

HOPPING BOYD GREEN & SAMS

ATTORNEYS AND COUNSELORS

123 SOUTH CALHOUN STREET

POST OFFICE BOX 6526

TALLAHASSEE, FLORIDA 32314

(904) 222-7500

FAX (904) 224-8551

FAX (904) 681-2964

December 21, 1993

CARLOS ALVAREZ
JAMES S. ALVES
BRIAN H. BIBEAU
KATHLEEN BLIZZARD
ELIZABETH C. BOWMAN
WILLIAM L. BOYD, IV
RICHARD S. BRIGHTMAN
PETER C. CUNNINGHAM
RALPH A. DEMEO
THOMAS M. D&ROSE
WILLIAM H. GREEN
WADE L. HOPPING
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WILLIAM D. PRESTON
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GARY V. PERKO
MICHAEL P. PETROVICH
DOUGLAS S. ROBERTS
KRISTIN C. RUBIN
JULIE ROME STEINMEYER

OF COUNSEL
W. ROBERT FOXES

BY HAND DELIVERY

Mr. Clair E. Fancy, P.E.
Bureau of Air Regulation
Department of Environmental Protection
111 South Magnolia Street, Suite 29
Tallahassee, Florida 32399-2400

RE: Vero Beach Municipal Power Plant, Unit 5
Application to Extend Air Construction Permit No. AC 31-184928,
PSD-FL-152

Dear Mr. Fancy:

Please consider this letter an application, pursuant to Rule 17-4.080(3), F.A.C., to extend the expiration date of Air Construction Permit No. AC 31-184928 for Unit 5 at the Vero Beach Municipal Power Plant in Indian River County. The permit's current expiration date is December 31, 1993. As discussed more fully below, the City of Vero Beach requests extension of that date until March 31, 1994, to allow sufficient time to complete installation of low NOx combustors and to request permit modifications determined necessary and appropriate. Pursuant to Rule 17-4.050(4)(p)3., F.A.C., I have enclosed an application fee of \$50.00.

As originally issued on June 28, 1991, Specific Condition #2 of the above-referenced permit required installation of low NOx combustors or SCR within one year after the date Unit 5 commenced commercial operation. In the spring of 1992, the City learned from its construction engineers, General Electric (GE), that estimated CO performance levels (20 ppm) for the low NOx combustors exceeded the CO emission limit (9 ppm) specified in the construction permit. As indicated in the attached memorandum, the City's consulting engineers, Black & Veatch, subsequently informed the Department of this new information by telephone on May 19, 1992. At that time, the Department advised that a permit modification was not necessary unless and until compliance testing of the low NOx burners indicated emissions in excess of permit limits. As part of the low NOx burner installation, GE recently performed preliminary stack tests indicating excess CO emissions well above the 20 ppm estimate. In order to evaluate the cause of these unusually high CO levels, GE must disassemble the low NOx burners and conduct additional testing. Accordingly, the City requests an extension of the construction permit until March 31, 1994, to allow GE to determine and correct the problem and

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DEC 21 1993

Bureau of
Air Regulation

Mr. Clair E. Fancy, P.E.
December 21, 1993
Page 2

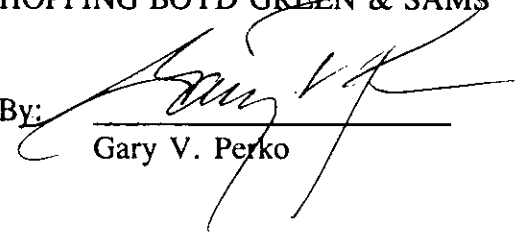
to allow the City to request modification of CO emission limits and other permit conditions as may be necessary and appropriate.

I have provided a copy of this letter to Mr. Preston Lewis because he has previously discussed this with representatives of the City. I will contact Mr. Lewis in the near future to schedule a meeting with appropriate Department officials to discuss available data and the need for substantive permit modifications. In the meantime, if you or anyone else at the Department have any questions or comments, please do not hesitate to call me.

Sincerely,

HOPPING BOYD GREEN & SAMS

By:



Gary V. Perko

cc: Mr. Preston Lewis
Mr. Charles Collins
J. Neron
J. Harper, EPA

BLACK & VEATCH

TELEPHONE MEMORANDUM

City of Vero Beach
Unit 5
Permit Concerns - Low NO_x Combustors

B&V Project 16834
B&V File 32.0200
May 19, 1992
9:30 a.m.

From: Preston Lewis
Company: FDER
Phone No.: (904) 488-1344

Recorded by: M. L. Pelan/L. W. Sherrill

Preston Lewis returned our call in response to our permitting questions regarding the installation of low NO_x combustors. Our main concern was the potential increase in CO emissions resulting from the lower combustion temperatures with low NO_x combustors. GE has stated that they will only guarantee CO emissions from the CT with low NO_x combustors down to 20 ppm (19 lb/h). The air permit sets CO emission limits for the CT of 9 ppm (10 lb/h).

Preston indicated that similar situations have resulted from retrofits on GE LM-6000 units. Preston's initial concern was that the increase in CO emissions would trigger PSD significance for CO. We told Preston that based on GE's estimates, at 20 ppm, the annual emissions would continue to be less than 100 tpy (approximately 83 tpy) and therefore, below the PSD significance criteria.

Preston advised us to provide the FDER with a formal notice of the City's decision to install low NO_x combustor technology. In addition to the notice, we should include all applicable GE combustion estimates and guarantees regarding pollutant levels. Preston feels a permit amendment is not needed at this time. He recommended that when we stack test for CO compliance, if 9 ppm cannot be met, that we request an amendment at that time. As long as the stack test results show emissions that are below PSD significance levels, the amendment will be simple. If PSD levels are exceeded, then a BACT evaluation of catalytic oxidation control technology will be required.

