter and formal compliance test conducted on each silo truck loadout for opacity.

[Rule 62-297.310(7)(a)4., F.A.C.]

D.7. The test method for particulate emissions shall be EPA Method 17, with an acetone wash and an average stack temperature below 275 degrees Fahrenheit, or EPA Method 5 with an acetone wash. These test methods are incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(a)3.a.(ii) and 62-296.320(4)(a)3.c., F.A.C.]

D.8. The test methods for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)4., F.A.C.]

D.9. All reasonable precautions shall be taken to prevent and control generation of unconfined emissions of particulate matter in accordance with the provisions in Rule 62-296.320(4), F.A.C. These provisions are applicable to any source, including, but not limited to, vehicular movement, transportation of materials, construction, alterations, demolition or wrecking, or industrial related activities such as loading, unloading, storing and handling. The following reasonable precaution shall be taken to control unconfined particulate matter emissions associated with the fly ash silo/truck operations. Reasonable precautions shall include, but not limited to:
A) Fly ash transported by dump truck shall be adequately wetted and processed through the pugmill.
B) Dump trucks used to transport fly ash shall utilize tarps at all times except when loading/unloading.
C) Fly ash transported in a dry state shall be accomplished utilizing an enclosed tanker truck.
D) Fly ash spilled and/or leaked on plant grounds shall be adequately wetted and disposed of daily.
E) Fly ash collected from spills and/or leaks must be adequately wetted at all times.
F) Ensure the proper seating of the unloader chute onto the tanker inlet prior to loading.
G) Keep the dust extractor operational during loading.
H) Close the tanker's inlet as soon as practical after the loading process.
I) Extend the tubing from the silo into the closed tanker type trucks during loadout.
J) Periodic watering of plant roads.
[Rule 62-296.320(4)(c)2., F.A.C., AO29-160255, and precautions specified in initial Title V application.]

D.10. Compliance testing for the silo and tanker truck loading operations shall be conducted under the following conditions:
a. All conveyance hoppers will be operational during the test.
b. All fly ash will be directed to the silo, no reinjection of fly ash to the boiler systems will occur during the test.
c. The boilers shall operate at ~~the~~ 90 to 100 percent of the maximum capability of this unit under normal operating conditions during the test.
d. A minimum of ~~T~~two tanker trucks shall be loaded during the test. The loading valve shall be ~~completely~~ open during filling.
e. The visible emission test shall be at least 30 minutes in duration and the period of time during which truck loading occurred indicated on the test report.
[Rule 62-4.070(3), F.A.C.].

TEC Rationale for Revision: Administrative correction.

D.11. Compliance with the emission limitations of Specific Conditions Nos. 3 and 4 shall be determined using EPA Methods 1, 2, 4, 5 and 9 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297.401, F.A.C. The Method 9 observation period for the silo and tanker truck loading operations shall be at least thirty (30) minutes in duration. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Rule 62-297, F.A.C.]

D.12. All compliance tests shall be conducted while loading the silo at approximately the maximum feed rate (24 hour average). Failure to submit the feed rate or operating at conditions during testing which do not reflect normal operating conditions may invalidate the data.
[Rule 62-4.070(3), F.A.C.].

Subsection E. Flyash Silo No. 3
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-014	Fly Ash Silo No. 3 Baghouse
-027	Fly Ash Silo No. 3 Truck Loadout
-028	Fly Ash Handling System Fugitive Emissions

Description

Fly Ash Silo No. 3 handles fly ash from Steam Generator Unit No. 4. Fly ash is pneumatically conveyed from the individual electrostatic precipitators to Silo No. 3. Also, fly ash may be pneumatically conveyed from tanker trucks to Silo No. 3. Fly ash from Silo No. 3 is discharged in either a wet or dry state. The dry fly ash is gravity fed by tubing into totally enclosed tanker trucks. The fly ash can be processed through a pugmill and then unloaded wet into a dump truck. Particulate matter emissions are controlled by a 1,200 DSCFM Flex Kleen Model 84-WRTC-80-II-G baghouse in addition to reasonable precautions. The wet flyash is processed through a pugmill and then unloaded into a dump truck. All fly ash handled is generated on-site.

TEC Rationale for Revision: Administrative corrections to process description.

The following conditions apply to the Emissions Unit listed above:

Essential Potential to Emit (PTE) Parameters

E.1. Particulate matter emissions from the flyash handling system and flyash silo shall not exceed 0.2 lb/hr.
[Power Plant Siting Certification PA 79-12; PSD-FL-040]

E.2. Visible emissions from the flyash handling system and the flyash silo are limited to 5% opacity.
[Power Plant Siting Certification PA 79-12]

E.3. The flyash handling system (including transfer and silo storage) will be maintained at negative pressures and vented to a control system.
[PSD-FL-040]

E.4. Tampa Electric will perform an annual VE test to satisfy the periodic monitoring requirements of these conditions. In addition, the system pressure will be monitored quarterly to assess that the system is operating under negative pressure.
[USEPA objection resolution.]

Test Methods and Procedures

E.5. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the Tampa Electric Company shall have formal compliance tests conducted on the silo baghouse for opacity and a formal compliance test conducted on the silo truck loadout for opacity.

[Rule 62-297.310(7)(a)4., F.A.C.]

TEC Rationale for Revision: Administrative correction.

E.6. The test methods for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)4., F.A.C.]

TEC Rationale for Revision: Administrative correction.

E.7. Compliance testing for the silo and tanker truck loading operations shall be conducted under the following conditions:

a. All conveyance hoppers will be operational during the test.

b. All fly ash will be directed to the silo, no reinjection of fly ash to the boiler systems will occur during the test.

c. The boilers shall operate at 90 to 100 percent of the maximum capability of this unit under normal operating conditions during the test.

d. A minimum of two tanker trucks shall be loaded during the test. The loading valve shall be open during filling.

e. The visible emission test shall be at least 30 minutes in duration and the period of time during which truck loading occurred indicated on the test report.

[Rule 62-4.070(3), F.A.C.].

TEC Rationale for Revision: Administrative correction.

E.8. Compliance with the emission limitations of Specific Conditions Nos. 3 and 4 shall be determined using EPA Methods 1, 2, 3, 4 and 7 contained in 40 CFR 60, Appendix A and adopted by reference in Rule 62-297.401, F.A.C. The Method 9 observation period for the silo and tanker truck loading operations shall be at least thirty (30) minutes in duration. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60, Appendix A.
[Rule 62-297, F.A.C.]

TEC Rationale for Revision: Administrative correction.

E.9. All compliance tests shall be conducted while loading the silo at approximately the maximum feed rate (24 hour average). Failure to submit the feed rate or operating at conditions during testing which do not reflect normal operating conditions may invalidate the data.
[Rule 62-4.070(3), F.A.C.].

TEC Rationale for Revision: Administrative correction.

Subsection F. Limestone Handling and Storage
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-011	Truck~~/Railcar~~ Limestone Unloading Receiving Hopper ~~with baghouse~~
-012	Limestone Silo A with 2 baghouses
-013	Limestone Silo B with 2 baghouses
-023	Limestone Handling Conveyor LB to Conveyor LC with baghouse, Limestone Handling Conveyor LD to Conveyor LE with baghouse
~~-024~~	~~Limestone Handling Conveyor LE to South Storage Silo with baghouse, Limestone Handling Conveyor LE to North Storage Silo with baghouse~~
-025	Limestone Storage and Handling Fugitive Emissions

TEC Rationale for Revision: Visible emissions occurring during the unloading of moist limestone without the use of a baghouse are five percent opacity, or less. Accordingly, a baghouse is not necessary to comply with permit opacity limits. The emission units addressed by Emission Unit ID No. 024 are also addressed by Emission Unit ID 020. Accordingly, deletion of duplicate Emission Unit ID No. 024 is requested.

Descriptions

~~Particulate matter emissions from the truck and railcar unloading of limestone are controlled by a Mikro-Pulsaire Model 400S12TR baghouse.~~ Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LB to Conveyor LC are controlled by a Sternvent Model DKED18003 baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LD to Conveyor LE are controlled by a Sternvent Model DKED 18003 baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LE to ~~the South Storage~~ Limestone Silo A are controlled by a Flex Kleen Model 58-BVBC-36-IIG baghouse. Particulate matter emissions generated by the transfer of limestone from Handling Conveyor LE to ~~the North Storage~~ Limestone Silo B are controlled by a Flex Kleen Model 58-BVBC-36-IIG baghouse~~.~~

TEC Rationale for Revision: Visible emissions occurring during the unloading of moist limestone without the use of a baghouse are five percent opacity, or less. Accordingly, a baghouse is not necessary to comply with permit opacity limits. Handling Conveyor LE activities are also addressed by Emission Unit ID No. 020.

The following conditions apply to the Emissions Units listed above:

Essential Potential to Emit (PTE) Parameters

F.1. Total combined particulate matter emissions from the limestone handling ~~hoppers/~~conveyors shall not exceed 0.65 lb/hr. Visible emissions are limited to 5% opacity. Compliance testing for particulate matter emissions is not required provided the opacity limit is maintained.
[PSD-FL-040; Power Plant Siting Certification PA 79-12]

TEC Rationale for Revision: Administrative correction.

F.2. Total combined particulate matter emissions from the limestone silos shall not exceed 0.05 lb/hr. Visible emissions are limited to 5% opacity. Compliance testing for particulate matter emissions is not required provided the opacity limit is maintained.
[PSD-FL-040; Power Plant Siting Certification PA 79-12]

F.3. All conveyors and conveyor transfer points shall be enclosed to preclude particulate matter emissions.
[PSD-FL-040]

F.4. The limestone handling ~~receiving hopper,~~ conveyor transfer points and silos shall be maintained at negative pressures with the exhaust vented to a control system(s).
[PSD-FL-040]

<u>TEC Rationale for Revision</u>: Visible emissions occurring during the unloading of moist limestone without the use of a baghouse are five percent opacity, or less. Accordingly, a baghouse is not necessary to comply with meet permit opacity limits.

F.5. Tampa Electric will perform an annual VE test <u>on E.U. ID No. 011, 012, 013, and 023</u> to satisfy the periodic monitoring requirements of these conditions. In addition, the system pressure will be monitored quarterly to assess that the system is operating under negative pressure.
[USEPA objection resolution.]

<u>TEC Rationale for Revision</u>: Administrative correction.

Subsection G. Coal Bunkers with Roto-Clones
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-015	Unit No. 1 Coal Bunker with Roto-Clone
-016	Unit No. 2 Coal Bunker with Roto-Clone
-017	Unit No. 3 Coal Bunker with Roto-Clone
-039	Unit No. 4 Coal Bunker with Roto-Clone

Descriptions

These emission units are Steam Generator Units Nos. 1-~~3~~4 Coal Bunkers with an exhaust fan/cyclone collector (Roto-Clone controlling dust emission from each unit's respective bunker. Two moving transfer stations via their respective conveyor belts route coal through enclosed chutes to the various bunkers. Coal Bunkers 1-~~3~~4 are each equipped with a 9400 ACFM American Air Filter (AAF) Company Type D Roto-Clone to abate dust emissions during ventilation. A number of vent pipes convey fresh air from each bunker to a Roto-Clone during particulate matter removal. Particulate matter removed by the Roto-Clones is returned to the coal bunkers via a hopper and return line. ~~Unit No. 1 Coal Bunker is situated west of Unit No. 2 Coal Bunker. Unit No. 3 Coal Bunker is situated east of Unit No. 2 Coal Bunker.~~ Each coal bunker is located above it's respective boiler.

TEC Rationale for Revision: For consistency with Units 1-3, addition of an Emission Unit ID for Unit No. 4 Coal Bunker (now addressed by Emission Unit ID No. 031) is requested.

The following conditions apply to the Emissions Units listed above:

Essential Potential to Emit (PTE) Parameters

G.1. Capacity.. The annual coal throughput shall not exceed 4,000 TPH per bunker.
[Rule 62-4.160(2), F.A.C.]

G.2. Hours of Operation. To show compliance with the annual allowable emission rate, the hours of bunker loading operation shall not exceed 4,167 hours per year.
[Rule 62-210.200, F.A.C., Definitions (PTE)]

TEC Rationale for Revision: Administrative correction.

Emission Limitations and Standards

G.3. Visible emissions from each unit shall not be equal to or greater than 20% opacity. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. and 4., F.A.C.]

G.4. Since a source of less than 1 TPY is exempt from particulate matter RACT provisions, the maximum allowable particulate emissions shall not exceed 0.99 tons per year from each ~~cyclone~~ rotoclone exhaust. Also maximum allowable particulate matter emissions shall not exceed 0.48 lbs/hr from each cyclone exhaust.
[AO29-163788 to escape RACT]

TEC Rationale for Revision: Administrative correction.

G.5. The maximum allowable emission rate for particulate matter for this source is set by specific condition no. G.4. Because of the expense and complexity of conducting a stack test on minor sources of particulate matter, the Department hereby waives the requirement for a stack test. The alternative standard establishes a visible emission limitation not to exceed an opacity of 5%. Compliance with this alternate emission limitation shall be determined using DEP Method 9 contained in 62-297.401, F.A.C.
[AO29-163788]

G.6. Should the Department have reason to believe the particulate matter emission standard is not being met, the Department may require that compliance with the particulate emission standards be demonstrated by testing using EPA Methods 1, 2, 4 and 5 in accordance with 62-297.401, F.A.C.
[Rule 62-297.310(7)(b), F.A.C.]

G.7. Tampa Electric will monitor the hours of operation of coal bunker loading. In addition, Tampa Electric will perform an annual VE test to satisfy the periodic monitoring requirements of this condition.
[USEPA objection resolution.]

Subsection H. Solid Fuel Yard
This section addresses the following Regulated Emissions Units:

E.U. ID No.	Brief Description
-010	Solid Fuel Yard, Fugitive Emissions
-029	Cyclone collectors for fuel blending bins (FH-032 through FH-035)
-030	Cyclone collectors for fuel crushers (FH-048 and FH-049)
~~-031~~	~~Cyclone collectors for bunkers (FH-059 through FH-062)~~

TEC Rationale for Revision: The emission units addressed by Emission Unit ID No. 031 are also addressed by Emission Unit IDs 015, 016, 017, and 039. Accordingly, deletion of duplicate Emission Unit ID No. 031 is requested.

