



Check Sheet

Company Name: Phillips Pipe Line Company
 Permit Number: AC 16-124983
 PSD Number: _____
 Permit Engineer: _____

Cross References:
 AD 16-142634

Application:

- Initial Application
- Incompleteness Letters
- Responses
- Waiver of Department Action
- Department Response
- Other

Intent:

- Intent to Issue
- Notice of Intent to Issue
- Technical Evaluation
- BACT or LAER Determination
- Unsigned Permit

Correspondence with:

- EPA
- Park Services
- Other
- Proof of Publication
- Petitions - (Related to extensions, hearings, etc.)
- Waiver of Department Action
- Other

Final Determination:

- Final Determination
- Signed Permit
- BACT or LAER Determination
- Other

Post Permit Correspondence:

- Extensions/Amendments/Modifications
- Other

e.s. blangie

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division
Air and Water Pollution Control



August 18, 1988

RECEIVED

AUG 24 1988

DER - BAQM

*Willard -
Did you
do the construction
permits
for Patty*

Mr. F. W. Mulloy, P.E.
Environmental Engineer
Phillips Petroleum Company
12 A3 Phillips Building
Bartlesville, Oklahoma 74004

Reference: Permit No. AO16-142634

Dear Mr. Mulloy:

The Bio-Environmental Services Division (BESD) has reviewed your letter dated July 11, 1988, regarding Permit No. AO16-142634. The requests in said letter are addressed below by the item number in your letter.

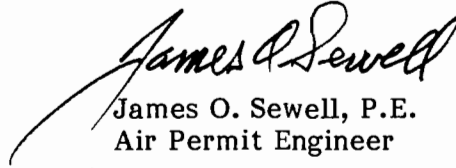
1. **Revise allowable emissions.** Any revision increasing the allowable emissions in this air pollution permit requires a construction permit to be submitted to the Central Air Permitting Section (CAPS) of the Department of Environmental Regulation (DER), 2600 Blair Stone Road, Tallahassee, Florida 32399 because the original construction permit was processed by CAPS.
2. **Specific Condition No. 8 - Annual testing.** The BESD does not agree to withdraw the annual testing requirement since such testing is necessary for determination of compliance with emission standards. If, however, there is a problem submitting the report within 45 days, BESD will be willing to accommodate provided permission is obtained in advance. In regard to testing under conditions specified under Specific Condition 3, such is the requirement for all permitted sources in Duval County. It is BESD's position that sources must be tested at capacities reflected in the permit.
3. **Specific Condition No. 9 - Testing of fugitive emissions.** The BESD agrees to revise the permit to allow the use of an explosimeter for detecting hydrocarbons in air.
4. **Raise the annual throughput from 90,000,000 gpy to 150,000,000 gpy.** An increase in throughput will increase the emissions, therefore, the construction permit required for item one (1) must include this request along with the resulting emissions increase.
5. **Deletion of vapor recovery unit.** BESD agrees to revise the permit deleting the vapor recovery unit. The BESD has cancelled the consent order OGS-86-0843.



Mr. F. W. Mulloy, P.E.
August 18, 1988
Page 2

If there are any further questions regarding this matter, contact the undersigned at (904) 630-3666.

Very truly yours,

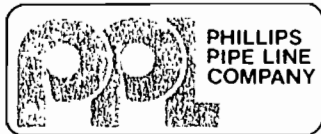

James O. Sewell, P.E.
Air Permit Engineer

JOS/rlj

cc: Mr. Bill Stewart, P.E., DER
CAPS - DER, Tallahassee
BESD File 1985-D
(Disc: 1/5)

PM
25 Nov. 1987
Bartlesville, Okla.

file copy



November 23, 1987

Jacksonville Terminal
Vapor Combustor
Operating Permit Application

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Jeremy Lucas, Assistant Permitting Engineer (4)
Bio-Environmental Services Division (BESD)
515 West 6th St.
Jacksonville, Florida 32206

DER

NOV 30 1987

Dear Mr. Lucas:

BAQM

This letter is being submitted as a request for an operating permit for Phillips Pipe Line Company's Jacksonville Terminal Vapor Combustor Unit. This unit is currently being operated under Florida Department of Environmental Regulation Construction Permit No. AC 16-124985, expiring March 1, 1988.

Enclosed with this request (application) for an operating permit is the following:

- Certificate of Completion of Construction (FDER Form 17-1.202(3)),
- Letter from Technical Services, Inc., dated November 11, 1987, with accompanying report "Source Emissions Tests, John Zinc Vapor Combustor, Phillips Pipe Line Company, Jacksonville, Florida, October 14, 1987", and
- A check for separate payment of the Operating Permit Application processing fees as follows:
 - \$500.00 payable to the Florida Department of Environmental Regulations.

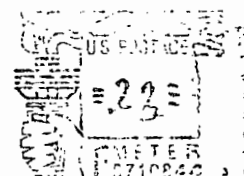
NOTE: The \$150.00 check payable to the Tax Collector has been sent under separate cover.

Phillips has completed the installation and evaluation of this vapor combustor and has determined the unit is:

- Constructed in accordance with the terms of the construction permit application, and
- capable of maintaining compliance with the terms (conditions) of the construction permit.



BARTLESVILLE, OKLAHOMA 74004



12-1-87

~~CHE~~ } FYI
~~BT~~
④

C. A. Fancy, Deputy Chief Desk #2400
Bureau of Air Quality Management
Department of Environmental Regulations
Twin Towers Office Bldg.
2600 Blair Stone Road
Tallahassee, FL 32399



Jeremy Lucas
November 23, 1987
Page 2

However, as you will note, this unit's compliance test results are being submitted without the vapor analyses. As I pointed out to you in our telephone conversation on November 12, 1987, the testing laboratory has experienced problems with analytical equipment and the required gaseous vapor testing is not complete. We anticipate this information will be available for submittal in early January of 1988.

I would like to confirm that you and I agreed in our telephone conversation the permit application could be submitted to, and held in abeyance by, the BESD until such reasonable time that all required vapor test results are made available to the BESD. You also indicated the enclosed material would constitute an acceptable application and that further extension of the existing construction permit expiration date would not be required.


If you should have any questions or need additional information regarding this application please call me at 918/661-7539, or Fred Mulloy, Corporate Engineering, at 918/661-5735.

Very truly yours,



Michael W. Holcomb
Sr. Environmental Specialist

MWH:mrs
Enclosure

cc: C. A. Fancy, FDER, Tallahassee
CHF/BT - 12/2/87 

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery.

3. Article Addressed to: **B.F. Ballard**
 Director Environmental Control
 Phillips Petroleum Company
 10 D4 Phillips Building
 Bartlesville, Oklahoma 74004

4. Type of Service: Article Number
 Registered Insured
 Certified COD P 274 007 672
 Express Mail

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee
 X

6. Signature - Agent
 X

7. Date of Delivery
 PHILLIPS FOOTING 1007

8. Addressee's Address (ONLY if requested and fee paid)
 PHILLIPS FOOTING 1007

DOMESTIC RETURN RECEIPT

P 274 007 672

RECEIPT FOR CERTIFIED MAIL
 NO INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

U.S.G.P.O. 1985-480-794
 PS Form 3800, June 1985

Sent to **B.F. Ballard**
~~Phillips Petroleum Company~~
 Street and No.
10 D4 Phillips Building
 P.O., State and ZIP Code
Bartlesville, Oklahoma 74004

Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

Mailed: 10/7/87
 Permit: AC 16-124985

file

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

October 5, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. B. F. Ballard
Director Environmental Control
Phillips Petroleum Company
10 D4 Phillips Building
Bartlesville, Oklahoma 74004


Dear Mr. Ballard:

Re: Construction Permit No. AC 16-124985

The Department is in receipt of Mr. Holcomb's September 22, 1987, letter requesting the expiration date of the permit to construct a vapor combustor at the Jacksonville, Florida facility be extended to allow additional time to demonstrate compliance with the emission standards and submit a complete application for a permit to operate. The request is acceptable and the expiration date is changed from November 30, 1987, to February 29, 1988.

A copy of this letter must be attached to the referenced construction permit and shall become a part of that permit.

Sincerely,



Dale Twachtmann
Secretary

CHF/WH/s

cc: K. Mehta
W. Stewart
M. Holcomb

attachment



Interoffice Memorandum

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

TO: Dale Twachtmann
THRU: Howard Rhodes *HR*
FROM: Clair Fancy *CF*
DATE: October 5, 1987
SUBJ: Construction Permit Amendment

Attached for your approval and signature is a letter that will extend the expiration date of a construction permit issued to Phillips Petroleum Company. The permit is for a flare at their Jacksonville terminal. The extension will allow additional time for the permittee to do the compliance tests and submit the application for permit to operate. We know of no controversy surrounding this request. The Bureau recommends the extension be approved.

CHF/WH/s

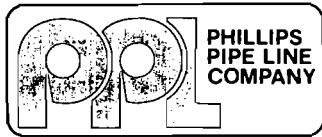
[Handwritten signature]
RECEIVED
OCT 6 1987
Office of the Secretary

DER
OCT 7 1987
BAQM

P.M.
9-23-87
Bartlesville, Oklahoma

Certified #: 00865

File Copy



September 22, 1987

DER
SEP 28 1987
BAQM

Jacksonville Terminal
Vapor Combustor Construction
Permit No. AC 16-124985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. W. A. Thomas
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

Phillips Pipe Line Company would like to request an extension of the subject Construction Permit No. AC 16-124985 from the current expiration date of November 30, 1987 to February 29, 1988.

This request for permit extension is being made so that Phillips will have sufficient time to complete and submit an operating permit application and also allow for the time required for processing of the permit application. Phillips completed installation of the subject control unit in early August of this year. Since that time we have conducted extensive system evaluations and have made a number of minor adjustments to the control systems to insure this unit will maintain compliance with the permit requirements. We believe the unit is now fully operational and we are currently scheduling the visible emission compliance test of this unit in accordance with Specific Condition Number 2 of the permit.

Phillips expects to have the required compliance test information available by the middle of October, 1987. The operating permit application material will be completed and submitted to the Jacksonville Bio-Environmental Services Division for processing soon thereafter.

9-28-87

Maggie,

copied CHF/BT. Left an
extra copy attached.

Bmm

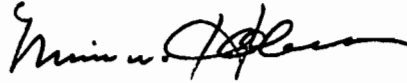
There were no copies attached

9/30/87 (M)

Mr. W. A. Thomas
September 22, 1987
Page 2

Phillips will appreciate your assistance in obtaining this time extension for the subject Construction Permit. If you should have any questions or need additional information regarding this request please call me at 918/661-7539.

Very truly yours,



Michael W. Holcomb
Sr. Environmental Specialist

MWH:mrs

cc: Mr. Khurshid K. Mehta, P.E.,
Jacksonville BESD

CHF/BT 9-25-87 Rgm

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.
 2. Restricted Delivery.

3. Article Addressed to: B.F. Ballard, Dir.
 Environmental Control
 Phillips Pipe Line
 10 D4 Phillips Bldg.
 Bartlesville, Oklahoma 74004

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 274 007 736

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee
 X

6. Signature - Agent
 X *[Signature]*

7. Date of Delivery
 JUL 17 1987

8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

P 274 007 736
RECEIPT FOR CERTIFIED MAIL
 NO-INSURANCE COVERAGE PROVIDED
 NOT FOR INTERNATIONAL MAIL
 (See Reverse)

* U.S.G.P.O. 1985-480-794

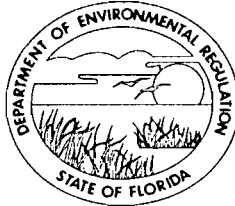
Sent to B.F. Ballard, Dir. Phillips Pipe Line	
Street and No. 10 D4 Phillips Bldg.	
P.O., State and ZIP Code Bartlesville, Oklahoma, 74004	
Postage	\$ 74004
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date Mailed: 07/15/87 Permit: AC 16-124985	

PS Form 3800, June 1985

Jul

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

July 10, 1987

Mr. B. F. Ballard
Director
Environmental Control
Phillips Pipe Line
10 D4 Phillips Bldg.
Bartlesville, Oklahoma 74004

Dear Mr. Ballard:

Re: Expiration Date Extension for the Construction Permit:
AC 16-124985

The Department is in receipt of Mr. Michael W. Holcomb's letter dated June 26, 1987, which requested an extension of the expiration date for the above referenced permit. The following shall be changed and added:

Expiration Date:

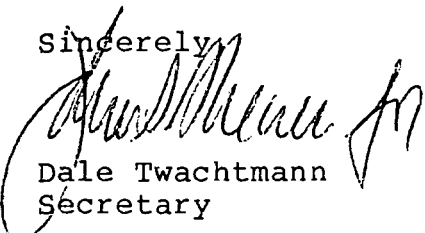
- From: August 31, 1987
- To: November 30, 1987

Attachment to be Incorporated:

4. Mr. Michael W. Holcomb's letter dated June 26, 1987, and received July 2, 1987.

This letter must be attached to your construction permit, No. AC 16-124985, and shall become a part of the permit.

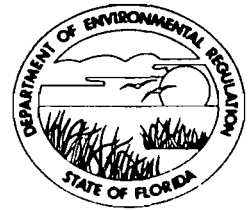
Sincerely,



Dale Twachtmann
Secretary

DT/ks

cc: K. Mehta
B. Stewart
M. Holcomb



Interoffice Memorandum

TO: Dale Twachtmann

THRU: Howard Rhodes *HR*

FROM: Clair Fancy *CF*

DATE: July 10, 1987

SUBJ: Amendment to Construction Permit No. AC 16-124985
Phillips Pipe Line

Attached for your approval and signature is an amendment to the referenced construction permit requesting an extension of the expiration date. The Bureau recommends approval and signature.

CHF/BM/s

attachment

For Routing To Other Than The Addressee

To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

PM
295un
Tulsa, Okla

Exp. Mail:
Cert. # 10150

File copy



June 26, 1987

DER

Jacksonville Terminal
Vapor Combustor Construction
Permit No. AC 16-124985

JUL 2 1987

BAQM

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. W. A. Thomas
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

Phillips Pipe Line Company would like to request an extension of the subject Construction Permit No. AC 16-124985 from the current expiration date of August 31, 1987 to November 30, 1987.

Phillips plans to have the subject control unit installed and operational prior to expiration of the current Construction Permit. However, Phillips anticipates additional time will be needed to obtain an operating permit for this unit.

Phillips has discussed the permitting procedures with both Willard Hanks of your office and Jeremy Lucas of the City of Jacksonville's Bio-Environmental Services Division (BESD). It is Phillips' understanding that once the control unit is installed and operational Phillips should submit an application and fee to the BESD for processing an Operating Permit for this unit. We understand this application must include a Certificate of Completion of the construction together with data indicating the unit is capable of complying with the air quality limitations stated in the Specific Conditions of the Construction Permit. Sufficient time will then be needed for the BESD to process the application and for the State to issue the Operating Permit prior to expiration of the Construction Permit.

Phillips will appreciate your assistance in obtaining the time extension for the subject Construction Permit. If you should have any questions or need additional information regarding this request please call me at 918/661-7539.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'Michael W. Holcomb'.

