

Technical Evaluation  
and  
Preliminary Determination

Belcher Oil Company - Port Canaveral  
Brevard County  
Cape Canaveral, Florida

Permit Numbers:

AC 05-57476  
AC 05-57477  
AC 05-57478  
AC 05-57479  
AC 05-57480  
AC 05-62236

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

February 15, 1983

PUBLIC NOTICE

The Department intends to issue permits to the Belcher Oil Company - Port Canaveral for the existing petroleum storage tanks, the North Loading Rack (non-gasoline), the South Loading Rack (SLR, gasoline and non-gasoline), and the construction of a vapor recovery system to service the SLR at its existing bulk gasoline and petroleum storage/transfer facility in Cape Canaveral, Brevard County, Florida. The permit will include conditions to assure compliance with Chapter 17-2, Florida Administrative Code (FAC).

Any person wishing to file comments on this proposed action may do so by submitting such comments in writing to:

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

Any comments received within thirty days (30) after publication of this notice will be considered and noted in the Department's final determination.

Any person whose substantial interest would be affected by the Department's intended action on this permit may request an administrative hearing by filing a petition as set forth in Section 28-5.15, FAC, within fourteen days (14) of the date of this notice with:

Ms. Martha Hall  
Office of General Counsel  
Florida Department of Environmental  
Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301

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.

## I. PROJECT DESCRIPTION

### A. Applicant

Belcher Oil Company  
P. O. Box 525500  
Miami, Florida 33152

### B. Project and Location

The applicant intends to obtain permits for the existing petroleum storage tanks (PST's), the North Loading Rack (NLR, non-gasoline), the South Loading Rack (SLR, gasoline and non-gasoline), and the construction of a vapor recovery system (VRS) to service the SLR while loading gasoline at its existing bulk gasoline and petroleum storage/transfer facility in Cape Canaveral, Brevard County, Florida.

The existing bulk gasoline and petroleum storage/transfer terminal is located at No. 10 Tanker Turn Road, with UTM coordinates of Zone 17-589.9 km East and 3142.0 km North. The terminal is also located in an area designated attainment for all pollutants.

### C. Process and Controls

There are two petroleum loading racks (North and South) at this facility. Only the SLR will be permitted to load gasoline from two loading positions. The SLR has 2 Gasoline, 1 Diesel (No. 2 Fuel Oil), and 1 Jet Kerosene loading positions. In projecting an hourly throughput, the applicant assumed that a maximum of 4 trucks can be filled per hour per position. Therefore, at 8,500 gallons per truck, the estimated maximum hourly throughput is 34,000 gallons per position.

The NLR has 5 loading positions for loading petroleum (non-gasoline) products, which are 2 Diesel, 1 No. 6 Fuel Oil, 1 Jet Kerosene, and 1 AC-20/RC-70. The same assumptions were made for the NLR as the SLR, resulting with the estimated maximum hourly throughput of 34,000 gallons per position.

For the PST's, the following table (Table 1) will provide the pertinent data used for their review:

Table 1

<u>Tank Number</u> <sup>1</sup>	<u>Roof Type</u> <sup>2</sup>	<u>Capacity (bbls)</u> <sup>3</sup>	<u>Product Stored</u>	<u>Throughput (bbls/yr)</u> <sup>4</sup>	<u>Dimensions</u> <sup>5</sup> (feet)
#1	Cone	80,000	Diesel	662,040	120Ø X 40
#2	Cone	55,000	No. 6 Oil	366,000	100Ø X 40
#3	Cone	35,000	Jet A	84,000	80Ø X 40
#4	Cone	20,000	AC-20	86,183	60Ø X 40
#5	Cone	1,200	AC-20	5,171	19Ø X 24
#6	Cone	20,000	AC-20	86,183	60Ø X 40
#7	Int.Float	55,000	Gasoline	521,053	100Ø X 40
#8	Int.Float	35,000	Gasoline	331,579	80Ø X 40
#9	Int.Float	35,000	Gasoline	331,579	80Ø X 40
#10	Cone	3,000	RC-70	6,000	30Ø X 24
#11	Cone	3,000	RC-70	6,000	30Ø X 24
#12	Cone	9,000	Diesel	74,480	40Ø X 40
#13	Cone	9,000	Diesel	74,480	40Ø X 40
#14	Cone	1,500	AC-20	6,463	21Ø X 24
#15	Ext.Float	55,000	Gasoline	521,053	100Ø X 40
#17	Int.Float	100,000	Gasoline	947,368	143Ø X 42
#18	Int.Float	100,000	Gasoline	947,368	143Ø X 42

1. There is no Tank No. 16.
2. Int. stands for internal and Ext. stands for external.
3. bbls - barrels.
4. Maximum throughput in barrels per year.
5. The Ø represents the diameter of the storage tank x Height.