Descriptions

Solid fuel (coal and petcoke) is unloaded from ship/barge into the ~~S~~solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel from the ~~piles~~ fuel yard is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending tower, which consists of six storage bins, where the solid fuel ~~is~~ may be blended for use at the plant, or transloaded into trucks for shipment off site. ~~From the solid fuel yard conveyors, the solid fuel is screw conveyed into the bins.~~ Particulate matter (PM) emissions from the conveyors in the ~~solid fuel yard~~ blending bins are controlled by ~~3~~ 4 rotoclones, one at the conveyor drop and one for every 2 bins. ~~PM emissions from the screw conveyor are controlled by the fourth rotoclone.~~ Storage bins can either ~~Each has 2 hoppers, which~~ feed the transloader, or can ~~are~~ convey~~ed~~ solid fuel, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

From the ~~solid fuel yard~~ tripper room, ~~the solid fuel is conveyed to the tripper room where~~ 2 trippers bunker the solid fuels (coal, petcoke, and/or residual) into 4 solid fuel bunkers. Each unit has its own respective bunker. ~~Solid fuel samples are taken every 15 minutes during bunking, and composited for analysis.~~ From the bunkers, the solid fuel is gravity fed into 14 ~~crushers~~ mills~~, and then gravity fed into the boilers~~. There are 3 ~~tall crushers~~ ball mills on, each ~~for~~ Unit Nos. 1 – 3, and 5 bowl ~~crushers~~ mills ~~for~~ on Unit No. 4. From the ~~crushers~~ mills, the solid fuel is pneumatically ~~fed~~ transported into classifiers, two for each ~~crusher~~ mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23~~8~~ classifiers~~,~~. ~~and~~ The fuel is then fed into the respective boilers.

TEC Rationale for Revision: Administrative corrections to process description.

The following conditions apply to the Emissions Units listed above:

H.1. TEC shall maintain a daily log of the amounts and types of fuels used ~~and~~. TEC shall also maintain copies of fuel analyses containing information on sulfur content, ash content and heating values.
[Power Plant Siting Certification PA 79-12]

TEC Rationale for Revision: Administrative correction.

H.2. Particulate matter emissions from the solid fuel handling facilities:

(a) Pursuant to Chapter 1-3.62 Rules of the Environmental Protection Commission of Hillsborough County, visible emission shall not exceed 20% opacity for any unconfined emission unit in the fuel yard. Unconfined emissions as defined by Rule 62-296.200, F.A.C., shall include the static fuel piles, etc. Pursuant to Rule 62.296.711(2), F.A.C., visible emissions shall not exceed 5 percent opacity for the remaining emission units in the fuel yard. Visible emissions compliance tests shall be demonstrated using EPA Reference Method 9, 40 CFR Part 60, Appendix A, Visual Determination of Fugitive Emissions form Material Sources (July 1, 1993 version). All testing shall be done within 90 days of completing reconfiguration of the fuel yard, and prior notification of testing shall be submitted in writing at least 15 days beforehand to the EPC of Hillsborough County. Particulate emissions shall be controlled by use of control devices. Tampa Electric will perform an annual VE test to demonstrate compliance with the opacity standard established for the solid fuel yard.

(b) The permittee must submit to the Department within ten (10) working days after it becomes available, copies of technical data pertaining to the selected particulate emissions control for the coal handling facility. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters such as air/cloth ratio and flow rate. The Department may, upon review of these data, disapprove the use of such device if the Department determines the selected control device to be inadequate to meet the emission limits specified in condition (a) above. Such disapproval shall be issued within 30 days of receipt of the technical data.

(c) The fuel pile operations are subject to Rule 62-296.310(3), F.A.C., Unconfined Emissions of Particulate Matter. Reasonable precautions to minimize unconfined particulate matter shall be in accordance with Rule 62-296.310(3)(c), F.A.C.,; and, may include, but shall not be limited to, the coating of roads and construction sites used by contractors and regrassing or watering areas of disturbed fuel.

(d) From each fuel transloading source/emissions point (i.e., off-loading and loading of fuel {for export from Big Bend Station}), the maximum hourly transloading transfer of fuel shall not exceed 4,000 tons, 24-hour rolling average.

(e) From each fuel transloading source/emissions point, (i.e., off-loading and loading of fuel {for export from Big Bend Station}), the maximum annual transloading transfer of fuel shall not exceed 1,428,030 tons.

(f) The number of railcars and trucks and the quantity of fuel loaded by each fuel transloading source/emissions point (i.e., off-loading and loading of fuel {for export from Big Bend Station*}) shall be recorded, maintained, and kept on fuel for a minimum of five years. The annual quantity of fuel loaded by each fuel transloading source/emissions point shall be submitted in the Annual Operation Report.
[Power Plant Siting Certification PA 79-12]
*Permitting Note.

H.3. All conveyors and conveyor transfer points shall be enclosed to preclude particulate matter emissions excepting the coal handling stackers, reclaimers, the tail end conveyor feeding the tripper, ~~and~~ the barge unloading belt, and residual discharge conveyor which are exempted for feasibility considerations.
[PSD-FL-040]

TEC Rationale for Revision: Administrative correction.

H.4. Coal storage piles shall be shaped, compacted and oriented to minimize wind erosion.
[PSD-FL-040]

H.5. Water sprays for storage piles, handling equipment, etc., including the handling equipment exempted from the conveyor enclosure requirement, shall be applied during dry periods and as necessary to all facilities to maintain opacity below 20 percent.
[Rules 62-4.160(2) and 62-296.320(4)(c), F.A.C.]

~~Subsection I. Surface Coating of Miscellaneous Metal Parts~~

~~This section addresses the following Regulated Emissions Units:~~

~~-032 Surface coating of miscellaneous metal parts~~

~~Description~~
~~These conditions apply to the surface coating of miscellaneous metal parts as defined in Rule 62-296.513, F.A.C. These parts include such things as pumps, compressors, conveyor components, fans, blowers, transformers.~~

~~The following conditions apply to the Emissions Unit listed above:~~

~~I.1. Hours of Operation. Miscellaneous metal parts surface coating operations are allowed to operate for a total 3500 hours/year.~~
~~[Rule 62-210.200, F.A.C., Definitions (PTE)]~~

~~I.2. Capacity. The total maximum coating usage shall not exceed 2 gallons per hour, on a 24-hr basis, and 7000 gallons per year.~~
~~[Rule 62-210.200, F.A.C., Definitions (PTE)]~~

~~I.3. Recordkeeping. TEC shall maintain daily records of operations for the most recent 5-year period. The records shall be made available to the local, state, or federal air pollution agency upon request. The records shall include, but not be limited to, the following:~~
~~a. The rule number applicable to the operation for which the records are being maintained.~~
~~b. The application method and substrate type (metal, etc.).~~
~~c. The amount and type of adhesive, coatings (including catalyst and reducer for multicomponent coatings), solvent, and/or graphic arts material used at each point of application, including exempt compounds.~~
~~d. The VOC content as applied in each adhesive, coating, solvent, and/or graphic arts material.~~
~~e. The date for each application of each adhesive, coating, solvent, and/or graphic arts material.~~
~~f. The amount of surface preparation, clean-up, wash-up of solvent (including exempt compounds) used and the VOC content of each.~~
~~[Rule 62-296.500(2)(b)1., F.A.C.]~~

~~I.4. The VOC content shall be calculated using a percent solids basis (less water and exempt solvents) for adhesives, coating, and inks, using EPA Reference Method 24.~~
~~[Rule 62-296.500(2)(b)2., F.A.C.]~~

~~I.5. Reporting. Annually, in accordance with a schedule and reporting format provided by the Department or EPCHC, TEC shall provide EPCHC with proof of compliance with the limitations in this section.~~
~~[Rule 62-296.500(2)(c), F.A.C.]~~

~~The following conditions apply to the Emissions Unit listed above if the Emissions Unit emits more than 15 pounds of VOC in any one day and 3 pounds VOC in any one hour:~~

~~I.6. Emissions Limits for surface coating of miscellaneous metal parts.~~
~~(a) No owner or operator of a coating line for miscellaneous metal parts and products shall cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of:~~
~~(1) 4.3 pounds per gallon of coating (0.52 kilograms per liter), excluding water, delivered to a coating applicator that applies clear coatings;~~
~~(2) 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator in coating application system that is air dried or forced warm air dried at temperatures up to 194 degrees Fahrenheit (90 degrees Celsius);~~
~~(3) 3.5 pounds per gallon of coating (0.42 kilograms per liter), excluding water, delivered to a coating applicator that applies extreme performance coatings; or,~~
~~(4) 3.0 pounds per gallon of coating (0.36 kilograms per liter), excluding water, delivered to a coating applicator for all other coatings and coating application systems.~~
~~(b) If more than one emission limitation in condition I.6.(a) above applies to a specific coating, then the least stringent emission limitation shall be applied.~~
~~(c) All volatile organic compound emissions from solvent washings shall be considered in the emission limitations in condition I.6.(a) above unless the solvent is directed into containers that prevent evaporation into the atmosphere.~~
~~[Rule 62-296.513(2), F.A.C.]~~

~~I.7. Control Technology. The emission limits in condition I.6.(a) above shall be achieved by:~~
~~The application of low-solvent coating technology.~~
~~[Rule 62-296.513(3), F.A.C.]~~

~~I.8. Test Methods and Procedures to Determine Low Solvent Technology. The test method for volatile organic compounds shall be EPA Method 24 or EPA 450/3-84-019, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.]~~
~~[Rules 62-296.513(4)(a) and (c), F.A.C.]~~

~~Subsection J. Abrasive Blasting~~

~~This section addresses the following Regulated Emissions Units:~~
~~-033 Abrasive Blast Booth with baghouse~~
~~-034 Abrasive Blast Media Storage with baghouse~~

~~Description~~
~~The abrasive blast booth is used to prepare miscellaneous metal parts for surface coating. Particulate matter emissions from the abrasive blast booth are controlled by a Torit Model No. DFT-4-16 pulse jet baghouse with an inlet flow rate of 7,500 acfm. Particulate emissions from the abrasive blast media storage are controlled by a pulse jet baghouse with an inlet air flow rate of 800 dscfm.~~

~~The following conditions apply to the Emissions Units listed above:~~

~~J.1. Capacity. The maximum annual usage of abrasive blast media in the abrasive blast booth shall not exceed 300 tons per year.~~
~~[Rules 62-4.160(2), 62-210.200(PTE)]~~

~~J.2. Hours of Operation. These emissions units are each allowed to operate continuously, i.e., 8760 hours/year.~~
~~[Rule 62-210.200, F.A.C., Definitions (PTE)]~~

~~J.3. Emission Limitations. The particulate matter emissions from each baghouse shall not exceed 0.03 gr/dscf, or any visible emissions greater than 5% opacity. However, TEC may exceed these emission limits if a pollution control device for particulate matter is utilized that has an actual particulate matter collection efficiency of at least 98 percent. The opacity standard for the emissions units shall be the average opacity level achieved during the initial compliance test which established compliance with the standard, plus 5% opacity.~~
~~[Rules 62-296.712(2), F.A.C.]~~

~~J.4. Test Methods and Procedures.~~
~~(a) The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference by reference in Chapter 62-297, F.A.C.~~
~~(b) The test method for particulate matter emissions shall be EPA Method 5, incorporated and adopted by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet.~~
~~(c) A visible emissions test indicating no visible emissions (5 percent opacity) may be submitted in lieu of a particular stack test for materials handling emissions subject to this rule, where the emissions unit is equipped with a baghouse.~~
~~(d) Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.~~
~~[Rule 62-296.712(3), F.A.C.]~~

~~J.5. Particulate matter emissions from the abrasive blasting operations shall not exceed 15 tons for any 12 consecutive month period.~~
~~[Rule 62-212.300, F.A.C.]~~

~~J.6. No used or waste oils shall be burned in the diesel compressors. The observation point for the blasting operation tests shall be at the point of maximum opacity leaving the enclosure.~~
~~[Rule 62-070(3), F.A.C.]~~

~~J.7. TEC shall maintain monthly records on the type and amount of abrasive blasting material used . A rolling 12 month total shall be kept as well.~~
~~[Rule 62-070(3), F.A.C.]~~

~~J.8. During each month that the Abrasive Blast Booth is used, a VE test must be performed. A monthly VE test is not required during any month that the Abrasive Blast Booth is not used. During each month that abrasive blast media is transferred to or from Abrasive Blast Media Storage, a VE test must be performed. A monthly VE test is not required during any month that no abrasive blast media is transferred to or from Abrasive Blast Media Storage. However, at a minimum, an annual VE test must be performed.~~

~~[USEPA objection resolution.]~~

~~Subsection K. Surface Coating of Ships~~

~~This section addresses the following Regulated Emissions Units:~~

~~-035 Surface coating of ships~~

~~Description~~
~~Surface coating maintenance of ships.~~

~~The following conditions apply to the Emissions Units listed above:~~

~~K.1. The emissions unit must comply with the attached 40 CFR 63 Subpart A - General Provisions modified for Subpart II.~~
~~[40 CFR 63 Subpart A, Rule 62-204.800, F.A.C.]~~

~~K.2. This emissions unit must also comply with the following:~~

~~40 CFR 63 Subpart II – National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)~~

~~{Source: 40 CFR 63 Subpart II (7/1/96 version), and Fed. Register revision dated 12/17/96}~~

~~63.781 Applicability~~
~~63.782 Definitions~~
~~63.783 Standards.~~
~~63.784 Compliance dates.~~
~~63.785 Compliance procedures.~~
~~63.786 Test methods and procedures.~~
~~63.787 Notification requirements.~~
~~63.788 Recordkeeping and reporting requirements.}~~