We asked Preston if multiple emission compliance tests would be necessary for standard and low NO_x combustor operations. Preston stated that he would not require testing for standard combustor compliance if the retrofit took place within the 1-year period designated in the permit. However, we should indicate in our formal notice that this is our understanding of the FDER's position so that others at FDER will comply with this position.

BLACK & VEATCH

TELEPHONE MEMORANDUM

Page 2

City of Vero Beach
Unit 5
Permit Concerns - Low NO_x Combustors

B&V Project 16834
May 19, 1992

Because Wade must go before the Vero Beach City Council for approval of the purchase of the low NO_x combustor equipment, we will wait until receiving the Council's approval before drafting the formal notice to the FDER for Shuler Massey's signature.

cc: Shuler Massey
Earl Windisch
Ron Peine
Anne Harris
File Copy

I N T E R O F F I C E M E M O R A N D U M

Date: 06-Jan-1994 01:13pm EST
From: Preston Lewis TAL
LEWIS_P
Dept: Air Resources Management
Tel No: 904/488-1344
SUNCOM:

TO: Charles Collins ORL (COLLINS_C @ A1 @ ORL1)
CC: Patty Adams TAL (ADAMS_P)
CC: Teresa Heron TAL (HERON_T)

Subject: Vero Beach Permit

Chuck,

I have reviewed the City of Vero Beach permit file (AC 31-184928) and cannot find a reason why Specific Condition 12, shown in the Intent to Issue (dated 12/21/90), was deleted from the the Final Determination (dated 6/19/91). I assume that it was **inadvertently omitted** and should have been included. Since this condition specifies under what conditions VOC compliance testing should be done (VOC limits are specified in the tables), I am recommending that the applicant comply with it. The condition is worded as follows:

"Compliance with the total volatile organic compound emission limits will be assumed, provided the CO allowable emission rate is achieved; specific VOC compliance testing is not required."

Obviously, if the applicant objects we will need to **formally amend** the construction permit to restore this condition which just delays compliance testing.

Preston

12/14 ~~Poston~~ OK, GPL 12/10
mike

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 562-7231
Fax: (407) 569-5981

MUNICIPAL POWER PLANT

November 22, 1993

RECEIVED

NOV 24 1993

Division of Air
Resources Management

Mr. Clair H. Fancy
Bureau of Air Quality Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Notification of the rescheduling of the Compliance Tests for Unit 5 Combustion Turbine following retrofit of Dry Low NOx Burners.

Dear Mr. Fancy:

In accordance with the requirements of Construction Permit No. AC31-184928 Specific Condition No. 15, the City notified you of the Compliance Tests which would be conducted on the Combustion Turbine following the Dry Low NOx Burner retrofit. The tests were originally scheduled to occur the week of December 6, 1993. However, problems which have developed during construction have pushed the completion date back several weeks.

This letter serves as notice of the cancellation of the December 6, 1993, test date. Environmental Science and Engineering (ESE) headquartered in Gainesville, Florida, will conduct the compliance tests. The tests have been rescheduled for the week of January 10, 1994. Once a schedule has been developed for the week's testing, a copy will be forwarded to you.

Mr. Clair H. Fancy
Florida Department of Environmental Protection
November 22, 1993
Page 2

If you have any questions concerning this change in schedule,
please contact Mike Siefert at (407) 562-7231.

Sincerely yours,

for Richard M. Siefert
Shuler W. Massey
Director of Power Resources

SWM/ms

| | |
|------------------|-------|
| cc: Anne Harris | B&V |
| Wade Sherrill | B&V |
| Peter Cunningham | HBG&S |
| Gary Perko | HBG&S |
| Mike Siefert | CVB |
| Tom Nason | CVB |
| Charles Collins | FDEP |
| Garry Kuberski | FDEP |

Federal Express #7877108245

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City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 562-7231
Fax: (407) 569-5981

MUNICIPAL POWER PLANT

October 29, 1993

RECEIVED

NOV 02 1993

Division of Air
Resources Management

Mr. Clair H. Fancy
Bureau of Air Quality Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

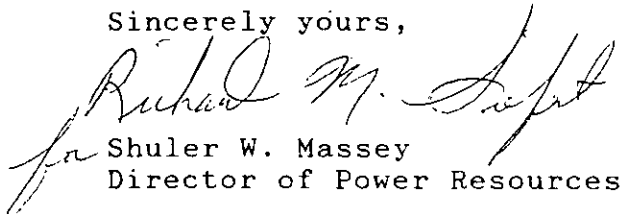
Subject: Notification of Compliance Tests for Unit 5 Combustion
Turbine following retrofit of Dry Low NOx Burners.

Dear Mr. Fancy:

In accordance with the requirements of Construction Permit No. AC31-184928 Specific Condition No. 15, this letter hereby notifies you of the Compliance Tests which will be conducted on the Combustion Turbine following the Dry Low NOx Burner retrofit. Environmental Science and Engineering (ESE) headquartered in Gainesville, Florida, will conduct the compliance tests. The tests will be conducted the week of December 6, 1993. Once a schedule has been developed for the week, a copy will be forwarded to you.

If you have any questions concerning this package, please contact Mike Siefert at (407) 562-7231.