A VRS will be installed at the SLR to control VOC (Volatile Organic Compounds) emissions when loading gasoline. The VRS will have an assumed VOC removal efficiency of 98% (vendors specifications).

At the NLR, there will not be any immediate requirement to install any pollution control equipment because of the low emissions expected and projected. However, there will be the requirement of periodic visual inspections of the equipment to assure proper operation and maintenance.

As for the PST's, there will not be any immediate requirement to have any pollution control equipment installed because of the low emissions expected and projected. However, there will be the requirement of periodic inspections of the PST's, roofs, seals, and associated equipment to assure proper operation and maintenance.

Only those PST's storing gasoline shall have minimum requirements of floating roofs with primary seals. PST's, Nos. 17 and 18, were

constructed in 1974 and invoke New Source Performance Standards (NSPS), Subpart K, which requires either a floating roof or a VRS, or their equivalents. As shown in Table 1, both PST's, Nos. 17 and 18, have internal floating roofs and the applicant confirmed that there are primary seals attached to the floating roofs.

## II. RULE APPLICABILITY

The only criteria pollutants emitted from the PST's, the NLR, the SLR, and the VRS are classified as VOC by definition in accordance with Chapter 17-2.100(175), Florida Administrative Code (FAC). Table 2, on the following page, exhibits the potential VOC emissions from each source and the total from the facility.

Since the facility is located in an area designated attainment for all criteria pollutants, review shall be in accordance with Chapter 17-2.500, FAC, Prevention of Significant Deterioration (PSD). The existing terminal is a minor facility in accordance with Chapter 17-2.100(100), FAC. Since the proposed construction is a minor modification to a minor facility, new source review (NSR) requirements of this section (PSD) are not required in accordance with 17-2.500(2)(d)3., FAC.

Since two of the PST's, Nos. 17 and 18, were constructed in 1974, will be storing gasoline and have a capacity of 100,000 barrels each, they will be subject to the NSPS, 40 CFR 60.110, Subpart K, which was adopted by reference according to Chapter 17-2.660, FAC. The true vapor pressure (TVP) is estimated to be 6.4 psia (pounds per square inch absolute). Therefore, these PST's shall be equipped with either a floating roof or a VRS, or their equivalents (40 CFR (Code of Federal Regulations) 60.112(a)(1)). The applicant indicated that both PST's are equipped with internal floating roofs (see Table 1) and primary seals. Monitoring of operations shall be according to 40 CFR 60.113.

For the PST's, Nos. 1-15, the petroleum loading racks, and the VRS, there are no specific emission limiting standards for VOC contained in Chapter 17-2, FAC. Therefore, the PST's, Nos. 1-15, the NLR, the SLR, and the VRS emission limits for VOC shall be permitted in accordance with Chapter 17-2.620(1) and (2), FAC, General Pollutant Emission Limiting Standards.

The applicant requested that the total facility VOC allowable emission limits be 92.54 tons per year (TPY). The VRS (98% efficiency) is being installed at the SLR to lower the VOC emissions at this source and keep the total facility potential VOC emissions below 100 TPY.

Table 2

Source	Potential VOC Emissions (lbs/yr)			
	Breathing/ Standing	Working/ Withdrawal	Loading Racks	Total
PST <sup>1</sup> #1	1,620	781		2,401
#2	57	4		61
#3	906	121		1,027
#4 <sup>2</sup>	--	--		--
#5 <sup>2</sup>	--	--		--
#6 <sup>2</sup>	--	--		--
#7	1,493	41		1,534
#8	1,195	33		1,228
#9	1,195	33		1,228
#10 <sup>3</sup>	2,486	232		2,718
#11 <sup>3</sup>	2,486	232		2,718
#12	235	88		323
#13	235	88		323
#14 <sup>2</sup>	--	--		--
#15	136,260	41		136,301
#17	2,136	52		2,188
#18	2,136	52		2,188
NLR <sup>4</sup> : Positions	2 Diesel		373.0	
	1 No. 6 Fuel Oil		2.46	709.0
	1 Jet Kerosene		61.80	
	1 AC-20/RC-70		271.46	
SLR-VRS <sup>5</sup> : Positions	2 Gasoline		29,860.46	
	1 Diesel		248.13	30,124.0
	1 Jet Kerosene		15.44	
Facility Totals				
lbs/yr	152,440.0	1,798.0	30,833.0	185,071.0
TPY	76.22	0.90	15.42	92.54