~~§ 63.781 Applicability.~~

~~(a) The provisions of this subpart apply to shipbuilding and ship repair operations at any facility that is a major source.~~

~~(b) The provisions of this subpart do not apply to coatings used in volumes of less than 200 liters (52.8 gallons) per year, provided the total volume of coating exempt under this paragraph does not exceed 1,000 liters per year (264 gallons per year) at any facility. Coatings exempt under this paragraph shall be clearly labeled as ''low-usage exempt,'' and the volume of each such coating applied shall be maintained in the facility's records.~~

~~(c) The provisions of this subpart do not apply to coatings applied with hand-held, nonrefillable, aerosol containers or to unsaturated polyester resin (i.e., fiberglass lay-up) coatings. Coatings applied to suitably prepared fiberglass surfaces for protective or decorative purposes are subject to this subpart.~~

~~(d) The provisions in subpart A of this part [See specific condition K.1., General Provisions] pertaining to startups, shutdowns, and malfunctions and continuous monitoring do not apply to this source category unless an add-on control system is used to comply with this subpart in accordance with § 63.783(c).~~

~~The following specific conditions from 40 CFR Part 63, Subpart II - Shipbuilding and Ship Repair (Surface Coating) apply:~~

~~40 CFR 63.783 Standards~~

~~(a) No owner or operator of any existing or new affected source shall cause or allow the application of any coating to a ship with an as-applied VOHAP content exceeding the applicable limit given in Table 2 of this subpart (see attachment), as determined by the procedures described in 40 CFR 63.785(c)(1)-(4). For the compliance procedures described in 40 CFR 63.785(c)(1)-(3), VOC shall be used as a surrogate for VOHAP, and the EPA Reference Method 24 shall be used as the definitive measure for determining compliance. For the compliance procedure described in 40 CFR 63.785(c)(4), an alternative test method capable of measuring independent VOHAP shall be used to determine compliance. The method must be submitted to and approved by the Administrator.~~
~~[40 CFR 63.783(a)]~~

~~(b) Each owner or operator of a new or existing affected source shall ensure that:~~
~~(1) All handling and transfer of VOHAP-containing materials to and from containers, tanks, vats, drums, and piping systems is conducted in a manner that minimizes spills.~~
~~(2) All containers, tanks, vats, drums, and piping systems are free of cracks, holes, and other defects and remain closed unless materials are being added to or removed from them.~~
~~[40 CFR 63.783(b)]~~

~~(c) Approval of alternative means of limiting emissions.~~
~~(1) The owner or operator of an affected source may apply to the Permitting authority for permission to use an alternative means (such as an add-on control system) of limiting emissions from coating operations. The application must include:~~
~~(i) An engineering material balance evaluation that provides a comparison of the emissions that would be achieved using the alternative means to those that would result from using coatings that comply with the limits in Table 2 of this section, or the results from an emission test that accurately measures the capture efficiency and control device efficiency achieved by the control system and the composition of the associated coatings so that the emissions comparison can be made;~~
~~(ii) A proposed monitoring protocol that includes operating parameter values to be monitored for compliance and an explanation of how the operating parameter values will be established through a performance test; and~~
~~(iii) Details of appropriate recordkeeping and reporting procedures.~~
~~(2) The Permitting authority shall approve the alternative means of limiting emissions if, in the Permitting authority's judgment, postcontrol emissions of VOHAP per volume applied solids will be no greater than those from the use of coatings that comply with the limits in Table 2 of this section.~~

~~(3) The Permitting authority may condition approval on operation, maintenance, and monitoring requirements to ensure that emissions from the source are no greater than those that would otherwise result from this subpart. [Rule 62-296.820, F.A.C.; 40 CFR 63.783(c)]~~

~~40 CFR 63.784 Compliance Dates~~

~~(a) Each owner or operator of an existing affected source shall comply by 12/16/97.~~
~~[40 CFR 63.784(a)]~~

~~(b) Each owner or operator of an existing unaffected area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply within 1 year after the date of becoming a major source.~~
~~[40 CFR 63.784(b)]~~

~~(c) Each owner or operator of a new or reconstructed source shall comply with this subpart according to the schedule in 40 CFR 63.6(b) of subpart A.~~
~~[40 CFR 63.784(c)]~~

~~40 CFR 63.785 Compliance Procedures~~

~~(a) For each batch of coating that is received by an affected source, the owner or operator shall (see Figure 1 for a flow diagram of the compliance procedures):~~
~~(1) Determine the coating category and the applicable VOHAP limit as specified in 40 CFR 63.783(a).~~
~~(2) Certify the as-supplied VOC content of the batch of coating. The owner or operator may use a certification supplied by the manufacturer for the batch, although the owner or operator retains liability should subsequent testing reveal a violation. If the owner or operator performs the certification testing, only one of the containers in which the batch of coating was received is required to be tested.~~
~~[40 CFR 63.785(a)]~~

~~(b) (1) In lieu of testing each batch of coating, as applied, the owner or operator may determine compliance with the VOHAP limits using any combination of the procedures described in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this section. The procedure used for each coating shall be determined and documented prior to application.~~
~~(2) The results of any compliance demonstration conducted by the affected source or any regulatory agency using Method 24 shall take precedence over the results using the procedures in paragraphs (c)(1), (c)(2), or (c)(3) of this section.~~
~~(3) The results of any compliance demonstration conducted by the affected source or any regulatory agency using an approved test method to determine VOHAP content shall take precedence over the results using the procedures in paragraph (c)(4) of this section.~~
~~[40 CFR 63.785(b)]~~

~~(c) (1) Coatings to which thinning solvent will not be added. For coatings to which thinning solvent (or any other material) will not be added under any circumstance or to which only water is added, the owner or operator of an affected source shall comply as follows:~~
~~(i) Certify the as applied VOC content of each batch of coating.~~

~~(ii) Notify the persons responsible for applying the coating that no thinning solvent may be added to the coating by affixing a label to each container of coating in the batch or through another means described in the implementation plan required in 40 CFR 63.787(b).~~

~~(iii) If the certified as-applied VOC content of each batch of coating used during a calendar month is less than or equal to the applicable VOHAP limit in 40 CFR 63.783(a) (either in terms of g/L of coating or g/L of solids), then compliance is demonstrated for that calendar month, unless a violation is revealed using Method 24.~~

~~(2) Coatings to which thinning solvent will be added—coating-by-coating compliance. For a coating to which thinning solvent is routinely or sometimes added, the owner or operator shall comply as follows:~~

~~(i) Prior to the first application of each batch, designate a single thinner for the coating and calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2) for each batch as follows:~~

$$\cancel{R = \frac{(V_s)(VOHAP\ limit) - m_{VOC}}{D_{th}}} \qquad \text{~~Eqn. 1~~}$$

~~where:~~

~~R = Maximum allowable thinning ratio for a given batch (L thinner/L coating as supplied);~~

~~V_s = Volume fraction of solids in the batch as supplied (L solids/L coating as supplied);~~

~~VOHAP limit = Maximum allowable as-applied VOHAP content of the coating (g VOHAP/L solids);~~

~~m_{VOC} = VOC content of the batch as supplied [g VOC (including cure volatiles and exempt compounds on the HAP list)/L coating (including water and exempt compounds) as supplied];~~

~~D_{th} = Density of the thinner (g/L).~~

~~If V_s is not supplied directly by the coating manufacturer, the owner or operator shall determine V_s as follows:~~

$$\cancel{V_s = 1 - \frac{m_{volatiles}}{D_{avg}}}$$

~~Eqn. 2~~

~~where:~~

~~$m_{volatiles}$ = Total volatiles in the batch, including VOC, water, and exempt compounds, (g/L coating); and~~

~~D_{avg} = Average density of volatiles in the batch (g/L).~~

~~The procedures specified in 40 CFR 63.786(d) may be used to determine the values of variables defined in this paragraph. In addition, the owner or operator may choose to construct nomographs, based on Equation 1, similar or identical to the one provided in appendix B as a means of easily estimating the maximum allowable thinning ratio.~~

~~(ii) Prior to the first application of each batch, notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch of the coating by affixing a label to each container of coating or through another means described in the implementation plan required in 40 CFR 63.787(b).~~

~~(iii) By the 15th day of each calendar month, determine the volume of each batch of the coating used, as supplied, during the previous month.~~

~~(iv) By the 15th day of each calendar month, determine the total allowable volume of thinner for the coating used during the previous month as follows:~~

$$\cancel{V_{th} = \sum_{i=1}^{n}(R \times V_b)_i + \sum_{i=1}^{n}(R_{cold} \times V_{b\text{-}cold})_i} \qquad \text{~~Eqn. 3~~}$$

~~where:~~

~~V_{th} = Total allowable volume of thinner for the previous month (L thinner);~~
~~V_b = Volume of each batch, as supplied and before being thinned, used during non-cold-weather days of the previous month (L coating as supplied);~~
~~R_{cold} = Maximum allowable thinning ratio for each batch used during cold-weather days (L thinner/L coating as supplied);~~
~~$V_{b\text{-}cold}$ = Volume of each batch, as supplied and before being thinned, used during cold-weather days of the previous month (L coating as supplied);~~
~~i = Each batch of coating; and~~
~~n = Total number of batches of the coating.~~

~~(v) By the 15th day of each calendar month, determine the volume of thinner actually used with the coating during the previous month.~~

~~(vi) If the volume of thinner actually used with the coating [paragraph (c)(3)(v) of this section] is less than or equal to the total allowable volume of thinner for the coating [paragraph (c)(3)(iv) of this section], then compliance is demonstrated for the coating for the previous month, unless a violation is revealed using Method 24.~~

~~(3) Coatings to which the same thinning solvent will be added—group compliance. For coatings to which the same thinning solvent (or other material) is routinely or sometimes added, the owner or operator shall comply as follows:~~

~~(i) Designate a single thinner to be added to each coating during the month and "group" coatings according to their designated thinner.~~

~~(ii) Prior to the first application of each batch, calculate the maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits~~

~~specified in Table 2) for each batch of coating in the group using the equations in paragraph (c)(2) of this section.~~

~~(iii) Prior to the first application of each "batch," notify painters and other persons, as necessary, of the designated thinner and maximum allowable thinning ratio(s) for each batch in the group by affixing a label to each container of coating or through another means described in the implementation plan required in 40 CFR 63.787(b).~~

~~(iv) By the 15th day of each calendar month, determine the volume of each batch of the group used, as supplied, during the previous month.~~

~~(v) By the 15th day of each calendar month, determine the total allowable volume of thinner for the group for the previous month using Equation 3.~~

~~(vi) By the 15th day of each calendar month, determine the volume of thinner actually used with the group during the previous month.~~

~~(vii) If the volume of thinner actually used with the group [paragraph (c)(3)(vi) of this section] is less than or equal to the total allowable volume of thinner for the group [paragraph (c)(3)(v) of this section], then compliance is demonstrated for the group for the previous month, unless a violation is revealed using Method 24.~~

~~(4) Demonstration of compliance through an alternative (i.e., other than Method 24) test method. The owner or operator shall comply as follows:~~

~~(i) Certify the as-supplied VOHAP content (g VOHAP/L solids) of each batch of coating.~~

~~(ii) If no thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in 40 CFR 63.785(c)(1), except that VOHAP content shall be used in lieu of VOC content.~~

~~(iii) If thinning solvent will be added to the coating, the owner or operator of an affected source shall follow the procedure described in 40 CFR 63.785(c)(2) or (3), except that in Equation 1: the term "m_{VOC}" shall be replaced by the term "m_{VOHAP}," defined as the VOHAP content of the coating as supplied (g VOHAP/L coating) and the term "D_{th}" shall be replaced by the term "$D_{th(VOHAP)}$" defined as the average density of the VOHAP thinner(s) (g/L).~~

~~[40 CFR 63.785(c)]~~

~~(d) A violation revealed through any approved test method shall result in a 1-day violation for enforcement purposes. A violation revealed through the recordkeeping procedures described in paragraphs (c)(1) through (c)(4) of this section shall result in a 30-day violation for enforcement purposes, unless the owner or operator provides~~

~~sufficient data to demonstrate the specific days during which noncompliant coatings were applied.~~

~~[40 CFR 63.785(d)]~~

~~40 CFR 63.786 Test Methods and Procedures~~

~~(a) For the compliance procedures described in 40 CFR 63.785(c)(1)-(3), Method 24 of 40 CFR part 60, appendix A, is the definitive method for determining the VOC content of coatings, as supplied or as applied. When a coating or thinner contains exempt compounds that are volatile HAP or VOHAP, the owner or operator shall ensure, when determining the VOC content of a coating, that the mass of these exempt compounds is included.~~

~~[40 CFR 63.786(a)]~~

~~(b) For the compliance procedure described in 40 CFR 63.785(c)(4), the Permitting authority must approve the test method for determining the VOHAP content of coatings and thinners. As part of the approval, the test method must meet the specified accuracy limits indicated below for sensitivity, duplicates, repeatability, and reproducibility coefficient of variation each determined at the 95 percent confidence limit. Each percentage value below is the corresponding coefficient of variation multiplied by 2.8 as in the ASTM Method E180-93: Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals (incorporation by reference- see 40 CFR 63.14).~~

~~Sensitivity: The overall sensitivity must be sufficient to identify and calculate at least one mass percent of the compounds of interest based on the original sample. The sensitivity is defined as ten times the noise level as specified in ASTM Method D3257-93: Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography (incorporation by reference- see 40 CFR 63.14). In determining the sensitivity, the level of sample dilution must be factored in.~~

~~Repeatability: First, at the 0.1-5 percent analyte range the results would be suspect if duplicates vary by more than 6 percent relative and/or day-to-day variation of mean duplicates by the same analyst exceeds 10 percent relative. Second, at greater than 5 percent analyte range the results would be suspect if duplicates vary by more than 5 percent relative and/or day-to-day variation of duplicates by the same analyst exceeds 5 percent relative.~~

~~Reproducibility: First, at the 0.1-5 percent analyte range the results would be suspect if lab-to-lab variation exceeds 60 percent relative. Second, at greater than 5 percent range the results would be suspect if lab-to-lab variation exceeds 20 percent relative.~~