Sincerely yours,


for Shuler W. Massey
Director of Power Resources

SWM/ms

| | |
|------------------|-------|
| cc: Anne Harris | B&V |
| Wade Sherrill | B&V |
| Peter Cunningham | HBG&S |
| Gary Perko | HBG&S |
| Mike Siefert | CVB |
| Tom Nason | CVB |

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*J. Perry
E. Collins
D. Perry*



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|---|--|--|--|--|--|---|--|
| From (Your Name) Please Print Mike Siefert | | Your Phone Number (Very Important) () | To (Recipient's Name) Please Print Mr. ... | | Recipient's Phone Number (Very Important) () | | |
| Company ... | | Department/Floor No | Company ... | | Department/Floor No | | |
| Street Address ... | | Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes) ... | | City ... | | | |
| City ... | | State | City ... | State | ZIP Required ... | | |
| YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.) | | | | | | | |
| PAYMENT 1 <input checked="" type="checkbox"/> Bill Sender 2 <input type="checkbox"/> Bill Recipient's FedEx Acct No 3 <input type="checkbox"/> Bill 3rd Party FedEx Acct. No 4 <input type="checkbox"/> Bill Credit Card | | | IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here | | | | |
| 5 <input type="checkbox"/> Cash/Check | | | Street Address | | | | |
| City | | | State | | | | |
| ZIP Required | | | City | | | | |
| State | | | ZIP Required | | | | |
| 4 SERVICES (Check only one box) | | 5 DELIVERY AND SPECIAL HANDLING (Check services required) | | 6 PACKAGES | | | |
| Priority Overnight (Delivery by next business morning) 11 <input type="checkbox"/> OTHER PACKAGING 16 <input type="checkbox"/> FEDEX LETTER 12 <input type="checkbox"/> FEDEX PAK * 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE Standard Overnight (Delivery by next business afternoon No Saturday Delivery) 51 <input type="checkbox"/> OTHER PACKAGING 56 <input checked="" type="checkbox"/> FEDEX LETTER * 52 <input type="checkbox"/> FEDEX PAK * 53 <input type="checkbox"/> FEDEX BOX 54 <input type="checkbox"/> FEDEX TUBE Economy Two Day (Delivery by second business day) 30 <input type="checkbox"/> ECONOMY * * Economy Letter Rate not available Maximum charge One pound Economy rate Government Overnight (Restricted for authorized users only) 46 <input type="checkbox"/> GOVT LETTER 41 <input type="checkbox"/> GOVT PACKAGE Freight Service (for packages over 150 lbs) 70 <input type="checkbox"/> OVERNIGHT FREIGHT ** 80 <input type="checkbox"/> TWO-DAY FREIGHT ** **Declared Value Limit \$500 **Call for delivery schedule | | 1 <input type="checkbox"/> HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H) 2 <input checked="" type="checkbox"/> DELIVER WEEKDAY Saturday Service 31 <input type="checkbox"/> HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H) 3 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 9 <input type="checkbox"/> SATURDAY PICK-UP (Extra charge) Special Handling 4 <input type="checkbox"/> DANGEROUS GOODS (Extra charge) 6 <input type="checkbox"/> DRY ICE (Dangerous Goods Shipper's Declaration not required) Dr. 12 9 LB 185 X kg 904 III 12 <input type="checkbox"/> HOLIDAY DELIVERY (if offered) (Extra charge) | | YOUR DECLARED VALUE (See right) Total Total Total FROM SHIPPER (if applicable) | | Emp. No. Date <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del <input type="checkbox"/> Chg. To Hold Street Address City State Zip Received By: X Date/Time Received FedEx Employee Number Release Signature. | |

REVISION DATE 12-92
FORMAT #15B
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Florida Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

October 6, 1993

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. T. R. Nason
City Manager/Utilities Director
Vero Beach Municipal Power Plant
Vero Beach, Florida 32961-1389

Dear Mr. Nason:

RE: Vero Beach Municipal Power Plant
Permit Number AC 31-184928, PSD-FL-152
Unit 5 - 60 MW Combined Cycle Gas Turbine

The Department is in receipt of your letter dated August 31, 1993, on behalf of the above mentioned facility, requesting a permit amendment to clarify: 1) Applicable emission limits during co-firing of natural gas and No. 2 fuel oil and 2) Monitoring & reporting requirements after Low NOx burner installation. The Department has considered your request and has agreed to amend the permit as proposed in your letter. This permit will be amended to include the following:

EMISSION LIMIT FOR CO-FIRING OF NATURAL GAS AND OIL:

The footnote below will be added to each of the four ALLOWABLE EMISSION TABLES listed in Specific Conditions Nos. 1 and 2 of this permit:

The following equation shall be used to determine the emission limit applicable during co-firing of natural gas and No. 2 fuel oil:

$$\text{Emission limit} = \frac{(A1 \times A2) + (B1 \times B2)}{A2 + B2}$$

Where:

A1 = Emission Standard for Natural Gas Firing
A2 = Heat Input of Natural Gas
B1 = Emission Standard for No. 2 Fuel Oil Firing
B2 = Heat Input of No. 2 Fuel Oil

Mr. T. R. Nason
October 6, 1993
Page Two

The restrictions for the emissions limits (ppmvd, lb/hr, tons/yr) and the limitations on oil firing (% capacity factor, gal/hr, gal/yr) set forth in Specific Condition No. 7 will remain as originally specified in this permit.

