7601 HIGHWAY 301 NORTH TAMPA, FLORIDA 33610



A053-6631

Polk G-AP

BOB GRAHAM GOVERNOR

JACOB D. VARN SECRETARY

DAVID PUCHATY DISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

December 19, 1979

Mr. Mike Opalinski Environmental Coordinator City of Lakeland McIntosh Plant Construction Office Post Office Box 3523 Lakeland, Fla. 33802

Dear Mr. Opalinski:

This office has reviewed your letter of December 11, 1979 requesting amendment of the City of Lakeland-Larsen Memorial Power Plant, Units 5,6, & 7 air permits to allow the burning of up to 2.5% sulfur fuel. Please be advised it will be necessary for you to submit applications for a permit modification.

Any increase in the sulfur content of oil or switch from natural gas to oil will increase emissions and it has been determined this will consume a portion of the applicable PSD increment. Thus any application for modification of a permit to allow such a change in fuel will require an analysis of the impact on PSD increments as well as ambient air quality standards. A BACT determination is not required. It is suggested prior to initiating the modeling work that you contact Mr. Larry George, Bureau of Air Quality Management - Tallahassee, (904-488-1344) to discuss the Department requirements in this area.

If you have any questions please do not hesitate to contact our office.

Sincerely,

Dan A. Williams, P.E. District Air Engineer

an a. Willian

DAW/rkt

cc: P. David Puchaty

R. Craig McArthur Steve Smallwood

Larry George Mary Clark

original typed on 100% recycled paper



McIntosh Plant Construction Office P.O. Box 3523

Lakeland, Florida 33802

(813):688-2531

Jansen Re. 5

SOUTHWEST DISTRICT TAMPA

DEC 12 1979

Mr. Bill Brown Fl. Dept. of Env. Regulation Southwest District 7601 Highway 301 North Tampa, F1. 33610

Dear Sir:

During the last several months, the City of Lakeland has conducted compliance particulate emissions tests on Units 5, 6 and 7 at the Larsen Memorial Power Plant while burning high sulfur oil. In each test, the results showed that the units met the particulate emission limitation of 0.1 lb/mm BTU.

These units can legally burn up to 2.5% sulfur fuel and comply with SO₂ emission standard outlined in Chapter 17-2 FAC, but have been burning and are permitted to burn only low sulfur oil. However, recent fuel oil price increases have raised the cost differential between 1% and 2.5% sulfur oil to \$6.42 per barrel, no longer making it economically feasible to continue the burning of low sulfur oil.

For this reason, we request that the following Larsen Plant permits be amended to allow the use of high sulfur oil:

| UNIT # | PERMIT # | % S OIL | SO ₂ EMISSI | ONS (1bs/mm BTU)* |
|--------|-----------|---------|------------------------|-------------------|
| 5 | A053-6631 | 2.5 | 2.43 | 100% |
| 6 | A053-6632 | 2.5 | 2.43 | 2.673 |
| 7 | A053-6633 | 2.5 | 2.43 | |

*Emissions are based on 2.5% Sulfur oil with a heating valve of 18500 BTU/1b with a 90% SO_2 emission factor.

Since the stated cost differential is now in effect, we would greatly appreciate your most expeditious handling of this matter. If you have any questions, please contact me.

Sincerely,

Mike Opalinski

Environmental Coordinator Power Generation Division

NO. Bendi en 19

ble: Polk G-AP

7601 HIGHWAY 301 NORTH TAMPA, FLORIDA 33610



AD5-3-6633

BOB GRAHAM GOVERNOR

JACOB D. VARN SECRETARY

DAVID PUCHATY **DISTRICT MANAGER**

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

December 19, 1979

Mr. Mike Opalinski Environmental Coordinator City of Lakeland McIntosh Plant Construction Office Post Office Box 3523 Lakeland, Fla. 33802

Dear Mr. Opalinski:

This office has reviewed your letter of December 11, 1979 requesting amendment of the City of Lakeland-Larsen Memorial Power Plant, Units 5,6, & 7 air permits to allow the burning of up to 2.5% sulfur fuel. Please be advised it will be necessary for you to submit applications for a permit modification.

Any increase in the sulfur content of oil or switch from natural gas to oil will increase emissions and it has been determined this will consume a portion of the applicable PSD increment. Thus any application for modification of a permit to allow such a change in fuel will require an analysis of the impact on PSD increments as well as ambient air quality standards. A BACT determination is not required. suggested prior to initiating the modeling work that you contact Mr. Larry George, Bureau of Air Quality Management - Tallahassee, (904-488-1344) to discuss the Department requirements in this area.

If you have any questions please do not hesitate to contact our office.

> Sincerely, Jan a. William

Dan A. Williams, P.E.

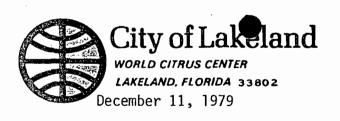
District Air Engineer

DAW/rkt

P. David Puchaty R. Craig McArthur Steve Smallwood Larry George

Mary Clark

original typed on 100% recycled paper



McIntosh Plant Construction Office P.O. Box 3523 Lakeland, Florida 33802 [813]:688-2531

File: Poll G-AP

D.E.R.

DEC 12 1979

SOUTHWEST DISTRICT

Mr. Bill Brown Fl. Dept. of Env. Regulation Southwest District 7601 Highway 301 North Tampa, Fl. 33610

Dear Sir:

During the last several months, the City of Lakeland has conducted compliance particulate emissions tests on Units 5, 6 and 7 at the Larsen Memorial Power Plant while burning high sulfur oil. In each test, the results showed that the units met the particulate emission limitation of 0.1 lb/mm BTU.

These units can legally burn up to 2.5% sulfur fuel and comply with SO emission standard outlined in Chapter 17-2 FAC, but have been burning and are permitted to burn only low sulfur oil. However, recent fuel oil price increases have raised the cost differential between 1% and 2.5% sulfur oil to \$6.42 per barrel, no longer making it economically feasible to continue the burning of low sulfur oil.

For this reason, we request that the following Larsen Plant permits be amended to allow the use of high sulfur oil:

| UNIT # | PERMIT # | % S OIL | SO, EMISSIONS (1bs/mm BTU)* |
|--------|-----------|---------|-----------------------------|
| 5 | A053-6631 | 2.5 | 2.43 |
| 6 | A053-6632 | 2.5 | 2.43 |
| 7 | A053-6633 | 2.5 | 2.43 |

*Emissions are based on 2.5% Sulfur oil with a heating valve of 18500 BTU/lb with a 90% $\rm SO_2$ emission factor.

Since the stated cost differential is now in effect, we would greatly appreciate your most expeditious handling of this matter. If you have any questions, please contact me.

Sincerely,

Mike Opalinski

Environmental Coordinator Power Generation Division

682 116

December 17, 1979

DEC 20 1979

SOUTHWEST DISTRICT

McIntosh Plant Construction Office P.O. Box 3523
Lakeland, Florida 33802

File: Polk 6- AP

(813) 688-2531

Mr. Bob Barker Fl. Dept. of Env. Regulation Southwest District 7601 Highway 301 North Tampa, Fl. 33610

Dear Bob:

Per your request, please find the attached high sulfur fuel oil analysis taken from the Larsen Plant Storage Tanks.

If I can be of any other assistance, please contact either myself or Mike Gieger.

Sincerely,

Mike Opalinski Env. Coord.