~~Any test method should include information on the apparatus, reagents and materials, analytical procedure, procedure for identification and confirmation of the volatile species in the mixture being analyzed, precision and bias, and other details to be reported. The reporting should also include information on quality assurance (QA) auditing.~~

~~Multiple and different analytical techniques must be used for positive identification if the components in a mixture under analysis are not known. In such cases a single column gas chromatograph (GC) may not be adequate. A combination of equipment may be need such as a GC/mass spectrometer or GC/infrared system. (If a GC method is used, the operator must use practices in ASTM Method E260-91: Standard Practice for Gas Chromatography [incorporation by reference- see 40 CFR 63.14].) . [40 CFR 63.786(b)]~~

~~(c) A coating manufacturer or the owner or operator of an affected source may use batch formulation data as a test method in lieu of Method 24 to certify the as-supplied VOC content of a coating if the manufacturer or the owner or operator has determined that batch formulation data have a consistent and quantitatively known relationship to Method 24 results. This determination shall consider the role of cure volatiles, which may cause emissions to exceed an amount based solely upon coating formulation data. Notwithstanding such determination, in the event of conflicting results, Method 24 shall take precedence. [40 CFR 63.786(c)]~~

~~(d) Each owner or operator of an affected source shall use or ensure that the manufacturer uses the form and procedures mentioned in appendix A of this subpart to determine values for the thinner and coating parameters used in Equations 1 and 2. The owner or operator shall ensure that the coating/thinner manufacturer (or supplier) provides information on the VOC and VOHAP contents of the coatings/thinners and the procedure(s) used to determine these values.~~
~~[40 CFR 63.786(d)]~~

~~40 CFR 63.787 Notification Requirements~~

~~(a) Each owner or operator of an affected source shall comply with all applicable notification requirements in 40 CFR 63.9(a)-(d) and (i)-(j) of subpart A (General Provisions), with the exception that the deadline specified in 40 CFR 63.9(b)(2) and (3) shall be extended from 120 days to 180 days. Any owner or operator that receives approval pursuant to 40 CFR 63.783(c) of this subpart to use an add-on control system to control coating emissions shall comply with the applicable requirements of 40 CFR 63.9(e)-(h) of subpart A.~~
~~[40 CFR 63.787(a)]~~

~~(b) Implementation plan. The provisions of 40 CFR 63.9(a) (Notification requirements/Applicability and general information) of subpart A apply to the requirements of this paragraph.~~
~~(1) Each owner or operator of an affected source shall:~~
~~(i) Prepare a written implementation plan that addresses each of the subject areas specified in paragraph (b)(3) of this section; and~~
~~(ii) Not later than December 16, 1996, submit the implementation plan to the Administrator along with the notification required by 40 CFR 63.9(b)(2) or (5) of subpart A, as applicable.~~
~~(2) [Reserved]~~
~~(3) *Implementation plan contents*. Each implementation plan shall address the following subject areas:~~
~~(i) *Coating compliance procedures*. The implementation plan shall include the compliance procedure(s) under 40 CFR 63.785(c) that the source intends to use.~~
~~(ii) *Recordkeeping procedures*. The implementation plan shall include the procedures for maintaining the records required under 40 CFR 63.788, including the procedures for gathering the necessary data and making the necessary calculations.~~
~~(iii) *Transfer, handling, and storage procedures*. The implementation plan shall include the procedures for ensuring compliance with 40 CFR 63.783(b).~~
~~(4) *Major sources that intend to become area sources by the compliance date*. Existing major sources that intend to become area sources by the December 16, 1997 compliance date may choose to submit, in lieu of the implementation plan required under paragraph (b)(1) of this section, a statement that, by the compliance date, the major source intends to obtain and comply with federally enforceable limits on their potential to emit which make the facility an area source.~~
~~[40 CFR 63.787(b)]~~

~~40 CFR 63.788 Recordkeeping and reporting requirements.~~

~~(a) Each owner or operator of an affected source shall comply with the applicable recordkeeping and reporting requirements in 40 CFR 63.10(a), (b), (d), and (f) of subpart A (General Provisions). Any owner that receives approval pursuant to 40 CFR 63.783(c) of this subpart to use an add-on control system to control coating emissions shall also comply with the applicable requirements of 40 CFR 63.10(c) and (e). A summary of recordkeeping and reporting requirements is provided in Table 3.~~
~~[40 CFR 63.788(a)]~~

~~(b) Recordkeeping requirements.~~

~~(1) Each owner or operator of a major source shipbuilding or ship repair facility having surface coating operations with less than 1000 liters (264 gallons) annual marine coating usage shall record the total volume of coating applied at the source to ships. Such records shall be compiled monthly and maintained for a minimum of 5 years.~~

~~(2) Each owner or operator of an affected source shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:~~

~~(i) All documentation supporting initial notification;~~

~~(ii) A copy of the affected source's approved implementation plan;~~

~~(iii) The volume of each low-usage-exempt coating applied;~~

~~(iv) Identification of the coatings used, their appropriate coating categories, and the applicable VOHAP limit;~~

~~(v) Certification of the as-supplied VOC content of each batch of coating;~~

~~(vi) A determination of whether containers meet the standards as described in 40 CFR 63.783(b)(2); and~~

~~(vii) The results of any Method 24 or approved VOHAP measurement test conducted on individual containers of coating, as applied.~~

~~(3) The records required by paragraph (b)(2) of this section shall include additional information, as determined by the compliance procedure(s) described in 40 CFR 63.785(c) that each affected source followed:~~

~~(i) Coatings to which thinning solvent will not be added. The records maintained by facilities demonstrating compliance using the procedure described in 40 CFR 63.785(c)(1) shall contain the following information:~~

~~(A) Certification of the as-applied VOC content of each batch of coating; and~~

~~(B) The volume of each coating applied.~~

~~(ii) Coatings to which thinning solvent will be added--coating-by-coating compliance. The records maintained by facilities demonstrating compliance using the procedure described in 40 CFR 63.785(c)(2) shall contain the following information:~~

~~(A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids (nonvolatiles) in each batch, including any calculations;~~

~~(B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2 of this subpart) for each batch of coating, including calculations;~~

~~(C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch of the coating, as supplied, during these dates;~~

~~(D) The volume used of each batch of the coating, as supplied;~~

~~(E) The total allowable volume of thinner for each coating, including calculations; and~~

~~(F) The actual volume of thinner used for each coating.~~

~~(iii) Coatings to which the same thinning solvent will be added - group compliance. The records maintained by facilities demonstrating compliance using the procedure described in 40 CFR 63.785(c)(3) shall contain the following information:~~

~~(A) The density and mass fraction of water and exempt compounds of each thinner and the volume fraction of solids in each batch, including any calculations;~~

~~(B) The maximum allowable thinning ratio (or ratios, if the affected source complies with the cold-weather limits in addition to the other limits specified in Table 2) for each batch of coating, including calculations;~~

~~(C) If an affected source chooses to comply with the cold-weather limits, the dates and times during which the ambient temperature at the affected source was below 4.5°C (40°F) at the time the coating was applied and the volume used of each batch in the group, as supplied, during these dates;~~

~~(D) Identification of each group of coatings and their designated thinners;~~

~~(E) The volume used of each batch of coating in the group, as supplied;~~

~~(F) The total allowable volume of thinner for the group, including calculations; and~~

~~(G) The actual volume of thinner used for the group.~~

~~(iv) Demonstration of compliance through an alternative (i.e., non-Method 24) test method. The records maintained by facilities demonstrating compliance using the procedure described in 40 CFR 63.785(c)(4) shall contain the following information:~~

~~(A) Identification of the Permitting authority-approved VOHAP test method or certification procedure;~~

~~(B) For coatings to which the affected source does not add thinning solvents, the source shall record the certification of the as-supplied and as-applied VOHAP content of each batch and the volume of each coating applied;~~

~~(C) For coatings to which the affected source adds thinning solvent on a coating-by-coating basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(ii) of this section; and~~

~~(D) For coatings to which the affected source adds thinning solvent on a group basis, the source shall record all of the information required to be recorded by paragraph (b)(3)(iii) of this section.~~

~~(4) If the owner or operator of an affected source detects a violation of the standards specified in 40 CFR 63.783, the owner or operator shall, for the remainder of the reporting period during which the violation(s) occurred, include the following information in his or her records:~~

~~(i) A summary of the number and duration of deviations during the reporting period, classified by reason, including known causes for which a Federally-approved or promulgated exemption from an emission limitation or standard may apply.~~

~~(ii) Identification of the data availability achieved during the reporting period, including a summary of the number and total duration of incidents that the monitoring protocol failed to perform in accordance with the design of the protocol or produced data that did not meet minimum data accuracy and precision requirements, classified by reason.~~

~~(iii) Identification of the compliance status as of the last day of the reporting period and whether compliance was continuous or intermittent during the reporting period.~~

~~(iv) If, pursuant to paragraph (b)(4)(iii) of this section, the owner or operator identifies any deviation as resulting from a known cause for which no Federally-approved or promulgated exemption from an emission limitation or standard applies, the monitoring report shall also include all records that the source is required to maintain that pertain to the periods during which such deviation occurred and:~~

~~(A) The magnitude of each deviation;~~

~~(B) The reason for each deviation;~~

~~(C) A description of the corrective action taken for each deviation, including action taken to minimize each deviation and action taken to prevent recurrence; and~~

~~(D) All quality assurance activities performed on any element of the monitoring protocol.~~

~~[40 CFR 63.788(b)]~~

~~(c) Reporting requirements. Before the 60th day following completion of each 6-month period after the compliance date specified in 40 CFR 63.784, each owner or operator of an affected source shall submit a report to the Permitting authority for each of the previous 6 months. The report shall include all of the information that must be retained pursuant to paragraphs (b)(2)-(3) of this section, except for that information specified in paragraphs (b)(2)(i)-(ii), (b)(2)(v), (b)(3)(i)(A), (b)(3)(ii)(A), and (b)(3)(iii)(A). If a violation at an affected source is detected, the source shall also report the information specified in paragraph (b)(4) of this section for the reporting period during which the violation(s) occurred. To the extent possible, the report shall be organized according to the compliance procedure(s) followed each month by the affected source.~~

~~[40 CFR 63.788(c)]~~

Subsection L. Limestone Handling System for FGD System for Units 1 & 2

This section addresses the following Regulated Emissions Units:
-020 Drops from limestone conveyors LE, LF and LG and Silo C belt feeder with baghouse
-021 Silo C with one baghouse

Description

~~New c~~Components of the limestone handling system ~~to~~ provide limestone for the ~~new~~ FGD systems. The components are Silo C and its related rotary unloader, belt feeder and wet ball mill, and reversible belt conveyors LF and LG. Conveyors LF and LG replace an existing bifurcated chute which feeds from conveyor LE to silos A and B. Particulate emissions from drops from limestone handling conveyors LE, LF and LG and the silo C belt feeder are controlled by a baghouse: American Air Filter Fabripulse - Model B, size 12-72-1155. Particulate emissions from displaced air in silo C will be controlled by a baghouse: American Air Filter Fabripak, size 6-16-132. The ~~new~~ wet ball mill is a wet process with no expected particulate emissions.

[Note: These emissions units are subject to 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR 60.670 - 60.676) and 40 CFR 60 Subpart A; Rule 1-3.61, Rules of the Environmental Protection Commission (EPC) of Hillsborough County; Rule 62-296.700, F.A.C.; and are subject to the requirements of the state rules as indicated in this permit. The visible emission limit of specific condition 16 is more stringent than the limitations of 40 CFR 60.672(a)(2) and 60.672(f), and compliance with this limit will assure compliance with those requirements.]

TEC Rationale for Revision: Administrative correction.

The following conditions apply to the Emissions Units listed above:

OPERATIONAL REQUIREMENTS

L.1. Hours of Operation: These emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]

L.2. Enclosure of Equipment: All conveyors and conveyor transfer points shall be enclosed and exhaust from this equipm

L.3. Operating Procedures: Enclosures and baghouses for these emissions units shall be properly operated and maintained at all times in a condition to minimize particulate emissions. The owner and operator shall ensure that all facility staff responsible for these emissions units are trained in their operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers. [Rule 62-4.070(3), F.A.C.]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

L.4. Particulate and Visible Emissions: No owner or operator shall cause or allow visible emissions from the baghouses controlling these emissions units in excess of 0.03 gr/dscf and 5% opacity. [40 CFR 60.672(a)(1) and (2); Rules 62-4.070(3) and Rule 62-296.711(2)(b), F.A.C., Rule 1-3.61, Rules of the EPC, and request of applicant (VE limit)]

[Note: The visible emission limit of this condition is more stringent than the limitations of 40 CFR 60.672(a)(2) and 60.672(f), and compliance with this limit will assure compliance with those requirements.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

L.5. Visible Emissions Tests: Compliance with the visible emission limits of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of initial tests shall be three hours and the duration of subsequent annual tests shall be thirty minutes. [Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C., and 40 CFR 60.11(b)]

[Note: The three hour duration of initial tests complies with the requirements of the NSPS and the thirty minute duration of subsequent tests complies with state rules.]

L.6. Visible Emissions Tests in Lieu of Stack Tests, Emissions Unit 020: After passing the initial test required by ~~specific~~ condition ~~21~~ L.9 ~~of this section~~, the owner or operator is permitted to comply with the visible emission limit of ~~specific~~ condition ~~16~~ L.4 and the testing requirement of ~~specific~~ condition ~~17~~ L.5 ~~of this section~~ in lieu of regularly demonstrating compliance with the limitations of 40 CFR 60.672(a)(1) and (2) and the particulate matter limitation of ~~specific~~ condition ~~16~~ L.4 ~~of this section~~. If the Department has reason to believe that the particulate weight emission limit of 40 CFR 60.672(a)(1) or the particulate matter limitation of ~~specific~~ condition ~~16~~ L.4 ~~of this section~~ is not being met, it shall require compliance be demonstrated by the test method specified by 40 CFR 60.675. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]

TEC Rationale for Revision: Administrative correction.

