Final Place

TO: Buck Oven

FROM: Teresa M. Heron

Katherine Zhang

THRU: Preston Lewis

DATE: March 4, 1993

SUBJ: FPL Martin CG/CC Project Modification

PA 89-27A

The following information is needed in order to continue processing the requested amendment:

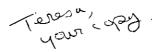
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- 1. Tables 2-7 and 2-8 of the original PSD application (SCA section 10.1.5) list emissions based on continuous operation (8760 hrs/yr) for the auxiliary boiler and the diesel generator. The PSD permit itself is silent regarding the quantity of emissions (TPY) for these sources. For the emergency diesel generator, a continuous operation of 8760 hrs/yr will cause an emission increase of over 40 TPY of NO_X. This may subject this source to PSD regulations which requires a BACT determination for this pollutant.
- 2. General Electric (GE) should provide a technical explanation of why the dry low NO_X combustors are not able to meet the emission limits during the initial periods of a "cold start." The explanation should include laboratory data as a verification. Furthermore, GE should indicate whether the same problem exists with the other models of Frame 7 combustion

turbines.

- 3. The pollutants subject to PSD review include: SO_2 , NO_X , and PM. Why were only NO_X emission values revised?
- 4. As originally permitted, the auxiliary boilers and the diesel generators would only be operated during the periods of start-up and shut-down. Because of this, we agreed that emissions from these two sources could simply be added to the big sources in the original modeling study. However, if the operational restrictions are to be removed, the auxiliary boilers and diesel generators should be considered as separate sources.
- 5. The stack parameters for both sources have been revised. The revised stack heights and exit velocities are much lower than the permitted ones (stack height on the boiler lowered from 18.3m to 12.8m and on the generator from 7.6m to 3.8m). The screen model shows the impact from the revised parameters are much higher than the permitted ones. Further modeling study is required. What are the stack parameters for the auxiliary boiler when oil is burned? For the CT/HRSG stack, when the stack parameters are being changed, modeling study should be done to prove no larger impact than the permitted one. Use the highest emission rate including the excess emission in "Cold Start."





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From,		Date

State of Florida DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

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Memo - Buck Oven FPL Martin CG/CC Page 2