Michael W. Holcomb
Sr. Environmental Specialist

MWH:mrs

cc: Mr. Khurshid K. Mehta, P. E., City of Jacksonville BESD

PM
2-18-87
JEW, FL

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division

DER
FEB 19 1987
BAQM



February 17, 1987

Mr. Bill Thomas, P.E.
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Twin Towers Office Bldg.
Tallahassee, Florida 32301

Re: Phillips Pipeline
Jacksonville, Florida
Tank Truck Loading Rack With Flare
Proposed Permit AC16-124985

Dear Mr. Thomas.

Bio-Environmental Services Division (BESD) provides the following comments on the captioned item:

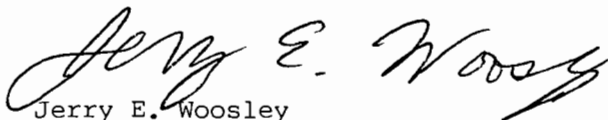
1. The proposed permit does not require testing to determine the exit velocity of the flare so that compliance with Specific Condition No.5 may be ascertained. Environmental Protection Agency (EPA) Reference Method 2, 2A, 2C, or 2D (as appropriate) should be required in the permit*.

*Reference to CFR 60 113 b (d)(4)

2. Does no visible emission in S.C. No. 2 mean $\leq 5\%$ opacity or no visible smoke? This should be clearly defined in the permit. No visible smoke is recommended.
3. S.C. No. 5: The units of V max should be defined as m/sec. Ht should be defined as in 40 CFR 60 113 b (d)(3) proposed.

Your consideration of these comments is appreciated.

Very truly yours,



Jerry E. Woosley
Associate Pollution Control Engineer

JEW/ecr

cc: Mr. Bill Stewart, P.E., DER
Mr. Donald Summerfield, BESD
BESD File 1980 D



Bill ~~181~~ 2/19/87

Maher copied

Please return for

file

This permit was
signed 2/14

Patthy

P 408 531 161
 RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
 NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. B. F. Ballard	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date 2/17/87	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.
 Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

- Show to whom, date and address of delivery.
- Restricted Delivery.

3. Article Addressed to:
 Mr. B. F. Ballard
 Phillips Pipe Line Company
 10 D4. Phillips Bldg.
 Bartlesville, Oklahoma 74004

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 408 531 161

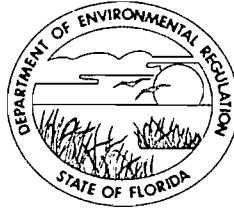
Always obtain signature of addressee or agent and DATE DELIVERED.

- Signature — Addressee
X
- Signature — Agent
X *Shirley Thomas*
- Date of Delivery
FEB 17 1987
- Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. B. F. Ballard
Director Environmental Control
Phillips Pipe Line Company
10 D4 Phillips Bldg.
Bartlesville, Oklahoma 74004


February 17, 1987

Enclosed is Permit Number AC 16-124985 to Phillips Pipe Line Company which authorizes the replacement of an existing vapor recovery unit with a vapor combustor at the applicant's facility in Jacksonville, Duval County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any Party to this permit has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this permit is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

K. Mehta
B. Stewart
M. Holcomb
P. Ressel

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on Feb. 17, 1987 to the listed persons.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Patricia G. Adams
Clerk

Feb. 17, 1987
Date

Final Determination

Phillips Pipe Line Company
Duval County
Jacksonville, Florida

Permit Number
AC 16-124985

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

February 16, 1987

Final Determination

The construction application has been reviewed by the Department. Public Notice of the Department's Intent to Issue was published in the Florida Times-Union, and Jacksonville Journal on January 24, 1987. The Technical Evaluation and Preliminary Determination were available for public inspection at the Northeast District office, the Duval County Department of Health, Welfare and Bio-Environmental Services, and the Bureau of Air Quality Management office.

Phillips Pipe Line (PPL) submitted comments on the draft permits to the bureau on December 22, 1986. PPL's comments and the bureau's response follow.

Phillips proposes installation of an emission control system having equivalent design and emission control capabilities described in the permit application. However, a decision on specific vendor equipment to be purchased and installed at this facility has yet to be made. Phillips did not intend to request authorization for installation of specific vendor equipment at the time the application was made.

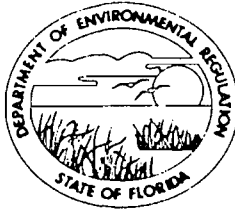
The department has approved these changes as long as the new emissions control system having equivalent design and emission control capabilities described in the permit application.

Since the vendor and model number were not included as specific permit conditions, the final action of the Department will be to issue construction permit as proposed in the Technical Evaluation and Preliminary Determination.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE:
Phillips Pipe Line Company
10 D4 Phillips Blvd.
Bartlesville, OK 74004

Permit Number: AC 16-124985
Expiration Date: August 31, 1987
County: Duval
Latitude/Longitude: 30° 22' 07" N/
81° 37' 09" W
Project: To Replace an Existing
Vapor Recovery Unit with
a Vapor Combustor

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

To replace the gasoline loading rack vapor recovery unit with a vapor combustor.

Construction shall be in accordance with the attached permit application and additional information except as otherwise noted in the Specific Conditions.

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received September 10, 1986.
2. C. H. Fancy's letter of incompleteness, dated October 3, 1986.
3. B. F. Ballard's letter of response dated October 24, 1986.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD).
- (x) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.
- c. Records of monitoring information shall include:
- the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Projected annual emissions shall not exceed the values listed in the following table without prior approval of the department.

Source	Total
VOC (40 mg/L)	4.9 T/yr
NOx	0.85 T/yr
TSP	0.09 T/yr
CO	0.21 T/yr
Lead	0.018 lb/yr

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

SPECIFIC CONDITIONS:

2. The flare shall be designed for and operated with no visible emission as determined by the method specified in Subpart Kb, 40 CFR 60.113b(d)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Reference Method 22 shall be used to determine the compliance of flare with the visible emissions provisions of this subpart. The observation period shall be 2 hours.

3. The flare shall be operated with a flame present at all times as determined by the methods specified in Subpart Kb, 40 CFR 60.113(b)(d)(2).

4. Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

5. The maximum permitted velocity (V max), for the air assisted flare shall be determined by the following equation:

$$V \text{ max} = 8.706 + 0.7084 (Ht)$$

where Ht is the net heating value

6. Objectionable odors shall not be allowed off plant property.

7. Prior to 90 days before the expiration date of this permit, a complete application for an operation permit shall be submitted to the Jacksonville Bio-Environmental Services Division. Full operation of the sources may then be conducted in compliance with the terms of this permit until the expiration date contained or this permit or receipt of an operating permit.

Issued this 16 day of Feb, 1987

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION


Dale Twachtmann, Secretary

___ pages attached.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION



Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ LOCTN: _____
To: _____ LOCTN: _____
To: _____ LOCTN: _____
From: _____ DATE: _____

TO: Dale Twachtmann
THRU: Howard Rhodes *HR*
FROM: Clair Fancy *CF*
DATE: February 16, 1987
SUBJ: Approval of Air Construction Permit

Attached for your approval and signature is one air construction permit to Phillips Pipe Line Company to authorize a change in emission control equipment from a vapor recovery unit to a thermal destructor at the applicant's terminal in Jacksonville, Duval County, Florida. There have been no controversies regarding this permit.

★ Day 90, after which the permit would be issued by default, is ★
February 18, 1987.

The bureau recommends your approval and signature.

CF/ks

Attachment



6477 Evergreen Avenue
Jacksonville, Florida 32208

CERTIFIED MAIL

January 27, 1987

Re: Notice of Intent to
Construct and Operate
Vapor Combustor

Mr. Bill Thomas
Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Sir:

Per instruction from your office we respectfully submit this certified proof of publication of Notice of Intent to construct and operate a vapor combustor to replace the vapor recovery unit at our Jacksonville, Florida Terminal. The Notice was run in the Florida Times - Union publication on Saturday, January 24th, 1987

Should there be any question regarding this matter, please feel free to call Mike Holcomb at 918 661 7539 or Paul J. Ressel at 904 353 6740.

Sincerely yours,

Paul J. Ressel
Jacksonville Terminal Supervisor

pjr
Enclosures

cc: Mike Holcomb
Jacksonville File RC

*Maker -
This can go for
final signature
any time after
2/18/87 -
Day 90 is 2/18/87
Patty*

DER
JAN 28 1987
BAQM



FLORIDA PUBLISHING COMPANY

Publishers

JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }
COUNTY OF DUVAL }

Before the undersigned authority personally appeared George A. Dan

who on oath says that he is Retail Advertising Manager

of The Florida Times-Union, and

Jacksonville Journal, daily newspapers published at Jacksonville in Duval County,

Florida; that the attached copy of advertisement, being a Legal Notice

in the matter of Notice of Intent

in the Court,

was published in The Florida Times-Union

in the issues of January 24

Affiant further says that the said The Florida Times-Union and Jacksonville Journal are each newspapers published at Jacksonville, in said Duval County, Florida, and that the said newspapers have each heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, and Jacksonville Journal each day except Sundays, and each has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me this 26th day of January, 1987

Notary Public State of Florida at Large

My Commission Expires

DA 444

NOTARY PUBLIC, STATE OF FLORIDA My commission expires Feb. 19, 1989

Handwritten signature of George A. Dan

State of Florida Department of Environmental Regulation Notice of Intent The Department gives notice of its intent to issue a permit to Phillips Pipe Line Company to replace an existing gasoline loading rack vapor recovery unit with a vapor combustor at the company's existing facility located at 6477 Evergreen Avenue in Jacksonville, Duval County, Florida. A determination of best available control technology (BACT) was not required. Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes. If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes. The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at: Dept. of Environmental Regulation Bureau of Air Quality Management 3600 Blair Stone Road Tallahassee, Florida 32399-2400 Dept. of Environmental Regulation Northeast District 3426 Bills Road Jacksonville, Florida 32207 Duval County Dept. of Health, Welfare and Bio-Environmental Services 515 West 6th Street Jacksonville, Florida 32206 Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the department's final determination.

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. Show to whom, date and address of delivery.

2. Restricted Delivery.

3. Article Addressed to:
Mr. B. F. Ballard
Phillips Pipe Line Company
10 D4 Phillips Bldg.
Bartlesville, Oklahoma 74004

4. Type of Service:	Article Number
<input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail	P 408 530 598

Always obtain signature of addressee or agent and **DATE DELIVERED.**

5. Signature - Addressee
X

6. Signature - Agent
X

7. Date of Delivery JAN 23 1987

8. Addressee's Address (ONLY if requested and fee paid)

DOMESTIC RETURN RECEIPT

P 408 530 598

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

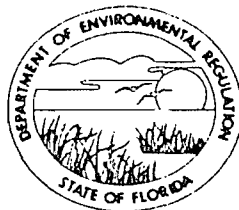
(See Reverse)

Sent to Mr. B. F. Ballard	
Street and No.	
P.O., State and ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date 1/20/87	

PS Form 3800, Feb. 1982

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR
DALE TWACHTMANN
SECRETARY

January 16, 1987

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. B. F. Ballard
Director Environmental Control
Phillips Pipe Line Company
10 D4 Phillips Bldg.
Bartlesville, Oklahoma 74004

Dear Mr. Ballard:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit to construct a vapor combustor at your existing facility in Jacksonville, Duval County, Florida.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/pa

Attachments

cc: K. Mehta
W. Stewart

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue a permit to Phillips Pipe Line Company to replace an existing gasoline loading rack vapor recovery unit with a vapor combustor at the company's existing facility located at 6477 Evergreen Avenue in Jacksonville, Duval County, Florida. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dept. of Environmental Regulation
Northeast District
3426 Bills Road
Jacksonville, Florida 32207

Duval County Dept. of Health, Welfare and
Bio-Environmental Services
515 West 6th Street
Jacksonville, Florida 32206

Any person may send written comments on the proposed action to Mr. Bill Thomas at the department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the department's final determination.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Phillips Pipeline Company
10 D4 Phillips Bldg.
Bartlesville, Oklahoma 74004

DER File No. AC 16-124985

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Phillips Pipeline Company, applied on September 10, 1986, to the Department of Environmental Regulation for a permit to replace an existing vapor recovery unit with a vapor combustor at the applicant's facility in Jacksonville, Duval County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit was needed for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of

the notice. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S. A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

Copies furnished to:

B. F. Ballard
Khurshid Mehta
W. P. Stewart

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on Jan. 20, 1987.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to
§120.52(9), Florida Statutes, with
the designated Department Clerk,
receipt of which is hereby
acknowledged.

Patricia G. Adams 1/20/87
Clerk Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed, typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
 - (a) The name and address of each agency affected and each agency's file or identification number, if known;
 - (b) The name and address of the petitioner or petitioners;
 - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
 - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
 - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
 - (f) A demand for the relief to which the petitioner deems himself entitled; and
 - (g) Such other information which the petitioner contends is material.

DER1985 RULES OF ADMINISTRATIVE PROCEDURE - NON-RULEMAKING 17-103

of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to an administrative determination (hearing) under Section 120.57, F.S.

(4) Notice to substantially affected persons concerning applications for Department permits is an essential and integral part of the state environmental licensing process. Therefore, no application for a permit for which publication of notice is required shall be granted until and unless proof of publication of Notice is furnished to the appropriate Department permitting office.

(5)(a) Any applicant or person benefiting from the Department's action may elect to publish notice of proposed agency action in the manner provided by subsection (2) or (3). Any person who elects to publish notice of proposed agency action, upon presentation of proof of publication to the Department, prior to final agency action, shall be entitled to the same benefits under this rule as a person who is required to publish notice of proposed agency action. Since persons whose substantial interests are affected by a Department decision on a permit application may petition for an administrative proceeding within fourteen (14) days after receipt of notice and since, unless notice is given or published as prescribed in this rule, receipt of notice can occur at any time, the applicant or persons benefiting from the Department's action cannot justifiably rely on the finality of

the Department's decision without the notice having been duly given or published.

(b) The notices required by this rule may be combined with other notices required by the Department pursuant to Chapter 403, 376, or 253, F.S., or Chapter 17, FAC.

(c) The provisions of this section shall also apply to the permitting of hazardous waste facilities, but only to the extent it is consistent with Chapter 17-30, Part IV, FAC. Whenever Chapter 17-30, Part IV, FAC, provides for a different time or notice procedure than that set forth in this section the time and notice provisions of Chapter 17-30 shall govern.

(6) Failure to publish any notice of application, notice of proposed agency action, or notice of agency action required by the Department shall be an independent basis for the denial of a permit.

Specific Authority: 120.53,

403.0876, 403.815, F.S. Law

Implemented: 120.53, F.S.

History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.155 Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action may file a petition for administrative proceeding. A petition shall be in the form required by this Chapter and Chapter 28-5, FAC, and shall be filed (received) in the Office of General Counsel of the Department within fourteen (14) days of receipt of notice of proposed agency action or within fourteen (14) days of receipt of notice of

DER 1985 RULES OF ADMINISTRATIVE PROCEDURE - NON-RULEMAKING 17-103

agency action whenever there is no public notice of proposed agency action. In addition to the requirements of Rule 28-5.201, FAC, the Petition must specify the county in which the project is or will be located.