REPORTING AND RECORD KEEPING REQUIREMENTS

L.7. Records of Maintenance: The owner or operator shall make and maintain records of maintenance on the enclosures and baghouses sufficient to demonstrate compliance with the operating procedures requirements of ~~specific~~ condition ~~15~~ L.3 ~~of this section~~. [Rule 62-4.070(3), F.A.C.]

TEC Rationale for Revision: Administrative correction.

NSPS SUBPART OOO REQUIREMENTS

[Note: The numbering of the original rules in the following conditions has been preserved for ease of reference to the rules. The definitions of terms of this part shall have the meanings as defined in 40 CFR 60.671 Definitions. The term "Administrator" when used in 40 CFR 60 shall mean the Secretary or the Secretary's designee.]

L.8. Pursuant to 40 CFR 60.672 Standard for Particulate Matter:

[Note: The requirements of 40 CFR 60.672(a)(1) and (2) apply to emissions unit 020, and the requirements of 40 CFR 60.672(f) apply to emissions unit 021.]

(a) No owner or operator shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm; and

(2) Exhibit greater than 7 percent opacity.

[Note: The emission limit of ~~specific~~ condition ~~16~~ L.4 ~~of this section~~ is more stringent than the limitation of 40 CFR 60.672(a)(2).]

(f) No owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

[Note: The emission limit of ~~specific~~ condition ~~16~~ L.4 ~~of this section~~ is more stringent than the limitation of 40 CFR 60.672(f). See the note for that condition.]

<u>TEC Rationale for Revision</u>: Administrative correction.

L.9. <u>Pursuant to 40 CFR 60.675 Test Methods and Procedures</u>:

(a) In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR 60 or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in 40 CFR 60.672(a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

[Note: The owner or operator is required to demonstrate compliance with the particulate matter emission limitation of 40 CFR 60.672(a)(1) by performing and passing an initial particulate matter test in accordance with the requirements of this section, unless such requirement is waived by the US Environmental Protection Agency. No subsequent regular annual particulate matter testing is required. The owner or operator is permitted to comply with the visible emission limit of ~~specific~~ condition ~~16~~ L.4 ~~of this section~~ in lieu of regularly demonstrating compliance with the limitations of 40 CFR 60.672(a)(1) and (2). See also ~~specific~~ condition ~~18~~ L.6 ~~of this section~~.]

(c) (2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under 40 CFR 60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

[Note: The initial Method 9 test duration for emissions unit 021 is one hour pursuant to 40 CFR 60.675(c)(2), while the initial Method 9 test duration for emissions unit 020 is 3 hours pursuant to 40 CFR 60.11(b). Subsequent annual Method 9 tests shall be conducted for 30 minutes for emissions units 020 and 021.]

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

<u>TEC Rationale for Revision</u>: Administrative correction.

L.10. <u>Pursuant to 40 CFR 60.676 Reporting and Recordkeeping</u>:

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 CFR 60.672 of this subpart.

(h) The subpart A requirement under 40 CFR 60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

L.11. The attached 40 CFR 60 Subpart A NSPS General Provisions also apply to these emissions units.

Subsection M. Lime Silo for Wastewater Treatment Plant for the Chloride Bleed Stream

This section addresses the following Regulated Emissions Units:

-022 Lime silo with one baghouse for the waste water treatment plant for the chloride bleed stream

Description

A lime silo with one baghouse (Griffin Environmental 36-LS Filter Vent) which supplies limestone to the wastewater treatment plant for the FGD chloride bleed stream. This plant will serve the new and existing FGD systems. Particulate emissions from displaced air from periodically filling the lime silo will be controlled with the related baghouse.

[Note: This emissions unit is subject to the requirements of the state rules as indicated in this permit. This emissions unit is subject to Rule 1-3.61, Rules of the Environmental Protection Commission (EPC) of Hillsborough County, but it exempt from the requirements of Rule 62-296.711, F.A.C., pursuant to Rule 62-296.700(2)(c), F.A.C., because it has an allowable emission rate of less than one ton per year.]

The following conditions apply to the Emissions Unit listed above:

OPERATIONAL REQUIREMENTS

M.1. Hours of Operation: This emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]

M.2. Operating Procedures: The baghouse for this emissions unit shall be properly operated and maintained at all times in a condition to minimize particulate emissions. The owner and operator shall ensure that all facility staff responsible for these emissions units are trained in their operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers. [Rule 62-4.070(3), F.A.C.]

EMISSION LIMITATIONS AND PERFORMANCE STANDARDS

M.3. Particulate and Visible Emissions: No owner or operator shall cause or allow visible emissions from the baghouse controlling this emissions unit in excess of 0.03 gr/dscf and 5% opacity. [Rules 62-4.070(3) and 62-296.700(2)(c), F.A.C.]

[Note: The particulate matter limitation will ensure that allowable emissions are less than one ton per year for this emissions unit.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

M.4. Visible Emissions Tests: Compliance with the visible emission limit of this permit shall be demonstrated by an annual compliance test using EPA Method 9. The duration of annual tests shall be thirty minutes. [Rules 62-4.070(3) and 62-297.310(4)(a)2., F.A.C.]

M.5. Visible Emissions Tests in Lieu of Stack Tests: The owner or operator is permitted to comply with the visible emission limit of ~~specific~~ condition ~~25~~ M.3 and the testing requirement of ~~specific~~ condition ~~26~~ M.4 ~~of this section~~ in lieu of regularly demonstrating compliance with the particulate matter limitation of ~~specific~~ condition ~~25~~ M.3 ~~of this section~~. If the Department has reason to believe that the particulate matter limitation of ~~specific~~ condition ~~25~~ M.3 ~~of this section~~ is not being met, it shall require compliance be demonstrated by conducting a particulate matter test in accordance with EPA Method 5 specified at 40 CFR 60 Appendix A. [Rules 62-4.070(3) and 62-297.620(4), F.A.C.]

TEC Rationale for Revision: Administrative correction.

REPORTING AND RECORD KEEPING REQUIREMENTS

M.6. Records of Maintenance: The owner or operator shall make and maintain records of maintenance on the baghouse sufficient to demonstrate compliance with the operating procedures requirements of ~~specific~~ condition M.2. ~~of this section~~. [Rule 62-4.070(3), F.A.C.]

TEC Rationale for Revision: Administrative correction.

M.7. Tampa Electric shall keep records of facility staff training, and shall maintain, on site, an Operations and Maintenance Plan for the baghouse that details how it shall be properly operated and maintained at all times. Tampa Electric shall also take weekly pressure readings from the baghouse pressure-sensing device. [USEPA objection resolution.]

Subsection N. Common Conditions

This section addresses the all of the Regulated Emissions Units:
{Permitting note: For emissions units subject to NESHAP or NSPS requirements, when more stringent, the requirements of the NESHAPS or NSPS supercede these common conditions.}

N.1. Compliance Test Notification. TECO shall notify the EPCHC, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for TECO. If after 15 days notice for a scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.
[Rule 62-297.310(7)(a)9., F.A.C.]

TEC Rationale for Revision: Administrative corrections.

N.2. Special Compliance Tests. When, after inspection, the Department or the Environmental Protection Commission of Hillsborough County has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the Tampa Electric Company to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emission unit and to provide a report on the results of said test to the requesting agency.
[Rule 62-297.310(7)(b), F.A.C.]

GENERAL TEST REQUIREMENTS

N.3. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 297.310(1), F.A.C.]

N.4. Operating Rate During Testing for Emission Units other than Combustion Turbines. Unless otherwise stated an emission unit's specific condition in this permit, testing of emissions shall be conducted with the emissions unit operation at 90 to 100 percent of the maximum operation rate allowed by specific condition in this permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to

110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

N.5. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

N.6. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the specific conditions of this permit, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to
these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (see attachment).

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 297.310(4), F.A.C.]

N.7. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with

emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

N.8. Frequency of Compliance Tests. The following provisions apply to those emissions units that are subject to an emissions limiting standard for which compliance testing is required, unless otherwise provided in a specific emission unit condition of this permit.

(a) General Compliance Testing.

1. The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid and/or solid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

6. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup.

7. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to Rule 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

~~9. The owner or operator shall notify the Department and the Environmental Protection Commission of Hillsborough County, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.~~

<u>TEC Rationale for Revision</u>: This condition should be deleted, since it is a duplicate of Condition N.1.

10. An annual compliance test conducted for visible emissions shall not be required for units exempted from permitting at Rule 62-210.300(3)(a), F.A.C., or units permitted under the General Permit provisions at Rule 62-210.300(4), F.A.C.

~~*(b) Special Compliance Tests.* When the Department or Environmental Protection Commission of Hillsborough County, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department and the Environmental Protection Commission of Hillsborough County.~~

<u>TEC Rationale for Revision</u>: This condition should be deleted, since it is a duplicate of Condition N.2.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.]

N.9. <u>Test Reports</u>.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department and the EPCHC on the results of each such test.

(b) The required test report shall be filed with the EPCHC as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the EPCHC and the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.

6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.

8. The date, starting time and duration of each sampling run.

9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.

10. The number of points sampled and configuration and location of the sampling plane.

11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.

12. The type, manufacturer and configuration of the sampling equipment used.

13. Data related to the required calibration of the test equipment.

14. Data on the identification, processing and weights of all filters used.

15. Data on the types and amounts of any chemical solutions used.

16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the EPCHC or the Department, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

Subsection O. Coal Residual Storage and Transfer

This section addresses the following Regulated Emissions Units:
-037 Coal Residual Storage Facility
-038 Coal Residual Transfer System

Description: Coal residual is received from Polk Power Station and is transferred to Big Bend Station. The coal ridual is then stored in an enclosed building. ~~Enclosed storage and transfer of coal residual received from the Polk Power Station.~~ A nominal 25-ton dump truck empties a load of material into the building, and a bulldozer either pushes the material into a vacant area of the building, or it pushes the material directly into the dozer trap in the rear of the building. The dozer trap is a hopper that is partially below grade, and is used to feed the conveyor, which is capable of transferring up to 200 tons of material per hour. The conveyor is fully enclosed to prevent fugitive dust emissions, and to also prevent wetting of the material. Material inside the building will be periodically sprayed with water in an effort to minimize dust within the building.

The following conditions apply to the Emissions Units listed above:

EMISSION LIMITATIONS

O.1. Visible emissions shall not exceed 5% opacity in lieu of particulate sampling.
[Rule 62-297.620(4), F.A.C., and Permit No. 0570039-012-AC]

O.2. All conveyors and conveyor transfer points shall be enclosed to minimize particulate matter emissions. The coal residual shall be stored in an enclosed facility. Open storage of coal residual is prohibited. [Rule 62-296.320(4)(c), F.A.C., and Permit No. 0570039-012-AC]

O.3. The maximum conveyor transfer rate shall be 200 tons per hour and 255,500 tons per year of coal residual that has been generated at the Polk Power Station gasification process. [0570039-012-AC]

TEST METHODS AND COMPLIANCE PROCEDURES

O.4. Tampa Electric shall perform annual visible emissions tests for the storage facility and transfer system. Sites to be tested shall be determined by EPCHC. [Permit No. 0570039-012-AC]
[Permit No. 0570039-012-AC]

O.5. Compliance with the allowable visible emissions limitation shall be determined by using the following reference method as described in 40 CFR 60, Appendix A, adopted by reference in Chapter 62-204, F.A.C.: Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources.
[Permit No. 0570039-012-AC]

O.6. TEC shall keep records of the following parameters for each specific month/day/year:
A) Amount of raw coal residual charged (tpd)
B) Amount of refined/beneficiated coal residual charged (tpd)
[Permit No. 0570039-012-AC]

O.7. TEC shall also keep records of:
A) Annual amount of raw coal residual charged (tpy)
B) Annual amount of refined/beneficiated coal residual charged (tpy)

C) Annual VE tests.
[Permit No. 0570039-012-AC]

Section IV. This section is the Phase II Acid Rain Part.
Operated by: Tampa Electric Company
ORIS code: 0645

The emissions units listed below are regulated under Acid Rain:

E.U. ID No.	**Brief Description**
-001	Unit No. 1 Steam Generator [EPA ID #: BB01]
-002	Unit No. 2 Steam Generator [EPA ID #: BB02]
-003	Unit No. 3 Steam Generator [EPA ID #: BB03]
-004	Unit No. 4 Steam Generator [EPA ID #: BB04]

1. The Phase II permit application, the Phase II NOx compliance plan, and the Phase II NOx averaging plan submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

DEP Form No. 62-210.900(1)(a), version 07/01/95, received 12/26/95 (signed 12/19/95).
DEP Form No. 62-210.900(1)(a)4., F.A.C., received 12/22/99 (signed 12/20/99).
DEP Form No. 62-210.900(1)(a)5., F.A.C., received 12/22/99 (signed 12/20/99).

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

2. Sulfur dioxide (SO_2) allowance allocations and nitrogen oxide (NO_x) requirements for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID		Year				
			2000	2001	2002	2003	2004
-001	BB01	SO_2 allowances, under Table 2 of 40 CFR 73	12132*	12132*	12132*	12132*	12132*
		NO_x limit**	Note: The applicable emission limitation, under 40 CFR 76.6(a)(3), is **0.84** lb/mmBtu. **2.a.** Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves the NO_x emissions averaging plan submitted on 12/22/99 for this unit. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.74** lb/MMBtu. In addition, this unit shall not have an annual heat input less than **23,000,000** MMBtu.				

<table>
<tr><th rowspan="2">E.U. ID No.</th><th rowspan="2">EPA ID</th><th rowspan="2"></th><th colspan="5">Year</th></tr>
<tr><th>2000</th><th>2001</th><th>2002</th><th>2003</th><th>2004</th></tr>
<tr><td rowspan="2">-002</td><td rowspan="2">BB02</td><td>SO_2 allowances, under Table 2 of 40 CFR 73</td><td>12196*</td><td>12196*</td><td>12196*</td><td>12196*</td><td>12196*</td></tr>
<tr><td>NO_x limit**</td><td colspan="5">Note: The applicable emission limitation, under 40 CFR 76.6(a)(3), is 0.84 lb/mmBtu.