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TH/plm

Phase I 3-4

2 weeks start

permitted PSD 4 (free,) 400 MW

Phase II auxilian bailer Disel generator 1993 Logislaturo

CS/HB 461, 2nd Engrossed

ENROLLED

1993 Legislature

CS/HB 461, 2nd Engrossed

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1 waste-to-energy industry for the purpose of conducting pilot
 2 projects.
          Section 57. Section 403.7895, Florida Statutes, is
   created to read:
          403.7895 Requirements for the permitting and
   certification of commercial hazardous waste incinerators .--
          (1) Legislative Intent.
          The Legislature finds that Florida should develop an
   integrated hazardous waste management program, with sufficient
   capacity to treat the hazardous waste generated within the
11 state, or adequately deal with such waste through regional and
12 national solutions. However, it is not in the state's best
13 interest to develop excess capacity, which would be built at
   great expense and may have significant impacts on public
15 health and safety and the environmental quality of the state.
16 The state is experiencing a significant mercury contamination
   problem, which is posing a serious threat to public health and
   the environment. The long-term, cumulative impacts on public
19 health and the environment have not been sufficiently
20 evaluated for hazardous waste incinerator sites in this state.
21 Technological developments and pollution prevention efforts
   are reducing the need for hazardous waste treatment capacity,
23 and there is reported to be excess national commercial
24 hazardous waste incinerator capacity, particularly in the
25 southeastern United States. There may be sufficient capacity
   in exisiting state and national boilers and industrial
   furnaces which burn hazardous waste. Federal hazardous waste
28 policies and regulations have recently changed, and are
29 expected to continue to change, in ways which significantly
30 impact the amounts of waste to be treated in the future.
31 Therefore, it is the intent of the Legislature to establish
```

Ţ	additional permitting criteria for hazardous waste
2	incinerators, to establish a need evaluation process for such
3	incinerators, and to thoroughly study current and projected
4	capacity needed to adequately treat hazardous waste generated
5	in the state.
- 6	(2) Applicability.
7	Notwithstanding the provisions of ss. 120.60(2),
8	403.722(10), and 403.78-403.7893, the requirements of this
9	section shall apply to all applications for a commercial
10	hazardous waste incinerator received by the department, for
11	which a permit or certification was not issued prior to the
12	effective date of this act. For the purposes of this section,
13	"commercial hazardous waste incinerator" means a hazardous
14	waste incinerator which accepts waste generated off-site,
15	(3) Cortification of need.
16	(a) No commercial hazardous waste incinerator shall be
17	permitted or certified in this state without a certification
18	of need, issued by the Governor and Cabinet, sitting as the
19	Statewide Multipurpose Hazardous Haste Facility Siting Board.
20	(b) The Board shall make a determination of the need
21	for hazardous waste incinerators, based upon the best
22	available evidence of existing and projected need and
23	available capacity, as presented by the applicant, and as
24	determined by the study required by subsection (5).
25	(c) No hazardous waste incinerator shall be certified
26	for capacity that is larger than that determined to be needed
27	by the Board.
28	(d) The Board shall not make a determination of need
29	for any hazardous waste incinerator until the study required
30	by subsection (5) is completed.
31	(4) Additional permitting conditions.

29

CS/HB 461, 2nd Engrossed

ENROLLED

27 strategies.

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1993 Legislature

CS/HB 461, 2nd Engrossed

The following additional requirements shall apply to	2
the Department's review of an application for a permit or	
certification for the construction of a commerical hazardou	12
waste incinerator:	

- (a) The department shall, in the review of an application for certification or a permit to construct a commercial hazardous waste incinerator, consider cumulative impacts upon human health and the environment which would result from toxic air emissions from stationary air pollution sources which are existing, under construction, or for which a permit, certification or determination of need by the Florida Public Service Commission has been sought, in the area in which the proposed facility is to be built. The department shall require the submission of information concerning cumulative health and environmental impacts in a permit or certification application.
 - (b) The department shall require, as conditions in any permit or certification for the construction or operation of a commercial hazardous waste incinerator, that;
- 1. The facility not knowingly accept for treatment by incineration wastes classified by the U.S. Environmental
 Protection Agency as containing organic mercury. The permit or certification shall establish procedures to ensure that wastes containing organic mercury are not accepted by the proposed facility, and that
- 2. The facility shall be constructed with maximum
 27 achievable control technology (MACT) for control of mercury
 28 emissions.
 - (5) Hazardous waste needs and capacity study.
- 30 (a) The department shall conduct, by November 1, 1994, 31 or the date by which phase 2 of the next capacity assurance

1	plan must be submitted to the U.S. Environmental Protoction
2	Agency, whichover date occurs first, a comprehensive
3	independent study of the current and future need for hazardous
4	waste incineration in the state. The study shall evaluate the
5	projected statewide capacity needs for a twenty year period.
6	The study shall be updated at least every five years.
7	(b) The Department shall consult with state and
8	nationally recognized experts in the field of hazardous waste
9	management, including representatives from state and federal
0	agencies, industry, local government, environmental groups,
1	universities and other interested parties,
2	(c) The study components shall include but not be
3	limited to the following:
14	 Existing and projected sources, amounts and types
15	of hazardous waste in the state for which incineration is an
6	appropriate treatment alternative, taking into account all
17	applicable federal regulations on the disposal, storage and
8	treatment or definition of hazardous waste.
9	2. Existing and projected hazardous waste incincrator
20	capacity in the state and the nation.
21	3. Existing and projected hazardous waste incineration
22	capacity in boilers and industrial furnaces in the state and
23	the nation.
24	4. Existing and projected hazardous waste incineration
25	needs, specifically taking into account the impacts of

5. Any other impacts associated with construction of

31 present its findings and make recommendations to the Board and

164

26 pollution prevention, recycling and other waste reduction

