*OTHER/TITLEV/FPC-COV.SPN*
*6/8/96*

**FLORIDA POWER CORPORATION**
**PORT ST. JOE FACILITY**



# TITLE V AIR OPERATING PERMIT APPLICATION

*Submitted to:*
**Florida Department of Environmental Protection**

*Prepared by:*

KBN Engineering and Applied Sciences, Inc.
Gainesville, Florida

Florida Department of
# Memorandum — Environmental Protection

**TO:** Ed Middleswart
Armando Sarasua

**FROM:** John C. Brown, Jr., P.E.
Administrator, Title V Section

**DATE:** February 11, 1997

**SUBJECT:** FPC Facility, St. Joe Gas Turbine Peaking Unit Number 1

Based on the information that Armando provided me, the facility's used oil was limited in 1983 to 0.37% S by an operation permit that is not federally enforceable. In 1988, the facility requested 0.5% S and again it was granted by an amendment to an AO permit that was not federally enforceable.

The source was built in 1970 before PSD applied. There is nothing in the package that you sent that indicates that any changes were made since then that would trigger PSD. The change from 0.37% S to 0.5% sulfur would not have triggered PSD since the change was to a fuel that the unit could accommodate before January 6, 1975, and was not limited by a federally enforceable permit. Therefore, by 40 CFR 52.21 it was not a major modification that triggered PSD.

- If the state intended to limit the fuel to 0.37% or 0.5% sulfur it should have been done in a federally enforceable construction permit (an AC that was public noticed). This was not done. Therefore, the facility is a Title V source and is entitled to 8760 hrs/yr. The Title V permit requested fuel be limited to 0.5% S. Therefore, once the Title V permit is issued the 0.5% S will be federally enforceable. You should retain the 0.5% S limitation in the Title V permit because it is in a current AO permit and because the applicant requested it.

- If the source wants to be exempted from Title V it may request verifiable limitations for $SO_2$, $No_x$ and PM in an after-the-fact AC permit or FESOP to avoid Title V.

- The director, Environmental Services Department, does not appear to meet the definition of responsible official (R.O.) in Rule 62.210.200, F.A.C. I believe he is a designated representative for FPC acid rain facilities which would mean he could be the R.O. at those acid rain sources. However, this is not an acid rain source. Before proceeding with permit issuance you should require that the facility resubmit the application with the signature of a person that meets the R.O. definition for this facility.

- I noted that the applicant wants you to concur with their trivial listing in the application plus other things of a similar nature. You should make it clear, in writing, to the applicant that the department's trivial listing in Guidance Memorandum DARM-PER/V-15 (The EPA Listing) is the only listing that the Department approves and if the applicant wants to consider things outside that listing as trivial, it should be done independent of Department approval and with extreme prudence. Sources do not need to list trivial activities in the application. If the applicant is not sure they are trivial they should be included in the permit application as exempt activities or grouped as unregulated emissions units.

JCB/sk

cc: Clair Fancy
Al Linero

John, Person on Request

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John - the whole thing started as a simple incompleteness letter to Florida Power Corporation, in St. Petersburg as a Request for Additional Information Regarding Initial Title V Permit Application, File No. 0450003-001-AV, Port St. Joe Gas Turbine Peaking Unit #1, Gulf County. They submitted a T5 application because they wanted to have the operational flexibility to operate year-round if needed. Their initial start-up date was 12/19/70. The earliest permit in file is an AO issued in '72. There are no ACs since that time. In their application of 1972 they claim to produce 21 MWH/day. In their T5 application they claim an 18 MW rating. I believe the above keeps them out of Title IV under 40 CFR 72.6 applicability. ... anyhow...

The initial Title V permit application for the Port St. Joe Gas Turbine Peaking Unit #1 was "timely and complete", however I noted some items were deficient.

1. Facility pollutants are given as SO2 and NOx. Emissions unit pollutant detail information is not given for SO2 only, not for NOx or other criteria pollutants.