MO/csh

DEC 20 1979

SOUTHWEST DISTRICT FULL OIL

| DATE 11-6-79 | | | | | |
|---------------------------------|---------|------------|------------|--------|--------|
| SAMPLE NO. H/s (2.5%) E. Tonk- | LARsen | P1 | Pump | Discha | 7 |
| TYPE H/S NO: 6 | • | | NO: 10 | 7 | |
| | • | | #5 | | |
| APPEARANCE | • | . . | | | |
| ASTM COLOR | | | · | | |
| VISCOSITY, SSF @ 122 F | : | | | • • | |
| VISCOSITY, SUS @ 100 P | | | | | |
| API GRAVITY = 60 F 16.4 | | • | | | |
| SPECIFIC GRAVITY @ 60 F.O. 9.56 | 7 | | | • | • |
| WT. PER GALLON 7.967 | | | • | | |
| WATER # by V | • • | | | • | |
| SEDIMENT 3 by WT. | | • | : <u>:</u> | | • |
| SEDIMENT % BY V | 3. | | • | | |
| SULFUR % by Wt. 2.24 | | | | | |
| BTU PER 16. 18,540 | | | • | | |
| BTU PER GALLON 147, 708 | | . # | | | |
| 4.5h yu = 0.07 | fine - | | | | |
| HEMARKS Stack Tes | corenze | P9. | 00 AM | -clez | - Æ |

| b | | | | | | | | | |
|-----------------------------|------------------|-------------------------------------|----------|-------------------|-------------------------|-------------|-------------------|--------|--|
| Date 10-20-79 | | | | | Baromet | ric Pres | ss,P _B | 30.08 | "H |
| By C. J. M | FDONAL | D-PRIE | LISION R | RPAIRS | Dry Gas | Meter 1 | No. 64 | 47188 | en e |
| Company CITY OF LAKELAND | | | | | Wet Test Meter No. P675 | | | | |
| Checked | A | R- | | | | • | | 0.000 | CFM |
| Orifice | Gas Vol. | Gas Vol | | TEMPERAT | URE | | | | |
| | Wet Test | Dry Gas | Wet Test | Dry G | as Meter | | Time | | |
| Setting, \(\Delta \) H, | Meter V w, | Meter V | Meter | Inlet | Outlet | Average | 9 | Y | ΔH @ |
| ''H ₂ 0 | Ft ³ | V _d , Ft ³ | t or | t _{di} , | o _F do, | td F | Min. | | |
| 0.5 | 3.759 | 3.793 | 77.8 | 94.0 | 87.0 | 90.5 | 10 | 1,0132 | 1.9718 |
| 1.0 | 5.176 | 5.260 | 77.9 | 97.0 | 87.0 | 92,0 | 10 | 1,0074 | 2.0807 |
| 2.0 | 7,125 | 7.245 | 78.0 | 101.0 | 88.0 | 94.5 | 10 | 1,0087 | 2,1929 |
| 4.0 | 9,940 | 10,134 | 77.8 | 105.0 | 88.0 | 96,5 | 10 | 1.0051 | 2.2518 |
| 6.0 | 12.149 | 12.487 | 77.1 | 108.0 | 91.0 | 99.5 | 10 | 19989 | 2.2429 |
| 8.0 | 13,950 | 14.334 | 77,0 | 109.0 | 92.0 | 100,5 | 10 | ,9963 | 2,2632 |
| Avg. | | | | | <u> </u> | | <u> </u> | 1.0049 | |
| | | | | | | | | | |

CALCULATIONS

| * 40 | | | |
|-------|----------------|--|--|
| | | Y | . ► ► H |
| ΔН | <u>△H</u> 13 6 | $\frac{V_{\rm w}^{\rm P}_{\rm b}(t_{\rm d} + 460)}{V_{\rm d}(P_{\rm b} + \frac{\Delta H}{13.6})(t_{\rm w} + 460)}$ | $\frac{0.0317 \Delta H}{P_{b}(t_{do}^{+460})} \begin{bmatrix} (t_{w} + 460) \theta \\ V_{w} \end{bmatrix}^{2}$ |
| 0.5 | 0.0368 | 1.013 | 1.9718 |
| 1.0 | 0.0737 | 1.0074 | 2.0867 |
| 2.0 | 0.147 | 1.0087 | 2.1929 |
| 4.0 | 0.294 | 1.0051 | 2.2518 |
| 6.0 | 0.431 | 0,9919 | 2,2429 |
| 8.0 | 0.588 | 0.9963 | 2.2632 |
| oure. | · | [.0037 | 2.1672 |

Y = Ratio of accuracy of wet test meter to dry test meter = \pm 0.01 \triangle H@ = Orifice press. Diff. that gives 0.75 cfm air at 70°F and 29.92 "Hg, "H20. Tolerance = \pm 0.15.

Meter to be tested should be run 10 min. @ 2 "H₂0 prior to calibrating.

| METER 7 | # 647188 CALIBRATION WORK SHEET DATE | 10-20-79 |
|-------------|--|----------|
| IN. | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Factor |
| .5 | 3,759 000,000 3,759 77.8 969,687 965,634 94.0 87.0 90.5 10 3,759 3,793 | 1.0132 |
| e e e e e e | 3.759 X30.08 X 550.5 3.793 X30.12 X 537.8 | |
| 1.0 | 8,935 3.759 77.9 969,427 97.0 87.0 92.0 10 5.176 5.260 | 1.0074 |
| | 5.176 X 30,08 X 552.0 = 5.200 X 30,15 X 537.9 | |
| 2.0 | 16,060 8,935 7,125 7,245 101.0 88.0 94.5 10 | 1.0087 |
| | 7.125 X 30.08X 554.5 7.245 X 30.23 X 538.0 | |
| 4.0 | 26.000 16.060 992,066 981,932 10,134 10,134 10,134 | 1,0051 |
| | 9.940 X30.08 X 556.5 10.134 X30.37 X 537.8 | |
| 6.0 | 38,149 26,000 77,1 12,149 12,487 108,0 91.0 99,5 10 | , 9989 |
| · · | 12.149 X 30.08 X 559.5 12.487 X 30.52 X 537.1 | |
| 8.0 | 52.099 38.149 77.0 1004.553 14.334 109,0 92.0 100.5 10 | ,9963 |
| 7 T | 13,950 X 30,08 X 560,5 14,334 X 30,67 X 537,0 | |

Avg 1.0049

D. E. R.

OCT 31 1979

SOUTHWEST, DISTRICT

RECEIVED

MOV AN INTO

DER CENTRAL BLE MATTER WINTER RETURN

TO:

General Counsel

THRU:

Mr. Dan Farley

FROM:

Hamilton S. Oven, Jr.

DATE:

November 6, 1975

SUBJECT:

Lakeland Utilities Variance Request

city of Lakeland

On June 30, 1975, a request for a variance from the particulate emission standard for existing fossil fuel steam generators was received from the City of Lakaland. On July 9, I transmitted the attached memo containing my evaluation of the variance request. It is suggested that the City of Lakeland be notified, as expeditiously as possible, of the position of this Department relative to their variance request. The resolution of this matter will have a bearing on certification of Unit No. 3 at Lakeland Power Plant No. 3.

File

53

LAB

FIL

EMF

TA

Action (A):

HSOJr/ce Attachment

cc: Mr. Warren Strahm

Mr. John Redmond



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

2562 EXECUTIVE CENTER CIRCLE, EAST MONTGOMERY BUILDING TALLAHASSEE, FLORIDA 32301

JOSEPH W LANDERS, JR

SECRETARY

MEMORANDUM

TO:

Nr. John A. Redmond

THRU:

n Farley

FROM:

Hamilton S. Oven, Jr. 45

DATE:

July 9, 1975

SUBJECT: Varia

Variance Request - City of Lakeland

The following is a list of my initial thoughts on the Lakeland Utilities variance request:

- 1. I feel the letter is not in the form of the prescribed petition as required by 17-1.
- 2. An economic hardship variance per 403.201(1)(b), F.S. requires a timetable of compliance measures.
- 3. The letter does not indicate whether or not they have exhausted all other emission reduction alternatives such as burner modification, fuel - air ratio adjustments, or lower ash fuels.
- 4. The Air Quality Display Model referenced on page 2 of the letter may refer to the model submitted as part of their site certification application for Unit 3 at Power Plant No. 3. That model predicted values of 50 ug/m³ compared to a standard of 60. It is not clear from the model what particulate emission rate was used. Depending on the emission rate used, the predicted results could show violations.
- The variance request does not show the requested emission rates.

BEST AVAILABLE COPY

Mr. John A. Redmond July 9, 1975 Page two

- the ambient air quality standards in the area from a fugitive dust from phosphate mining and other sources and since the petition is deficient. I would recommend that the petition be summarily dealed.
 - 7. The purpose of the potition is, at least partially, to fallow the burning of higher sulfur oil.

MSOJr/ce

ec: Gohn Bottcher Terry Cole W. L. Linne Frank Cross



June 25, 1975

Mr. Peter Baljet

Director

Fla. Dept. of Pollution Control 2562 Executive Center Circle, East Montgomery Building Tallahassee,

Fla. 32301

Dear Mr. Baljet:

The City of Lakeland, Department of Electric and Water Utilities, does hereby request a variance from the particulate emission standard for existing fossil fuel steam generators as stated in Chapter 17-2.04 (6) (e) 1.a and 2.a (FAC) for Units 4, 5, 6 and 7 at the Larsen Memorial Power Plant and Unit 1 at Power Plant No.3.

This request is made under Chapter 17-1.23 (3) (6) 3 (FAC) as a special hardship. To date, the only proven method of removing particulate matter from oil fired power plants is with "hot side" electrostatic precipitators, bag house filters or flue gas scrubbing units. Each of these methods requires an area equal to that of the generating unit and major duct work modifications.