```
1 the Legislature regarding changes in state hazardous waste
   policies and management strategies. The recommendations shall
  address the advisability if establishing by statute the
 4 maximum capacity for hazardous waste incineration in this
 5 state.
          Section 58. (1) The sum of $300,000 is appropriated
  from the Solid Maste Management Trust Fund to the Department
  of Management Services for the 1993-1994 fiscal year to
   contract for a technical study to determine what product
  minimum recycled content levels would be consistent with
  orderly recycling market development, on a commodity-by-
  commodity basis for those commodities purchased by the
13 department, At a minimum the study shall include the
14
   following commodities:
15
          (a) Plastics.
          (b) Glass,
16
17
          (c) Paper.
18
          (d) Newsprint,
19
          (e) Steel cans.
          (f) Aluminum cans,
20
21
          (2) The department shall recommend to the Legislature
   no later than October 1, 1994, minimum recycled content levels
   for products made from the commodities_studied,
24
          (3) Any unused funds appropriated for the development
   of the study shall revert to the Solid Maste Management Trust
25
26 Fund.
27
          Section 59. The sum of $300,000 is appropriated from
28 the Solid Haste Management Trust Fund for the 1993-1994 fiscal
29 year to the Department of Commerce to fund the first year
30 activities of the Recycling Markets Advisory Committee.
31
```

Section 60. Section 403.4133, Florida Statutes, is
created to read:
403.4133 Adopt-a-Shore Program
(1) The Legislature finds that litter and illegal
dumping present a threat to the state's wildlife, environment,
and shorelines. The Legislature further finds that public
awareness and education will assist in preventing litter from
being illegally deposited along the state's shorelines.
(2) The Adopt-a-Shore Program shall be created within
the nonprofit organization referred to in s. 403,4131(1).
named Keep Florida Beautiful, Incorporated. The program shall
be designed to educate the state's citizens and visitors about
the importance of litter prevention and shall include
approaches and techniques to remove litter from the state's
shorelines.
(3) For the purposes of this section the term
"shoreline" includes, but is not limited to, beaches,
rivershores, and lakeshores.
Section 61. Subsection (5) is added to section
316.2045, Florida Statutes, to read:
316.2045 Obstruction of public streets, highways, and
roads
(5) Notwithstanding the provisions of subsection (1),
any commercial vehicle used solely for the purpose of
collecting solid waste or recyclable or recovered materials
may stop or stand on any public street, highway, or road for
the sole purpose of collecting solid waste or recyclable or
recovered materials. However, such solid waste or recyclable
or recovered materials collection vehicle shall show or
display amber flashing hazard lights at all times that it is

FPL Martin lounty 75D-F1-146 Permit 2 combined exple units (0°3 ± 4) burning natural gas and ail-fined combined exple and associated facilities (?) australed facilities: Auxiliary boiled Emergency diesel generator Request: 1) Defferent auxiliary boiled & diesel generator bath with smaller capacites but with slightly increased emission rates

though overall lower total omeiseurs.
2) To remove operating limits on those two facilities

3) Clarify The applicability of excess emession limits during "cold starup" periods for the combustion turbines

Exelse Emissione

are adhered to and @ The durated of excess emissions shall be minimized but in no ease exceed two hours in any 24 hour period unless specifically authorized by The Department for longer durated.



(CONTINUED) MULTITRADE LIMITED PARTNERSHIP

•			EMISSION	LIMITS/	
PROCESSES SUBJECT TO THIS PERMIT	THROUGHPUT CAPACITY	POLLUTANT NAME		CONTROL EQUIPMENT OR PROCESS MODIFICATION TOP DOWN BACT INFORMATION	V & BASIS PCT EFF