MONITORING & REPORTING REQUIREMENTS AFTER LOW NO_x BURNER INSTALLATION:

The Department is not in agreement with your rationale regarding the 40 CFR 60, Subpart D, excess emission definition when the new NO_x continuous emission monitor (CEMS) is installed. We have determined that excess emissions should be defined as any one (1) hour period during which the average emissions of all readings collected during a continuous 60 minutes period exceed the applicable emission limit. Therefore, Specific Condition No 16 e. will be amended as follows:

FROM:

For purposes of reports required under this permit, excess emissions are defined as any calculated average emission concentration, as determined pursuant to Specific Condition No. 22 herein, which exceeds the applicable emission limits in Specific Condition No. 1.

TO:

For purposes of reports required under this permit, excess emissions are defined as any one (1) hour period during which the average emissions of all readings collected during a continuous 60 minutes period exceed the applicable emission limit in Specific Condition No 1. Quarterly excess emission reports, in accordance with the July 1, 1992, edition of 40 CFR 60.7 and 40 CFR 60.13 shall be submitted to DEP's Central District office. The continuous emission monitor system (CEMS) shall comply with 40 CFR Appendix F - Quality Assurance Procedure and 40 CFR Appendix B - Performance Specification 2. Method 7E or equivalent shall be used as the Reference Method for the Determination of Nitrogen Oxide Emissions.

In addition, we recommend that the NO_x CEMS be used to demonstrate compliance with the emission limitation on a continuous basis and that the quarterly report include the NO_x mass emissions for the reported period.

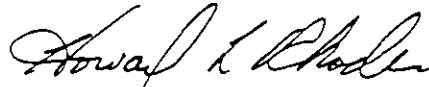
It is our understanding, that the City will continue to monitor fuel and water-to-fuel ratios, as specified in 40 CFR 60, Subpart GG, when water injection is used for NO_x control during 100% oil firing.

Mr. T. R. Nason
October 6, 1993
Page Three

As you are aware, the certification of the CEMS will be handled at the Central District Office. Please contact Charles Collins at (407)894-7555 on this issue.

If you have any questions, please contact Teresa Heron at (904) 488-1344 or write to me.

Sincerely,



Howard L. Rhodes
Director
Division of Air Resources
Management

HLR/TH/bjb

cc: Charles Collins
J. Harper

Remaining Attachments
Available Upon Request

City of Vero Beach

1053 20th PLACE - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone. (407) 567-5151

OFFICE OF THE
CITY MANAGER

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AIR-MAIL ROOM
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RECEIVED

August 31, 1993

SEP 2 1993

Division of Air
Resources Management

Mr. Clair Fancy, P.E.
Bureau of Air Quality Management
Florida Department of Environmental
Protection
Magnolia Courtyard, Suite 4
Tallahassee, Florida 32301

Mr. Charles M. Collins, P.E.
Central District
Florida Department of Environmental
Protection
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

RE: Vero Beach Municipal Power Plant
Unit 5 - 60 MW Combined Cycle Combustion Turbine
FDEP Permit No. AC31-184928
Request for Clarification & Proposed Permit Modification

Dear Sirs:

On July 23, 1993, the City of Vero Beach (City) submitted, for the Department's approval, a certification of the Continuous Emissions Monitoring Systems (CEMS) for nitrogen oxide (NOx) emissions from Unit 5 at the City's Municipal Power Plant. Based on prior communications with the Central District, it is our understanding that approval of the CEMS certification is the only remaining item to be resolved prior to issuance of an operating permit for Unit 5. In the interim, however, we are writing to confirm our understanding of certain monitoring and reporting requirements in the above referenced construction permit and to request a permit modification to clarify applicable emission limits during co-firing of natural gas and No. 2 fuel oil.

October 4, 1993, is the scheduled date to begin the Low NOx Burner retrofit for the combustion turbine. General Electric will be the contractor on site to perform the retrofit.

Clarification of Monitoring & Reporting Requirements after Low NOx Burner Installation:

The City's main area of concern centers on the monitoring of fuel consumption and water-to-fuel ratios after installation of low NOx burners pursuant to the Department's Best Available Control Technology (BACT) determination for Unit 5. Specific Condition 19 of the construction permit specifically requires compliance with the Standards of Performance (NSPS) for Stationary Gas Turbines set forth in 40 CFR 60, Subpart GG and incorpo-

rated by reference in Rule 17-2.660 (now 17-296.800), F.A.C. In relevant part, Subpart GG requires installation and operation of a continuous monitoring system to monitor and record fuel consumption and water-to-fuel ratios of "any stationary gas turbine subject to the provisions of this subpart and using water injection to control NOx emissions." 40 CFR 60.334(a) (1992). Pursuant to 40 CFR 60.335, this "monitoring device" is to be used to determine the fuel consumption and water-to-fuel ratio necessary to comply with the NOx emission standard set forth in 40 CFR 60.332. For reporting purposes, 40 CFR 60.334(c)(1) defines "excess emissions" to include any one-hour period in which the average water-to-fuel ratio falls below the ratio necessary to demonstrate compliance with 60.332.

By cover letter dated March 19, 1993, the City submitted performance testing and monitoring results which demonstrated compliance with the required fuel consumption and water-to-fuel ratios for the current water injection system. With installation of low NOx burners on Unit 5, however, water injection will no longer be used for NOx control during natural gas firing. Because there will be no water-to-fuel ratio to monitor under such circumstances, under the clear language of 40 CFR 60.334(a) (quoted above), the requirement to monitor fuel consumption and water-to-fuel ratios will no longer apply. Instead, the City will use the new NOx CEMS to monitor compliance with applicable emission standards. In that regard, Specific Condition 16(b) of the construction permit states that CEMS data "shall be recorded and reported in accordance with ... 40 CFR 60." Because Subpart GG does not require the use of CEMS and, therefore, does not define "excess emissions" when CEMS are utilized to monitor compliance, the City will follow the relevant monitoring and reporting requirements of Subpart D. For example, whereas Subpart GG defines "excess emissions" in terms of water-to-fuel ratios, Subpart D more appropriately defines the term "as any three hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed the applicable standards[.]" See, 40 CFR 60.45. The City will continue to monitor fuel and water-to-fuel ratios when water injection is utilized for NOx control during 100% oil firing.