The Larsen Memorial Power Plant is a 9.34 acre site of which 95% is presently in use. With the remaining available land, there is not enough space to accomodate any particulate removal system.

The site at Power Plant No. 3, where Unit 1 is located, has a land area of 275 acres of which 40 acres is a lake. While this appears to be adequate to accommodate a particulate removal system, the site has an additional oil fired unit under construction and is scheduled to have two coal fired units built in the future. The first coal unit is currently pending certification from the Department of Pollution Control. All available space at this site will be needed for coal piles, coal transport systems, and various pollution control equipment and related disposal areas. Consequently, there is no land area available at this site to accommodate a particulate removal system.

A second problem with Unit 1 is that the duct arrangement would require that the location of the air pre-heaters would have to be changed before a "hot side" precipitator could be added. This would require a massive expenditure for this modification.



BEST AVAILABLE COPY

The City of Lakeland requests that the particulate emission standard for Larsen Units 4, 5, 6 and 7 and Unit 1 at Fewer Plant No. 3, be 0.2 lbs/M BTU heat input for the maximum time allotted by a variance. During this period, our lapartment will keep current of new technologies that prove to control particulate emissions from oil fired units which do not require large land areas or massive retrofit expenses.

Environmental Science and Engineering, Inc. conducted an Air Quality Display Model with the Larsen Units and Unit I burning 2.5% sulfur oil and Unit 3 at Power Plant No. 3 burning coal. The results of this model showed that the annual geometric mean of 60 micrograms per cubic meter would not be violated.

We hope you accept this variance request and will look forward to hearing from you.

Sincerely,

C. D. McIntosh, J. Director ESW Utilities



MOV TO 1515.

DER CENTRAL SUB DISTRICT MINITER HAVEN

TO:

General Counsel

THRU:

Mr. Dan Farley

FROM:

Hamilton S. Oven, Jr.

DATE:

November 6, 1975

SUBJECT:

Lakeland Utilities Variance Request

MTG PER. BB LAB ENF ALL. FtL TÀ. \ & G | Action (A):

On June 30, 1975, a request for a variance from the particulate emission standard for existing fossil fuel steam generators was received from the City of Lakeland. On July 9, I transmitted the attached memo containing my evaluation of the variance request. is suggested that the City of Lakeland be notified, as expeditiously as possible, of the position of this Department relative to their variance request. The resolution of this matter will have a bearing on certification of Unit No. 3 at Lakeland Power Plant No. 3.

HSOJr/ce Attachment

cc: Mr. Warren Strahm

Mr. John Redmond

Jakun.



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

2562 EXECUTIVE CENTER CIRCLE, EAST MONTGOMERY BUILDING TALLAHASSEE, FLORIDA 32301

JOSEPH W LANDERS, JR

SECRETARY

MEMORANDUM

TO: Ar. John A. Redmond

FROM: Hamilton S. Oven, Jr.

DATE: July 9, 1975

SUBJECT: Variance Request - City of Lakeland

The following is a list of my initial thoughts on the Lakeland Utilities variance request:

- 1. I feel the letter is not in the form of the prescribed petition as required by 17-1.
- 2. An economic hardship variance per 403.201(1)(b), F.S. requires a timetable of compliance measures.
- 3. The letter does not indicate whether or not they have exhausted all other emission reduction alternatives such as burner modification, fuel - air ratio adjustments, or lower ash fuels.
- 4. The Air Quality Display Model referenced on page 2 of the letter may refer to the model submitted as part of their site certification application for Unit 3 at Power Plant No. 3. That model predicted values of 50 ug/m³ compared to a standard of 60. It is not clear from the model what particulate emission rate was used. Depending on the emission rate used, the predicted results could show violations.
- The variance request does not show the requested emission rates.



Mr. John A. Redmond July 9, 1975 Page two

- 6. Since we have had and possibly will have violations of the ambient air quality standards in the area from fugitive dust from phosphate mining and other sources and since the petition is deficient, I would recommend that the petition be summarily denied.
- 7. The purpose of the potition is, at least partially, to allow the burning of higher sulfur oil.

HSOJr/ce

cc: John Bottcher Terry Cole W. E. Linne Frank Cross



SECT. II 200

Mr. Peter Baljet

Director

JUN 00 355

Fla. Dept. of Pollution Control 2562 Executive Center Circle, East Montgomery Building Tallahassee,

EXECUTIVE OF CONS.

Tallahassee, Fla. 32301

Dear Mr. Baljet:

The City of Lakeland, Department of Electric and Water Utilities, does hereby request a variance from the particulate emission standard for existing fossil fuel steam generators as stated in Chapter 17-2.04 (6) (e) 1.a and 2.a (FAC) for Units 4, 5, 6 and 7 at the Larsen Memorial Power Plant and Unit 1 at Power Plant No.3.

This request is made under Chapter 17-1.23 (3) (6) 3 (FAC) as a special hardship. To date, the only proven method of removing particulate matter from oil fired power plants is with "hot side" electrostatic precipitators, bag house filters or flue gas scrubbing units. Each of these methods requires an area equal to that of the generating unit and major duct work modifications.

The Larsen Memorial Power Plant is a 9.34 acre site of which 95% is presently in use. With the remaining available land, there is not enough space to accommodate any particulate removal system.

The site at Power Plant No. 3, where Unit 1 is located, has a land area of 275 acres of which 40 acres is a lake. While this appears to be adequate to accommodate a particulate removal system, the site has an additional oil fired unit under construction and is scheduled to have two coal fired units built in the future. The first coal unit is currently pending certification from the Department of Pollution Control. All available space at this site will be needed for coal piles, coal transport systems, and various pollution control equipment and related disposal areas. Consequently, there is no land area available at this site to accommodate a particulate removal system.

A second problem with Unit 1 is that the duct arrangement would require that the location of the air pre-heaters would have to be changed before a "hot side" precipitator could be added. This would require a massive expenditure for this modification.



BEST AVAILABLE COPY



The City of Lakeland requests that the particulate emission standard for Larsen Units 4, 5, 6 and 7 and Unit Lat Power Plant No. 3, be 0.2 lbs/M BTU heat input for the maximum time allotted by a variance. During this period, our Department will keep current of new technologies that prove to control particulate emissions from oil fired units which do not require large land areas or massive retrofit expenses.

Environmental Science and Engineering, Inc. conducted an Air Quality Display Model with the Larsen Units and Unit 1 burning 2.5% sulfur oil and Unit 3 at Power Plant No. 3 burning coal. The results of this model showed that the annual geometric mean of 60 micrograms per cubic meter would not be violated.

We hope you accept this variance request and will look forward to hearing from you.

Sincerely,

C. D. McIntosh, J. Director ESW Utilities







REUBEN O'D. ASKEW

00455H05

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL SUBDISTRICT P.O. BOX 9205 500 E. CENTRAL AVENUE WINTER HAVEN, FLORIDA 33880

JOSEPH W. LANDERS JR. SECRETARY

SEPTEMBER 30, 1975 CITY OF LAKELAND POLK COUNTY AP

C. D. McIntosh, Jr. Director, E. & W Utilities City of Lakeland Lakeland, Florida 33802

> RE: Extension of Construction Permit AC 53-2244

Dear sir:

We are in receipt of your request for an extension of the construction permit for the above project.

The provisos are changed as follows:

Proviso #1 from Feb. 28, 1975 to Dec. 1, 1975 from June 1, 1975 to May 1, 1976 Proviso #5

At least sixty (60) days before the expiration date, you must make an application for "Permit to Operate".

Very truly yours,

J. H. Kerns, P.E. Chief of Permitting

JHK/DAT/pm

Central Files



STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION





POST OFFICE BOX 9205

500 EAST CENTRAL AVENUE WINTER HAVEN, FLORIDA 33880

> September 3, 1975 CITY OF LAKELAND POLK COUNTY AP

C. D. McIntosh, Jr. Director, E & W Utilities City of Lakeland Lakeland, Florida 33802

> RE: Extension Request for Air Permit AC53-2244

Dear Sir:

The items indicated below were not in the permit application submitted by you recently.

| X | Application fee \$20.00 |
|-------------|--|
| | Professional engineer's signature and seal |
| | Company officer's signature |
| | Certificate of Good Standing |
| | UTM coordinates |
| | Plot plan |
| | Flow diagram |
| | Stack data (height, diameter, temperature, etc.) |
| | Emission data (pages 3 and 4) |
| | Statement that facility complies with local government |
| , | rules and regulations |
| | Air quality impact study |
| | |

Review of the application will not begin until the above information is received. If you have any questions, please call.