2.b. Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves the NO_x emissions averaging plan submitted on 12/22/99 for this unit. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.74 lb/MMBtu. In addition, this unit shall not have an annual heat input less than 24,000,000 MMBtu.</td></tr>
<tr><td rowspan="2">-003</td><td rowspan="2">BB03</td><td>SO_2 allowances, under Table 2 of 40 CFR 73</td><td>11444*</td><td>11444*</td><td>11444*</td><td>11444*</td><td>11444*</td></tr>
<tr><td>NO_x limit**</td><td colspan="5">Note: The applicable emission limitation, under 40 CFR 76.6(a)(3), is 0.84 lb/mmBtu.

2.c. Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves the NO_x emissions averaging plan submitted on 12/22/99 for this unit. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of 0.53 lb/MMBtu. In addition, this unit shall not have an annual heat input less than 10,000,000 MMBtu.</td></tr>
</table>

E.U. ID No.	EPA ID		Year				
			2000	2001	2002	2003	2004
-004	BB04	SO_2 allowances, under Table 2 of 40 CFR 73	8780*	8780*	8780*	8780*	8780*
		NO_x limit**	Note: The applicable emission limitation, under 40 CFR 76.5(a)(1), is **0.45** lb/mmBtu. **2.d.** Pursuant to 40 CFR 76.11, the Florida Department of Environmental Protection approves the NO_x emissions averaging plan submitted on 12/22/99 for this unit. Under the plan, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emission limitation of **0.44** lb/MMBtu. In addition, this unit shall not have an annual heat input less than **20,000,000** MMBtu.				

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73. "Allowance" means an authorization by the USEPA Administrator under the federal Acid Rain Program to emit up to one ton of sulfur dioxide during a specified calendar year.
** Based on the Phase II NO_x applications.

2.e. Additional Requirements
i. Under the plan (NO_x Phase II averaging plan), the actual Btu-weighted annual average NO_x emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same units had they each been operated, during the same period of time, in accordance with the applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emission limitation and annual heat input limit.

ii. In addition to the described NO_x compliance plan, these units shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

b. No limit shall be places on the number of allowances held by the source under the Federal Acid Rain Program.

c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

5. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400, F.A.C.
[40 CFR 70.6(a)(4)(i); and, Rule 62-213.440(1)(c)1., F.A.C.]

6. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.
[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

7. Comments, notes, and justifications:
The designated representative was changed to Gregory M. Nelson, P.E., effective July 1, 1998.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 1 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
40 CFR Part 60—Standards of Performance for New Stationary Sources. ***Subpart A - General Provisions***				
Notification and Recordkeeping	60.7(a)		EU-004	Notification requirements**(historical)**
Notification and Recordkeeping	60.7(b) - (h)		EU-004	General recordkeeping and reporting requirements.
Performance Tests	60.8		EU-004	Conduct initial performance tests **(historical)** and as required by EPA.
Compliance with Standards	60.11		EU-004	General compliance requirements. Addresses requirements for visible emissions tests. **(60.11(e) is historical)**
Circumvention	60.12		EU-004	Cannot conceal an emission which would otherwise constitute a violation of an applicable standard.
Monitoring Requirements	60.13(a) - (f), (h) - (j)		EU-004	Requirements pertaining to continuous monitoring systems.
General notification and reporting requirements	60.19		EU-004	General procedures regarding reporting deadlines.
Subpart Da —Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978.				
Standard for Particulate Matter	60.42a(a)(1)		EU-004	Particulate matter emissions shall not exceed 0.03 lb/MMBtu heat input (all fuels).
Standard for Particulate Matter	60.42a(a)(2)		EU-004	Particulate matter emissions 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel.
Standard for Particulate Matter	60.42a(a)(3)		EU-004	Particulate matter emissions shall not 30 percent of the potential combustion concentration (70 percent reduction) when combusting liquid fuel.
Standard for Particulate Matter	60.42a(b)		EU-004	Opacity shall exceed 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
Standard for Sulfur Dioxide	60.43a(a)(1)		EU-004	Sulfur dioxide emissions shall not exceed 1.20 lb/MMBtu heat input and 10 percent of the potential combustion concentration (90 percent reduction) for solid fuels.
Standard for Sulfur Dioxide	60.43a(b)(1)		EU-004	Sulfur dioxide emissions shall not exceed 0.80 lb/MMBtu heat input and 10 percent of the potential combustion concentration (90 percent reduction) for liquid fuels.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 2 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Standard for Sulfur Dioxide	60.43a(g)		EU-004	Compliance with sulfur dioxide emission limitation and percent reduction are determined on a 30-day rolling average basis.
Standard for Sulfur Dioxide	60.43a(h)		EU-004	Sulfur dioxide emission limits are prorated if different fuels are combusted simultaneously.
Standard for Nitrogen Oxides	60.44a(a)(1)		EU-004	Nitrogen oxide emissions shall not exceed 0.60 lb/MMBtu for bituminous coal and 0.30 for liquid fuels.
Standard for Nitrogen Oxides	60.44a(a)(2)		EU-004	Nitrogen oxide emissions shall not exceed 65 percent of the potential combustion concentration (35 percent reduction) for solid fuels and 30 percent of the potential combustion concentration (70 percent reduction) for liquid fuels.
Standard for Nitrogen Oxides	60.44a(c)		EU-004	Nitrogen oxide emission limits are prorated if different fuels are combusted simultaneously.
Compliance Provisions	60.46a(a)		EU-004	Compliance with the 0.03 lb/MMBtu particulate matter standard constitutes compliance with the percent reduction requirements.
Compliance Provisions	60.46a(b)		EU-004	Compliance with the lb/MMBtu nitrogen oxide standards constitutes compliance with the percent reduction requirements.
Compliance Provisions	60.46a(c)		EU-004	The particulate matter and nitrogen oxide emission standards apply at all times except during periods of startup, shutdown, and malfunction. The sulfur dioxide emission standards apply at all times during periods of startup, shutdown, or when both emergency conditions exist and the procedures of 60.46(d) are implemented.
Compliance Provisions	60.46a(d)		EU-004	Requirements for operating conditions under which a malfunctioning FGD system may be operated.
Compliance Provisions	60.46a(e)		EU-004	After initial performance test, compliance with the sulfur dioxide emission and percentage reduction requirements and nitrogen oxides emission limitations is based on the average emission rate for 30 successive boiler days.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 3 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Compliance Provisions	60.46a(f)		EU-004	Requirements for initial performance test procedures. **(historical)**
Compliance Provisions	60.46a(g)		EU-004	Compliance is determined by calculating the arithmetic average of all hourly emission rates for SO_2 and NO_x for the 30 successive boiler operating days, except for data obtained during startup, shutdown, malfunction (NO_x only), or emergency conditions (SO_2 only). Compliance with the percentage reduction requirement for SO_2 is determined based on the average inlet and average outlet SO_2 emission rates for the 30 successive boiler operating days.
Compliance Provisions	60.46a(h)		EU-004	Requirements pertaining to compliance procedures if minimum quantity of emissions monitoring data required by 60.47a is not obtained.
Emission Monitoring	60.47a		EU-004	Requirements for continuous opacity, sulfur dioxide, nitrogen oxides, oxygen or carbon dioxide monitoring systems.
Compliance determination procedures and methods	60.48a(a) - (e)		EU-004	Requirements for compliance determinations procedures.
Reporting Requirements	60.49a(a)		EU-004	Requires submittal of initial performance test data and continuous monitor performance evaluations to EPA. **(historical)**
Reporting Requirements	60.49a(b) - (I)		EU-004	Reporting requirements.
Subpart Y —Standards of Performance for Coal Preparation Plants				
Standards for Particulate Matter	60.252(c)		EU-010 EU-029 EU-030 EU-031	Opacity shall be less than 20 percent. Applies to: All coal processing and conveying equipment and coal storage systems (excluding open storage piles) at coal preparation plants, which process more than 200 tons/day.
Test Methods and Procedures	60.254(b)(2)		Same as above	Method 9 and the procedures in 60.11 shall be used to determine opacity.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 4 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
40 CFR Part 60 Subpart Ka —Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.		X		Standard applies to storage of petroleum liquids greater than 40,000 gallons. Subpart Ka 60.11a(b) definition of petroleum liquids specifically excludes Nos. 2 through 6 fuel oils. Storage tanks STR-001 and STR-002 store No. 2 fuel oil and therefore are not subject to Subpart Ka. There are no other storage tanks located at the Big Bend Station which store petroleum liquids and have a capacity greater than 40,000 gallons.
40 CFR Part 60 Subpart Kb —Standards of Performance for Volatile Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984.		X		Storage tanks STR-001 and STR-002 were constructed prior to 7/23/84 and therefore are not subject to Subpart Kb. There are no other storage tanks located at the Big Bend Station storing volatile organic liquids which were constructed after 7/23/84 and which have a capacity equal to or greater than 40 m^3 (10,567 gallons).
40 CFR Part 60 Subpart OOO —Standards of Performance for Nonmetallic Mineral Processing Plants			EU-020 EU-021	Big Bend Station Units #1 and #2 Limestone Handling System is subject to Subpart OOO. Big Bend Station Unit #4 limestone and gypsum handling facilities commenced construction prior to 8/31/83 and therefore are not subject to Subpart OOO.
40 CFR Part 60 —Standards of Performance for New Stationary Sources: Subparts B, C, Cb, D, Db, Dc, E, Ea, Eb, F, G, H, I, J, K, L, M, N, Na, O, P, Q, R, S, T, U, V, W, X, Z, AA, AAa, BB, CC, DD, EE, GG, HH, KK, LL, MM, NN, PP, QQ, RR, SS, TT, UU, VV, WW, XX, AAA, BBB, DDD, FFF, GGG, HHH, III, JJJ, KKK, LLL, NNN, PPP, QQQ, RRR, SSS, TTT, UUU, and VVV		X		None of the listed NSPS' contain requirements which are applicable to the Big Bend Station.
40 CFR Part 61 —National Emission Standards for Hazardous Air Pollutants				
Subpart A —General Provisions				

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 5 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Prohibited Activities	61.05		Facility-wide	Prohibits construction or modification with-out first obtaining written approval, operating a new source in violation of any standard after the effective date of the standard, operating an existing source in violation of a standard ninety days after the effective date of the standard, and failure to submit required source test results.
Source Reporting	61.10		Facility-wide	Requires submittal of source information.
Compliance with Standards and Maintenance Requirements	61.12		Facility-wide	Establishes emission test procedures, requires proper operation and maintenance of the source including control equipment.
Monitoring Requirements	61.14		Facility-wide	General monitoring requirements.
Circumvention	61.19		Facility-wide	Emissions which would constitute a violation of a standard cannot be concealed.
Subpart M —National Emission Standards for Asbestos				
Demolition and Renovation	61.145		Facility-wide	Standards for demolition and renovation.
Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying Operations	61.150		Facility-wide	Standards for waste disposal.
Reporting	61.153		Facility-wide	Specific reporting requirements.
Active Waste Disposal Sites	61.154		Facility-wide	Standards for waste disposal sites.
40 CFR Part 61 —National Emission Standards for Hazardous Air Pollutants: Subparts A, B, C, D, E, F, H, I, J, K, L, N, O, P, Q, R, T, V, W, Y, BB, and FF		X		None of the listed NESHAPS' contain requirements which are applicable to the Big Bend Station.
40 CFR Part 63 —National Emission Standards for Hazardous Air Pollutants for Source Categories: Subparts A, B, C, D, E, F, G, H, I, L, M, N, O, Q, R, T, W, X, Y, CC, EE, GG, II, and JJ		X		None of the listed NESHAPS' contain requirements which are applicable to the Big Bend Station. In particular, Subpart Q is not an applicable requirement since cooling towers are not utilized.
40 CFR Part 72 —Acid Rain Program Permits				
Subpart A —Acid Rain Program General Provisions				