Proposed Emission Limits for Co-Firing of Natural Gas and Oil:

Another ambiguity in the construction permit involves applicable emission limits when Unit 5 co-fires natural gas and No. 2 fuel oil. The permit includes four separate tables which specify emission standards for combustion of natural gas and No. 2 fuel oil under different scenarios. However, the permit does not specify emissions standards for the co-firing of natural gas and

No.2 fuel oil. To date, the City has not co-fired oil and gas in Unit 5. Nevertheless, we would like to clarify the applicable emission limits in case the need to co-fire arises in the future. Accordingly, the City proposes to add the following footnote to each of the four respective emission tables:

- (x) The following equation shall be used to determine the emission standard applicable during co-firing of natural gas and No. 2 fuel oil:

$$\frac{(A1 \times A2) + (B1 \times B2)}{A2 + B2}$$

Where:

A1 = Emission Standard for Natural Gas Firing

A2 = Heat Input of Natural Gas

B1 = Emission Standard for No. 2 Fuel Oil Firing

B2 = Heat Input of No. 2 Fuel Oil

In essence, the proposed calculation would weight the already applicable emission standards for natural gas and No. 2 fuel oil on the basis of the specific heat input attributable to each fuel. The equation would affect neither the "Tons per year" standards in the various tables nor the limitations on oil-firing set forth in Specific Condition No. 7.

Conclusion

Pursuant to Rule 17-4.050(4)(p), I have enclosed a check for \$250.00 to initiate the Department's review of the proposed permit modification relating to emission limits during co-firing of natural gas and No. 2 fuel oil. In addition, the City requests that the Department advise us of any disagreement with the City's understanding of the monitoring and reporting requirements applicable after low NOx burner installation (as outlined).

Mssrs. Fancy and Collins
Florida Department of Environmental Protection
August 31, 1993
Page 4

The City will be happy to discuss these matters further either by telephone or in person. In that regard, if you have any questions or comments, please contact either Shuler W. Massey or Mike Siefert at (407) 562-7231.

Sincerely yours,



T. R. Nason
City Manager/Utilities Director

TRN/ms

Enclosure.

cc: Alan Zahm, FDEP
John Turner, FDEP
Anne Harris, B&V
L. Wade Sherrill, B&V
Peter Cunningham, HBGS
Gary Perko, HBGS
Shuler W. Massey, CVB
Mike Siefert, CVB

Federal Express #7877107674

J. Heron
C. Nolladay
J. Harper, EPA

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 567-5151
Fax: (407) 569-5981

MUNICIPAL POWER PLANT

March 22, 1993

Patty
For File
RECEIVED

MAR 23 1993

Division of Air
Resources Management

Mr. Charles E. Collins, P.E.
Administrator, District Air Program
Florida Department of Environmental Regulation
Central District
3319 Maguire Boulevard
Suite 232
Orlando, Florida 32803

Subject: Unit 5 Certificate of Completion of Construction

Dear Mr. Collins,

Enclosed for your records are four copies of the Certificate of Completion of Construction for the Vero Beach Unit 5 Combustion Turbine. As noted on the application, there are no deviations from the conditions in the construction permit.

On March 19, 1993, a Performance Test Results package for Unit 5 was sent to Mr. Garry Kuberski in the Central District and Mr. Jim Pennington in the Tallahassee Office.

If you have any questions, please contact either myself at (407) 562-7231 or L. Wade Sherrill at (913) 339-7244.

Sincerely yours,

for *Richard M. Massey*
Shuler W. Massey
Director of Power Resources

SWM/ms

| | |
|------------------|--------|
| cc: Clair Fancy | FDER ✓ |
| Anne Harris | B&V |
| L. Wade Sherrill | B&V |
| Peter Cunningham | HBG&S |
| Tom Nason | CVB |
| Mike Siefert | CVB |

Federal Express #6313236042



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
AIR POLLUTION SOURCES
CERTIFICATE OF COMPLETION OF CONSTRUCTION*

PERMIT NO. AC 31-184928 DATE: March 8, 1993
 Company Name: City of Vero Beach County: Indian River
 Source Identification(s): Municipal Power Plant, Combustion Turbine - Unit 5
 Actual costs of serving pollution control purpose: \$ N/A
 Operating Rates: 34,840 kW at 90°F Design Capacity: 38,000 kW at 90°F
 Expected Normal: 34,840 kW at 90°F During Compliance Test: See Table 3-2 through 3-9
 Date of Compliance Test: January 18 to January 21, 1993 (Attach detailed test report)

| Test Results: | Pollutant | Actual Discharge | Allowed Discharge |
|---------------|--------------------|---------------------------------|-----------------------|
| | <u>NOx</u> | <u>See Table 3-2--3-9</u> | <u>See Table 1-1</u> |
| | <u>CO</u> | <u>See Tables 3-5 & 3-9</u> | <u>See Table 1-1</u> |
| | <u>Particulate</u> | <u>See Table 3-10</u> | <u>See Table 3-10</u> |