(b) Failure to file a petition within fourteen (14) days of receipt of notice of agency action or fourteen (14) days of receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(c) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 17-103.150, FAC, a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within fourteen (14) days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 17-103.150, FAC. Failure of the person to make inquiry with the Department within fourteen (14) days after obtaining such knowledge may estop the person from obtaining an administrative proceeding on the agency action.

(2)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first

occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(3) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal should be limited to:

(a) the application, and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(4) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by

DER1985 RULES OF ADMINISTRATIVE PROCEDURE - NON-RULEMAKING 17-103

the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law

Implemented: 120.53; F.S.

History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.160 Uniformity in Approval and Denial of Applications for Department Permits and Certifications. To the extent possible and consistent with the public interest, the Department approves and denies applications for permits and certifications on a uniform and consistent basis. Final Department actions on applications for permits and certifications shall be consistent with prior Department actions, unless deviation therefrom is explained by the Department in writing or the hearing officer who submits a recommended order to the Department for final agency action in accordance with Section 120.57, Florida Statutes.

Specific Authority: 120.53(1), F.S. Law Implemented: 120.53(1), 120.68(12), F.S. History: New 2-6-78, Transferred from 17-1.63, 6-1-84.

17-103.170 Designation, Preparation and Transmittal of Record for Administrative Appeals.

When any Department action or order is the subject of an administrative appeal under Chapter 17-103, Part II, FAC, the following requirements shall apply:

(1) Designation of Record. Within fifteen (15) days of rendition of the Department's final order, the appellant shall designate

to the Department, in writing, with copies to other parties, those documents or things under the control of or in the possession of the Department which the appellant desires to have included in the record, and which were received or considered in the Department proceeding below. If a proceeding was reported by mechanical recording devices, the appellant shall designate those portions of the proceeding for which it requires written transcription or tapes for transcription. Any other party may designate other portions of the record in the manner provided herein. Such cross-designation shall be filed with the Department, with copies provided other parties, within seven (7) days after receipt of the designation by the appellant.

(2) Original Record. The Department shall thereupon include in the record all of the designated portions of the original papers and exhibits in the proceedings or matter from which administrative appeal is taken, together with a copy of any such parts of the proceedings as were stenographically reported or transcribed from tapes, and as have been designated by the parties and certified by a notary public, the reporter, or other officer for inclusion in the record on appeal or review, and certified copies of the order, if any, of which review is sought. The Department may, at its discretion, substitute certified copies for original papers or documents in its possession.

(3) Preparation of Record. Upon tender or deposit by appellant of the estimated cost of preparation, the Department shall prepare the record in accordance with the designations of the parties. The cost of preparation, and reproduction,

Technical Evaluation
and
Preliminary Determination

Phillips Pipe Line Company
Duval County
Jacksonville, Florida

Permit Number
AC 16-124985

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

January 16, 1987

I. Project Description

A. Applicant

B. F. Ballard, Director Environmental Control
Phillips Pipe Line Company
10 D4 Phillips Bldg.
Bartlesville, Oklahoma 74004

B. Project and Location

The applicant proposes to replace an existing gasoline loading rack vapor recovery unit with a vapor combustor. The combustor with an emission reduction efficiency of 98% or more will reduce emissions below present levels and will result in full compliance.

The existing facility is located at 6477 Evergreen Avenue in Jacksonville, Florida, with UTM coordinates of zone 438694M East and 33607M North.

II. Rule Applicability

The proposed construction is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes and Rule 17-2 and 17-4, Florida Administrative Code (FAC).

The terminal is located in Duval County, which is an area designated nonattainment for the pollutant ozone in accordance with FAC Rule 17-2.410(1)(a). Volatile organic compounds (VOC) are precursors to ozone.

The existing facility is a major facility for VOC in accordance with FAC, 17-2.100(110).

According to FAC Rule 17-2.210, any source which emits or can reasonably be expected to emit any air pollutant shall obtain a permit from the department prior to beginning construction or operation of the source unless exempted pursuant to department rule or statute.

The terminal is required to comply with all conditions of 40 CFR 60, Subpart XX. Testing requirement (40 CFR 60.503) may be waived if the following conditions are met.

Flares shall be designed for and operated with no visible emissions as determined by the method specified in subpart Kb 60.113b(d)(1), except for periods not to exceed a total of 5 minutes during any two consecutive hours. Reference Method 22 shall be used to determine the compliance of flare with the visible emission provisions of this subpart.

The flare shall be operated with a flame present at all times, as determined by the Methods specified in Subpart Kb 60.113b(D)(2). The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of the flame.

Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

Based on projected total annual product throughput, assuming gasoline to be the major representative waste gas and using throughput values of gasoline equal to the total of all products loaded at the loading racks, the following new emission rates were obtained:

- a) NOx = 0.85 tons/yr
- b) TSP = 0.09 tons/yr
- c) CO = 0.21 tons/yr
- d) Lead = 0.018 lb/yr

The proposed new source will continue emitting the pollutant VOC in accordance with FAC 17-2.100(88). The total projected annual VOC emissions, in tons per year, is 4.9 (T/yr).

The proposed construction shall also comply with FAC 17-2.620(1) and (2), General Pollutant Emission Limiting Standards.

III. Conclusion

From a technical review of the application, the department has determined that the construction and operation of these sources will not have an impact on Florida's Ambient Air Quality Standards.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

PERMITTEE:
Phillips Pipe Line Company
10 D4 Phillips Blvd.
Bartlesville, OK 74004

Permit Number: AC 16-124985
Expiration Date: August 31, 1987
County: Duval
Latitude/Longitude: 30° 22' 07" N/
81° 37' 09" W
Project: To Replace an Existing
Vapor Recovery Unit with
a Vapor Combustor

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

To replace the gasoline loading rack vapor recovery unit with a vapor combustor.

Construction shall be in accordance with the attached permit application and additional information except as otherwise noted in the Specific Conditions.

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received September 10, 1986.
2. C. H. Fancy's letter of incompleteness, dated October 3, 1986.
3. B. F. Ballard's letter of response dated October 24, 1986.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD).
- (x) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.
- c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Projected annual emissions shall not exceed the values listed in the following table without prior approval of the department.

Source	Total
VOC (40 mg/L)	4.9 T/yr
NOx	0.85 T/yr
TSP	0.09 T/yr
CO	0.21 T/yr
Lead	0.018 lb/yr

PERMITTEE:
Phillips Pipe Line Company

Permit Number: AC 16-124985
Expiration Date: August 31, 1987

SPECIFIC CONDITIONS:

2. The flare shall be designed for and operated with no visible emission as determined by the method specified in Subpart Kb, 40 CFR 60.113b(d)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Reference Method 22 shall be used to determine the compliance of flare with the visible emissions provisions of this subpart. The observation period shall be 2 hours.

3. The flare shall be operated with a flame present at all times as determined by the methods specified in Subpart Kb, 40 CFR 60.113(b)(d)(2).

4. Owners or operators of control devices used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

5. The maximum permitted velocity (V max), for the air assisted flare shall be determined by the following equation:

$$V \text{ max} = 8.706 + 0.7084 (\text{Ht})$$

where Ht is the net heating value

6. Objectionable odors shall not be allowed off plant property.

7. Prior to 90 days before the expiration date of this permit, a complete application for an operation permit shall be submitted to the Jacksonville Bio-Environmental Services Division. Full operation of the sources may then be conducted in compliance with the terms of this permit until the expiration date contained on this permit or receipt of an operating permit.

Issued this _____ day of _____, 19____

STATE OF FLORIDA DEPARTMENT OF
ENVIRONMENTAL REGULATION

Howard L. Rhodes, P.E.
Director, Division of Environmental
Programs

_____ pages attached.



December 15, 1986

DER

DEC 22 1986

BAQM

Jacksonville Terminal
Vapor Combustor
Permit Application

Mr. W. A. Thomas
Bureau of Air Quality Management
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Thomas:

Phillips Pipe Line Company would like to clarify the intent of the application for a permit for a vapor combustor for it's Jacksonville Terminal, which was submitted to your office on August 29, 1986.

Phillips' reviewed vapor combustor design data and equipment drawings offered by several vendors for development of the permit application. Phillips chose vendor information for this application which best described the general emission control features and capabilities Phillips seeks to install at this terminal facility. Phillips still proposes installation of an emission control system having equivalent design and emission control capabilities described in the permit application. However, a decision on specific vendor equipment to be purchased and installed at this facility has yet to be made. Phillips' did not intend to request authorization for installation of specific vendor equipment at the time application was made.

Phillips trusts this letter provides sufficient clarification of the emission control system being proposed. If you have any questions regarding our permit application, please call me at 918/661-7539.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Michael W. Holcomb', written in a cursive style.

Michael W. Holcomb
Sr. Environmental Specialist

MWH:mrs

cc: Khurshid Mehta, City of Jacksonville



PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA 74004
PHONE: 918 661-6600 CABLE CODE: PHILPETROL TELEX: 49-2455

ENGINEERING AND SERVICES

bcc: W. A. McClintock
(r) File 406.10C
R. V. Burro
(r) M. W. Holcomb
R. W. Johnson - Atlanta
B. L. Thorman
(r) W. R. Litton

November 26, 1986

**Jacksonville Terminal
Vapor Recovery Unit
Permit A016-52199 Renewal**

Mr. Donald Summerfield (4)
Assistant Engineer
Bio-Environmental Services Division
Air and Water Pollution Control
515 West 6th Street
Jacksonville, Florida 32206-4397

12/8
~~Bill~~
Maken/Patty
for permit file

DER
DEC 1 1986
BAQM

Dear Mr. Summerfield:

Attached is an application for renewal of permit to operate the tank truck loading rack with vapor recovery unit (VRU) at the Phillips Pipe Line Company Jacksonville Terminal.

An application for a permit to replace the VRU with a vapor combustor was submitted by Phillips Pipe Line Company to the Florida DER on August 29, 1986, with a copy to Mr. K. Mehta of the Jacksonville BESD. The proposed combustor is to be installed some time after Jan. 31, the expiration date of the current permit. The enclosed permit renewal will be necessary for operation in the interim.

An explanation of application items 4 and 5 follows. A VOC emissions test conducted on the VRU on Dec. 3, 1985 found emissions to be above the permit allowable. However, a January 28, 1986 retest found emissions to be below the permit allowable. A citation was issued by BESD and Consent Order Number 86-0843 was entered into between the Florida DER, Jacksonville BESD and Phillips Pipe Line Company. The proposed vapor combustor referenced above is expected to more reliably maintain emissions below permit limits.

Also attached is a check for the application processing fee in the amount of \$500.00 payable to the Florida DER, and a check payable to the City of Jacksonville in the amount of \$400.00 for the application review fee.

Please contact F. W. Mulloy at (918) 661-5735 or M. W. Holcomb at (918) 661-7539 if additional information is needed.

Very truly yours,

B. F. Ballard, Director
Environment Control
10 D4 Phillips Building

BFB/FWM:tv46

cc: P. J. Ressel - Jacksonville Terminal
C. H. Fancy - FDER, Tallahassee

REQUEST FOR PAYMENT

TO TREASURY (ORIGINAL +1 COPY)
ORIGINAL VOUCHERED-RC

11-26, 19 86

PLEASE ISSUE Phillips Pipe Line Company CHECK, IN THE SUM OF \$ 500.00
(INSERT NAME OF COMPANY)

IN FAVOR OF Florida Department of Environmental Regulation

ADDRESS 3426 Bills Road
Jacksonville, Florida 32207

COVERING permit application processing fee for Jacksonville Terminal

MAIL ACCOMPANYING DETAIL TO PAYEE WITH CHECK
RECORD ON COMPANY / BRANCH NO. _____

CHARGE 7905

VOUCHER REFERENCE—DO NOT WRITE IN THIS SPACE

TYPE REC'D.	PAYEE CODE	DESCRIPTION	WORK ORDER
COM CD	AFR RFE	BD	
CNTRY	CD	DUE DATE	ACCOUNTING
SPEC	STAT DATA		

EMPLOYEE EXPENSE ADVANCE ONLY						
UL	LEDGER	LOC	UNIT	CL	FEATURE	AMOUNT

UL	LEDGER	LOC	UNIT	CL	FEATURE	BUDGET		O CODE	AMOUNT	WORK ORDER
						CODE	R.F.E.			

GROUP/STAFF E&S
APPROVED B.F. Ballard
B. F. Ballard

ADDRESS 10 D4 JB
PHONE NO. 5330

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 HILLS ROAD
JACKSONVILLE, FLORIDA 32207
(904) 396-6959



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ERNEST L. FRLY
DISTRICT MANAGER

APPLICATION FOR RENEWAL OF
PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Bulk Gasoline Terminal Renewal of DER Permit No. A016-52199

Company Name: Phillips Pipe Line Company County: Duval

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Tank Truck Loading with vapor recovery Unit

Source Location: Street: 6477 Evergreen Ave. City: Jacksonville

UTM: East 438694 M North 3360700 M

Latitude: 30° 22' 07" N. Longitude: 81° 37' 09" W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.
2. Have there been any alterations to the plant since last permitted? Yes No
If minor alterations have occurred, describe on a separate sheet and attach.
3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted previously.
4. Have previous permit conditions been adhered to? Yes No If no, explain on a separate sheet and attach. See cover letter.
5. Has there been any malfunction of the pollution control equipment during tenure of current permit? Yes No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach. previously reported.
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? Yes No
7. Has the annual operating report for the last calendar year been submitted? Yes No If no, please attach.

STATE OF Oklahoma §

COUNTY OF Washington §

BEFORE ME, the undersigned authority, on this day personally appeared P. D. Thorman, known to me to be the person whose name is subscribed to the foregoing instrument as Vice President of Phillips Pipe Line Company, a corporation, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, in the capacity stated, and as the act and deed of said corporation.

GIVEN under my hand and seal of office this 26th day of November, 1986.

Isabella Addington
Notary Public in and for Washington
County, Oklahoma.

My commission expires:

August 10, 1990



PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA 74004
PHONE: 918 661-6600 CABLE CODE: PHILPETROL TELEX: 49-2455

ENGINEERING AND SERVICES

October 24, 1986

DER
OCT 31 1986
BAQM

Jacksonville Terminal
Vapor Combustor
Permit Application AC 16-124985

Mr. C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality Management
Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301-8241

Dear Mr. Fancy:

The information which you requested concerning Jacksonville Terminal loading emissions is below. We trust that, with this information, you will be able to process Phillips permit application.

1. Emissions from the combustor are estimated as follows:

NO _x	0.85 Tons/yr
TSP	0.09 Tons/yr
CO	0.21 Tons/yr
Lead	0.018 Lb/yr

2. The Terminal latitude is 30° 22' 07".
The longitude is 81° 37' 09".

3. Emissions of VOC from the truck loading rack as reported in annual operating reports to the Jacksonville Bio-Environmental Services Division or to the Florida BAQM were as follows:

1981	252.75 Tons
1982	27.81 Tons
1983	14.70 Tons
1984	21.16 Tons
1985	2.52 Tons

The amount for 1986 through September is estimated at 10.92 Tons. The vapor recovery unit was put into operation on October 1, 1981. As you can see, there was a decrease of 250 tons between 1981 and 1985.