JLT/pm





AUG 26 19

Mr. Dan Williams Fl. Dept. of Environmental Regulation Central Subdistrict 500 East Central Ave. Winter Haven, Fl. 33880 D. E. R.
CENTRAL SUB DISTRICT
WINTER HAVEN

Re: Construction Permits Nos. IC53-2035 and AC53-2244 for Unit No. 2 at Power Plant No. 3

Dear Mr. Williams:

As you are aware, due to the delays we have encountered in the construction of Unit No. 2 at Power Plant No.3, the construction permits for this unit have passed their expiration dates. Permit No. IC53-2035 expired on 8-1-75 and Permit No. AC53-2244 expired on 6-1-75. The start-up date for this unit has now been rescheduled for sometime between October 10 and November 15, 1975. We hereby request that both construction permits be extended to 5-1-76 effective from the date of expiration of the individual permit. This time frame will allow the unit to become operational and allow time for the testing required for an operating permit, for which an application must be submitted 30 days prior to the expiration date of the construction permits.

Additionally, proviso #17 of Permit No. IC53-2035 states that the chemical wastes from this unit "be neutralized to a pH of 6.5 to 8.5, settled and retained in a holding pond with no discharge or overflow to Lake Parker." We request that a modification of this proviso be granted to allow the construction of a spray evaporation pond instead of the holding pond.

Chapter 17-4.08 (FAC) states that "for good cause", modifications may be required to conform to new or additional conditions of a permit. With your approval of this modification, not only will the chemical wastes from Unit No. 2 be eliminated, but also those from Unit #1 at Power Plant No. 3 and Units Nos. 4, 5, 6 and 7 from the Larsen Power Plant. We believe that the elimination of those additional chemical wastes meet the good cause requirements in 17-4.08.

If optimum equipment delivery dates are met, we expect the spray pond to be completed by the end of February, 1976. Since this date is past the scheduled start-up date of Unit No. 2, we request that the start-up be allowed to continue while the construction of the spray pond is under way. Chapter 17-4.08 (1) allows the permittee of a modification reasonable time to conform to the new or additional conditions and we feel this request falls under these conditions.

770

During this interim period, the chemical wastes from this unit will go to a baffled retention basin which is already constructed. The wastes will be treated with lime, neutralized to a pH of 6.5 - 8.5 and discharged into the cooling water effluent canal from Unit No. 1. We wish to reemphasize that this method of waste elimination is only temporary and will be discontinued once the spray pond is completed.

In order to meet Federal requirements, we submitted a NPDES permit application for this unit to the EPA Region IV on June 10, 1975. We contacted Region IV and explained our decision to apply for a permit modification from your office and that the spray pond would not be completed by unit start-up. We were informed that they would require us to submit a short form application in the event that our permit was acted upon before the spray pond was completed. In this case, they would issue a permit based on the short form application and once the spray pond was completed, would issue another permit reflecting the elimination of the wastes.

We hope that you will give this matter your urgent attention and grant our request for the construction permit extensions and the permit modification. We are enclosing the design data for the spray pond for your review.

If I can be of any other assistance, please contact my office.

Sincerely,

C. D. McIntosh, Jr.

Director

Electric & Water Utilities



Sept. 9, 1975



SEP 10 1975

D. E. R.
CENTRAL SUB DISTRICE
WINTER HAVEN

Mr. Dan William
Fl. Department of Environmental Regulation
P. O. Box 9205
Winter Haven, Fl. 33880

Dear Mr. Williams:

Enclosed is a check for \$40.00 required for application to extend construction permits Nos. IC53-2035 and AC53-2244.

Enclosed also is an additional copy of the spray pond data that was previously sent to your office.

Sincerely,

C. D. McIntosh, Jr.
Director
Electric & Water Utilities

Proving # 5 - R-1-25

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

No

673

RECEIPT FOR APPLICATION TO OPERATE/CONSTRUCT POLLUTION SOURCES

| Received fro | omCity | of Lakel | and | | | Date | 9 | -10-75 | |
|--------------|---------------|-----------|-----------|-----------|-------|-------|-----------|---------|-----------|
| Address] | Lakeland, | Florida | 33802 | | | | Dollars S | 40 | .00 |
| Source] | Extension | permits | IC53-203 | 5 and | AC53- | 2244 | | | |
| Applicant N | lame & TitleC | . D. McIn | tosh, Jr. | , Dir | ector | Elec | tric | & Water | Utilities |
| Applicant A | ddressLak | eland, Fl | orida 33 | 802 Ce | ntral | Subdi | stric | :t | WH |
| | | | | | te | 1 17 | ddy | - | |



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

2562 EXECUTIVE CENTER CIRCLE, EAST MONTGOMERY BUILDING TALLAHASSEE, FLORIDA 32301

JOSEPH W. LANDERS, JR. SECRETARY

JUL 11 1975

WEST CENTRAL REGION

ST. PETERSBURG

MEMORANDUM

TO:

Mr. John A. Redmond

THRU:

Dan Farley

FROM:

Hamilton S. Oven, Jr.

DATE:

July 9, 1975

SUBJECT: Variance Request - City of Lakeland

7/1/15

The following is a list of my initial thoughts on the Lakeland Utilities variance request:

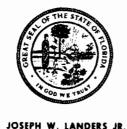
- I feel the letter is not in the form of the prescribed petition as required by 17-1.
- An economic hardship variance per 403.201(1)(b), F.S. requires a timetable of compliance measures.
- 3. The letter does not indicate whether or not they have exhausted all other emission reduction alternatives such as burner modification, fuel - air ratio adjustments, or lower ash fuels.
- The Air Quality Display Model referenced on page 2 of the letter may refer to the model submitted as part of their site certification application for Unit 3 at Power Plant No. 3. That model predicted values of 50 ug/m³ compared to a standard of 60. It is not clear from the model what particulate emission rate was used. Depending on the emission rate used, the predicted results could show violations.
- The variance request does not show the requested emission rates.

Mr. John A. Redmond July 9, 1975 Page two

- 6. Since we have had and possibly will have violations of the ambient air quality standards in the area from fugitive dust from phosphate mining and other sources and since the petition is deficient, I would recommend that the petition be summarily denied.
- 7. The purpose of the petition is, at least partially, to allow the burning of higher sulfur oil.

HSOJr/ce

cc: John Bottcher
Terry Cole
W. E. Linne
Frank Cross



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

POST OFFICE BOX 9205 500 EAST CENTRAL AVENUE WINTER HAVEN, FLORIDA 33880

August 6, 1975

SECRETARY

MEMORANDUM

TO:

File.

FROM:

Otis Smith

SUBJECT:

Lakeland Power (Larson) Plant

Oil Spill - Lake Parker

On the night of August 2, 1975 a quantity of oil was spilled at the Lakeland Power Plant (Larson) and into Lake Parker. They contacted city maintenance and Clean Rivers, Inc. to work on the clean-up project. On August 4, 1975, Tony Pearce, Paul Myers, and Otis Smith met Mr. Dave Reese of Game and Fish at Lake Parker. Clean up was in the finishing stages. There was no evidence of a fish kill and the oil had been almost totally contained. We requested a complete report from Mr. Libby. No action is anticipated because of fast efficient clean up operations which kept damages to a minimum.

OS/cjm



STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

POST OFFICE BOX 9205 500 EAST CENTRAL AVENUE WINTER HAVEN; FLORIDA 33880

July 7, 1975

JOSEPH W. LANDERS JR.

MEMORANDUM

TO:

John Bottcher

FROM:

J. H. Kerns

SUBJECT:

Variance for Lakeland Utilities

Polk County - AP

Please find attached a copy of Lakeland Utilities request for a variance. If we can be of any service, let us know.

JHK/cjm Attachment

cc: W. E. Linne/with attachment

-3Je

June 25, 1975

West central regi

Mr. Peter Baljet Director Fla. Dept. of Pollution Control 2562 Executive Center Circle, East Montgomery Building Tallahassee, Fla. 32301

Dear Mr. Baljet:

The City of Lakeland, Department of Electric and Water Utilities, does hereby request a variance from the particulate emission standard for existing fossil fuel steam generators as stated in Chapter 17-2.04 (6) (e) 1.a and 2.a (FAC) for Units 4, 5, 6 and 7 at the Larsen Memorial Power Plant and Unit 1 at Power Plant No.3.

This request is made under Chapter 17-1.23 (3) (6) 3 (FAC) as a special hardship. To date, the only proven method of removing particulate matter from oil fired power plants is with "hot side" electrostatic precipitators, bag house filters or flue gas scrubbing units. Each of these methods requires an area equal to that of the generating unit and major duct work modifications.