- There is no Tank No. 16.
- Emissions were not calculated for AC-20 asphalt due to extremely low vapor pressure.
- RC-70 product: 70% asphalt, 30% naptha; emissions were calculated using product characteristics of naptha.
- Product throughput in barrels/yr:

Diesel	487,000
No. 6 Fuel Oil	366,000
Jet Kerosene	67,200
RC-70	12,000

Assume: 34,000 gallons of petroleum product can be loaded per position per hour.
- Product throughput in barrels/yr:

Gasoline	3,600,000
Diesel	324,000
Jet Kerosene	16,800

Assume: 1) ; 34,000 gallons of petroleum product can be loaded per position per hour;  
2) Efficiency of the VRS is 98% removal of pollutant (vendor specifications).

Compliance with the VOC emission limits for the VRS servicing the 2 gasoline loading positions at the SLR must be in accordance with the method referred in Chapter 17-2.700(6)(c) 2.b.(i), FAC. Compliance with the VOC emissions from all of the other sources, including the 2 non-gasoline loading positions at the SLR, shall be periodic visual inspections of the sources and their associated equipment to assure proper operation and maintenance according to Chapter 17-2.620(1), FAC. Also, no objectionable odors shall be allowed off of the terminal property according to Chapter 17-2.620(2), FAC.

### III. SUMMARY OF EMISSIONS AND AIR QUALITY ANALYSIS

#### A. Emission Limitations

The VOC allowable emissions at this existing bulk gasoline and petroleum storage/transfer terminal are in the following table (Table 3):

Table 3

Source	Allowable VOC Emissions		
	lbs/hr	lbs/yr	TPY
PST's 1-15, 17 and 18 NLR (5 non-gasoline positions) SLR (2 non-gasoline positions)		155,211	77.61
SLR-VRS (2 gasoline positions)	13.43	29,860	14.93
	Totals:	185,071	92.54

The permitted allowable VOC emissions are in compliance with all applicable requirements of Chapter 17-2, FAC.

All unexpected VOC emissions that will occur by handling transferring, and storage of gasoline and petroleum products shall be properly attended to by the applicant, i.e. from correcting the problem and removal of contaminated material to final disposal. Also, DER's St. Johns River District office shall be promptly notified.

#### B. Air Quality Analysis

An air quality analysis is not required.

### IV. CONCLUSIONS

The emission limits proposed by the applicant have been determined to be in compliance with all applicable requirements of Chapter 17-2, FAC.



The VOC emissions from this existing bulk gasoline and petroleum storage/transfer terminal are sources considered area-wide (facility) and a point-source (VRS at the SLR when loading gasoline). Compliance verification of the sources considered area-wide (facility) VOC emissions shall be by periodic visual inspections by the DER's St. Johns River District office. These visual inspections will either find that the equipment is being properly operated and maintained or that corrective action will be required. All corrective action shall be concurred with the DER's St. Johns River District office.

A compliance test shall be required of the VRS (point-source) at the SLR while loading gasoline product from the two gasoline loading positions. A properly operated and maintained VRS will keep the VOC emissions below the allowable VOC emission limits. The allowable VOC emission limits are 6.715 lbs/hr/gasoline loading position and 14.93 TPY (total of 2 gasoline loading positions at 3,600,000 barrels of gasoline product per year throughput).

Besides visual inspections and the point-source compliance test to reasonably assure minimal VOC emissions, there will not be any objectionable odors allowed on off-plant property.

The total VOC projected potential emissions of 92.54 TPY, 77.61 TPY from the sources considered area-wide (facility) and 14.93 TPY from the point-source (the VRS at the SLR while loading gasoline - 2 positions), should not cause any violation of Florida's ambient air quality standards.

The General and Specific Conditions listed in the proposed permits (attached) will assure compliance with all applicable requirements of Chapter 17-2, FAC.

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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57476  
Date of Issue:  
Expiration Date: December 31, 1983  
County: Brevard  
Latitude/Longitude: 28° 24' 20" N/80° 36' 09" W  
Section/Township/Range:  
Project: Gasoline Storage Tank No. 7, equipped with an internal floating pan roof and primary seal.

This permit is issued under the provisions of Chapter(s) 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:

For the establishment of a permit for the gasoline storage tank No. 7 at the applicant's existing bulk gasoline and petroleum storage/transfer terminal located at No. 10 Tanker Turn Road, Cape Canaveral, Florida. The UTM coordinates are Zone 17-589.9 km East and 3142.0 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on page 4 of the "Specific Conditions."