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 6 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Standard Requirements	72.9		EU-001 EU-002 EU-003 EU-004	General Acid Rain Program requirements. SO_2 allowance program requirements start January 1, 1995.
Subpart B —Designated Representative				
Designated Representative	72.20 - 72.25		Same as above	General requirements pertaining to the Designated Representative.
Subpart C —Acid Rain Application				
Requirements to Apply	72.30(a)		Same as above	Requirement to submit a complete Acid Rain permit application by the applicable deadline.
Requirements to Apply	72.30(b)(1)(I)		Same as above	Deadline to submit a complete Acid Rain permit application was February 15, 1993. **(historical)**
Requirements to Apply	72.30(c)		Same as above	Requirement to submit a complete Acid Rain permit application for each source with an affected unit at least 6 months prior to the expiration of an existing Acid Rain permit governing the unit during Phase II or such longer time as may be approved under part 70 of this chapter that ensures that the term of the existing permit will not expire before the effective date of the permit for which the application is submitted.
Requirements to Apply	72.30(d)		Same as above	Requirement to submit an original and three copies of all permit applications, to EPA. **(historical)**
Information Requirements for Acid Rain Permit Applications	72.31		Same as above	General permit application requirements.
Subpart D —Acid Rain Compliance Plan and Compliance Options				
General	72.40		Same as above	General compliance plan requirements.
Subpart I —Compliance Certification				
Annual Compliance Certification Report	72.90		Same as above	Requirement to submit an annual compliance report.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 7 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
40 CFR Part 75 —Continuous Emission Monitoring				
Subpart A —General				
Compliance Dates	75.4(a)(1)		Same as above	Requirement to complete all certification tests for CEMS and COMS by 11/51/93. **(historical)**
Prohibitions	75.5		Same as above	General monitoring prohibitions.
Subpart B —Monitoring Provisions				
General Operating Requirements	75.10		Same as above	General monitoring requirements.
Specific Provisions for Monitoring SO_2 Emissions	75.11(a)		Same as above	SO_2 continuous monitoring requirements for coal-fired units.
Specific Provisions for Monitoring NO_x Emissions	75.12(a),(b)		Same as above	NO_x continuous monitoring requirements for coal-fired units.
Specific Provisions for Monitoring CO_2 Emissions	75.13(a)		Same as above	CO_2 continuous monitoring requirements.
Specific Provisions for Monitoring Opacity	75.14(a)		Same as above	Opacity continuous monitoring requirements for coal-fired units.
Subpart C —Operation and Maintenance Requirements				
Certification and Recertification Procedures	75.20(a)		Same as above	Requires that monitoring systems meet initial certification requirements by the deadlines stipulated by 75.4. **(historical)**
Certification and Recertification Procedures	75.20(a)(1)		Same as above	Requires notification of certification test or retest dates at least 45 days prior to certification testing.
Certification and Recertification Procedures	75.20(a)(2)		Same as above	Requires submittal of certification application in accordance with 75.60.
Certification and Recertification Procedures	75.20(a)(5)		Same as above	Procedures to be used in the event of agency issues a disapproval of certification application or certification status.
Certification and Recertification Procedures	75.20(c)(1) - (7), (9)		Same as above	Certification procedure requirements.
Quality Assurance and Quality Control Requirements	75.21		Same as above	General QA/QC requirements.
Reference Test Methods	75.22		Same as above	Specifies required test methods to be used for certification or recertification testing.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 8 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Out-Of-Control Periods	75.24		Same as above	Specifies out-of-control periods and required actions to be taken when out-of-control periods occur.
Subpart D —Missing Data Substitution Procedures				
General Provisions	75.30		Same as above	General missing data requirements.
Subpart D —Missing Data Substitution Procedures				
Initial Missing Data Procedures	75.31		Same as above	Missing data procedure requirements during the first 720 and 2,160 quality-assured monitor operating hours for SO_2 pollutant concentration monitor and flow monitor/NO_x CEMS, respectively. **(historical)**
Determination of Monitor Data Availability for Standard Missing Data Procedures	75.32		Same as above	Monitor data availability procedure requirements after the first 720 and 2,160 quality-assured monitor operating hours for SO_2 pollutant concentration monitor and flow monitor/NO_x CEMS, respectively.
Standard Missing Data Procedures	75.33		Same as above	Missing data substitution procedure requirements after the first 720 and 2,160 quality-assured monitor operating hours for SO_2 pollutant concentration monitor and flow monitor/NO_x CEMS, respectively.
Initial Missing Data Procedures	75.34(a),(b),(d)		EU-004	Optional missing data substitution requirements for units with add-on emission controls.
Subpart E —Alternative Monitoring Systems				
Alternative Monitoring Systems	75.40 - 75.48		EU-001 EU-002 EU-003 EU-004	Optional requirements for alternative monitoring systems.
Subpart F —Recordkeeping Requirements				
General Recordkeeping Provisions	75.50		Same as above	General recordkeeping requirements.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 9 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
General Recordkeeping Provisions for Specific Situations	75.51(b)		Same as above	Recordkeeping requirements for units with add-on controls that choose to use parametric monitoring procedures for missing data substitution pursuant to 75.34
Certification, Quality Assurance, and Quality Control Record Provisions	75.52		Same as above	General QA/QC recordkeeping requirements.
Monitoring Plan	75.53(a) - (c)		Same as above	Requirement to prepare and maintain a Monitoring Plan.
Subpart G —Reporting Requirements				
General Provisions	75.60		Same as above	General reporting requirements.
Notification of Certification and Recertification Test Dates	75.61		Same as above	Requires written submittal of certification tests, recertification tests, and revised test dates for CEMS. Notice of certification testing shall be submitted at least 45 days prior to the first day of certification or recertification testing. Notification of any proposed adjustment to certification testing dates must be provided at least 7 business days prior to the proposed date change.
Monitoring Plan	75.62		Same as above	Monitoring Plan required to be submitted no later than 45 days prior to the certification test. **(historical)**
Subpart G —Reporting Requirements				
Certification or Recertification Application	75.63		Same as above	Requires submittal of a certification application within 30 days after completing the certification test.
Quarterly Reports	75.64(a)(1) - (5)		Same as above	Requirement to submit quarterly data report.
Quarterly Reports	75.64(b), (c), (d)		Same as above	Requirement to submit compliance certification in support of each quarterly data report. Requirement to submit quarterly reports in an electronic format to be specified by EPA.
Opacity Reports	75.65		Same as above	Requirement to reports of excess opacity emissions to the applicable State (FDEP) agency in the format specified by the State agency.
40 CFR Part 76 —Acid Rain Nitrogen Oxides Emission Reduction Program				

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 10 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
NO_x Emission Limitations for Group 1, Phase I Boilers	76.5(g)		EU-004	Beginning January 1, 1995, NO_x emissions shall not exceed 0.45 lb/MMBtu on an annual average basis for tangentially fired boilers.
NO_x Emission Limitations for Group 2, Phase I Boilers	76.6		EU-001 EU-002 EU-003	
40 CFR Part 76 —Acid Rain Nitrogen Oxides Emission Reduction Program				
Permit Application and Compliance Plans	76.9(a), (b)		EU-001 EU-002 EU-003 EU-004	Requirement to submit a complete Acid Rain permit application and compliance plan (original and three copies) to the permitting authority no later than May 6, 1994 (CS-004) and January 1, 1998 (CS-001, CS-002, CS-003). Early election units shall also submit an application by January 1, 1997.
Permit Application and Compliance Plans	76.9(c)		Same as above	Required contents of NO_x compliance plans.
Permit Application and Compliance Plans	76.9(d)		Same as above	Requirement to submit a complete Acid Rain permit application for each source with an affected unit at least 6 months prior to the expiration of an existing Acid Rain permit governing the unit during Phase II or such longer time as may be approved under part 70 of this chapter that ensures that the term of the existing permit will not expire before the effective date of the permit for which the application is submitted.
Alternative Emission Limitations	76.10		Same as above	Alternative requirements for units that cannot meet 76.5 NO_x emission standards using low NO_x burner technology (including separated overfire air).
Emissions Averaging	76.11		Same as above	Optional requirements for sources which elect to implement a NO_x averaging plan.
40 CFR Part 76 —Acid Rain Nitrogen Oxides Emission Reduction Program				
Compliance and Excess Emissions	76.13		Same as above	Required procedures for determining excess emissions.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 11 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Monitoring, Recordkeeping, and Reporting	76.14(a), (b)		Same as above	Petition content requirements for alternative emission limitation demonstration period and alternative emission limitation.
Test Methods and Procedures	76.15(a)		Same as above	Required test procedures for alternative emission limitation report specified in 76.10(e)(7).
Test Methods and Procedures	76.15		Same as above	Required test procedures for alternative emission limitation report specified in 76.10(e)(7).
40 CFR Part 77 —Excess Emissions				
Offset Plans for Excess Emissions of Sulfur Dioxide	77.3		Same as above	Requirement to submit offset plans for excess SO_2 emissions not later than 60 days after the end of any calendar year during which an affected unit has excess SO_2 emissions. Required contents of offset plans are specified.
Deduction of Allowances to Offset Excess Emissions of Sulfur Dioxide	77.5(b)		Same as above	Requirement for the Designated Representative to hold enough allowances in the appropriate compliance subaccount to cover deductions to be made by EPA if a timely and complete offset plan is not submitted or if EPA disapproves a proposed offset plan.
40 CFR Part 77 —Excess Emissions				
Penalties for Excess Emissions of Sulfur Dioxide and Nitrogen Oxides	77.6		Same as above	Requirement to pay a penalty if excess emissions of SO_2 or NO_x occur at any affected unit during any year.
40 CFR Part 78 —Appeal Procedures for Acid Rain Program				
Appeal Procedures	78.1 - 78.20		Same as above	Optional appeal procedures for EPA Acid Rain program decisions.
40 CFR Part 82 —Protection of Stratospheric Ozone				
Subpart B —Production and Consumption Controls				

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 12 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Prohibitions	82.34	X	Vehicle Maintenance Shop	The facility must use equipment properly approved when performing maintenance on motor vehicles which involves refrigerant in the motor vehicle air conditioner. All such servicing must be conducted by persons trained and certified in accordance with 40 CFR 82.40.
Approved Refrigerant Recycling Equipment	82.36		Same as above	The facility must use certified refrigerant recycling equipment.
Certification, recordkeeping, and public notification requirements	82.42(a) and (b)		Same as above	Specific certification and recordkeeping requirements must be followed.
Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Subpart C	X		Big Bend Station does not sell or distribute any banned nonessential substances.
40 CFR Part 82 —Protection of Stratospheric Ozone				
The Labeling of Products Using Ozone-Depleting Substances	Subpart E	X		Big Bend Station does not produce any products containing ozone-depleting substances.
Subpart F —Recycling and Emissions Reduction				
Prohibitions	82.154		Appliances as defined by 82.152 - any device which contains and uses a Class I or II substance as a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller, or freezer	Class I and II substances cannot be released from appliances due to maintenance, service, repair, or disposal.
Required Practices	82.156		Same as above	Class I and II substances must be recovered or recycled prior to opening an appliance for maintenance, service, repair, or disposal. Leaking appliances normally containing more than 50 pounds of refrigerant must be repaired, retrofitted, or retired if the leakage rate exceeds specific criteria.

Table A-1. Summary of Federal EPA Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 13 of 14)

Regulation	Citation	Not Applicable	Applicable Emission Units	Applicable Requirement or Non-Applicability Rationale
Subpart F —Recycling and Emissions Reduction				
Technician Certification	82.161		Same as above	Technicians who maintain, service, repair, or dispose of any appliances must be certified.
Certification By Owners of Recovery and Recycling Equipment	82.162		Same as above	Certified equipment must be used to maintain, service, repair, or dispose of any appliances.
Reporting and Recordkeeping Requirements	82.166(b), (I), (j), (k), (l), and (m)		Appliances as defined by 82.152	To purchase refrigerant, evidence must be presented that the employer has at least one certified technician. Disposers must maintain small appliance verification records. Persons servicing appliances containing 50 or more pounds of refrigerant must provide documentation indicating the amount of refrigerant added to the appliance. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep servicing records documenting the data and type of service, as well as the quantity of refrigerant added. All records must be retained for at least3 years.
40 CFR Part 50 —National Primary and Secondary Ambient Air Quality Standards		X		State agency requirements - not applicable to individual emission sources.
40 CFR Part 51 —Requirements for Preparation, Adoption, and Submittal of Implementation Plans		X		State agency requirements - not applicable to individual emission sources.
40 CFR Part 52 —Approval and Promulgation of Implementation Plans		X		State agency requirements - not applicable to individual emission sources.
40 CFR Part 62 —Approval and Promulgation of State Plans for Designated Facilities and Pollutants		X		State agency requirements - not applicable to individual emission sources.
40 CFR Part 70 —State Operating Permit Programs		X		State agency requirements - not applicable to individual emission sources.
40 CFR Parts 53, 54, 55, 56, 57, 58, 62, 66, 67, 68, 69, 71, 74, 79, 80, 81, 85, 86, 87, 88, 89, and 90		X		The listed regulations do not contain any requirements which are applicable to the Big Bend Station.

Source: ECT, 2004.

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 1 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Chapter 62-4, F.A.C. —Permits: Part I General					
Scope of Part I	62-4.011, F.A.C.	X			Contains no applicable requirements.
Definitions	62-4.020, .021, F.A.C.	X			Contains no applicable requirements.
General Prohibition	62-4.030, F.A.C.*		X		All stationary air pollution sources must be permitted, unless otherwise exempted.
Exemptions	62-4.040, F.A.C		X		Certain structural changes exempt from permitting. Other stationary sources exempt from permitting upon FDEP insignificance determination.
Procedure to Obtain Permits; Application	62-4.050(1), (2), (3), and (4).2.a, F.A.C.		X		All permit applications must be submitted on FDEP forms, in quadruplicate, and signed by a Professional Engineer. No application fee is required.
Permit Processing	62-4.055, F.A.C.	X			Contains no applicable requirements.
Consultation	62-4.060, F.A.C.	X			Consultation is encouraged, not required.
Standards for Issuing or Denying Permits; Issuance; Denial	62-4.070, F.A.C	X			Establishes standard procedures for FDEP. Requirement is not applicable to the facility.
Modification of Permit Conditions	62-4.080, F.A.C	X			Application is for renewal of Title V operating permit. A Title V permit condition modification is not requested.
Renewals	62-4.090, F.A.C.		X		Establishes permit renewal criteria. Additional criteria are cited at 62-213.430(3), F.A.C.
Suspension and Revocation	62-4.100, F.A.C.*		X		Establishes permit suspension and revocation criteria.
Financial Responsibility	62-4.110, F.A.C.		X		Proof of financial responsibility may be required.
Transfer of Permits	62-4.120, F.A.C.	X			Application is for renewal of Title V operating permit. A sale or legal transfer of a permitted facility is not included in this application.
Plant Operation - Problems	62-4.130, F.A.C.*		X		Immediate notification is required whenever the permittee is temporarily unable to comply with any permit condition. Notification content is specified.
Permit Conditions	62-4.160, F.A.C.		X		Specifies general conditions that must be included in all permits.
Construction Permits	62-4.210, F.A.C.	X			General requirements for construction permits

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 2 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Operation Permits for New Sources	62-4.220, F.A.C.	X			General requirements for initial new source operation permits.
Chapter 62-103, F.A.C. —Rules of Administrative Procedure - Final Agency Action (Non-Rulemaking) and Appeal					
Public Notice of Application and Proposed Agency Action	62-103.150, F.A.C.		X		Applicant may be required to publish Notice of Application
Chapter 62-150, F.A.C.—Hazardous Substance Release Notification					
Notification Requirements	62-150.300, F.A.C.		X		Emissions of a hazardous substance (as defined in 40 CFR 302.4) above the reportable quantity (as set forth in Table 302.4 at 40 CFR 302.4) in any 24-hour period must be reported to the FDEP within one working day of discovery of the release.
Chapter 62-204, F.A.C.—State Implementation Plan					
State Implementation Plan	62-204.100, .200, .220(1)-(3), .240, .260, .320, .340, .360, .400, and .500, F.A.C.	X			Contains no applicable requirements.
State Implementation Plan	62-204.800(7)(a), (b)2., and (b)29., F.A.C.*			EU-004; 010 EU-015 EU-016 EU-017 EU-029 EU-030 EU-020 EU-021	NSPS Subparts Da, and OOO; see Table A-1 for detailed federal regulatory citations.
State Implementation Plan	62-204.800(8)(a), (b)8., F.A.C.*		X		NESHAPS Subparts M; see Table A-1 for detailed federal regulatory citations.
State Implementation Plan	62-204.800(12), (13), (14), (15), (16), and (17), F.A.C.*			CS-001 CS-002 CS-003 CS-004	Acid Rain Program; see Table A-1 for detailed federal regulatory citations.
State Implementation Plan	62-204.800(19), F.A.C.*		X		Protection of Stratospheric Ozone; see Table A-1 for detailed federal regulatory citations.