The Larsen Memorial Power Plant is a 9.34 acre site of which 95% is presently in use. With the remaining available land, there is not enough space to accomodate any particulate removal system.

The site at Power Plant No. 3, where Unit 1 is located, has a land area of 275 acres of which 40 acres is a lake. While this appears to be adequate to accomodate a particulate removal system, the site has an additional oil fired unit under construction and is scheduled to have two coal fired units built in the future. The first coal unit is currently pending certification from the Department of Pollution Control. All available space at this site will be needed for coal piles, coal transport systems, and various pollution control equipment and related disposal areas. Consequently, there is no land area available at this site to accomodate a particulate removal system.

A second problem with Unit 1 is that the duct arrangement would require that the location of the air pre-heaters would have to be changed before a "hot side" precipitator could be added. would require a massive expenditure for this modification.

The City of Lakeland requests that the particulate emission standard for Larsen Units 4, 5, 6 and 7 and Unit 1 at Power Plant No. 3, be 0.2 lbs/M BTU heat input for the maximum time allotted by a variance. During this period, our Department will keep current of new technologies that prove to control particulate emissions from oil fired units which do not require large land areas or massive retrofit expenses.

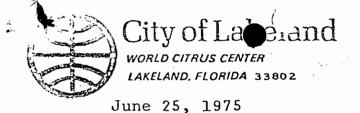
Environmental Science and Engineering, Inc. conducted an Air Quality Display Model with the Larsen Units and Unit 1 burning 2.5% sulfur oil and Unit 3 at Power Plant No. 3 burning coal. The results of this model showed that the annual geometric mean of 60 micrograms per cubic meter would not be violated.

We hope you accept this variance request and will look forward to hearing from you.

Sincerely,

C. D. McIntosh, Jr.

Director E&W Utilities



FILED D C.

Jul 2 197*

MEST CENTRAL REPORT

Mr. Peter Baljet
Director
Fla. Dept. of Pollution Control
2562 Executive Center Circle, East
Montgomery Building
Tallahassee,
Fla. 32301

Dear Mr. Baljet:

The City of Lakeland, Department of Electric and Water Utilities, does hereby request a variance from the particulate emission standard for existing fossil fuel steam generators as stated in Chapter 17-2.04 (6) (e) 1.a and 2.a (FAC) for Units 4, 5, 6 and 7 at the Larsen Memorial Power Plant and Unit 1 at Power Plant No.3.

This request is made under Chapter 17-1.23 (3) (6) 3 (FAC) as a special hardship. To date, the only proven method of removing particulate matter from oil fired power plants is with "hot side" electrostatic precipitators, bag house filters or flue gas scrubbing units. Each of these methods requires an area equal to that of the generating unit and major duct work modifications.

The Larsen Memorial Power Plant is a 9.34 acre site of which 95% is presently in use. With the remaining available land, there is not enough space to accomodate any particulate removal system.

The site at Power Plant No. 3, where Unit 1 is located, has a land area of 275 acres of which 40 acres is a lake. While this appears to be adequate to accomodate a particulate removal system, the site has an additional oil fired unit under construction and is scheduled to have two coal fired units built in the future. The first coal unit is currently pending certification from the Department of Pollution Control. All available space at this site will be needed for coal piles, coal transport systems, and various pollution control equipment and related disposal areas. Consequently, there is no land area available at this site to accomodate a particulate removal system.

A second problem with Unit 1 is that the duct arrangement would require that the location of the air pre-heaters would have to be changed before a "hot side" precipitator could be added. This would require a massive expenditure for this modification.

The City of Lakeland requests that the particulate emission standard for Larsen Units 4, 5, 6 and 7 and Unit 1 at Power Plant No. 3, be 0.2 lbs/M BTU heat input for the maximum time allotted by a variance. During this period, our Department will keep current of new technologies that prove to control particulate emissions from oil fired units which do not require large land areas or massive retrofit expenses.

Environmental Science and Engineering, Inc. conducted an Air Quality Display Model with the Larsen Units and Unit 1 burning 2.5% sulfur oil and Unit 3 at Power Plant No. 3 burning coal. The results of this model showed that the annual geometric mean of 60 micrograms per cubic meter would not be violated.

We hope you accept this variance request and will look forward to hearing from you.

Sincerely,

C. D. McIntosh, Jr

Director E&W Utilities



DEPARTMENT OF POLLUTION CONTRO

2562 EXECUTIVE CENTER CIRCLE, EAST MONTGOMERY BUILDING TALLAHASSEE, FLORIDA 32301

PETER P. BALJET. EXECUTIVE DIRECTOR

May 28, 1975

(0) Mr. C. D. McIntosh, Jr. (0) Director Department of E. and W Utilities P.O. Box 368 Lakeland, Florida 33802

| RECEIPT FOR CERTIFIED AIL-30¢ (| olus postage |
|--|---------------------|
| Mr. C. D. M. Intosh, A. | POSTMARK OR DATE |
| STREET AND NO. BOX 368 | 1. |
| P.O., STATE AND ZIP/CODE Caleland Ila. 33802 | 1/19, |
| OPTIONAL SERVICES FOR ADDITIONAL FEES | 1 10 |
| RETURN RECEIPT SERVICES 1. Shows to whom and date delivered | |
| DELIVER TO ADDRESSEE ONLY | |
| SPECIAL DELIVERY (extra fee required) | |
| PC E | |

Dear Sir:

NO INSURANCE COVERAGE PROVIDED-Apr. 1971 3800 MOT FOR INTERNATIONAL MAIL

The sulfur dioxide rule for existing fossil fuel steam generators, Chapter 17-2.04(6)(e)2 was amended by the Florida Department of Pollution Control Board on May 20, 1975. A copy of the rule is attached for your convenience, Section 17-2.04(6)(e)2.f requires monitoring of sulfur dioxide emissions and the effects of emissions on ambient concentrations

All affected sources must submit on or before July 1, 1975, a monitoring program for both the emissions and their effects. For the purposes of this requirement the Department will use the following

"Emission monitoring" means a continuous source sampler on each source or an alternative method for determining sulfur dioxide emissions which can be validated by source sampling.

The "effect of the emissions on ambient concentrations of sulfur. dioxide" means an ambient air sampling system which determines concentrations of sulfur dioxide, sulfates, particulates and metallic ions.

Meteorological conditions are to be determined and reported as a requirement for an approvable monitoring program.

The written proposal required by subsection f shall be submitted to any affected local program and the appropriate regional office at the same

Page 2 May 28, 1975 time. Following review by both, the region will forward the proposal to the Division of Planning in Tallahassee for final approval to insure uniform application of the requirements. Your attention to this matter will be appreciated. Sincerely, Peter P. Baliet



PETER 9 BALLET.

STATE OF FLORIDA DEPARTMENT OF POLLUTION CONTROL

POST OFFICE BOX 9205 500 EAST CENTRAL AVENUE WINTER HAVEN, FLORIDA 33880

May 28, 1975

W.D. FREDERICK, US.

W. R. Lesnett
City of Lakeland Plt. #3
P. O. Box 368
Lakeland, Florida 33801

Dear Mr. Lesnett:

In a review of permits by this office it was noted that permit number AO 53-2249 will expire on 7/1/75

Your attention is called to Chapter 17-4.09 FAC Renewals which require the permittee to apply for renewal of a permit (60) sixty days prior to the expiration of any Department permit.

Separate applications must be submitted for each point source.

If the permit is no longer applicable, please inform this office.

Your cooperation in this matter is appreciated.

Yours truly,

JI Tessitore

Air Permitting Engineer West Central Region

JT/pm



STATE OF FLORIDA

DEPARTMENT OF POLLUTION CONTROL

POST OFFICE BOX 9205 500 E. CENTRAL AVENUE WINTER HAVEN, FLORIDA 33881

DAVID H. LEVIN

PETER P. BALJET

MARCH 6, 1974
CITY OF LAKELAND
POLK COUNTY AP

Mr. C. B. McIntosh, Jr., Director Dept.of Electric and Water Utilities City of Lakeland P.O. Box 368 Lakeland, Florida

Dear Mr. McIntosh,

Pursuant to 32A C.F.R. Chapter XIII, Federal Energy Policy Regulation 2, switching from a higher sulfur petroleum product to a lower sulfur petroleum product is prohibited during the effective period of the regulation. As a result, this regulation has a great impact on the compliance schedule established by the Department for your facilities.