SAME PROCESS (CONTINUED)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
	•	VOC	0.0700	LB/HMBTU	BACT
BOILERS, SPREADER STOKER, 3 (COMY		26.2000	LB/H	-71 2 1
SOLLERS, SPREADER STORER, 3 (CONTR	CO	1687.3000	T/YP	BACT
		NOX .	482.1000	The state of the s	BACT
		PM	96.4000		BACT
,		PM10	94.5000		BACT
		S02		LB/MMBTU 3 H AVG.	BACT
				LB/H 3 H AVG	DACI
		502	77.1000		BACT
		SUL*	0.2200	LB/H	BACT
			5.3800		5.01
		VOC	337.5000	T/YR	BACT
GENERATOR, AUXILIARY DIESEL	14.68 MMBTU/H HE	-			
		CO		LB/MMBTU	BACT
			14.2000		
				GOOD COMBUSTION OPERATING PRACTICES	
		NOX		LB/MMBTU	BACT
			66.2000	_	
		PB		E-5 LB/MMBTU	BACT
		54		E-4 LB/H	
		PM		LB/MMBTU	BACT
			5.3000		
•		DW1 C	0.7/00	LIMIT HOURS & SULFUR CONTENT	
		PM10		LB/MMBTU	BACT
			5.3000		
		602	0.7000	LIMIT HOURS & SULFUR CONTENT	
		S02		LB/MMBTU	BACT
			4.4000		
		VOC	0.7/00	LIMIT HOURS & SULFUR CONTENT	
		VUC		LB/MMBTU	BACT
NOTES			5.3000	FR/H	

PERMIT SUPERSEDES 04/08/91 PERMIT TO ALLOW BURNING OF 100% HOOD. COAL HAS BEEN DELETED AS A FUEL. ALSO A RED. IN ANNUAL AMT. O F HOOD BURNED. RED. HAS REQ. SO SO2 & NOX EMISS. WILL = LIMITS STATED IN AGREEMENTS SIGNED BY CO. & PETITIONERS. SO2, NOX LB/MMBTU ARE ON 30-DAY ROLLING AVG. VE FROM BOILERS STACK < 10% OPACITY, EXCEPT DURING ONE SIX MIN. PERIOD/H, & THEN VE < 20%. OTHER VE=TRANSFER PTS.15% OPAC, FABRIC FILTER/BAGHOUSE 5% OPAC, OTHER 10% OPACITY.

(*) INDICATES DATUM WAS TRUNCATED FOR THIS TABLE.

DATE ENTER

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DATE ENTERED/UPDATED 104/30/1798

Table 2-7. Auxiliary Steam Boiler Estimated Emissions and Stack Parameters (Per 60,000 lb/hr Boiler,

Stack	Reight (ft)	60.0
Stack	Exit Diameter (ft)	3.6

Natural Gas

Exhaust Stack Temperature (°F) 490.0
Stack Exit Velocity (ft/sec) 50.0

Emissions	<u>lb/hr</u>	g/sec	TPY
so ₂	neg.		
PK	0.5	0.063	2.19
NO _X	7.2	0.907	31.54
co	3.6	0.454	15.77
VOC	0.3	0.038	1.31

Distillate Oil

Exhaust Stack Temperature (*F) 503.0 Stack Exit Velocity 50.0

Emissions	lb/hr	g/sec	TPY
so _z	51.2	6.45	224
PM	1.4	0.176	6.1
(NO _X	10.8	1.36	47.3
co	3.6	0.454	15.8
VOC	0.14	0,018	0.61

Source: Bechtel, 1989.

T. C. C. C. C.	F	Generator Estimated	d francisco cond	Creek Consmotors	(Da=	750 VU HALLY
lable 2-8./	Emergancy Dieset	Generator Estimated	DUST STORE STORE	2 (act ballalle (6) 2	(+=1	730 KW ONIC)

Exhaust Stack Temperature ("r)	955.0	
Stack Exit Velocity (ft/sec)	130.0	
Stack Height (ft)	25.0	
Stack Exit Diameter (ft)	1.0	

Emissions	<u>lb/hr</u>	g/sec	TPY
so ₂ (1.25 g/kW-hr) ¹	2.07	0.260	9.05
PM (1.34 g/kW-hr) ¹	2.22	0.279	9.70
(NO (18.80 g/kW-hr)	31.1	3.92	136.2>
CO (4.06 g/kW-hr)	6.71	0.846	29.4
VOC (1.50 g/kW-hr) ¹	2.48	0.313	10.9

8760 hr/y

Source: Bechtel, 1989.

⁽¹⁾ U.S. EPA AP-42 Emission Factors, Section 3.3.

Table 2-9. Summary of Potential Annual Emissions From the New Facility (TPY) (1)

									•
	Four Combined Cycle Units (8 C1's) Natural Gas No. 2 Oil Coal Gas			four Gasifier Incinerator	Two Auxitiary Steam Boilers		Two Diesel	Fugitive	Maxīmum ⁽²) Total
	<u>at 40°F</u>	at 40°F	at 75°F	Stacks	Natural Gas	No. 2 Oil	Generators	Sources	Emissions
Sulfur Dioxide	3,206	32,230	29,223	560.6	neg.	449	18.1	neg.	32,697
Particulate Matter	630.7	2,123	665.8	neg.	4.38	12.3	19.4	1,566	3,721
-Nitrogen Oxides	10,092	16,153.4	13,736	1,068.7	63.1	94.6	19.4 2/2	neğ.	16,485
Carbon Monoxide	5,505	, 5,617	7,092	neg.	31.5	31.5	58.8	neg.	7,182
Volatile Organic Compounds	63.1	385.4	749.9	neg.	2.63	1.23	21.7	neg.	774
Lead	neg.	0.6	10.6	0.88	neg.	neg.	neg.	neg.	11.5
Beryllium	neg.	<u>0.60</u>	0.01	0.008	neg.	neg.	neg.	neg.	0.60
Mercury	0.72	0.15	0.84	0.140	neg.	neg.	neg.	neg.	0.98
Inorganic Arsenic	neg.	0.26	0.60	0.021	neg.	neg.	neg.	neg.	0.62
Sulfuric Acid Mist		•							

⁽¹⁾ Maximum annual emissions for each unit correspond to operation at 100% capacity for 8,760 hours per year, using the maximum hourly emission rate for each emissions unit.