4. VOC emissions are estimated to decrease from 15.0 tons/yr to 4.9 tons/yr as a result of installation of the combustor. Emissions of NO_x, TSP, and CO will increase by the amounts listed in No. 1 above.

Attached are combustor emission calculations (2 pages) and VOC emission calculations.

Please contact F. W. Mulloy at (918) 661-5735 if additional information is needed.

Very truly yours,

A handwritten signature in cursive script that reads "B. F. Ballard".

B. F. Ballard, Director
Environment Control
10 D4 Phillips Building

BFB/FWM:tv32

cc: M. J. Fitzsimmons - FDER, Jacksonville
K. Mehta - City of Jacksonville

Phillips Pipe Line Company
 Jacksonville Terminal
 Estimation of Vapor Combustor Emissions

A vapor combustor would have lower emissions than a heater because it burns with a greater excess of air and at lower chamber temperature. But, with the absence of factors for flare emissions, AP-42 factors for heaters were used. Since AP-42 doesn't have factors for gasoline, the factors for distillate were chosen.

Feed to combustor:

VOC -	55.81 Lbs/hr	ave
	347 Lbs/hr	max
Natural gas -	25 SCFH	ave
	125 SCFH	max

Maximum heat release:

$$347 \frac{\text{Lbs}}{\text{hr}} \times 20800 \frac{\text{BTU}}{\text{Lb}} + 125 \frac{\text{SCF}}{\text{hr}} \times 1000 \frac{\text{BTU}}{\text{SCF}}$$

$$= 7.34 \times 10^6 \text{ BTU/hr}$$

Factors from AP-42:
 for distillate:

NO _x	20 Lb/1000 gal
TSP	2 Lb/1000 gal
CO	5 Lb/1000 gal

for natural gas:

NO _x	100 Lb/10 ⁶ SCF
TSP	5 Lb/10 ⁶ SCF
CO	20 Lb/10 ⁶ SCF

gals. gasoline:

$$55.81 \frac{\text{Lb}}{\text{hr}} \times \frac{\text{gal}}{5.8 \text{ Lb}} = 9.62 \frac{\text{gal}}{\text{hr}}$$

NO_x

$$9.62 \frac{\text{gal}}{\text{hr}} \times \frac{20 \text{ Lb}}{1000 \text{ gal}} + 25 \frac{\text{SCF}}{\text{hr}} \times \frac{100 \text{ Lb}}{10^6 \text{ SCF}}$$

$$= 0.195 \text{ Lb/hr Ave} = 0.85 \text{ Ton/yr}$$

TSP

$$9.62 \frac{\text{gal}}{\text{hr}} \times \frac{2 \text{ Lb}}{1000 \text{ gal}} + 25 \frac{\text{SCF}}{\text{hr}} \times \frac{5 \text{ Lb}}{10^6 \text{ SCF}}$$

$$= 0.019 \text{ Lb/hr} = 0.09 \text{ Tons/yr}$$

CO

$$9.62 \frac{\text{gal}}{\text{hr}} \times \frac{5 \text{ Lb}}{1000 \text{ gal}} + 25 \frac{\text{SCF}}{\text{hr}} \times \frac{20 \text{ Lb}}{10^6 \text{ SCF}}$$

$$= 0.049 \text{ Lb/hr} = 0.21 \text{ Ton/yr}$$

Lead

Leaded gasoline to be loaded - 29×10^6 gal/yr

Tetraethyllead content - 0.05 grams/gal

TEL density - 13.831 Lb/gal

TEL Loaded:

$$29 \times 10^6 \frac{\text{gal}}{\text{yr}} \times 0.05 \frac{\text{gm}}{\text{gal}} \times \frac{\text{Lb}}{454 \text{ gm}} \times \frac{\text{gal}}{13.831 \text{ Lb}}$$

$$= 230.9 \text{ gal/yr}$$

Emissions:

from AP-42

$$L = 12.46 \frac{\text{SPM}}{\text{T}} \text{ Lb/1000 gal loaded}$$

$$S = 0.6$$

$$P = 1 \text{ mm Hg} = 0.0193 \text{ PSIA}$$

$$M = 323$$

$$T = 530^\circ\text{R}$$

$$L = \frac{12.46 (0.6)(0.0193)(323)}{530}$$

$$= 0.08793 \text{ Lb/1000 gal}$$

$$\text{TEL emissions} = 0.08793 \frac{\text{Lb}}{1000 \text{ gal}} \times 230.9 \frac{\text{gal}}{\text{yr}}$$

$$= 0.0203 \text{ Lb/yr}$$

$$\text{Mol.wt. TEL} = 238.9$$

$$\text{Mol.wt. Lead} = 207$$

$$\text{Lead emissions} = 0.0203 \times \frac{207}{238.9} = 0.018 \text{ Lb/yr}$$

The calculations assume that all of the lead entering the combustor are emitted into the atmosphere. In actuality, all or part of the lead may fall to the ground as ash at the combustor.

Phillips Pipe Line Company
 Jacksonville Terminal
 Calculations of VOC Emissions
 for First Nine Months of 1986

Emissions from Gasoline:

64.152 x 10⁶ gal. loaded
 Estimated rate = 40 mg/liter loaded

$$64.152 \times 10^6 \frac{\text{gal}}{\text{gal}} \times 3.7854 \frac{1}{\text{gal}} \times 40 \frac{\text{mg}}{1} \times 2.205 \times 10^{-6} \frac{\text{Lb}}{\text{mg}}$$

$$= 21\,419 \text{ Lbs} = 10.71 \text{ Tons}$$

Emissions from Oils:

22.356 x 10⁶ gal loaded

$$L = 12.46 \frac{\text{SPM}}{\text{T}} \text{ Lb/1000 gal from AP-42}$$

$$\begin{aligned} S &= 0.6 \\ P &= 0.01 \text{ PSIA} \\ M &= 130 \\ T &= 530^\circ\text{R} \end{aligned}$$

$$L = \frac{12.46(0.6)(0.01)(130)}{530}$$

$$= 0.01834 \text{ Lb/1000 gal}$$

$$\frac{0.01834 \text{ Lb}}{1000 \text{ gal}} \times 22.356 \times 10^6 \text{ gal} \times \frac{\text{Ton}}{2000 \text{ Lb}} = 0.21 \text{ Tons}$$

Total Emissions

$$10.71 \text{ Tons} + 0.21 \text{ Tons} = 10.92 \text{ Tons}$$

P 408 532 082

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. B. F. Ballard	
Street and No. 10 D4 Phillips Bldg.	
P.O., State and ZIP Code Barlesville, Okla. 74004	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	

PS Form 3800, Feb. 1982

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. <u>The return receipt fee will provide you the name of the person delivered to and the date of delivery.</u> For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.	
1. <input checked="" type="checkbox"/> Show to whom, date and address of delivery.	
2. <input type="checkbox"/> Restricted Delivery.	
3. Article Addressed to: Mr. B. F. Ballard Phillips Petroleum Company 10 D4 Phillips Bldg. Barlesville, Okla. 74004	
4. Type of Service: <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail	Article Number P408532082
Always obtain signature of addressee or agent and DATE DELIVERED.	
5. Signature of Addressee X PHILLIPS PETROLEUM CO	
6. Signature - Agent X Shirley Thomas	
7. Date of Delivery OCT 7 1986	
8. Addressee's Address (ONLY if requested and fee paid) PHILLIPS PETROLEUM CO	

DOMESTIC RETURN RECEIPT

File copy

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

October 3, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. B. F. Ballard
Director Environmental Control
Phillips Petroleum Company
10 D4 Phillips Building
Barlesville, Oklahoma 74004

Dear Mr. Ballard:

The referenced application (Permit No. AC 16-124985) has been received at the Bureau of Air Quality Management office in Tallahassee for processing.

The application has been determined incomplete. Processing of the application will resume when the questions outlined below have been answered.

1. List and quantify all pollutants, including lead, emitted from the combustion of gasoline, diesel oil, and kerosene. Include assumptions and calculations.
2. Provide latitude/longitude coordinates of the source.
3. Provide the change (increase or decrease) in actual emission rate (T/yr) in the last five years.
4. Estimate the change (increase or decrease) in emissions expected to result from the change from VRU to combustor control.

If you have any questions, please write to me at the above address or call Maher Tanbouz, Review Engineer, at (904)488-1344.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

cc: Khurshid Mehta
W. P. Stewart

CHF/MT/s

DEPARTMENT OF HEALTH, WELFARE
& BIO-ENVIRONMENTAL SERVICES
Bio-Environmental Services Division
Air and Water Pollution Control

October 1, 1986



Mr. Bill Thomas, P.E.
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301-8241

Subject: Phillips Pipeline Company
Tank Truck Loading
Vapor Combustor
Jacksonville, Florida

Dear Mr. Thomas:

The BESD provides the following comments on the construction permit application for the captioned source:

- (1) The latitude and longitude is incomplete.
- (2) The seal of the Professional Engineer is not affixed.
- (3) The 40 mg/liter allowable emission rate on page 4 of the application is not equivalent to either RACT or NSPS standards. Please clarify.
- (4) What is the estimated quantity of carbon monoxide and nitrogen oxide emissions from the combustor device?
- (5) What is the maximum hourly and annual gasoline throughput?
- (6) Will the vapor combustor operate without smoke while burning distillate vapors?

Enclosed is a copy of a proposed construction permit for another vapor combustor to be installed in Jacksonville. It is requested that the construction permit issued by your office parallel this proposed permit as closely as possible.

If BESD may be of further assistance in this matter, please advise.

Very truly yours,

Jerry E. Woosley
Associate Pollution Control Engineer

JEW/st

Enclosure

cc: BESD File 1980 D
Mr. Bill Stewart, P.E., DER
Mr. Tanbourg Maher, DER

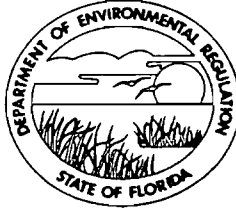
DER
OCT 6 1986
BAQM



STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

NORTHEAST DISTRICT

3426 BILLS ROAD
JACKSONVILLE, FLORIDA 32207
(904) 396-6959



BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ERNEST E. FREY
DISTRICT MANAGER

Permittee:	I.D. Number:	31-16-0188-10
Belcher Oil Company	Permit/Certification Number:	AC16-118634
P. O. Box 525500	Date of Issue:	February 28, 1988
Miami, FL 33102-5500	Expiration Date:	Duval
	County:	30:21:37/81:37:30
	Latitude/Longitude:	E-7440.000 N-3358.720
	UTM:	Tank Truck Loading
	Project:	Rack with Flare

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the modification of the petroleum tank truck loading rack system by the installation of a John Zink Model EEF-LH flare for volatile organic compounds (VOC) control.

Emission point(s) shall be as follows:

<u>Point</u>	<u>Source</u>
10	Tank Truck Loading Rack

Located at 3529 Talleyrand Avenue, Jacksonville, FL 32206

Supporting documents shall be as follows:

- (1) Application dated April 2, 1986
- (2) Additional information received on July 24, 1986
- (3) Bio-Environmental Services Division (BESD) letter dated May 6, 1986
- (4) Notice of Proposed Agency Action on permit application published September 15, 1986

Permittee:
Belcher Oil Company

I.D. Number: 31-16-0188-10
Permit/Certification Number: AC16-118634
Date of Issue:
Expiration Date: February 28, 1988

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants, or representatives.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit does not constitute a waiver or approval of any other department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life, or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by an order from the department.
6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:
 - a. Having access to and copying any records that must be kept under the conditions of the permit;
 - b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with, or will be unable to comply with, any condition or limitation specified in this permit, the permittee shall immediately notify and provide the department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. the period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

Permittee:
Belcher Oil Company

I.D. Number: 31-16-0188-10
Permit/Certification Number: AC16-118634
Date of Issue:
Expiration Date: February 28, 1988

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.
10. The permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or department rules.
11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.
12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.
13. This permit also constitutes:
 - () Determination of Best Available Control Technology (BACT)
 - () Determination of Prevention of Significant Deterioration (PSD)
 - () Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)
 - (X) Compliance with New Source Performance Standards
14. The permittee shall comply with the following monitoring and record keeping requirements:
 - a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.
 - b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report, or application unless otherwise specified by department rule.
 - c. Records of monitoring information shall include:
 - the date, exact place, and time of sampling or measurements;
 - the person responsible for performing the sampling or measurements;
 - the date(s) analyses were performed;
 - the person responsible for performing the analyses;
 - the analytical techniques or methods used; and
 - the results of such analyses
5. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the department, such facts or information shall be submitted or corrected promptly.

Permittee:
Belcher Oil Company

I.D. Number: 31-16-0188-10
Permit/Certification Number: AC16-118634
Date of Issue:
Expiration Date: February 28, 1988

SPECIFIC CONDITIONS:

1. The construction of this installation shall be completed on or before August 31, 1987.

The operation permit application shall be submitted on or before November 30, 1987.

2. Testing of emissions shall be accomplished at a minimum of 90% of the permitted capacity.

3. Any revision(s) to a permit (and application) shall be submitted and approved prior to implementing.

4. Control equipment shall be provided with a method of access that is safe and reasonably accessible. Stack sampling ports and platforms shall not be required.

5. Notify Bio-Environmental Services Division (BESD) fifteen (15) days prior to testing. Submit a copy of the test report and the operating permit application to BESD ninety (90) days prior to the expiration date of this permit.

6. Permittee shall submit an annual operation report to BESD for this source on the form supplied for each calendar year on or before March 1.

7. The applicable emission limiting rules shall be as follows:

<u>PT. NO.</u>	<u>POLLUTANT</u>	<u>1FAC</u>	<u>OTHER</u>	<u>2JEPB</u>
10	TOC	17-2.660	40 CFR 60 Subpart XX	2.208
	Visible Smoke	17-4.07(4)	--	

8. Operation shall be limited to 8760 hours per year.

9. 40 CFR 60, Subpart XX, Standards of Performance for Bulk Gasoline Terminals, and 40 CFR 60, Subpart A, General Provisions, reporting requirements, notification requirements, and standards of performance shall apply to the source described herein. Copies of the referenced subparts are attached and shall be part of this permit.

10. The process weight shall be limited to a maximum of 48×10^3 gallons of gasoline loaded per hour.

11. The annual throughput shall be limited to 126.23×10^6 gallons of gasoline.

Permittee:
Belcher Oil Company

I.D. Number: 31-16-0188-10
 Permit/Certification Number: AC16-118634
 Date of Issue:
 Expiration Date: February 28, 1988

SPECIFIC CONDITIONS

12. Testing shall be in accordance with 40 CFR 60.503. EPA Guidance titled "Use of Flares at Gasoline Terminals", dated June 21, 1985, describes an alternative procedure for determining compliance (see Attachment A). Testing shall be in accordance with the procedures outlined and are summarized as follows:

<u>Specific Testing Required</u>	<u>Standard</u>
A. Visual Determination of Smoke Emissions from flares, EPA Reference Method 22	5 minutes of smoke per two consecutive hours
B. Net heating value of gas being combusted in flare in accordance with procedures in Attachment A	See Attachment A
C. Actual exit velocity of flare gas as determined by procedures outlined in Attachment A	See Attachment A

13.