2. The present permit AO23-222492 limits hours of operation to 1650 hrs/yr. (The precursor to this permit, for AO23-144681, had this "limit" imposed by an amendment letter of 3/29/88. This was done to avoid PSD review for SO2 by limiting SO2 emissions to 87 T/yr. This was done pursuant to a request to increase fuel oil sulfur content.) The Title 5 application requests 8760 hrs/yr and the operating rate is given at 278 MM Btu/hr. (The operating rate is previously given in the file as 195 MM Btu/hr.) This means that SO2 potential emissions will increase from 87 T/yr to 625 T/yr, a 538 T/yr increase, and NOx potential emissions will increase from 85 T/yr to 449 T/yr (estimated, not given), a 364 T/yr increase.

I contacted Jonathan Holtom and Pat Comer for help on how to word the incompleteness letter. One concern is that an incorrectly worded letter may extend their shield with the increased emissions. There is also a concern that if they do not respond properly, our incompleteness letter can be interpreted as a final agency action, their permit shield will expire and they will be in trouble as if they had not applied for T5 in a timely fashion.

Another concern is that an increase in emissions is not allowed to be a part of a Title 5 Operating Permit process. A facility must use an Air Construction Permit to obtain an increase in emissions. A point to ponder is if the "limit" imposed by the amendment letter of 3/29/88 for AO23-144681 is not real - because it is not Federally enforceable, then their potential to emit has always been the huge numbers given above and we can proceed with their T5 application. However, if they are indeed limited by the amendment letter, they are not T5 and need to withdraw their T5 application, apply for an AC and then apply for T5.

Another point is that these increases are well above the 40 T/yr significant emissions rate for regulated air pollutants and would normally require PSD review and/or BACT analysis. However, are these huge emissions part of the baseline? They have been in operation since 1970. To make matters interesting, they have hardly, if ever operated over 100 hours a year so do we consider their contribution to the baseline at 8760 hrs/yr or 1650 hrs/yr or 100 hrs/yr or what? Before you answer see table below:

Recent Operating History - Query1 (AOR_VW$ARMS)

| *Year* | *1989* | *1990* | *1991* | *1992* | *1993* | *1994* | *1995* |
|---|---|---|---|---|---|---|---|
| hours/year | 0 | 0 | 55 | 87 | 43 | 16 | 35 |

Before 1989 they sometimes operated 14 hrs per year and some years they were shutdown - on cold standby and operated NO hours per year. (see file) Does this constitute continuous operation?

I do not know if the following has any legal standing, but if they have not operated continuously since installation, AND have rarely operated over 100 hrs/yr, how can we consider their potential emissions to be part of the baseline emissions for PSD purposes? Check out the table below to get an idea of actual vs. theoretical emissions:

| | | Emissions - Tons per Year | | |
|---|---|---|---|---|
| | | Basis - Operating hrs/yr | | |
| Emissions | lbs/hr * | 100 | 1650 | 8760 |
| PM | 7.56 | 0.38 | 6.24 | 33.11 |
| SO2 | 105.84 | 5.29 | 87.32 | 463.58 |
| NOx | 102.51 | 5.13 | 84.57 | 448.99 |

* dependent on operating rate

As you can see from these numbers, their contribution to the criteria pollutant levels at their location has been historically minimal. Ambient air quality could be impacted if they started to operate continuously.

Note that the continuous operating mode requested in the application results in quantities of increased emissions which would normally necessitate modeling of a facility in order to give reasonable assurance that no ambient air quality violations will occur. I feel we should ask them to provide modeling data.

From previous communications it seems that my bringing up the matter that they would need an AC to get the increased emissions they "request" in their T5 application might start a 90 day clock for me on their T5 permit once they responded. However, the T5 permit cannot be issued for the emissions levels requested because a T5 permit cannot be used to increase emissions. AND if they submit an AC to obtain the requested emissions increase, there is the possibility of PSD review and NAAQS modeling required, meanwhile, T5 tick tock, tick tock, tick....

After reading the above and reviewing the file copies, what is the best way to handle this puppy?

I apologize for the somewhat rambling missive. The information was glommed together from several memos and I didn't want to spend too much time making it readable. I thought the information contained therein might shed some light on the confusion.

regards,
armando