⁽²⁾ Maximum total annual emissions are the sum of the <u>underlined</u> values for each pollutant. The underlined values reflect worst-case fuel for each process, excluding unrealistic cases (e.g., gosifier incinerators do not have emissions during oil-fired combined cycle operation).

TABLE 8

Pollutant	Combined Cycle	Gasifier Incinerator Stacks	Steam Boilers	Diesel Generators	Fugitive Sources	Maximum Total	PSD Significient Emission Rate
	=======================================		:========	=======================================			
SO ₂	29,224	560.6	269	10.9	neg.	30,065	40
PM	666	neg.	12,3	19.4	1,566	2,264	25
PMLO	666	neg.	12.3	19.4	1,566	2,264	15
NOx	13,736	1,069	94.6) (272)-(2	neg.	15,172	40
СО	4,695	neg.	31.5	58.8	neg.	4,785	100
VOC	750	neg.	2.63	21.7	neg.	774	40
Pb	10.6.	0.88	neg.	neg.	neg.	11.5	0.6
Ве	0.01	0.008	neg.	ney.	neg.	0.01	0.0004
Hg	0.84	0.14	neg.	neg.	neg.	0.98	0.1
ΛS	0.60	0.021	neg.	neg.	neg.	0.62	0
${\rm H_2SO_4}$	3,574	68.7	33-	1.3	neg.	3,677	7
Fluorides	1.9	neg.	neg.	neg.	neg.	1.9	3

NOTE: In some cases the sum of the emissions for the individual sources do not equal the maximum total emissions since the gasifer wouldn't be used when the turbines are fired on oil.

BACT

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Storage Area

Euct Storage Area

distinct Storage Area

Frstorage

Paved Road Covered Conveyer (95% Control)

Topsoil Covered and Seeded (100% Control)

Compaction, Temporary Cover (Natural or Synthetic)

Stored in Molten state in tanks or in crystalline

Auxiliary Boilers, Diesel Generators, and Flare Stacks

No BACT limitations are proposed for these sources since their operation is expected to be infrequent (start-up and shut-down, and emergencies).

BACT Determination Procedure

In accordance with Florida Administrative code chapter 17-2, Air Pollution, this EACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performence for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards or BACT determinations of any other state.
- (d) The social and economic impact of the application of such technology.

percent capacity factor the maximum annual NOx from four combined cycle units would be 6,868 year.

Assuming that the cost and efficiency of controlling NOX for coal derived gas firing compared to that for natural gas, the SCR would control 4,464 tons of NOx annually for coal derived gas firing. When this reduction is taken into consideration with the total levelized annual cost of \$15,651,500, the cost per ton of controlling NOx would be \$3,506 for coal derived gas firing. This cost is well below that calculated for natural gas firing and would be judged to be more reasonable as BACT for the facility. Although the SCR system cost may actually be higher to control NOx emissions for coal derived gas firing, it is not expected that the resulting cost of control would escalate to the point of rejecting the technology. As this is the case, an in depth cost analysis for SCR use is warranted when the applicant proceeds with the coal derived gas option.

Tail Gas Incinerators, Steam Boilers, and Diesel Generators

A review of the proposed emission rates for the tail gas incinerators, steam boilers, and diesel generators. indicates that equipment in and of itself represents BACT for these sources.

The predominant emissions from the tail gas incinerators are nitrogen oxides and sulfur dioxide. The sulfur dioxide emissions proposed for the facility are based on the highest removal efficiency that is now being maintained at other coal gasification facilities. This is accomplished by using an acid gas removal system followed by a Claus sulfur recovery plant and SCOT tail gas treatment system. This equipment is capable of providing an overall sulfur removal rate of 95 percent and is judged to represent BACT for the facility.