In order to accommodate this regulation, yet insure that Sections 17-2.04 (6) (e) 2.c. and d. and 3.b. F.A.C. are met, a categorical compliance schedule change was adopted on January 22, 1974. This regulation states:

- 4. All existing fossil fuel steam generators which on the effective date of this paragraph (17-2.04 (6) (e)) are not in compliance with above sulfur dioxide emission limiting standards and for which a compliance schedule has been established pursuant to 40 Code of Federal Regulations 51.15, and such schedule is based on use of low sulfur fuel, shall submit to the Department on or before May 1, 1974 one of the following:
 - a. A verified certification showing that the source presently complies with and will continue to comply with the sulfur oxide emission standards set forth in paragraphs 17-2.04 (6) (e) 1,2, and 3, Florida Administrative Code. The certification shall include test data and results and any other information necessary for the Department to determine compliance.
 - b. A binding contract or other documentation showing that the source will convert to the use of low sulfur fuel and that the low sulfur fuel will be available for continuous use on or before July 1, 1975, plus a good and sufficient bond shall be posted in an amount determined by the Department. Said bond to be forfeited if the low sulfur fuel is not available.

You are hereby placed on Notice that the Department will enforce this compliance schedule change under Florida Statute 403.161.

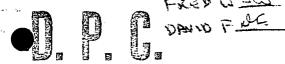
The Department recognizes the possible technical, legal and administrative problems that may occur involving the regulations of the E.P.A., E.P.O. and the D.P.C. Consequently, if difficulties arise, please advise this office so that a meeting can be established to formulate a position direction.

Very truly yours,

W. E. Linne

Regional Administrator West Central Region

WEL/pm



DEC 13 1473

WEST CENTRAL REGULER 368

DEPARTMENT OF ELECTRIC AND WATER UTILITIES OPERATIONS CENTER + TELEPHONE 813-682-1121

C. D. McINTOSH, JR.

December 14, 1973

Department of Pollution Control West Central Region P. O. Box 944 Winter Haven, Florida 33880

Attention: Mr. W. E. Linne

Regional Engineer

Gentlemen:

Subject: City of Lakeland

Air Implementation Plan

Permit Nos. <u>A053-2249</u>, A053-576, A053-577

A053-579, A053-580

The City of Lakeland does hereby request a variance in the air implementation schedule set up as part of our compliance schedule adopted May 16, 1973.

Our schedule had the following dates:

Item 1 - 7/2/73 - Latest date to submit final control plan.

Item 2 - 12/24/73 - Latest date by which contract will be awarded.

Item 3 - 10/18/74 - Latest date of initiation of construction.

Item 4 - 4/4/75 - Latest date of construction completion.

Item 5 - 6/1/75 - Latest date source complies with rules.

Item 1 was complied with by our letter of June 19, 1973 in which we stated our intentions of awarding low sulfur oil contracts by December 24, 1973.

We now request a variance in this schedule which will allow us to hold Items 2 and 3 in abeyance until the world wide energy crisis is eased to the point where we can obtain low sulfur oil. Mr. W. E. Linne December 14, 1973 Page Two

For back up information the following is enclosed:

- a) Invitation to bid dated November 23, 1973.
- b) Specifications for low sulfur oil dated November 23, 1973.
- c) Addendum No. 1 to these specifications dated November 26, 1973.
- d) No bid letter from Belcher Oil Company dated December 4, 1973.
- e) No bid letter from Central Oil Company dated November 28, 1973.
- f) No bid letter from Western Fuel, Inc. dated December 4, 1973.
- g) Unacceptable bid for 2% sulfur oil from Fleetwing Corporation dated December 12, 1973.

Your prompt attention to this request will be appreciated.

Very truly yours,

C. D. McIntosh, Jr., Director

Department of Electric & Water Utilities

CDM: lw

Enclosures

mu made od

INVITATION TO BID NOVEMBER 23, 1973

Sealed bids will be accepted by the Purchasing Agent, City of Lakeland, Florida until 10:00 AM on Thursday, December 13, 1973, at which time all bids received shall be publicly opened in the office of the Purchasing Agent, 1140 East Parker Street, Lakeland, Florida and read aloud on the following requirement:

The City of Lakeland's requirements for Bunker "C" (No. 6) Fuel Oil for its municipal power plants for the twelve (12) months period beginning on or about February 15, 1974, in accordance with the attached specifications dated November 23, 1973.

All bids must be submitted in triplicate and must be enclosed within a sealed envelope with the words "SEALED BID - BUNKER "C" FUEL OIL" and the bidder's name clearly marked on the outside thereof.

The City of Lakeland reserves the right to waive irregularities or technicalities in any bid, to reject any or all bids and/or to accept the bid which, in its judgement, is in the best interest of the City.

CITY OF LAKELAND, FLORIDA

R. D. Perez

Purchasing Agent



Specifications for Low Sulfur Fuel Oils for the

Municipal Power Plants

of the

City of Lakeland, Florida

November 23, 1973

- 1. General
 This specification covers the furnishing and delivery of low sulfur Bunker "C" (No. 6) fuel oils to the municipal power plants of the City of Lakeland, Florida.
- 2. Period of Contract
 The period of the contract shall be from October 16, 1973 through October 15, 1974 with the option of the City of Lakeland to renew for an additional twelve (12) months.
- 3. Quantity
 It is estimated that the oil requirements under this contract for the twelve months period of the contract will be approximately one million, four hundred thousand (1,400,000) barrels divided up in sulfur contents as follows:

one percent (1%) sulfur max 800,000 bbls point seventy seven percent (0.77%) sulfur max 600,000 bbls Total 1,400,000 bbls

- 4. Qualities
 Fuel oils quoted must conform to the "Commercial Standard Specifications for Fuel Oils" (CS 12-48) of the U.S. Department of Commerce and ASTM specifications D396-69 (Grade No. 6). The present ASTM specifications covers a broad field of quality in present day Bunker "C" Fuel Oils. The City specifically adds the following limiting factors to the above specifications.
 - a) The bidder must state the guaranteed heating value of both the 1% max sulfur oil and the 0.77% max sulfur oil in Btu's per gallon. If fuel is delivered having a heating value less than the guaranteed value, the price shall be adjusted as stipulated in Section 7 Pricing.
 - B) The maximum sulfur contents are one percent (1%) and point seventy seven percent (0.77%) by weight.
 - c) The guaranteed amount of water by distillation and sediment by extraction shall not exceed one quarter of one percent (0.25%). If oil is delivered having water and sediment in excess of one quarter of one percent (0.25%), the pricing shall be adjusted as stipulated in Section 7 Pricing.
 - d) The bidder shall state the parts per million of vanadium that can be expected in the fuel oils bid. Maximum and acceptable limits shall be 125 parts per million.
 - e) Low pour oil is desired. Bidder shall state the maximum pour point that can be expected in each of the fuels bid.

Analysis
A complete recent typical analysis of each of the fuel oils offered must be enclosed with the bid. As these are to be fuels used in the City's steam generators, these analyses will be used in the final evaluation of the bids in an effort to obtain the most acceptable fuels for this type of operation. The bidder shall state the origin of the fuels, that is domestic, Venezuelan, etc.

6. Deliveries
Deliveries shall be made to the Larsen Memorial Power Plant, Power
Plant No. 3, or to any other City of Lakeland owned power plant
located in the greater Lakeland area.

Fuel oil deliveries to these plants shall be by standard tank trucks of approximately 6,000 gallons each. Deliveries and pricing shall be F.O.B. the oil storage tanks of the plants. Deliveries shall be made as requested by the City of Lakeland and may vary in quantities with load variations on the plants.

The City requests firm bids for the quantities and sulfur contents specified. Alternate methods of bidding may be submitted if such alternates use as a base, one of the applicable postings in Platt's Oilgram and if the bidder clearly states the method used in arriving at the alternate price. In evaluating such alternate prices, the previous twelve months history of the alternate base as quoted in Platt's Oilgram shall be used to determine stability and suitability of the base. If bids are made on the alternate method, delivered price F.O.B. the City's tanks shall be submitted.

a) Water and Sediment Adjustment
In event that the water and sediment content of the oil exceeds the guaranteed amount of one quarter of one percent (0.25%), a price adjustment shall be made, on a volumetric basis, based on the equivalent barrels of fuel oil equal to the volume of water and sediment delivered in excess of 0.25%. This price adjustment shall be deducted from the price of oil as invoiced.

b) Heating Value Adjustment
Bidder shall state the heating values in Btu per gallon
for each oil bid. In the event the heating value of
the oil tests less than this stated value, the volume
of water and sediment shall be deducted and the heating
value calculated based on 0.25% water and sediment. If
this calculated value is still less then the stated
values, the price of the oil will be calculated on a
cost per million Btu basis using the heating value as
corrected to 0.25% water and sediment. This price
adjustment is to be deducted from the price of oil as
invoiced.