Date plant placed in operation: December 1, 1992

This is to certify that, with the exception of deviations noted ~~on~~, the construction of the project has been completed in accordance with the application to construct and Construction Permit No. AC 31-184928 dated July 1, 1991

A. Applicant:
Shuler Massey, Director of Power Resources
Name of Person Signing (Type) Shuler M. Massey
Signature of Owner or Authorized Representative and Title
 Date: March 8, 1993 Telephone: 407-562-7231

B. Professional Engineer:
Lloyd Wade Sherrill
Name of Person Signing (Type) Lloyd Wade Sherrill
Signature of Professional Engineer
Black & Veatch
Company Name Florida Registration No. 29138
 Date: March 5, 1993

(Seal)

P. O. Box 8405, Kansas City, MO 64114
Mailing Address
913-339-7244
Telephone Number

*This form, satisfactorily completed, submitted in conjunction with an existing application to construct permit and payment of application processing fee will be accepted in lieu of an application to operate.
 **As built, if not built as indicated include process flow sketch, plot plan sketch, and updates of applicable pages of application form.

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 562-7231
Fax: (407) 569-5981

MUNICIPAL POWER PLANT

RECEIVED

December 22, 1992

DEC 24 1992

Division of Air
Resources Management

Mr. Clair H. Fancy, Chief
Bureau of Air Quality Management
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

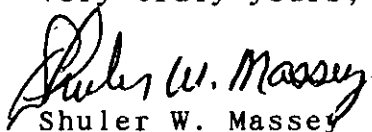
Subject: Notification of initial startup of the new Unit 5
Combustion Turbine

Dear Mr. Fancy:

In accordance with the requirements of 40 CFR 60.7 (a) (3), this letter serves as formal notification that the initial startup of the City of Vero Beach Municipal Power Plant's Unit 5 occurred on October 8, 1992.

Mr. Garry Kuberski, Florida Department of Environmental Regulation, Orlando, Florida and the Director of the Environmental Protection Agency (EPA), Atlanta, Georgia have also been notified.

Very truly yours,



Shuler W. Massey
Director of Power Resources

SWM/js

cc: T. R. Nason
L. W. Sherrill
Anne Harris
Mike Siefert

mail certified P 301 839 286

ws/judy/fder/fancy

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 562-7231
Fax: (407) 569-5981

MUNICIPAL POWER PLANT

November 4, 1992

Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Rescheduled Date for Certification of the new Continuous Emissions Monitoring System (CEMS) and the new Continuous Opacity Monitoring System (COMS) for Unit 4.

Attention: Mr. Clair H. Fancy

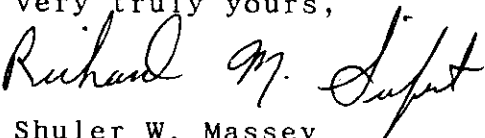
Gentlemen,

In accordance with the requirements of 40 CFR 60.7 paragraphs (5) and (6), this letter is to notify you of the impending certification of the City of Vero Beach's new CEMS and COMS that are currently being installed on Unit 4 Stack. These new systems are replacements for the existing CEMS and COMS. The Certification Test is scheduled to begin the week of December 7, 1992.

Mr. Garry Kuberski, Florida Department of Environmental Regulation (FDER) Central District and the Director of the EPA office in Atlanta, have been notified of this impending Certification Test.

If you have any questions, please contact Mike Siefert at (407) 562-7231.

Very truly yours,

for 
Shuler W. Massey
Director of Power Resources

SWM/js

RECEIVED

NOV 05 1992

Division of Air
Resources Management

Bureau of Air Quality Management
Florida Department of Environmental Regulation
Page 2

cc: T. R. Nason
L. W. Sherrill
Anne Harris
Mike Siefert

Federal Express # 6093285903

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 562-7231
Fax: (407) 569-5981

MUNICIPAL POWER PLANT
October 23, 1992

Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Notification of Certification of the new Continuous Emissions Monitoring System (CEMS) and the new Continuous Opacity Monitoring System (COMS) for Unit 4.

Attention: Mr. Clair H. Fancy

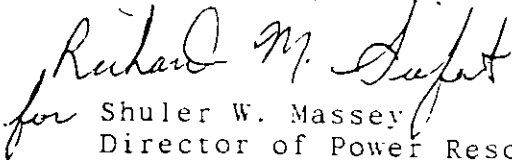
Gentlemen,

In accordance with the requirements of 40 CFR 60.7 paragraphs (5) and (6), this letter is to notify you of the impending certification of the City of Vero Beach's new CEMS and COMS that are currently being installed on Unit 4 Stack. These new systems are replacements for the existing CEMS and COMS. The Certification Test is scheduled to begin the week of November 30, 1992.

Mr. Garry Kuberski, Florida Department of Environmental Regulation (FDER) Central District and the Director of the EPA office in Atlanta, have been notified of this impending Certification Test.

If you have any questions, please contact Mike Siefert at (407) 562-7231.