The nitrogen oxides emissions from the tail gas incinerators are due to thermal NOx which results from the high temperatures needed to treat the tail gases. As this is the case nitrogen oxides are formed as a result of controlling the other emissions such as SO₂. Based on this, the equipment itself is judged to represent BACT for NOx.

The applicant has not provided specific BACT emission levels for the steam boilers and diesel generators. For sulfur dioxide emissions BACT shall be represented by

- a Tons per year (TPY) emission limits listed for natural gas and oil combined aply as an emission cap based on limiting oil firing to an annual aggregate of 2,000 hours for the 4 CTs, with compliance to be demonstrated in annual operation reports.
- b Exclusive of background concentrations.
- c Sulfur dioxide emissions based on a maximum of 0.5 percent sulfur in oil for hourly emissions and an average sulfur content of 0.3 percent for annual emissions.
- d These limitations for Units 5 and 6 and coal gasification shall not be binding for subsequent BACT determinations.

Tail Gas Incinerators, Steam Boilers and Diesel Generators

Tail Gas Incinerators - BACT to be evaluated at coal gasification phase of the project.

Steam Boilers - Infrequent or emergency mode of operation. However, BACT for these facilities typically limits NOx emissions from boilers to 0.1 lb/MMBtu and 0.2 lb/MMBtu for natural gas and oil firing respectively. The proposed facility should meet these levels.

Diesel Generators - Infrequent or emergency mode of operation. However, BACT for these facilities typically limits NOx emissions from diesel generators by limiting emissions to at least 12.0 grams/hp-hr. The proposed facility should meet this level.

Sulfur Dioxide emissions limitations for the steam boilers and diesel generators in est blished by firing natural gas or limiting the No. 2 fuel cils sulfur content to 0.3% on an annual basis.

Material Handling and Storage

Fugitive Dust Source

Control Technology

Coal Unloading

Enclosed with Dry Collection System

Light Company Box 078768
Beach, FL 33407-0768

Permit Number: PSD-FL-146

Expiration Date: County: Martin

Latitude/Longitude: 27° 3' 18"N

80° 34' 02"W

Project: Martin CG/CC Project

The maximum allowable emissions from each gasifier incinerator tack shall not exceed the following at 75°F.

Pollutant	Lb/hr/Stack	TPY/Stack	4 Stacks
NOx	61	258	1069
VOC	Negl.	Negl.	Negl.
co	Negl.	Negl.	Negl.
PM/PM10	Negl.	Negl.	Negl.
502	32	140.2	5 Š 5
Befyllium	0.0005	0.002	0.008
Mercury	0.008	0.035	0.140
Lead	0.05	0.22	0.88

7. Auxiliary steam boilers and diesel generators shall operate only during startup and shutdown, periodic maintenance testing, and for emergency power generation, respectively. NO emissions for the auxiliary steam boilers shall not exceed 0.1 lb/MMBtu for natural gas firing or 0.2 lb/MMBtu for oil firing. NO emissions for the diesel generators shall not exceed 12.0 grams/hp-hr.

Sulfur dioxide emissions limitations for the auxiliary steam boilers and diesel generators are established by firing natural gas or limiting the light distillate fuel oil's sulfur content to 0.3 percent on an annual basis.

- 8. Visible emissions shall neither exceed 10 percent opacity while burning natural gas or coal derived gas, nor 20 percent opacity while burning distillate oil.
- 9. Nitrogen oxide emissions from each gas turbine/heat recovery steam generator unit shall be controlled by using dry low NO combustors for natural gas with steam injection for fuel oil firing. The Permittee shall install duct module(s) suitable for future installation of SCR equipment on each combined cycle generating unit.
- 10. Initial (I) compliance tests shall be performed on each CT using both fuels. The stack test for each turbine shall be performed within 10 percent of the maximum heat rate input for the tested operating temperature. Annual (A) compliance tests shall be performed on each CT with the fuel(s) used for more than 400 hours

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