SPECIFIC TESTING REQUIRED

<u>SPECIFIC TESTING REQUIRED</u>	<u>APPLICABLE RULE</u>	<u>FREQUENCY</u>	<u>STANDARD</u>
A. Vapor collection and liquid loading equipment gauge pressure during product loading	40 CFR 60.503(b)(1) through (3)	*Annually	450 mm of water (4500 pascals) maximum
B. Total organic compounds (NOTE: Alternate testing and operating requirements may be used. See Attachment A)	40 CFR 60.503(c)(1) and (2)	Annually	35 mg TOC per liter of gasoline loaded
C. Potential sources of vapor leakage in vapor collection system	40 CFR 60, Method 21	*Annually	10x10 ³ ppmv maximum
D. Gasoline tank truck tightness**	40 CFR 60, Method 27	Annually	Maximum pressure change of 75 mm water (750 pascals) in 5 minutes after a pressure of 450 mm (4500 pascals) water is reached
E. Vapor collection system, vapor processing system, and loading rack(s) shall be inspected for TOC liquid or vapor leaks	40 CFR 50.502(j)	*Monthly	None allowed by sight, sound, or smell detection Method

* To be submitted with Operation Permit application and annually thereafter. Notify BESD 14 days prior to test date.
 **To be performed by tank truck operator or owner.

Permittee:
Belcher Oil Company

I.D. Number:
Permit/Certification Number:
Date of Issue:
Expiration Date:

31-16-0188-10
AC16-118634
February 28, 1988

SPECIFIC CONDITIONS

14. REPORTING AND RECORD KEEPING

APPLICABLE RULE

- A. Tank truck vapor tightness test shall be kept on file at the terminal permanently 40 CFR 60.505(a)
- B. Each tank truck file shall be updated annually 40 CFR 60.505(b)
- C. Monthly leak checks 40 CFR 60.505(c)
- D. Notification to owner/operator of non vapor tight truck 40 CFR 60.505(d)

15. Records of gasoline tank truck loadings shall be kept in accordance with the procedures found in 40 CFR 60.502(e).

16. Forms and/or procedures used for compliance with Specific Condition No. 12, No. 13, and No. 14 shall be submitted with the Operation Permit application.

17. The terminal owner/operator must insure that each truck's vapor collection system is connected to the terminal vapor collection system during loading of the tank truck.

18. The vapor combustor (flare) shall be operated during the entire loading sequence of all gasoline tank trucks and a minimum of ten (10) continuous minutes immediately after loading.

19. The vapor combustor (flare) shall have a shroud of sufficient height and construction to prevent a visible flame at the property line.

20. The maximum allowable emissions shall be as follows:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>T/yr</u>	<u>Other</u>
TOC	14.02	18.43	35 mg of TOC per liter of gasoline loaded

*Total Organic Carbon

City of Jacksonville
Bio-Environmental Services Division

State of Florida
Department of Environmental Regulation

Donald C. Bayly, Division Chief

Ernest E. Frey, NE District Manager

¹ Florida Administrative Code
² Jacksonville Environmental Protection Board

BEST AVAILABLE COPY

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 76133

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Phillips Pipe Line Co. Date Sept. 12, 1986

Address 10 04 Phillips Bldg. Bartlesville OK Dollars \$ 100.00

Applicant Name & Address Same as above

Source of Revenue _____

Revenue Code 001031 Application Number AC 16-124985

By Patricia G. Adams



PHILLIPS PETROLEUM COMPANY

BARTLESVILLE, OKLAHOMA 74004
PHONE: 918 661-6600 CABLE CODE: PHILPETROL TELEX: 49-2455

ENGINEERING AND SERVICES

August 29, 1986

Jacksonville Terminal
Vapor Combustor
Permit Application

Mr. W. A. Thomas
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

RECEIVED
DER - MAIL ROOM
1986 SEP 10 PM 3 21

DER
SEP 12 1986
BAQM

Dear Mr. Thomas:

Attached is an application for a permit to construct a vapor combustor at Jacksonville Terminal. The combustor will replace an existing vapor recovery unit which controls loading rack emissions. The Combustor, with capability to destroy more than 98% of the VOC vapors from truck loading, will reduce emissions below existing operations.

Attached for your review are:

- Application to Construct Air Pollution Source (12 pages)
- Attachment I - Emission Calculations (2 pages)
- Attachment II - Piping Plan and Elevations
- Attachment III - Combustor Specifications (3 pages)
- Attachment IV - Combustor Data (12 pages)
- Attachment V - Evaluation of the Efficiency of Industrial Flares: Test Results (4 pages)
- Attachment VI - Piping and Instrument Diagram
- Attachment VII - Site Location Map
- Attachment VIII - Plot Plan

Phillips check in the amount of \$100.00 is attached in payment of the state permit fee. A copy of this application is being sent to Mr. Khurshid Mehta of the City of Jacksonville Bio-Environmental Services Division with an attached check in the amount of \$150.00 in payment of the city permit fee.

Phillips will appreciate your expeditious handling of this application so that purchase of equipment and installation may begin in a timely manner. Please contact F. W. Mulloy at (918) 661-5735 or M. W. Holcomb at (918) 661-7539 if additional information is needed for your review.

Very truly yours,

B. F. Ballard, Director
Environment Control
10 D4 Phillips Building

BFB/FWM:tv13
Attachment

cc: M. J. Fitzsimmons - w/o attach.
FDER, Jacksonville
Mr. Khurshid Mehta - City of Jacksonville

PHILLIPS PIPE LINE COMPANY BARTLESVILLE, OKLAHOMA 74004

DATE	INVOICE NO. (DESCRIPTION)	COMPANY	* VOUCHER NO.	GROSS	DISCOUNT	NET
08/28/86	PERMIT FEE	05	J05030013	100.00	.00	100.00

001031

PAYEE NO	CHECK NO	CHECK DATE	CHECK AMOUNT
X001504000	506766	09/08/86	\$100.00

* PLEASE REFER TO VOUCHER NUMBER WHEN MAKING INQUIRIES REGARDING THIS PAYMENT.
DETACH THIS STATEMENT AND KEEP FOR TAX PURPOSES. DUPLICATES CANNOT BE FURNISHED.

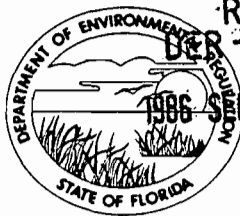
FORM 2211-00 4-80

THE ATTACHED CHECK IS IN FULL PAYMENT OF ITEMS STATED ABOVE. ENDORSEMENT MUST BE IDENTICAL WITH THE PAYEE DESIGNATED.
WE DO NOT REQUIRE MONTHLY STATEMENTS. IF ANY INVOICES BECOME PAST DUE, PLEASE SEND US COPIES AT ONCE.

AC - 124985

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241



RECEIVED
DER - MAIL ROOM

SEP 10 PM 3:21

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Bulk Gasoline Terminal [] New¹ [x] Existing¹

APPLICATION TYPE: [X] Construction [] Operation [] Modification

COMPANY NAME: Phillips Pipe Line Company COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Gasoline loading rack with vapor combustor)
Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired)

SOURCE LOCATION: Street 6477 Evergreen Ave. City Jacksonville

UTM: East 438694 M North 3360700 M

Latitude ° ' "N Longitude ° ' "W

APPLICANT NAME AND TITLE: B. F. Ballard, Director Environment Control

APPLICANT ADDRESS: 10 D4 Phillips Bldg., Bartlesville, Ok 74004

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Phillips Pipe Line Company

I certify that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: B. L. Thorman
B. L. THORMAN
VICE PRESIDENT
Name and Title (Please Type)

Date: 9/3/86 Telephone No. 918-661-4721

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that

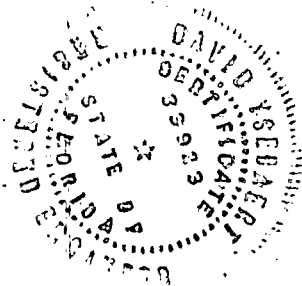
¹ See Florida Administrative Code Rule 17-2.100(57) and (104)

DER

SEP 12 1986

BAQM

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed *David Ysebaert*

Dave Ysebaert
Name (Please Type)

Phillips Pipe Line Company
Company Name (Please Type)

267-C Adams Building, Bartlesville, OK 74004
Mailing Address (Please Type)

Florida Registration No. 33923 Date: 8-28-86 Telephone No. 918-661-0006

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

Phillips Pipe Line Company proposes to replace the gasoline loading rack vapor recovery unit with a vapor combustor. The combustor with an emission reduction efficiency of 98% or more will reduce emissions below present levels and will result in full compliance.

B. Schedule of project covered in this application (Construction Permit Application Only) ^{df.}
 upon receipt of permit estimate six months
 Start of Construction of permit Completion of Construction after receipt of permit

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.) ^{df.}

\$157,000.00

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

Permit A016-52199 issued March 5, 1982, expires January 31, 1987

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;
if power plant, hrs/yr _____ ; if seasonal, describe: _____

F. If this is a new source or major modification, answer the following questions. NA
(Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? _____
 - a. If yes, has "offset" been applied? _____
 - b. If yes, has "Lowest Achievable Emission Rate" been applied? _____
 - c. If yes, list non-attainment pollutants. _____
2. Does best available control technology (BACT) apply to this source?
If yes, see Section VI. _____
3. Does the State "Prevention of Significant Deterioration" (PSD)
requirement apply to this source? If yes, see Sections VI and VII. _____
4. Do "Standards of Performance for New Stationary Sources" (NSPS)
apply to this source? _____
5. Do "National Emission Standards for Hazardous Air Pollutants"
(NESHAP) apply to this source? _____

- H. Do "Reasonably Available Control Technology" (RACT) requirements apply
to this source? yes
- a. If yes, for what pollutants? Volatile Organic Compounds
 - b. If yes, in addition to the information required in this form,
any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justifi-
cation for any answer of "No" that might be considered questionable.

The loading rack was brought into compliance with 17-2.650(1)(f)10 with the proper
equipment including a vapor recovery unit (VRU). Now Phillips proposes to replace
the VRU with a vapor combustor. The vapor combustor will reduce emissions below
the VRU emission rates.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable: NA

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): _____
2. Product Weight (lbs/hr): _____

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emission lbs/hr	Potential ⁴ Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
VOC	6.94	4.9	40 mg/L	21.35	488,900	244.5	

¹See Section V, Item 2.

²Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

³Calculated from operating rate and applicable standard.

⁴Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Vapor Combustor	VOC	98+%	NA	EPA-600/52-84-095

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	2.5×10^{-5} MMCF/HR (25 SCFH)	1.25×10^{-4} MMCF/HR (125 SCFH)	0.125 MMBTU/HR (125,000 BTU/HR)

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: Nil Percent Ash: Nil
 Density: 0.00567 lbs/gal Typical Percent Nitrogen: 0.517 mole%
 Heat Capacity: 23,558 BTU/lb BTU/lb 134 BTU/gal
 (1000 BTU/ft³)
 Other Fuel Contaminants (which may cause air pollution): none

F. If applicable, indicate the percent of fuel used for space heating. NA

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

NA

Brief description of operating characteristics of control devices: _____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)].
See Attachment I.
2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made. See attached emission calculations (Attachment I).
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).
See Attachment I.
4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)
See Attachments II, III, IV.
5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).
See Attachment I and V.
6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
See Attachment VI.
7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).
See Attachment VII.
8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
See Attachment VIII.

DER Form 17-1.202(1)

Effective November 30, 1982

Page 7 of 12

- 9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.
- 10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY^{NA}

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

Yes No

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____
_____	_____

D. Describe the existing control and treatment technology (if any).

- | | |
|---------------------------|--------------------------|
| 1. Control Device/System: | 2. Operating Principles: |
| 3. Efficiency:* | 4. Capital Costs: |

*Explain method of determining

- 5. Useful Life:
- 7. Energy:
- 9. Emissions:

- 6. Operating Costs:
- 8. Maintenance Cost:

Contaminant

Rate or Concentration

Contaminant	Rate or Concentration

10. Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: °F.
- e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.
 - a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.
 - a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:

¹Explain method of determining efficiency.
²Energy to be reported in units of electrical power - KWH design rate.

- j. Applicability to manufacturing processes:
- k. Ability to construct with control device, install in available space, and operate within proposed levels:

- 3.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Cost:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

- 4.
- a. Control Device:
 - b. Operating Principles:
 - c. Efficiency:¹
 - d. Capital Costs:
 - e. Useful Life:
 - f. Operating Cost:
 - g. Energy:²
 - h. Maintenance Cost:
 - i. Availability of construction materials and process chemicals:
 - j. Applicability to manufacturing processes:
 - k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

- 1. Control Device:
- 2. Efficiency:¹
- 3. Capital Cost:
- 4. Useful Life:
- 5. Operating Cost:
- 6. Energy:²
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
- a. (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

¹Explain method of determining efficiency.

²Energy to be reported in units of electrical power - KWH design rate.

- (5) Environmental Manager:
- (6) Telephone No.:
- (7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

b. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:¹

Contaminant	Rate or Concentration

(8) Process Rate:¹

10. Reason for selection and description of systems:

¹Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION NA

A. Company Monitored Data

1. _____ no. sites _____ TSP () SO₂* _____ Wind spd/dir

Period of Monitoring _____ / _____ / _____ to _____ / _____ / _____
 month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [] Yes [] No

b. Was instrumentation calibrated in accordance with Department procedures?
[] Yes [] No [] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____ / _____ / _____ to _____ / _____ / _____
month day year month day year

2. Surface data obtained from (location) _____

3. Upper air (mixing height) data obtained from (location) _____

4. Stability wind rose (STAR) data obtained from (location) _____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate
TSP	_____ grams/sec
SO ²	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

Attachment I

to Application for Permit to Construct

Phillips Pipe Line Company
Jacksonville Terminal
Loading Rack Emission Calculations
Using a Vapor Combustor for Emission Control

Maximum Loading Rate (from Section V.1.):

64,000 gal/hr.