Correction for temperatures above or below 60 degrees F. shall be made in accordance with the Standard Abridged Volume Correction Tables for Petroleum Oil, ASTM Designation D-1250-56. IP Designation 200/52.

- 8. Testing
 The buyer will draw one sample of oil from a delivery each week or as required; this sample will be tested in the City's laboratory. Should questions arise, the sample will be sent to the Pittsburgh Testing Laboratory or any other certified laboratory for analysis. The average weekly analysis in a given month will be used for calculating the price adjustment during that month.
- 9. Equipment
 The bidder shall show in his bid that he has ample storage facilities and equipment to load and transport the fuel as specified.
- 10. Acceptance of Bids
 The City reserves the right to accept or reject any and all bids, to waive irregularities in any bid submitted, and to readvertise.
- 11. Failure to Perform
 In the event the contractor shall fail to provide the amount of fuel required and requested to be delivered to the City of Lakeland, the contractor shall pay to the City of Lakeland, as liquidated damages, the additional amount required to be expended by the City of Lakeland to provide gas or fuel oil requirements for the City's electrical generating facilities.
- 12. Termination
 Should any regulatory body impose restrictions that would prohibit the City of Lakeland from burning the specified fuel, then this contract may be terminated unless the supplier should elect to meet the requirements set by the regulatory body.

Anticipated delivery schedule for contract period of October 16, 1974 through October 15, 1975.

| | Est No. of | | | |
|-----------------|------------|----------|----------------|-----------|
| •• | | 1% oil | .77% oil | Total |
| Oct 15-31, 1974 | | 5,000 | 20,000 క్ర | 25,000 |
| Nov | • | 5,000 | 43,000 🕏 | 48,000 |
| Dec | | 5,000 | 43,000 ੈ | 48,000 |
| Jan 1975 | · | 5,000 | 43,000 g | 48,000 |
| Feb 1975 | | 66,000 | 43,000 | 109,000 |
| Mar 1975 | | 112,000 | - 1 | 112,000 |
| Apr 1975 | 1 | 64,000 | 43,000 | 107,000 |
| May 1975 | | - 80,000 | 54,000 | 134,000 |
| June 1975 | | 99,000 | 66,000 | 165,000 |
| July 1975 | | 100,000 | 79,000 | 179,000 |
| Aug 1975 | | 106,000 | 71,000 | 177,000 |
| Sept 1975 | | 107,000 | 71,000 | 178,000 |
| Oct 1-15, 1975 | | 40,000 | 27,000 | 67,000 |
| | | 794,000 | 603,000 | 1,397,000 |

ADDENDUM NO. 1

TO

SPECIFICATIONS FOR LOW SULFUR FUEL OILS

FOR THE

MUNICIPAL POWER PLANTS

OF THE

CITY OF LAKELAND, FLORIDA

NOVEMBER 23, 1973

AND

INVITATION TO BID

NOVEMBER 23, 1973

Change period of contract as shown in specifications to read October 16, 1974 through October 15, 1975.

Change period of usage as shown in Invitation to Bid as beginning on or about October 16, 1974.

Best Available Copy



BELCHER OIL GOMPANY



P. C. BOX 1781 MIAMI, FLORIDA 33[0]

December 4, 1973

Mr. R. D. Perez Purchasing Agent City of Lakeland Lakeland, Florida

Dear Mr. Perez:

We regret to advise that we are unable to respond to your bid request for the supply of low sulfur No. 6 fuel oil during the period October 16, 1974, through October 15, 1975. We have contacted our suppliers and find that due to the current energy crisis, coupled with the uncertainty of future supplies of all fuel oil products, we simply cannot provide the volumes of low sulfur residual to meet your estimated needs.

Further complicating the supply picture is the new proposal calling for the allocation of residual fuels which is to be activated later this month. At this point in time, we do not know how this will effect future supplies to the cities municipal power generating plants, but will of course keep you advised.

Very truly yours

J. f. Roehl, Jr.,

Vice President

JFR, Jr.: sbl



contral

company, ind:

PETROLEUM PRODUCTS

Shouse Vine willight his fill

November 28, 1973

Purchasing Agent Mr. R. D. Perez City of Lakeland 1140 E. Parker Street Lakeland, Florida

Dear Mr. Perez:

We would like to take this opportunity to the you for your invitation to bid on your discretization. However, at this time, we are not in a position to submit a bid.

We would like to remain on professional for future bids.

SLINGER

CT-NT-SEE - SEE -

PJB/dw

Best Available Copy

P. O. BOX 11705

Tampa, Florida 33610

OFFICES ACKSONVILLE TAMPA

December 4, 1973

PHONE (813) 626-4197

Purchasing Agent City of Lakeland 1140 East Parker Street Lakeland, Florida

Gentlemen:

This is to thank you for the opportunity given to submit an offer of certain requirements #6 Bunker "C" Fuel Oil.

In view of general industry conditions which are generally well known and including our firm, we are unable to submit an offer for any portion, however small of that requested.

Thanks again.

Sincerely,

WESTERN FUELS, INC.

R. M. Wilson

Sales Rep.

RMW:nb



P. O. BOX 22 • PHONE (813) 683-7557 • LAKELAND = FLORIDA • 33802

| ا 0 | | | | ٦. | December | 12. 12.73 |
|----------|---------------------------------------|-------------|---------------------------------------|---------------|--|---------------------------------------|
| | Purchasing City of La Lakeland, | keland | | | | <u> 3</u> , 19 <u> 3</u> |
| L | | | | | | |
| | QUOTATION FOR | PERIOD FROM | | THROUG | GH | · · |
| | QUANTITY | | PRODUCT | PRICE PER G. | ALLON | <u>F.O.B.</u> |
| | | SEE ATT | ACHMENT | | | |
| | | | | | · ; | |
| | | | | | | |
| | | | | | | . • |
| | TERMS 1st - | 15th, due 2 | 25th; 16th | - end of mont | th, due 10th | |
| | CREDIT LIMIT: | Requirement | S | | | · · · · · · · · · · · · · · · · · · · |
| | | | | | days, shall constitutions days, shall constitutions on the reverse | |
| | ACCEPTED: | | | FLEETWIN | G CORPORATION | * . |
| | вү | | · · · · · · · · · · · · · · · · · · · | BY | | |
| | DATE | | • | ¥ | | |

The terms and conditions of the proposal are as follows:

- 1. The period of supply shall be from February 15, 1974 to October 16, 1975 continuing annually thereafter on a perpetual basis contingent upon the mutual consent of Fleetwing Corporation and the City of Lakeland.
- 2. The quantity shall be as available. It is estimated that a twelve (12) months supply will be ome million, four hundred thousand (1,400,000) barrels.
- 3. The quality of the oil conforms to the Commercial Standard Specification for Fuel Oil of the U.S. Department of Commerce and ASTM Specifications D396-69 (Grade No. 6). Specific factors are as follows:
 - A. The sulfur content of the oil shall be two percent (2%) sulfur maximum until October 15, 1974. At that time the sulfur content of the oil will be seventy-seven hundredths percent (0.77%) maximum, if available.
 - B. A heating value of one hundred fifty thousand (150,000) B.T.U.'s per gallon.
 - C. Water by distillation and sediment by extraction not to exceed one quarter of one percent (0.25%).
 - D. Parts per million of vanodium not to exceed 125 parts per million.
- 4. Deliveries to be made by tank truck of approximately 6,000 gallons each.
- 5. Pricing shall be as follows:

Two percent (2%) maximum sulfur oil

\$5.84 per barrel

Seventy-seven hundredths percent (0.77%) maximum sulfur oil

Fleetwing's costplus three percent (3%) plus truck freight

The above prices are subject to escalate based upon Fleetwing's December 13, 1973, cost of Bunker "C" Fuel Oil FOB Tampa Bay area water terminal. Prices may be verified by an independent Certified Public Accountant chosen by the City of Lakeland.

It is understood that if Fleetwing or Fleetwing's suppliers are unable to meet demand for product or, in the event of failure or delay in delivery due to exhaustion, reduction or unavailability of product, or stock or component necessary in the manufacture or production of such product, regardless of the source from which deliveries are normally made, or the occurrence of any contingency whatsoever, including without limitation, failure of transportation, acts of God, labor difficulties, other recognized force majeure conditions and compliance with any governmental order, regulation, recommendation, request or allocation program (whether voluntary or involuntary), affecting directly or indirectly Seller's ability to perform hereunder or serve its customers, Seller shall have the right to curtail deliveries or allocate its supply of product for sale among all of its customers in any manner which, in its sole discretion, is fair and reasonable under the circumstances and Buyer shall not hold Seller responsible in any manner for any losses which Buyer may claim as a result of any such curtailment or allocation by Seller.