Very truly yours,


for Shuler W. Massey
Director of Power Resources

SWM/js

RECEIVED

OCT 27 1992

Division of Air
Resources Management



QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

4507722291

4507722291

RECIPIENT'S COPY

| | | | |
|--|--|--|--|
| Date 10-16-91 | | | |
| From (Your Name) Please Print Company Street Address City State ZIP Required | | To (Recipient's Name) Please Print Company Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes) City State ZIP Required | |
| Your Phone Number (Very Important) (407) 361-7791 Department/Floor No. | | Recipient's Phone Number (Very Important) Department/Floor No. 3-399-2400 | |
| YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.) | | | |
| PAYMENT 1 <input type="checkbox"/> Bill Sender 2 <input type="checkbox"/> Bill Recipient's FedEx Acct No 3 <input type="checkbox"/> Bill 3rd Party FedEx Acct No 4 <input type="checkbox"/> Bill Credit Card 5 <input type="checkbox"/> Cash/Check | | IF HOLD FOR PICK-UP, Print FEDEX Address Here Street Address City State ZIP Required | |
| 4 SERVICES (Check only one box) 11 <input type="checkbox"/> YOUR PACKAGING 16 <input type="checkbox"/> FEDEX LETTER 12 <input type="checkbox"/> FEDEX PAK* 13 <input type="checkbox"/> FEDEX BOX 14 <input type="checkbox"/> FEDEX TUBE 30 <input type="checkbox"/> ECONOMY 70 <input type="checkbox"/> OVERNIGHT FREIGHT** 80 <input type="checkbox"/> TWO-DAY FREIGHT*** | | 5 DELIVERY AND SPECIAL HANDLING (Check services required) 1 <input type="checkbox"/> HOLD FOR PICK-UP (Fill in Box 14) <input type="checkbox"/> DELIVER WEEKDAY 2 <input type="checkbox"/> DELIVER SATURDAY (Extra charge) (Not available to all locations) 3 <input type="checkbox"/> DANGEROUS GOODS (EWA charge) 4 <input type="checkbox"/> DRY ICE lbs 6 <input type="checkbox"/> OTHER SPECIAL SERVICE 7 <input type="checkbox"/> SAFETY SEAL (if applicable) 8 <input type="checkbox"/> 10 <input type="checkbox"/> 12 <input type="checkbox"/> HOLIDAY DELIVERY (if applicable) (at extra charge) | |
| 6 PACKAGES WEIGHT in Pounds OZ. YOUR DECLARED VALUE Total Total Total 1 1 1 1 1 1 1 1 1 1 1 1 | | Emp. No. Date <input type="checkbox"/> Cash Received <input type="checkbox"/> Return Shipment <input type="checkbox"/> Third Party <input type="checkbox"/> Chg. To Del <input type="checkbox"/> Chg. To Hold Street Address City State Zip Received By: <input checked="" type="checkbox"/> X Date/Time Received FedEx Employee Number Release Signature: | |
| | | Estimated Express Cost Base Charges Declared Value Charge Other 1 Other 2 Total Charges REVISION DATE 2/92 (Print date, use Cal 1) FORMAT #126 126 10-16-91 10:21 AM | |

Bureau of Air Quality Management
Florida Department of Environmental Regulation
Page 2

cc: T. R. Nason
L. W. Sherrill
Anne Harris
Mike Siefert

Federal Express # 4509722291



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

AUG 12 1991

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AUG 14 1991

Division of Air
Resources Management

4APT-AEB

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental
Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

RE: Vero Beach Municipal Power Plant (PSD-FL-152)

Dear Mr. Fancy:

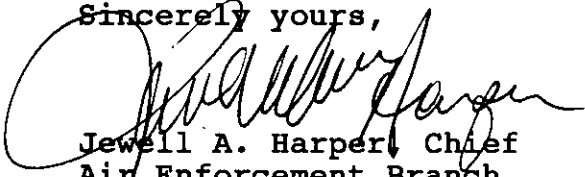
This is to acknowledge receipt of the final determination and permit for the above referenced facility dated July 1, 1991. As discussed between Mr. Barry Andrews of your staff and Mr. Gregg Worley of my staff on August 2, 1991, we have reviewed the package and have the following comment.

A preliminary determination was made by FDER on December 21, 1990, that the application of selective catalytic reduction was appropriate as best available control technology for the 60 MW combined cycle turbine of this project. EPA concurred with this determination by letter dated January 28, 1991. Since that time, the applicant has proposed the use of low-NO_x burners under the "innovative control technology" provisions of the PSD regulations. Under the scenario proposed by the applicant and accepted by FDER, the GE Frame 6 turbine would be retrofitted with a low-NO_x burner no later than one year after operation commenced. In the event that the low-NO_x technology is not available, the applicant must retrofit SCR. The permit apparently allows the system to operate continuously at full capacity during the first year of operation. This is not consistent with other recently issued PSD permits for combustion turbines.

We have no adverse comments concerning the use of the "innovative control technology" provisions of the PSD regulations as they apply to this specific project; however, in order to maintain consistency we must strongly recommend that the permit be conditioned such that operation during the first year be limited to 25% (i.e., limit on the hours of operation).

Thank you for the opportunity to review and comment on this package and for addressing our earlier concerns. If you have any questions or comments, please contact Mr. Gregg Worley of my staff at (404) 347-2904.

Sincerely yours,



Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division

cc: J. Thron
B. Andrews
C. Holladay
C. Collins, C. Dist.
S. Massey, Van Beach
CHF

File

*8/10
Kim -
copy district,
Sine this to
Preston
Copy sent to
Central*

City of Vero Beach

101 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA 32961 1389
Telephone: (407) 562 7231
Fax: (407) 569-5581

PRINCIPAL POWER PLANT

August 7, 1992

Mr. Barry Kuberski
Air Compliance Engineer
Florida Department of Environmental Regulation
St. Johns River District
Suite 232
3319 Marine Boulevard
Orlando, Florida 32803-3767

Subject: Notification of Startup

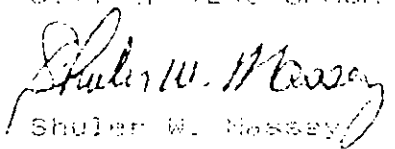
Dear Mr. Kuberski:

In accordance with the requirements of 40 CFR 60.7, this letter is to notify you of the impending startup of the City of Vero Beach's new Unit 5 combustion turbine. The first firing of the combustion turbine, in simple cycle, is anticipated on September 7, 1992.