90×10^6 gal/yr. gasoline

60×10^6 gal/yr. distillate

Product Weights (from Section V.1.):

Gasoline specific gravity = 0.699-0.717

Diesel oil specific gravity = 0.845

Kerosene specific gravity = 0.775

Potential emissions (from Section V.2,3 and 5):

$$L = 12.46 \frac{\text{spm}}{\text{t}} \text{ lb/1000 gal loaded}^*$$

For Gasoline

$$s = 0.60$$

$$p = 6.2 \text{ PSIA}$$

$$m = 62$$

$$t = 70^\circ\text{F} = 530^\circ\text{R}$$

$$L = \frac{12.46 \times .60 \times 6.2 \times 62}{530}$$

$$= 5.42 \text{ lb/1000 gal}$$

$$5.42 \frac{\text{lb}}{1000 \text{ gal}} \times 90 \times 10^6 \frac{\text{gal}}{\text{yr}} = 487,800 \text{ lb/yr}$$

For Distillate

$$\begin{aligned} s &= 0.60 \\ p &= 0.01 \text{ PSIA} \\ m &= 130 \\ t &= 530^\circ\text{R} \end{aligned}$$

$$L = \frac{12.46 \times .60 \times 0.01 \times 130}{530}$$

$$= 0.019 \text{ lb/1000 gal}$$

$$0.019 \frac{\text{lb}}{1000 \text{ gal}} \times 60 \times 10^6 \frac{\text{gal}}{\text{yr}} = 1140 \text{ lb/yr}$$

Total

$$\begin{aligned} 487,800 + 1140 &= 488,940 \text{ lb/yr} \\ &= 244.5 \text{ ton/yr} \end{aligned}$$

Actual Emissions:

$$\text{Combustor efficiency} = 98\%^{**}$$

Maximum hourly

$$5.42 \frac{\text{lb}}{1000 \text{ gal}} \times 64000 \frac{\text{gal}}{\text{hr}} \times 0.02$$

$$= 6.94 \text{ lb/hr}$$

Maximum annual

$$244.5 \frac{\text{ton}}{\text{y}} \times 0.02 = 4.89 \text{ ton/yr}$$

Allowable Emission Rate (maximum hourly):

$$40 \frac{\text{mg}}{\text{L}} \times 3.785 \frac{\text{L}}{\text{gal}} \times 2.204 \times 10^{-6} \frac{\text{lb}}{\text{mg}} \times 64000 \frac{\text{gal}}{\text{hr}}$$

$$= 21.35 \text{ lb/hr}$$

Notes:

* AP-42

** From "Evaluation of the Efficiency of Industrial Flares: Test Results", EPA-600/52-84-095, July, 1984.

VAPOR COMBUSTOR SPECIFICATIONS
TERMINAL LOADING FACILITY

ATTACHMENT III

PROCESS SPECIFICATIONS: Jacksonville, Florida

The flare shall be able to handle all ranges of loading flow rates and products listed below and shall be in compliance with all regulations of the Environmental Protection Agency, the Department of Environmental Protection (State of Florida) and the City of Jacksonville Department of Health, Welfare, and Bio-Environmental Services

<u>Range of Flow Rates</u>	<u>Product</u>
500 - 1650 gpm	Distillate
500 - 3500 gpm	Gasoline

Maximum instantaneous flow rate = 3500 gpm
(gasoline and distillate)
Minimum instantaneous flow rate = 500 gpm
(distillate or gasoline)

The combustion process shall take place entirely within the refractory lined shell of the contained vapor combustor unit. Therefore, there shall be no visible flame, low noise levels, and the flaring process will be smokeless.

EQUIPMENT SPECIFICATIONS:

Elevated vapor combustor: Smokeless enclosed flame

- I. Comply with Phillips Petroleum Company Engineering Standards 27.02-9 Stacks, Vent and Flare
- II. Comply with API RP 521, Guide for Pressure - Relieving and Depressuring Systems
- III. Comply with API 931, Manual on disposal of refinery wastes, volume 5 on atmospheric emissions, Chp. 15 - flares.
- IV. The contained vapor combustor shall be an elevated freestanding skid mounted unit.
 - A. Component parts of the Vapor Combustor
 1. Multiple stainless steel vapor burners with
 2. Base supports for attachment to foundation
 3. Sight Ports
 4. Carbon steel combustor shell
 5. Inlet vapor connection to skid
 6. Staged flaring burner tips
 7. Refractory composed of ceramic fiber
 8. Automatic ignition controls
 - B. Butterfly Staging Valves
 - C. Shand and Jurs (or equal) Flame Arrestors
 1. Constructed with a cast aluminum housing and stainless steel internals
 2. U. S. Coast Guard Approved

D. Hydraulic Seal (Vertical)

1. Carbon steel shell
2. Surge resistant internals
3. High and low liquid level switches with dual set points
4. Level guage
5. Liquid level controls
6. Automatic fill valve and filling system

E. Automatic Ignition Panel

1. Fuel gas pressure regulator
2. Ambient air and ignition gas inspirator
3. Ignition chamber with spark plug and sight port
4. Pilot high and low pressure switches
5. Ignition gas and pilot gas block valves
6. Ignition gas and pilot gas solenoid valves
7. Pressure gauges for the ignition gas and pilot gas

F. Electrical Control Panel

1. Program sequence with 1st-out annunciator and audible alarm
2. Temperature switch to verify pilot
3. 6,000 volt ignition system
4. Main disconnect
5. Freestanding weatherproof (Nema 4) enclosure with the following with the following indicator lights, and shutdowns
 - a. Low seal level (shut down)
 - b. High seal level (shut down)
 - c. Pilot prover
 - d. Pilot failure (shut down)
 - e. System power on
 - f. High pilot gas pressure (shut down)
 - g. Low fuel gas pressure (shut down)
 - h. Flame arrestor high temp (shut down)
 - i. Improper inlet valve closure
 - j. Ignition gas valve open

G. Two indicator lights for unit on and off status indication

H. Temperature Monitor and controls for damper positioning

I. Ultra violet flame scanner

J. Coating

- a. All external surfaces to recive a "commercial" sandblast to remove mill laquer, corrosion products, mill scale and foreign material
- b. Prime surfaces with inorganic zinc primer

Equipment Specifications cont.

K. Structural Skid

1. Steel Skid consisting of W. F. beam, main members

L. Piping Assembly

1. Piping from hydraulic seal to vapor combustor
2. 1/2" pilot line from ignition panel to pilot assembly
3. 1/2" ignition line from ignition panel to pilot assembly
4. 1/2" enrichment gas connection

M. Electrical Assembly

1. One lot of conduit and fittings as required for interconnecting control instruments and valves to control system mounted on skid
2. All skidded control items are to be shop wired and tested.

- N. Manufacturer will provide all information necessary for foundation design.

V. Unit Testing

- A. The control system will be given a functional test in the manufacturer's shop to insure it is properly wired and will perform as designed.

QUOTATION



ATTACHMENT IV

McGill Americas Inc.
5800 West 68th Street
Post Office Box 9667
Tulsa, Oklahoma 74157-0667

The Technology People
Tulsa • London

Telephone 918-445-2431
Telex: 796434

To: Phillips Pipeline Company
3C11AB
Bartlesville, OK 74004

Date: August 1, 1986
Your Ref. Verbal Inquiry
Proposal No. FC-860672

Attention: Bill Litton

Reference: Gasoline Loading Terminal
Vapor Combustor Systems

Gentlemen:

Thank you for your inquiry. We appreciate the opportunity to submit our engineering estimate on your requirements for a vapor combustion system in Jacksonville, FL.

Two combustor system designs are offered for your review. Item I describes the McGill Americas, Inc. Elevated Vapor Combustor System which is an open, free standing, air-assisted flare. Item II describes the McGill Americas, Inc. Contained Vapor Combustor system which is an enclosed type of ground flare.

The contained combustor is sufficiently designed to allow the combustion reaction to complete entirely within the combustion chamber. The upper ten feet of the vessel provides an area from which samples of the combustion products can be taken. From these samples, the efficiency of the combustor can be easily determined.

Each system is skid mounted complete with automatic controls and the required safety equipment to safely dispose of the explosive vapors. Should a flashback condition exist, the units will automatically isolate the flame flashback from the vapor header.

The attached commercial and technical descriptions further define our offering. Section One includes the pricing and commercial terms. Section Two lists the equipment features and Section Three describes the design basis. Standard proposal information is noted in Section Four.

If further information is required, please do not hesitate to contact either our representative or McGill Americas, Inc. direct.

Our representative in your area is:

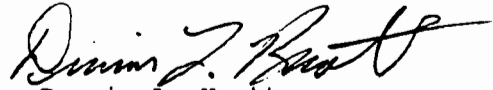
Myers-Aubrey Company
7477 East 46th Place
Tulsa, OK 74147-0370

Telephone: (918) 622-3500

We look forward to working with you as this project progresses.

Best regards,

MCGILL AMERICAS, INC.



Dennis L. Knott
Applications Engineer
Flare Systems

DK/FLAREP/375/lgr

Attachments

cc: Myers-Aubrey Company - Tulsa, OK
NIABCO - Jacksonville, FL

SECTION ONE - ESTIMATED PRICING

Engineering Estimate

	<u>Description</u>	<u>Total</u>
ITEM I	Elevated Vapor Combustor Estimated weight, 5,000 lbs.	\$40,000.00
ITEM II	Contained Vapor Combustor Estimated weight, 15,000 lbs.	\$78,000.00
ITEM II M	Optional Temperature Controls, add	\$ 7,200.00

Prices are F.O.B., point of manufacture, Tulsa, Oklahoma.

DELIVERY SCHEDULE

Time periods shown below begin upon receipt of a written or telexed purchase order number in Tulsa, Oklahoma. Based on release to purchase major materials at the time a purchase order is issued, we will maintain the following standard delivery schedule:

Approval Drawings to Client	2-4 weeks
Client Approval	2 weeks
Fabrication	<u>10-12 weeks</u>
Overall Schedule	14-18 weeks

IMPROVED SCHEDULES MAY BE ARRANGED TO MEET YOUR PROJECT NEEDS.

SECTION TWO - EQUIPMENT DESCRIPTION

ITEM I. ELEVATED VAPOR COMBUSTOR SYSTEM (FLARE SYSTEM)

One (1) McGill Americas, Inc. skid-mounted Elevated Vapor Combustor System:

A. One (1) 15' tall, vertical, freestanding Elevated Vapor Combustor complete with:

1. Stainless steel flare burner tip.
2. Tri-pod supports.
3. 6" inlet vapor connection.
4. Cincinnati or equal fan with 2 HP TEFC motor.
5. Pilot assembly.
6. Pilot thermocouple.

B. Shand and Jurs (or equal) Flame Arrestors

The two (2) flame arrestors are constructed with cast aluminum housings and stainless steel internals. Flame Arrestors are U.S. Coast Guard approved.

C. Butterfly Shutdown Valve

Two (2) valves are required complete with electric actuators, to control each flare stage. These valves remain closed when the flare is in its standby condition.

D. Flow Switch for Staging

An F.C.I. (or equal) flow switch is included for staging control.

E. One (1) vertical Hydraulic Seal, 24" diameter x 4'-0" seam-to-seam complete with:

1. Carbon steel shell.
2. Surge resistant internals.
3. High and low liquid level switch, with dual set points.
4. Level gauge.

F. Automatic Ignition Panel complete with:

1. Fuel gas pressure regulator.
2. Ambient air and ignition gas inspirator.
3. Ignition chamber with spark plug.
4. Pilot gas high- and low-pressure switches.

5. Ignition gas and pilot gas block valves.
6. Ignition gas and pilot gas solenoid valves.
7. Pressure gauges for the ignition gas and pilot gas.

G. Electrical Control Panel complete with:

1. Program sequence with first-out annunciator.
2. Temperature switch to verify pilot.
3. 6,000 volt ignition system.
4. Main disconnect.
5. Freestanding, weatherproof enclosure with the following indicating lights:
 - a. Low seal level (shutdown).
 - b. High seal level (shutdown).
 - c. Pilot proven.
 - d. Pilot failure (shutdown).
 - e. System power on.
 - f. High pilot gas pressure (shutdown).
 - g. Low pilot gas pressure (shutdown).
 - h. Flame arrestor high temperature (shutdown).
 - i. Combustion air failure.
 - j. Improper staging valve closer.
 - k. Blower on.
 - l. Ignitor gas valve open.

H. Coatings

All external carbon steel surfaces to receive a "commercial" sandblast to remove mill lacquer, corrosion products, mill scale and foreign material. Surfaces to be primed with an inorganic zinc primer. If desired, we would be happy to quote an additional price to finish paint the equipment.

I. Structural Skid

One structural skid consisting of 6" WF beam main members.

J. Piping Assembly to consist of:

1. 6" piping from hydraulic seal to Elevated Vapor Combustor.
2. 1/2" pilot gas from ignition panel to pilot assembly.
3. 1/2" ignition line from ignition panel to pilot assembly.
4. 1/2" enrichment gas connection.

- K. Electrical Assembly to consist of:
1. One lot of conduit and fittings as required for interconnecting control instruments and valves to control panel.
 2. All skidded control items are shop wired and tested.
- L. Shipping and Installation:
1. McGill will provide all information necessary for foundation design.
 2. The equipment must be located in a non-hazardous area.
 3. Due to shipping restrictions, the Elevated Combustor shall be shipped loose.

ITEM II. CONTAINED VAPOR COMBUSTOR SYSTEM (INCINERATION SYSTEM)

One (1) McGill Americas, Inc. skid-mounted Contained Vapor Combustor System designed for the same conditions as the above Flare System. The combustion takes place entirely within the refractory lined carbon steel shell, therefore there is not visible flame and very low noise. The Contained Vapor Combustor System consists of the following:

- A. One (1) 7' diameter by 45' overall height, freestanding Contained Vapor Combustor complete with:
1. Stainless steel vapor burners with pilot.
 2. Two (2) lin. thick layers of ceramic fiber refractory lining complete with an inconel wire mesh screen which acts as a rigidizing agent for the refractory blanket.
 3. Base support for attachment to foundation.
 4. Sight ports.
 5. Carbon steel combustor shell.
 6. Inlet vapor connection to skid.
 7. Staged flaring with McGill Americas, Inc. T-Bar burner tips.
 8. Premix pilot with ignitor and thermocouple.
 9. Natural draft air design.
- B. Shand and Jurs (or equal) Flame Arrestors
- The flame arrestors are constructed with a cast aluminum housing with stainless steel internals and are U.S. Coast Guard approved.
- C. Butterfly Shutdown Valve
- Two (2) valves are required complete with electric actuators, to control each flare stage. These valves remain closed when the flare is in its standby condition.

- D. Flow Switch for Staggering
- An F.C.I. (or equal) flow switch is included for staging control.
- E. One (1) vertical Hydraulic Seal, 24" diameter x 4'-0" seam-to-seam complete with:
1. Carbon steel shell.
 2. Surge resistant internals.
 3. High and low liquid level switch, with dual set points.
 4. Level gauge.
- F. Automatic Ignition Panel complete with:
1. Fuel gas pressure regulator.
 2. Ambient air and ignition gas inspirator.
 3. Ignition chamber with spark plug.
 4. Pilot gas high- and low-pressure switches.
 5. Ignition gas and pilot gas block valves.
 6. Ignition gas and pilot gas solenoid valves.
 7. Pressure gauges for the ignition gas and pilot gas.
- G. Electrical Control Panel complete with:
1. Program sequence with first-out annunciator.
 2. Temperature switch to verify pilot.
 3. 6,000 volt ignition system.
 4. Main disconnect.
 5. Freestanding, weatherproof enclosure with the following indicating lights:
 - a. Low seal level (shutdown).
 - b. High seal level (shutdown).
 - c. Pilot proven.
 - d. Pilot failure (shutdown).
 - e. System power on.
 - f. High pilot gas pressure (shutdown).
 - g. Low pilot gas pressure (shutdown).
 - h. Flame arrestor high temperature (shutdown).
 - i. Combustion air failure.
 - j. Improper staging valve closer.
 6. Staging Relays.
 7. Indicator lights for unit on/unit off indications.

