



Department of Environmental Protection

Lawton Chiles
Governor

Southeast District
P.O. Box 15425
West Palm Beach, Florida 33416

original sheet
TV applicat

for T46 v permit
consideration

Virginia B. Wetherell
Secretary

November 14, 1996

Mr. Stephen A. Sorrentino
Indiantown Generating Plant Director
P.O. Box 1799
Indiantown, FL 34956

Dear Mr. Sorrentino:

This letter is a follow up of a phone conversation, on October 18, 1996, with Byron Veech. A review of your proposed definitions for Indiantown Cogeneration plant, dated October 8, 1996, indicates the following:

Proposed Start-up Definition.

The condition, "Under no condition should the period from initial coal firing to operation of the pollution control equipment exceed two continuous hours," this conflicts with FAC Rule 62-210.650, Circumvention. According to this rule "No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air control device operating properly." To the extent that emissions from coal firing under your proposed definitions might be considered excess emissions, the regulation of excess emissions should apply as stated in FAC Rule 62-210, Excess Emissions.

The air preheater washes should not be considered as part of start up conditions. They are a part of routine maintenance operations due to their frequency. The air heater was originally planed to be washed only once per year, but actually the air heater is washed almost every month. Even though the main boiler does not operate during this process, there are still excess emissions during the air heater washes. It has not been specified how often the air preheater will be washed.

It is my understanding that first the facility washes the air preheater to clean it. After this, the air preheater is dried at ambient temperature, according to Mr. Byron Veech, to return the fabric filter to service. This prevents the moisture from damaging (blinding) the bags. However, the Douglas Bullock's letter dated October 8, 1996, states that "the air preheater is dried using heat generated by the start up gas burners" and not ambient air. This procedure raises the following questions:

Is it possible to keep the drying temperature above the dew point to avoid the occurrences of the condensation?

How much water is used to wash the preheater? If you recycle this water, how much additional water do you need to add and how often? Do you treat this water? If this water is going into a pond, what kind of pond is it? Please note, you may need a recycling permit from the Industrial Waste Section of our Department.

The emissions bypass the baghouse during the washing and drying process. You asked to allow emissions to enter the atmosphere for a maximum of 12 hours per 24 hour period. FAC Rule 62-210.700 Excess Emissions allows only 2 hours in any 24 hour period unless specifically authorized by the Department for longer duration. What is the actual time that pollutants will bypass the baghouse during this process? This bypassing also raised the following questions:

What is the frequency of the bypassing?

How much of each applicable pollutant is emitted during this process? Indicate how you determined the amount of these emissions? These emissions should be addressed in the Annual Operating Reports (AORs). If a stack test of the bypass air during the drying and washing process is conducted, this may help to determine what causes the opacity spikes. We may even find that the spikes are from the presence of the moisture droplets that are left from the washing process.

Proposed Shutdown Definition.

How much time will be needed to shut down all the fans? What is the difference between normal and emergency shutdown? Describe the time frame for each and steps involved.

Proposed Malfunction Definition.

You need to add the following underlined portion to your written description .."due to any unavoidable mechanical, electrical or control system failure".

RECEIVED

NOV 18 1996

BUREAU OF
AIR REGULATION

On another matter, Indiantown Generating plant's letter dated December 27, 1995, conflicts with FAC Rule 62-210.650 Circumvention. The circumvention rule can be violated without exceeding pollutant emission limit.

Note, that operational changes that affect emissions must be addressed in the original PSD permit and the Title V application. A meeting with our office may be helpful. Please contact me to schedule this meeting.

If you have any questions regarding this matter, please call me at (561) 681-6623.

Thank you very much.

Sincerely,



Raisa Neginsky
Air Pollution Compliance Engineer III.

cc: Mr. Don Beckham(Bethesda)
Mr. Byron Veech (Indiantown Cogeneration Plant)
Mr. Scott Sheplak (FDEP, Tallahassee)

INDIANTOWN COGENERATION, L.P.
Emissions Estimates for Emergency Diesel Generator

aj/Earth Tech 4/2003

DIESEL Generator						
Basis	473 bhp diesel Generator output (based on calculation below)					
	Generator: 500 hr/yr					
		POLLUTANT				
CRITERIA	NO_x	CO	SO₂	PM-10	VOC	
Emission Factor, lb/bhp-hr	0.031	6.68E-03	2.05E-03	2.20E-03	2.51E-03	
lb/hr	14.7	3.2	1.0	1.0	1.2	
hr/yr	500	500	500	500	500	
lb/yr	7,336	1,581	485	521	594	
tons/yr	3.67	0.79	0.24	0.26	0.30	

Emission factors from EPA AP-42 Table 3.3-1, 10/96

DIESEL Generator	
300 kw	output diesel generator
1.341 hp/kw	
85% generator efficiency (approx.)	
353 kw	diesel generators input
473 hp	diesel engine output

Potential emissions of each criteria pollutant are below 5 tons/year. Lead emissions are a subset of PM-10 emissions from this source, and are expected to be only a small fraction of total PM-10 emissions. Since the potential PM-10 emission rate barely exceeds 500 pounds, the potential emission rate for lead will not exceed 500 pounds. Similarly, hazardous air pollutants (HAPs) will be a subset of PM-10 or VOC emissions. Since potential PM-10 and VOC emissions are each below 1,000 pounds, the potential emission rate of any one HAP will be below 1,000 pounds. Since the combined potential emission rate of VOC and PM-10 is below 2,500 pounds, the total combined HAP potential emission rate is below 2,500 pounds.

Therefore, the proposed emergency diesel generator meets the insignificant activity criteria in 62-213.430(6)(b), F.A.C.