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 3 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Ambient Air Quality Protection	62-204.220(4), F.A.C.	X			Assessments of ambient air pollutant impacts must be made using applicable air quality models, data bases, and other requirements approved by FDEP and specified in 40 CFR Part 51, Appendix W. Air quality modeling is not required for Title V permit applications.
Chapter 62-210, F.A.C.— Stationary Sources - General Requirements					
Purpose and Scope	62-210.100, F.A.C.	X			Contains no applicable requirements.
Definitions	62-210.200, F.A.C.	X			Contains no applicable requirements.
Permits Required	62-210.300, F.A.C., except 62-210.300(1), F.A.C.		X		Air operation permit required, with the exception of certain facilities and sources. Startup notification required if a permitted source has been shut down for more than 1 year.
Air Construction Permits	62-210.300(1), F.A.C.	X			Application is for renewal of Title V operating permit. A construction permit is not requested in this application.
Public Notice and Comment					
Public Notice of Proposed Agency Action	62-210.350(1), F.A.C.		X		All permit applicants required to publish notice of proposed agency action.
Additional Notice Requirements for Sources Subject to Prevention of Significant Deterioration or Nonattainment Area New Source Review	62-210.350(2), F.A.C.	X			PSD and nonattainment area NSR application not included in this application package.
Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources	62-210.350(3), F.A.C.		X		Notice requirements for Title V operating permit applicants.
Public Notice and Hearing Requirements for State Implementation Plan Revisions	62-210.350(4), F.A.C.	X			Defines requirements applicable to FDEP, only.
Administrative Permit Corrections	62-210.360, F.A.C.	X			Application is for renewal of Title V operating permit. An administrative permit correction is not requested in this application.
Reports					
Notification of Intent to Relocate Air Pollutant Emitting Facility	62-210.370(1), F.A.C.	X			Facility does not have any relocatable emission units.
Annual Operating Report for Air Pollutant Emitting Facility	62-210.370(2), F.A.C.		X		Specifies annual reporting requirements

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 4 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Stack Height Policy	62-210.550, F.A.C.	X All except those listed as applicable.		EU-004 FH-001 FH-004 FH-006	Nonapplicable stacks were constructed prior to December 31, 1970, and have not been subject to an applicable modification since that date; applicable stacks have been constructed or modified since December 31, 1970.
Circumvention	62-210.650, F.A.C.		X		An applicable air pollution control device cannot be circumvented and must be operated whenever the emission unit is operating.
Excess Emissions	62-210.700, F.A.C.		X		Excess emissions due to startup, shut down, and malfunction are limited. Excess emissions due to malfunction must be reported. Excess emissions due to certain other causes are prohibited.
Forms and Instructions	62-210.900, F.A.C.	X			Contains no applicable requirements.
Notification Forms for Air General Permits	62-210.920, F.A.C.	X			Contains no applicable requirements.
Chapter 62-212, F.A.C.—Stationary Sources - Preconstruction Review					
Purpose and Scope	62-212.100, F.A.C.	X			Contains no applicable requirements.
General Preconstruction Review Requirements	62-212.300, F.A.C.	X			Air construction permit requirements, not applicable to Title V operating permit applications.
Prevention of Significant Deterioration	62-212.400, F.A.C.	X			PSD permit required prior to construction of facility, not applicable to Title V operating permit applications.
New Source Review for Nonattainment Areas	62-212.500, F.A.C.	X			Facility not located in any nonattainment area or nonattainment area of influence.
Sulfur Storage and Handling Facilities	62-212.600, F.A.C.	X			Applicable only to sulfur storage and handling facilities.
Chapter 62-213, F.A.C.—Operation Permits for Major Sources of Air Pollution					
Purpose and Scope	62-213.100, F.A.C.	X			Contains no applicable requirements.
Annual Licensing Fee	62-213.205(1) and (4), F.A.C.		X		Operating license fee and documentation requirements.
Annual Licensing Fee	62-213.205(2), (3), and (5), F.A.C.	X			Contains no applicable requirements.
Title V Air General Permits	62-213.300, F.A.C.	X			No eligible facilities
Permits and Permit Revisions Required	62-213.400, F.A.C.		X		Title V operation permit required.

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 5 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Changes Without Permit Revision	62-213.410, F.A.C.		X		Certain changes may be made if specific notice and recordkeeping requirements are met.
Immediate Implementation Pending Revision Process	62-213.412, F.A.C.		X		Certain modifications can be implemented pending permit revision if specific criteria are met.
Fast-Track Revisions of Acid Rain Parts	62-213.413, F.A.C.			EU-001, EU-002, EU-003, EU-004	Optional provisions for Acid Rain permit revisions.
Trading of Emissions within a Source	62-213.415, F.A.C.	X			Applies only to facilities with a federally enforceable emissions cap.
Permit Applications	62-213.420, F.A.C.		X		Title V operating permit application required.
Permit Issuance, Renewal, and Revision					
Action on Application	62-213.430(1), F.A.C.	X			Contains no applicable requirements.
Permit Denial	62-213.430(2), F.A.C.	X			Contains no applicable requirements.
Permit Renewal and Expiration	62-213.430(3), F.A.C.		X		Defines permit renewal application contents.
Permit Revision	62-213.430(4), F.A.C.		X		Defines permit revision application contents.
EPA Recommended Actions	62-213.430(5), F.A.C.	X			Contains no applicable requirements.
Permit Content	62-213.440, F.A.C.		X		Defines permit content.
Permit Review by EPA and Affected States	62-213.450, F.A.C.	X			Contains no applicable requirements.
Permit Shield	62-213.460, F.A.C.		X		Provides permit shield for facilities in compliance with permit terms and conditions.
Forms and Instructions	62-213.900, F.A.C.	X			Contains no applicable requirements.
Chapter 62-214—Requirements for Sources Subject to the Federal Acid Rain Program					
Purpose and Scope	62-214.100, F.A.C.	X			Contains no applicable requirements.
Applicability	62-214.300, F.A.C.		X		Facility includes Acid Rain units, therefore facility compliance with Chapters 62-213 and 62-214, F.A.C., is required.
Applications	62-214.320, F.A.C.			EU-001 through EU-004	An Acid Rain Part application for each Acid Rain unit must be included in the Title V operating permit application.
Acid Rain Compliance Plan and Compliance Options	62-214.330, F.A.C.			EU-001 through EU-004	A complete Acid Rain compliance plan for each Acid Rain unit must be included in the Acid Rain Part application.

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 6 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Exemptions	62-214.340, F.A.C.			EU-001 through EU-004	An application may submitted for certain exemptions.
Certification	62-214.350, F.A.C.			EU-001 through EU-004	The designated representative must certify all Acid Rain submissions.
Department Action on Applications	62-214.360, F.A.C.	X			Contains no applicable requirements.
Revisions and Administrative Corrections	62-214.370, F.A.C.			EU-001 through EU-004	Defines revision procedures and automatic amendments.
Acid Rain Part Content	62-214.420, F.A.C.			EU-001 through EU-004	Defines the contents of any draft, proposed, or final Acid Rain Part.
Implementation and Termination of Compliance Options	62-214.430, F.A.C.			EU-001 through EU-004	Defines permit activation and termination procedures.
Chapter 62-252—Gasoline Vapor Control					
Gasoline vapor control	62-252, F.A.C.	X			Facility has a gasoline throughput of less than 20,000 gal/month.
Chapter 62-256—Open Burning and Frost Protection Fires					
Declaration and Intent	62-256.100, F.A.C.	X			Contains no applicable requirements.
Definitions	62-256.200, F.A.C.	X			Contains no applicable requirements.
Prohibitions	62-256.300, F.A.C.*		X		Defines prohibited open burning.
Burning for Cold and Frost Protection	62-256.450, F.A.C.	X			Limited to agricultural protection.
Land Clearing	62-256.500, F.A.C.*		X		Defines allowed open burning for non-rural land clearing and structure demolition.
Industrial, Commercial, Municipal, and Research Open Burning	62-256.600, F.A.C.		X		Industrial open burning is not conducted.
Open Burning allowed	62-256.700, F.A.C.	X			Contains no applicable requirements.
Effective Date	62-256.800, F.A.C.	X			Contains no applicable requirements.
Chapter 62-257—Asbestos Fee					
Asbestos fee	62-257, F.A.C.*		X		Requires notice and payment of fee for asbestos removal projects.
Chapter 62-281—Motor Vehicle Air Conditioning Refrigerant Recovery and Recycling					
Motor vehicle air conditioning refrigerant recovery and recycling	62-281, F.A.C.	X			Facility does not install or service motor vehicle air conditioners and does not perform vehicle maintenance that may release refrigerants.
Chapter 62-296—Stationary Source - Emission Standards					

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 7 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Purpose and Scope	62-296.100, F.A.C.	X			Contains no applicable requirements
General Pollutant Emission Limiting Standard, Volatile Organic Compounds Emissions	62-296.320(1), F.A.C.		X		Known and existing vapor control devices must be applied as required by the Department.
General Pollutant Emission Limiting Standard, Objectionable Odor Prohibited	62-296.320(2), F.A.C.		X		Objectionable odor release is not allowed.
General Pollutant Emission Limiting Standard, Industrial, Commercial, and Municipal Open Burning Prohibited	62-296.320(3), F.A.C.*		X		Open burning in connection with industrial, commercial, or municipal operations is prohibited.
General Particulate Emission Limiting Standard, Process Weight Table	62-296.320(4)(a), F.A.C.	X			Facility does not have any applicable emission units. Combustion emission units are exempt per 62-320(4)(a)1a.
General Particulate Emission Limiting Standard, General Visible Emission Standard	62-296.320(4)(b), F.A.C.		X		Opacity limited to 20 percent, unless otherwise permitted.
General Particulate Emission Limiting Standard, Unconfined Emission of Particulate Matter	62-296.320(4)(c), F.A.C.		X		Reasonable precautions must be taken to prevent unconfined particulate matter emission.
Specific Emission Limiting and Performance Standards	62-296.405, F.A.C.			EU-001 through EU-004	Defines specific emission limitations for the applicable emission units.
Specific Emission Limiting and Performance Standards	62-296.401 through 62-296.404 and 62-296.406 through 62-296.417, F.A.C.	X			No applicable unit at facility.
Reasonably Available Control Technology (RACT) Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO_x) Emitting Facilities	62-296.500 through 62-296.516, F.A.C.	X			Facility does not include any regulated emission units.
Surface Coating of Miscellaneous Metal Parts and Products	62-296.513, F.A.C.	X			Defines specific coating VOC content for applicable emission unit.
Reasonably Available Control Technology (RACT) - Lead	62-296.600 through 62-296.605, F.A.C.	X			Facility not located in a lead nonattainment area or a lead air quality maintenance area.
Reasonably Available Control Technology (RACT)—Particulate Matter	62-296.700, F.A.C.			EU-001 through EU-004, FH-001 through FH-021, LSH-001 through LSH-10, and FA-001 through FA-012	Requires compliance with specific, applicable emission limiting standards.

Table A-2. Summary of FDEP Regulatory Applicability and Corresponding Requirements for Big Bend Station (Page 8 of 8)

Regulation	Citation	Not Applicable	Applicable: Facility-Wide	Applicable: Emission Units	Applicable Requirement or Non-Applicability Rationale
Fossil Fuel Steam Generators	62-296.702, F.A.C.			EU-001 through EU-004	Defines specific emission limitations for the applicable emission units.
Materials Handling, Sizing, Screening, Crushing, and Grinding Operations	62-296.711, F.A.C.			FH-001 through FH-021, LSH-001 through LSH-10, and FA-001 through FA-012	Defines specific emission limitations for the applicable emission units.
Reasonably Available Control Technology (RACT) - Particulate Matter	62-296.701, 62-296.703 through 62-296.710, and 62-296.712, F.A.C.	X			Facility does not include any regulated emission units.
Miscellaneous Manufacturing Process Operations	62-296.712, F.A.C.	X			Defines specific emission limitations for the applicable emission units.
Chapter 62-297—Stationary Sources - Emissions Monitoring					
Purpose and Scope	62-297.100, F.A.C.	X			Contains no applicable requirements.
General Test Requirements	62-297.310, F.A.C.			EU-001 through EU-007	Specifies general compliance test requirements.
Compliance Test Methods	62-297.401, F.A.C.	X			Contains no applicable requirements.
Supplementary Test Procedures	62-297.440, F.A.C.	X			Contains no applicable requirements.
EPA VOC Capture Efficiency Test Procedures	62-297.450, F.A.C.	X			Contains no applicable requirements.
CEMS Performance Specifications	62-297.520, F.A.C.	X			Contains no applicable requirements.
Exceptions and Approval of Alternate Procedures and Requirements	62-297.620, F.A.C.		X		Defines alternate procedures and requirements
Operating Permits					
	0570039-013-AU				See Appendix B for permit text and conditions.

*State requirement only; not federally enforceable.

Source: ECT, 2004.