H. Coatings

All^s external carbon steel surfaces to receive a "commercial" sandblast to remove mill lacquer, corrosion products, mill scale and foreign material. Surfaces to be primed with an inorganic zinc primer. If desired, we would be happy to quote an additional price to finish paint the equipment.

I. Structural Skid

One structural skid consisting of 6" WF beam main members.

J. Piping Assembly

Piping assembly to consist of:

1. Piping from hydraulic seal to the Vapor Combustor.
2. 1/2" pilot gas from ignition panel to pilot assembly.
3. 1/2" ignition line from ignition panel to pilot assembly.
4. 1/2" enrichment gas connection.

K. Electrical Assembly to consist of:

1. One lot of conduit and fittings as required for interconnecting control instruments and valves to control panel.
2. All skidded control items are shop wired and tested.

L. Shipping and Installation:

1. Piping and electrical connection to the skid to be provided by others.
2. Portions of the unit will be shipped loose to minimize shipping costs and damage to the unit. McGill will provide all information necessary for foundation design.
3. The equipment must be located in a non-hazardous area.

M. Optional Temperature Controls

The following additions are required for temperature monitor and control of combustion air.

1. Inlet air dampers with actuators.
2. Combustion chamber temperature element.
3. Temperature controls for damper positioning.

ITEM III. SAFETY

Both of the above systems incorporate multiple safety features.

Both systems include a liquid hydraulic seal for positive stoppage of any flame flashback.

The seal is filled with an initial charge of a water/anti-freeze mixture. Proper level maintenance must then be carried out by the customer. As an option, McGill Americas, Inc. can supply an automatic fill valve to maintain proper liquid level.

Both systems also include a Shand and Jurs Flame Arrestor or equal for the primary stoppage of the possible flame flashback. If conditions exist that allow the flashback to continue through the flame arrestor, then the hydraulic seal will serve as a positive back-up.

In addition to the flame arrestor and the hydraulic seal for the incineration system, there are a multiple number of vapor burners provided. These burners are sequenced in proportion to the vapor flow so that at minimum vapor flow only one burner will be in operation, and at maximum vapor flow, all burners will be in operation. This sequencing is done in order to keep the vapor velocity high as it flows from the burner - this is an additional safety feature to prevent flame flashback.

These multiple safety features are required to insure a safe operating facility as the hydrocarbon content of the vapor stream rises and falls through the explosive ranges.

SECTION THREE - DESIGN BASIS AND UTILITIES

PROCESS SUMMARY

DESIGN BASIS

FLARE GAS

Type:	Gasoline Loading
Max. Flow Rate (lb/hr):	<u>Terminal Vapors</u>
% Hydrocarbons in Vapor:	3500 GPM Displacement
Max. Vapor Inlet Temperature:	60% Maximum
Pilot Fuel	1000F
Approximate Flame Temperature:	125,000 Btu/hr
Inlet Vapor Pressure Required at Seal:	1600 - 18000F
	12 in. W.C.

UTILITIES

Pilot Gas (10 psig) (Per Pilot)	125 SCFH natural gas (55 SCFH propane)
Ignition Gas (15 psig)	150 SCFH natural gas (65 SCFH propane) (during pilot ignition <u>only</u>)
Ignition Air (15 psig)	Not Required.
Area Classification	Non-hazardous
Electricity	120 Volt/1 Phase/60 Hz
Enrichment Gas	Enrichment gas will be required if the hydrocarbon content of the vapor drops below a combustible level.

SECTION FOUR - STANDARD PROPOSAL INFORMATION

- !
- A. All equipment is quoted F.O.B., point of manufacture, Tulsa, Oklahoma.
 - B. Field inspection/supervision services are quoted separately and are not included in the base price.

SCOPE OF WORK

McGill Americas, Inc. will supply all equipment described in Section Two along with the associated engineering, drafting, and procurement necessary for the fabrication of the equipment. The equipment is manufactured to standard McGill procedures and detailed client specifications. Also included are general construction bolts, nuts, and gaskets associated with the equipment except for mounting bolts, gaskets, and piping expansion joints.

Each item is tagged or marked to allow proper installation.

PROCESS CHANGES

McGill Americas, Inc. has based pricing on the inquiry design information. In the event of process changes, we reserve the right to alter our equipment design in order to maintain safe engineering practices.

NOTE: All dimensions and sizes of the equipment designs offered in this proposal are based on preliminary selections and are subject to change after the design is finalized.

OPERATING AND MAINTENANCE MANUALS

Three (3) manuals are included in the selling price. Additional manuals are available at the time of order for \$50.00 per copy.

INSTALLATION AND START-UP ASSISTANCE

McGill Americas, Inc. can provide qualified personnel to assist in start-up and commissioning of the equipment. This service is available at a rate of \$480.00 per eight hour day plus living and traveling expenses.

TESTING

The McGill Americas, Inc. facility includes a large test pad with three test furnaces, a horizontal test incinerator and multiple test flares. Partial and full-scale flare tests can be arranged for most nonhazardous waste gases. Please contact McGill Americas, Inc. for price information.

The control system will be given a functional test in our shop to insure it is properly wired and will perform as designed.

SHOP QUALIFICATIONS

McGill's shop is located in Tulsa, Oklahoma, and some of the many advantages of utilizing our shop are:

All welders are ASME code qualified welders.

The shop is certified for fabrication of ASME Section VIII Code vessels.

Separate quality control group.

Outstanding history of excellent performance.



Project Summary

Evaluation of the Efficiency of Industrial Flares: Test Results

ATTACHMENT V

J.H. Pohl, R. Payne, and J. Lee

The report gives results of Phases 3 and 4 of a four-phase research program to quantify emissions from, and efficiencies of, industrial flares. Phase 1 involved the experimental design; Phase 2, the design of the test facilities; Phase 3, development of the test facilities; and Phase 4, data collection and analysis. (NOTE: Report EPA-600/2-83-070 gives results of Phases 1 and 2.)

The combustion efficiency of large pilot-scale flares was measured. The flame structure and combustion efficiencies were correlated with operating conditions of the flare, size of the flare head, and properties of the flared gases. The combustion efficiency was correlated with the ratio of heating value of the gas flared to the heating value required to maintain a stable flame, and was independent of the flame head size. In turn, the heating value required to maintain a stable flame was correlated with the reciprocal of an estimated flame temperature based on properties of the flared gas. The length of the flame, entrainment into the flame, and liftoff distances were also correlated, using combinations of the Richardson Number, jet theory, and properties of the flared gas.

This Project Summary was developed by EPA's Industrial Environmental Research Laboratory, Research Triangle Park, NC, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

Test Facility

EPA's Flare Test Facility (FTF) was constructed at Energy and Environmental

Research Corporation's (EER'S) El Toro test site. The FTF (Figure 1) includes a pad and structure for installing and testing flare heads, screens to shield the flame from the wind, parallel delivery systems to accurately meter the wide range of gas flows to the flare, a hood to sample the entire plume, a movable rake probe to simultaneously sample five radial positions, high-speed movie and photographic equipment to record the structure of the flare flame, and a room from which to control the flare and analyze gas samples.

Techniques were developed to operate, sample, analyze, and reduce the data. Analysis included visual and photographic observation of the flare flame structure, and samples of soot, O₂, CO, CO₂, total hydrocarbon, and SO₂, which was used as a tracer. The data were corrected for the measured background of combustion species and for dilution of the flare plume by ambient air. Dilution and local combustion efficiencies were calculated at each probe position, and the maximum potential error in the dilution and combustion efficiencies were estimated for each data point. The local combustion efficiencies were integrated, using velocity profiles estimated by jet theory to yield a global combustion efficiency for each flare flame.

The combustion efficiencies were measured for a wide range of operating conditions typical of commercial flares:

- Head type—
 - 3-in.* EER prototype.
 - 6-in. EER prototype.
 - 12-in. EER prototype.
 - 3-in. EER prototype with convergent ring.

*To convert to metric equivalents, please use the factors at the end of this Summary.

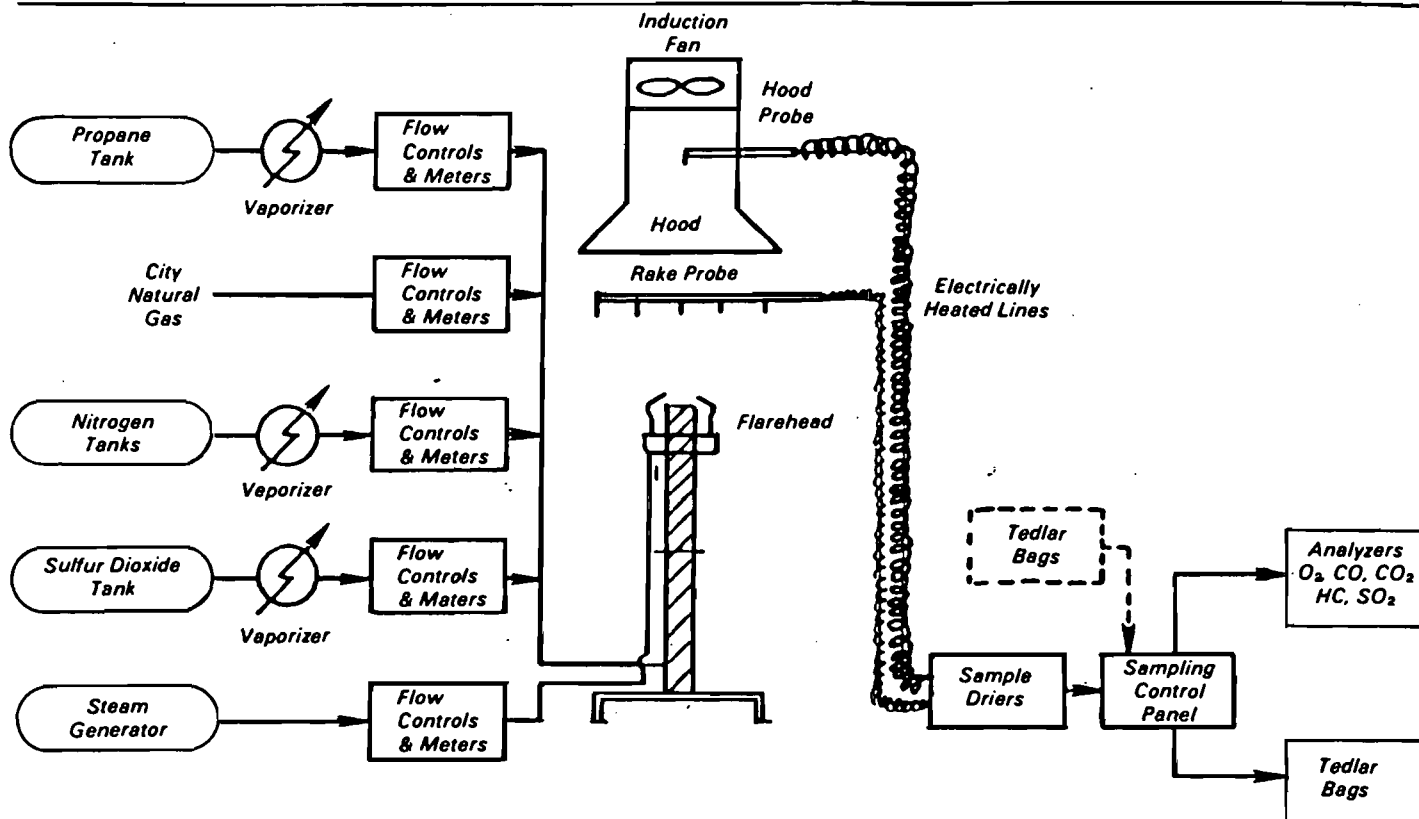


Figure 1. EPA's flare test facility at EER.

- 3-in. EER prototype with divergent ring.
- 12-in. commercial (three manufacturers—A, B, and C).
- Gas—
 - Propane/nitrogen mixtures.
 - Natural gas.
- Heating value of the flared gas — 270 - 2350 Btu/ft³.
- Flow rates—
 - Velocities, from 0.2 - 428 ft/sec.
 - Reynolds Numbers, from 337 to 217,000.
 - Richardson Numbers, from 2.9×10^{-5} to 8×10^2 .

Results

Table 1 summarizes combustion efficiencies. In addition to combustion efficiencies, other calculations were made:

- Combustion intensity was found to be 90,000 Btu/hr/ft³, independent of flare or flame conditions.
- The flame length was correlated with the Richardson number.
- The liftoff distance was correlated with ratios of velocities and concentrations of combustible gas.

Table 1. Combustion Efficiencies of Various Flare Heads

Purpose of Test	3-in. EER	3-in. EER Hi-Vel	6-in. EER	12-in. EER	12-in. Indus A	12-in. Indus B	12-in. Indus C
No Retaining Ring	--	95.11-99.66	--	--	--	--	--
100% C ₃ H ₈	--	99.74-99.87	--	--	--	--	--
77% C ₃ H ₈	--	99.73-99.88	--	--	--	--	--
56% C ₃ H ₈	98.37-98.95	97.27-99.33	98.47-99.76	98.29-99.50	99.12-99.78	99.48-99.65	99.08-99.65
50% C ₃ H ₈	--	99.72-99.87	--	--	--	--	--
Stable Flame Limit	--	99.81-99.88	--	--	--	--	--
Low-Btu	90.19-99.92	--	92.24-99.36	94.89-99.73	98.49	99.21-99.72	91.16-99.52
Effect of Steam	98.94-99.96	--	99.89-99.92	--	--	--	--
Smokeless	--	--	--	99.32	--	99.84	--
City Gas	--	--	--	99.91	--	--	--

- The flame stability was correlated with the reciprocal of an estimated flame temperature.
- The combustion efficiency correlated with a dimensionless heating value of the gas fired.