STATE OF FLORIDA DEPARTMENT OF POLLUTION CONTROL

2562 EXECUTIVE CENTER CIRCLE, EAST MONTGOMERY BUILDING, TALLAHASSEE, FLORIDA 32301

PETER P. BALJET

NOVEMBER 28, 1973
POLK CO. AP
CITY OF LAKELAND

DAVID H. LEVIN

Mr. W. A. Smith
Fleetwing Corporation
P.O. Box 22
Lakeland, Florida 33802

Dear Mr. Smith,

Enclosed is a copy of the rules on air pollution for Florida. One section of the rules limits the emissions from fossil fuel steam generators. To comply with sulfur oxide emission limit, an existing oil fired boiler (without controls like those used to generate electric power by the City of Lakeland) will have to burn oil with 1% or less sulfur. A new plant would have to use oil with 0.77% or less sulfur.

Because of the fuel shortage facing this nation, the Florida Pollution Control Board has authorized a temporary relaxation of the air pollution rules. If you are to supply low sulfur fuel to your clients, then your client should apply for a variance from the Department's rules.

Yours very truly,

Thomas E. Hunnicutt Professional Engineer West Central Region

TEH/WMH/pm

Enclosure: Chapter 17-2

JULY 12, 1973
POLK CO. AP
LAKELAND POWER PLANT

Mr. C. B. McIntosh, Jr., Director Department of Water & Electric Utilities P.O. Box 368 Lakeland, Florida

Dear Mr. McIntosh,

Chapter 17-2.04 (6)(e), FAC, sets emissions limit standards for nitrogen oxides and visible emissions from fossil fuel steam generators. The Department does not have evidence that you are in compliance with this rule. We will recommend the following compliance schedule at the August 9, 1973 public hearing for your plants:

- 1) Submit final control plan for compliance with NO_{χ} and visible emissions by December 1, 1973.
- '2) Submit evidence of montract for the control of $NO_{\mathbf{x}}$ and visible emissions by May 3, 1973.
- 3) Start construction to abate NO_x and visible emissions by July 1, 1974.
- 4) Finish construction for the control of visible and NO_X emissions by May 2, 1975.
- 5) Latest date NO_X and visible emission regulation will be complied with, July 1, 1975.

Any comments you have on the regulation or the schedule should be presented at the public hearing. We will be glad to answer any questions you have on this matter.

Yours very truly.

W. E. Linne Regional Administrator West Central Region

WEL/WMH/pm



DEPARTMENT OF ELECTRIC AND WATER UTILITIES
Operations Center • 1000 East Parker Street • P. O. Box 368

C. D. McINTOSH, JR. Director

m. Berg met

August 2, 1973

Mr. W. E. Linne
Regional Administrator
Department of Pollution Control
2562 Executive Center Circle, East
Montgomery Building
Tallahassee, Florida 32301

Dear Mr. Linne:

Subject: Your letter of July 12, 1973

Polk Co. AP

Lakeland Power Plant

Enclosed you will find a copy of a letter from our consultants, KVB Engineering, dated July 30, 1973 and a copy of their proposed test and report schedule.

We respectfully request a variance from the compliance schedule which you propose to recommend at the August 9, 1973 public hearing so as to allow us to proceed with the schedule as proposed by our consultants. Upon receipt of KVB's final report, in which they will make recommendations for modifications to meet Florida air pollution rules, we will make modifications as soon as possible.

Very truly yours,

C. D. McIntosh, Jr.

CDM:1w Enclosure

cc: KVB Engineering



ENGINEERING

17332 IRVINE BLVD., TUSTIN, CALIFORNIA 92680 977

July 30, 1973

Mr. C. D. McIntosh, Jr., Director Department of Electric and Water Utilities P. O. Box 368 Lakeland, Florida 33802

Subject: Testing Schedule for $\mathtt{NO}_{\mathbf{X}}$ and Visible

Emissions on Steam Generating Units

D. D. MCINTOSH, JR., Director DEPT. OF ELECTRIC & WATER UTILITIES CITY OF LAKELAND LAKELAND, FLORIDA

AUG 1 1973

I have enclosed a proposed test schedule for four steam generators at the Larsen plant (units 9, 10, 11 and 12) and for unit 10 at plant 3. The plan calls for a completion of test efforts at the end of January 1974 with a final report on the results submitted by March 1, 1974. The contents of the final report will include the particulate and NO_X emission levels for these five boilers as they are presently operated and an assessment of modifications that will be necessary to meet Florida air pollution rules covered in chapter 17-2 FAC.

As we have discussed previously, in many cases no physical modification of the boilers is necessary to meet the particulate, $\mathrm{SO}_{\mathbf{X}}$ and $\mathrm{NO}_{\mathbf{X}}$ emission regulations. In a great number of cases only combustion modifications are required to meet the $\mathrm{NO}_{\mathbf{X}}$ and particulate regulations. These modifications usually require only minor physical modifications to the burners and controls. Some units, however, may require extensive modifications such as gas recirculation to the windbox or complete burner modifications in order to meet the Florida regulations.

In cases where it is deemed necessary to extensively modify the units it is doubtful that bids could be received, a contract be let and construction begin by July 1, 1974. It would therefore be advisable to ask the Florida DPC to extend the July 1, 1974 construction start date. At a very minimum it should be extended three months. In addition, the date for the final control plan for compliance with NO_{X} and visible emissions should be requested to be extended from December 1, 1973 to approximately March 15, 1974.

Mr. C. D. McIntosh, Jr.
Department of Electric & Water Utilities

July 30, 1973 Page 2

It is KVB's opinion that Lakeland's Department of Electric and Water Utilities has already complied with item 2 in the letter from Mr. Linne of the DPC dated July 12, 1974. We believe that this has been complied with by retaining KVB to perform the NO_{X} and particulate emission reduction test effort.

Should you need any further information or assistance before the 9 August public hearing please don't hesitate to contact me.

Sincerely yours,

KVB, INCORPORATED

Lowell L. Smith

Southern States Regional Manager

LLS:js

Enclosure

K V B ENGINEERING, INC.

July 30, 1973

LAKELAND TEST AND REPORT SCHEDULE

Test Schedule

| 10/15/73 | Begin test effort at plant No. 3 |
|---------------------|---|
| 10/15/73 - 11/5/73 | Plant 3 Unit 10 - NO _X , Particulate tests |
| 11/6/73 - 11/27/73 | Larsen Unit 12 - NO_X , Particulate tests |
| 11/28/73 - 12/14/73 | Larsen Unit 11 - NO_X , Particulate tests |
| 12/17/73 - 1/10/74 | Larsen Unit 10 - NO_X , Particulate tests |
| 1/11/74 - 1/29/74 | Larsen Unit 9 - NO _X , Particulate tests |
| | |
| | Report Schedule |
| 11/30/73 | Letter report on test results and preliminary |
| | recommendations on Plant 3 Unit 10 |
| <u></u> | Letter report on test results and preliminary |
| | recommendations on Larsen Unit 12 |
| 1/18/74 | Letter report on test results and preliminary |
| | recommendations on Larsen Unit 11 |
| 2/1/74 | Letter report on test results and preliminary |
| | recommendations on Larsen Unit 10 |
| 3/1/74 | Final report on 5 steam generating units and |
| | recommendations for modifications to meet |
| | Florida Air Pollution Rules. |



DEPARTMENT OF ELECTRIC AND WATER UTILITIES
Operations Center • 1000 East Parker Street • P. O. Box 388

C. D. McINTOSH, JR. Director

WEST CENTRAL REGION

September 15, 1972

Department of Air & Water Pollution Control 225 Avenue D. N.W. Winter Haven, Florida

Attention: Mr. Willard Hanks

Gentlemen:

On September 14, 1972 we submitted a notice of intent to construct one General Electric Company model PG-5341 oil fired gas turbine generator.

Please correct the installed date in the last paragraph of this notice to read February 1973.

Very truly yours,

C.D. McIntosh, Jr., Director

Department of Electric & Water Utilities

CDM:1k

| Reg. Eng. | 16 |
|----------------|---------|
| Asst. Reg. Eng | SM |
| Air Engineer | |
| Water Eng. | |
| Permit Eng. | |
| Blologist | - 20-12 |
| Pell, Spec. | |
| Water Chem. | |
| Air Chemist | |
| Amb. Air | |
| Plant Air | |
| Secretaries | |
| FILE | |