Mr. Clair H. Fandy, in the Tallahassee bureau, was also notified of this impending startup.

Very truly yours,

CITY OF VERO BEACH



Shuler W. Mossey
Director of Power Resources

GWM/jis

cc: R. Nason
J. W. Sherrill
Anne Harris
Mike Sierant

mail certified No. P 391 293 225

AIR039 300RL31002905

AIR PROGRAM INFORMATION SYSTEM
SOURCE COMMENTS

02/03/92
15:55:39

FACIL: OWN: VERO BEACH POWER IN/L: 100 17TH ST SOURCE UPDATED: 02/03/92
 # SRC: 005 MAJOR FAC: Y CITY: VERO BEACH FAC STATUS: A = ACTIVE
 SOURCE DESC: 60 MW COMBINED CYCLE GAS TURBINE (UNIT #5)
 PERMIT/PPS: AC31-184927 MAJOR SRC: Y SRC STATUS: C = CONSTRUCT
 NSPS: 66 NESHAP: ... 111D: ... PSD: 152 NAA/NSR: ... RACT: ...

| COMMENTS: | DATE | ACTION |
|--|--------------|--------|
| 0001 OPERATING PERMIT CONDITIONS SHALL REFLECT NORMAL OPERA- | 02 / 03 / 92 | — |
| 0002 TING LIMITS FOR THIS 60MW COMBUSTION TURBINE SYSTEM. | 02 / 03 / 92 | — |
| 0003 AFTER APPROPRIATE CONTROL EQUIPMENT SELECTION AS RE- | 02 / 03 / 92 | — |
| 0004 QUIRED IN THE BACT DETERMINATION. | 02 / 03 / 92 | — |
| 0005 SCREEN 40 SHALL BE UPDATED TO REFLECT BACT DETERMINA- | 02 / 03 / 92 | — |
| 0006 TION LIMITS. | 02 / 03 / 92 | — |
| 0000 | — / — / — | — |
| 0000 | — / — / — | — |
| 0000 | — / — / — | — |
| 0000 | — / — / — | — |
| 0000 | — / — / — | — |
| 0000 | — / — / — | — |

MORE COMMENT RECORDS ON FILE? NO ACTION TAKEN: TRANSMIT HERE:

City of Vero Beach

100 - 17th STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389
Telephone: (407) 562-7231

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SEP 27 1991

Division of Air
Resources Management

MUNICIPAL POWER PLANT

September 24, 1991

Bureau of Air Quality Management
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Notification of Commencement of Construction

Attention: Mr. Clair H. Fancy
Chief

Gentlemen:

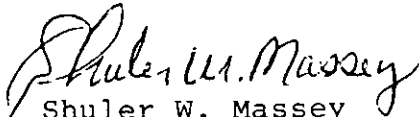
As required under the Standards of Performance for New Stationary Sources, 40 CFR 60.7 (a) (1), this letter serves as notification to you and the U. S. Environmental Protection Agency that construction has commenced on Unit 5 of the City of Vero Beach's Municipal Power Plant.

The building permit for Unit 5 was issued on September 11, 1991. The General Contractor, The Hardaway Company, has mobilized and excavation for the foundation has begun. The piling construction has been completed, and the actual construction of Unit 5 is now underway.

Under the definitions of "commenced" and "construction," as provided in 40 CFR 60.2, the City of Vero Beach believes that these activities qualify as commencement of construction.

The City will be happy to provide any additional information that you may require regarding this matter.

Very truly yours,



Shuler W. Massey
Director of Power Resources

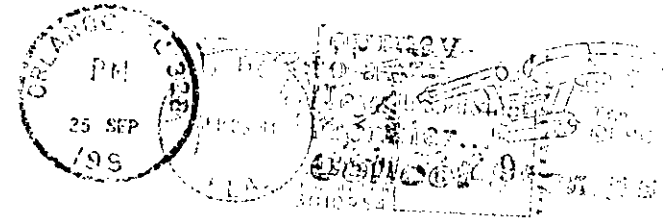
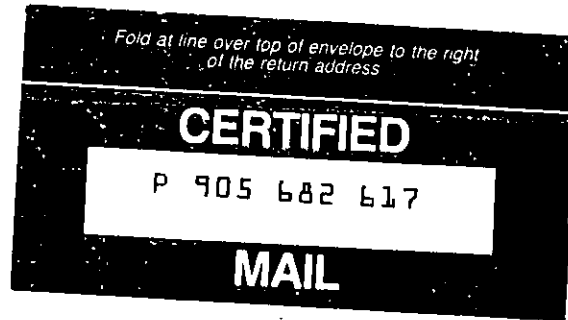
SWM/dg

cc: Mr. J. A. Harper (EPA)
Mr. P. C. Cunningham (HBG&S)
Mr. M. E. Fagan (B&V)
Ms. A. F. Harris (B&V)

Mr. M. L. Pelan (B&V)
Mr. G. V. Perko (HBG&S)
Mr. L. W. Sherrill (B&V)

Certified Mail P 905 682 617

City of Vero Beach
MUNICIPAL POWER PLANT
100 WEST STREET - P. O. BOX 1389
VERO BEACH, FLORIDA - 32961-1389



Mr. CLair H. Fancy, Chief
Bureau of Air Quality Management
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