The term "flame stability" means that

a flame is maintained; flame instability occurs when the jet velocity exceeds the flame velocity and the flame goes out. Figure 2 shows the gas heating value versus the gas exit velocity at the point of instability (i.e., at the point where the flame starts to "go out"). This point is

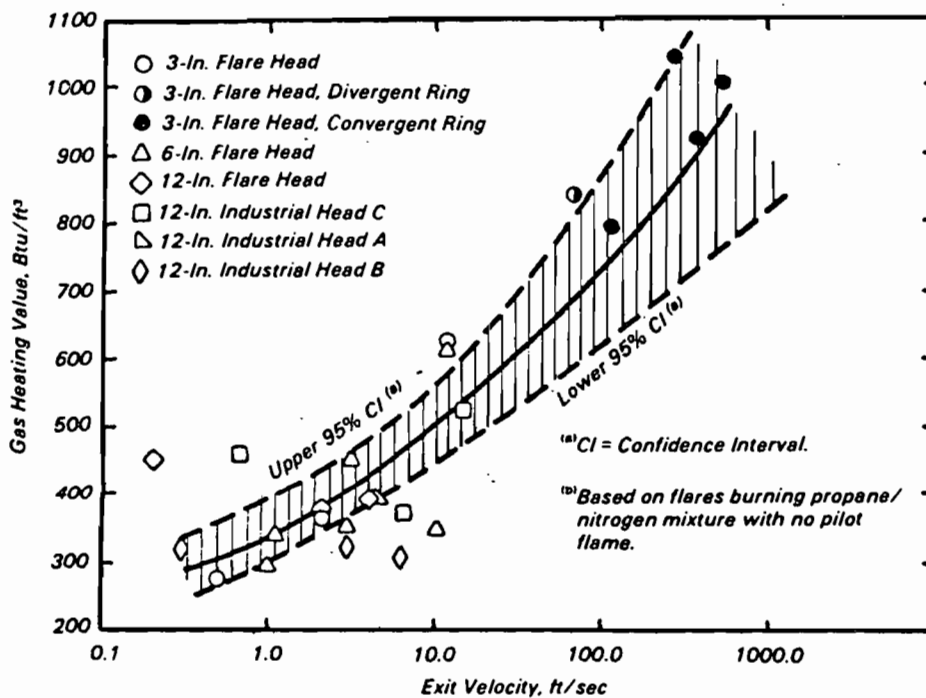


Figure 2. Region of flame instability. ^(b)

determined by establishing a propane/nitrogen flame at a given velocity and then decreasing the flow of propane until the flame goes out. The combustion efficiency is then measured at the conditions just prior to flameout.

The region shown in Figure 2 indicates the minimum gas heating value required to produce a stable flame at the gas exit velocity within the 95 percent confidence limits of the mean. For any given velocity, a gas with a heating value above this region produces a stable flame; a gas with a heating value below this region produces an unstable flame. Velocity/gas combinations in or below the region tend to produce flames with lower combustion efficiency. Thus, for any given test velocity, the minimum gas heating value for a stable flame can be determined. By dividing the actual gas heating value by the minimum value required for stability, a ratio is obtained which is greater than 1 for stable flames, and less than 1 for unstable flames. Figure 3 plots combustion efficiencies versus this ratio and shows that high combustion efficiencies are achieved when the ratio exceeds 1. When the ratio is 1 or less, lower combustion efficiencies are often obtained. Note that even at a ratio less than 1, high combustion efficiencies are sometimes achieved, demonstrating the uncertainty associated with the stability measurements. In

general, however, stable flames are efficient, and unstable flames can be inefficient. Flames near the stability limit are very sensitive to perturbations and, when

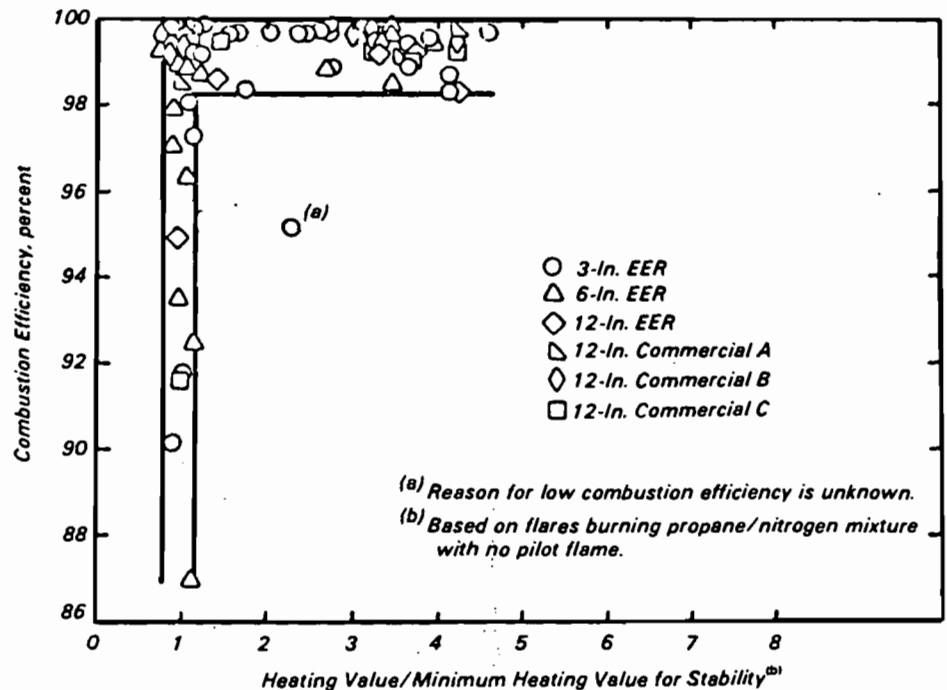


Figure 3. Combustion efficiency near the lower limits of flame stability. ^(b)

perturbed, can easily produce high emissions of unburned material.

All conclusions are based on the data of this study and are limited to head geometries, gases, and variables examined. Head geometries were limited to:

- Simple pipe flare of 3-, 6-, and 12-in. in diameter.
- Three commercial 12-in. flare heads of different design and manufacture.

The gases studied were limited to:

- Propane/nitrogen mixtures with heating values of 270 - 2350 Btu/ft³.
- One test with natural gas.

The variables examined were:

- Velocities from 0.2 to 420 ft/sec.
- Reynolds numbers from 340 - 217,000.
- Richardson numbers from 2.9×10^{-3} to 8×10^2 .
- Steam flow from 0 to 1 lb steam/lb fuel.

The flare flames were shielded from the wind, and combustion efficiencies were not measured in winds greater than 5 mph.

The following conclusions are based on study results:

- Flares operating with unstable flames can have low combustion efficiency.
- Combustion efficiency does not depend on flare size or geometry.
- Successful correlations were developed for flare flames:
 - Flame length was correlated with a modified Richardson number.

- Liftoff distances were correlated with ratios of velocities and concentrations.
- Flame stability was correlated with a pseudo flame temperature.
- Entrainment was correlated with ratios of distances and the Richardson number or with velocity.
- Combustion efficiency was high for flares with high velocities, provided the heating value of the gas was in the region of stability.
- Steam injection completely suppressed soot production but did not appreciably alter combustion efficiency unless the flame was oversteamed (>0.5 lb steam/lb fuel), and then combustion efficiency decreased.

*J. H. Pohl, R. Payne, and J. Lee are with Energy and Environmental Research Corporation, Irvine, CA 92714.
 Bruce A. Tichenor is the EPA Project Officer (see below).
 The complete report, entitled "Evaluation of the Efficiency of Industrial Flares: Test Results," (Order No. PB 84-199 371; Cost: \$17.50, subject to change) will be available only from:
 National Technical Information Service
 5285 Port Royal Road
 Springfield, VA 22161
 Telephone: 703-487-4650
 The EPA Project Officer can be contacted at:
 Industrial Environmental Research Laboratory
 U.S. Environmental Protection Agency
 Research Triangle Park, NC 27711*

☆ U.S. GOVERNMENT PRINTING OFFICE: 1984 — 759-015/7742

Conversion Factors

To convert nonmetric units used in this Summary to their metric equivalents, please use the following factors:

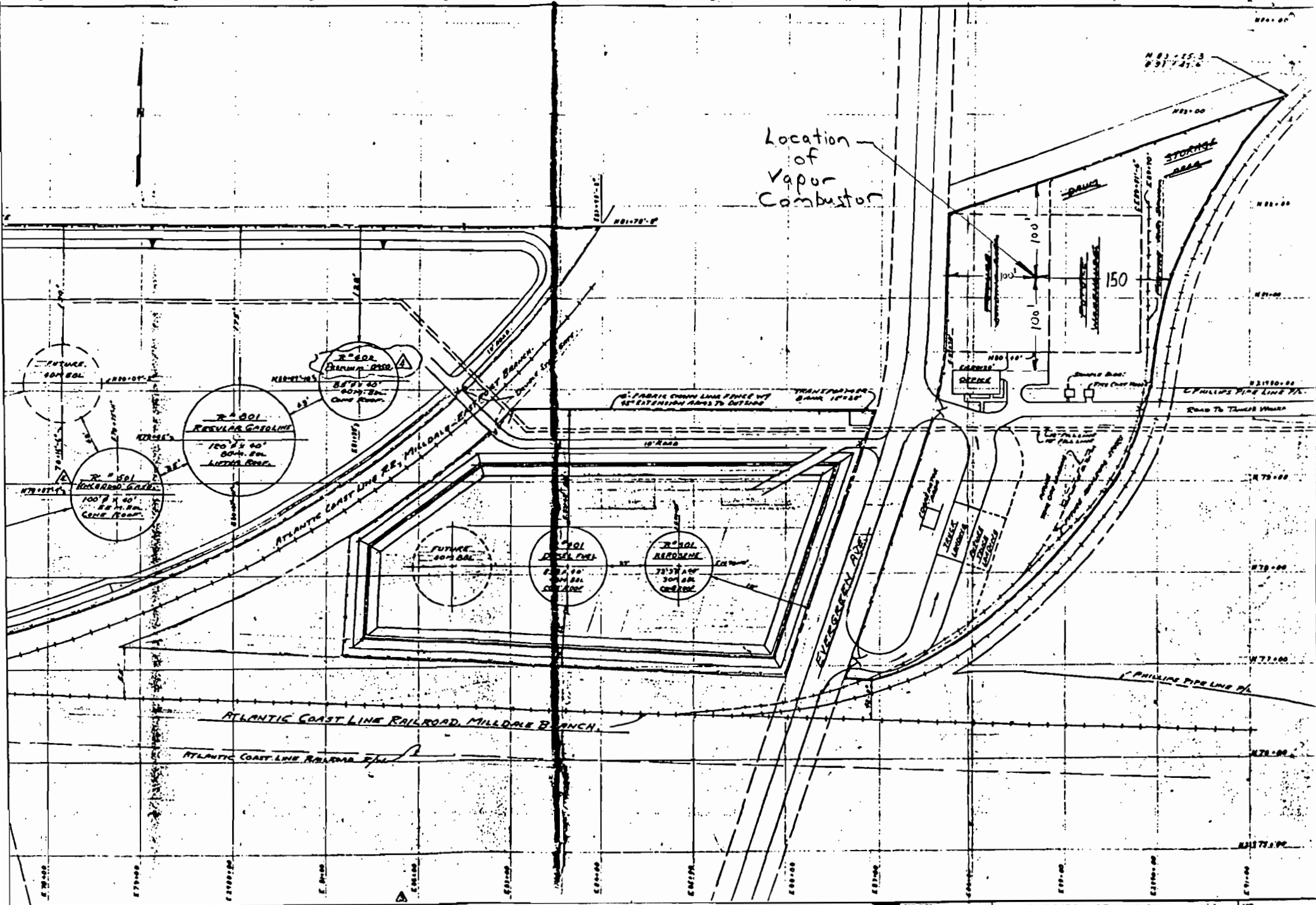
Nonmetric	Multiplied by	Yields Metric
Btu	1.055	kJ
ft	0.305	m
ft ³	0.028	m ³
in.	2.54	cm
lb	0.454	kg
mi	1.609	km

United States
 Environmental Protection
 Agency

Center for Environmental Research
 Information
 Cincinnati OH 45268

BULK RATE
 POSTAGE & FEES PAID
 EPA
 PERMIT No. G-35

Official Business
 Penalty for Private Use \$300



ATTACHMENT VIII

BY	DATE	APPROV.	DESCRIPTION
			Interchanged Premium Area
			Unkilled Storage Tank

PHILLIPS PIPE LINE COMPANY BARTLESVILLE, OKLAHOMA TERMINAL LAYOUT JACKSONVILLE TERMINAL	SHEET NO. PAL-2201 SCALE 1" = 50' DRAWING NO. 10-506
--	--

DER

SEP 4 1986

BAQM



August 26, 1986

Jacksonville Terminal,
Re: OGC Consent Order
Number 86-0843

Michael J. Fitzsimmons
District Enforcement Manager
Florida Department of Environmental
Regulations, Northeast District
3426 Bills Road
Jacksonville, Florida 32207

Dear Mr. Fitzsimmons:

Phillips Pipe Line Company ("Phillips") has received a draft of the above-referenced Consent Order from your office regarding volatile organic compound ("VOC") emissions from operations at our Jacksonville petroleum product terminal.

Phillips has prepared and is currently submitting an application to the State for a permit to construct a vapor combustor unit to replace the existing vapor recovery unit ("VRU") as a means of VOC emission control from the product loading facilities at this terminal. Phillips requests the State consider revising the draft Consent Order to reflect Phillips' intent to install this new emission control system.

A telephone conversation was held with Mr. Khurshid Mehta of the City of Jacksonville's Bio-Environmental Services Division regarding this Consent Order. During this conversation Mr. Mehta indicated that a request for a revision to this Consent Order to include Phillips plans to install a system which would improve the level of VOC emission control over that of current control devices would be justifiable grounds for the City and the State to reconsider the requirements under this Consent Order.

In follow-up conversations with Mr. Bill Thomas with the State DER office in Tallahassee and with Mr. Mike Reutter at your State DER District Office in Jacksonville regarding this same subject, I had been told the State would take a similar position on such a request by Phillips. Mr. Reutter also suggested that Phillips provide a description of the desired revisions requested for this draft Consent Order.

Michael J. Fitzsimmons
August 26, 1986
Page 2

First, in addressing Mr. Mehta's comment, Phillips review of technical data and vendor information has consistently found VOC emission control utilizing a flaring device offers a significant improvement over that level of emissions control by VRUs, such as that currently in use at our Jacksonville Terminal. VOC emissions utilizing a vapor combustor are found to be controlled to a level of 98-99%, whereas VRUs typically control VOC emissions to a level of 90-95%. Attached for your review is a copy of an EPA publication, "Evaluation of the Efficiency of Industrial Flares: Test Results", which discusses the level of vapor control utilizing flaring systems.

Secondly, in line with Mr. Reutter's suggestion, Phillips would prefer the Consent Order be revised to reflect the following conditions:

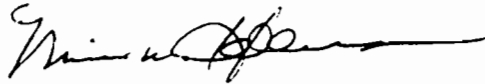
- 1) that Phillips will, within a reasonable period of time following issuance of a construction permit, install and begin operating the proposed vapor combustor unit as a replacement for the existing VRU,
- 2) that Phillips will, within a specified timeframe, seek and obtain an operating permit, and
- 3) that, in the interim, provided both the State and City of Jacksonville find the construction permit application from Phillips acceptable, monitoring and testing of the existing VRU will not be required unless and until the construction or operating permit for the proposed vapor combustor is denied.

Phillips can have this vapor combustor system installed and operational at this terminal within five months of issuance of the construction permit.

Mr. Micahel J. Fitzsimmons
August 26, 1986
Page 3

Phillips trusts this letter is a satisfactory response to your letter of August 13, 1986. If you should have any questions regarding this request, or if you should need additional information, please do not hesitate to call me at 918/661-7539 or Fred Mulloy of our Engineering and Services staff at 918/661-5735.

Very truly yours,



Michael W. Holcomb
Sr. Environmental Specialist

MWH:mrs
Attachment

cc: Khurshid Mehta
City of Jacksonville, BESD

Bill Thomas, Florida DER,
Tallahassee