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16).
2. C. H. Fancy's Letter of Incompleteness dated July 23, 1982.
3. John J. McNally's letter dated November 3, 1982.
4. C. H. Fancy's Letter of Incompleteness dated November 30, 1982.
5. John J. McNally's letter dated December 10, 1982.
6. C. H. Fancy's letter dated January 13, 1983.
7. John J. McNally's letter dated January 18, 1983.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57476  
Date of Issue:  
Expiration Date: December 31, 1983

**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 therefor 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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
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b. the period of noncompliance, 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.

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)
  - ( ) 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.
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.

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**SPECIFIC CONDITIONS:**

1. Construction/installation should reasonably conform to the application, plans, documents, and amendments submitted.
2. The applicant should report any delays in construction/installation and completion to the DER's St. Johns River District office.
3. Annual hours of operation will be 8760.
4. The applicant must prevent pollutant odors from reaching off-plant property.
5. If not existing, a containment dike/berm shall be erected around the storage tank No. 7 to contain spills, leaks, etc., to prevent ground-water contamination, and to aid in the clean-up of spills, leaks, etc. and prevent excess odors that could occur from the vaporization of the volatile organic compounds (VOC). If any spills, leaks, etc. occur, the DER's St. Johns River District office shall be promptly notified.
6. Expected gasoline throughput of the petroleum storage tank (PST) No. 7 and the projected potential VOC emissions are:

<u>Source</u>	<u>Dimensions</u> <u>feet</u>	<u>Capacity</u> <u>barrels</u>	<u>Product Stored</u>	<u>Throughput</u> <u>bbls/yr</u>	<u>VOC Emissions</u> <u>lbs/yr</u>
PST #7	100Ø X 40	55,000	Gasoline	521,053	1,534

Note: Ø represents the diameter x Height.

7. Since the VOC emissions from the source referenced in #6 are considered to be area-wide (facility) emissions, compliance verification shall be by periodic visual inspections of the equipment used to store/transfer the petroleum product. The visual inspections shall be conducted by the DER's St. Johns River District office. Any corrective action shall be concurred with the District office.
8. Annual operating reports shall be submitted to the DER's St. Johns River District office or its designee and shall be due on January 14 of each calendar year. This report shall contain records of the gasoline throughput.
9. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the DER's St. Johns River District office prior to 90 days of the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

7 Attachments

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



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Permit/Certification Number: AC 05-57477  
Date of Issue:  
Expiration Date: December 31, 1983  
County: Brevard  
Latitude/Longitude: 28° 24' 20" N/80° 36' 09" W  
Section/Township/Range:  
Project: Gasoline Storage Tanks, Nos. 8 and 9, each equipped  
with an internal floating pan roof and primary seal.

This permit is issued under the provisions of Chapter(s) 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:

For the establishment of a permit for the gasoline storage tanks, Nos. 8 and 9, at the applicant's existing bulk gasoline and petroleum storage/transfer terminal located at No. 10 Tanker Turn Road, Cape Canaveral, Florida. The UTM coordinates are Zone 17-589.9 km East and 3142.0 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on page 4 of the "Specific Conditions."

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16).
2. C. H. Fancy's Letter of Incompleteness dated July 23, 1982.
3. John J. McNally's letter dated November 3, 1982.
4. C. H. Fancy's Letter of Incompleteness dated November 30, 1982.
5. John J. McNally's letter dated December 10, 1982.
6. C. H. Fancy's letter dated January 13, 1983.
7. John J. McNally's letter dated January 18, 1983.

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**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 therefor 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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57477  
Date of Issue:  
Expiration Date: December 31, 1983

b. the period of noncompliance, 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.

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)
  - ( ) 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.
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.



PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57477  
Date of Issue:  
Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

1. Construction/installation should reasonably conform to the application, plans, documents, and amendments submitted.
2. The applicant should report any delays in construction/installation and completion to the DER's St. Johns River District office.
3. Annual hours of operation will be 8760.
4. The applicant must prevent pollutant odors from reaching off-plant property.
5. If not existing, a containment dike/berm shall be erected around each storage tank, Nos. 8 and 9, to contain spills, leaks, etc., to prevent ground-water contamination, and to aid in the clean-up of spills, leaks, etc. and prevent excess odors that could occur from the vaporization of the volatile organic compounds (VOC). If any spills, leaks, etc. occur, the DER's St. Johns River District office shall be promptly notified.
6. Expected gasoline throughput of the petroleum storage tanks (PST's), Nos. 8 and 9, and their projected potential VOC emissions are:

Source	Dimensions feet	Capacity barrels	Product Stored	Throughput bbls/yr	VOC Emissions lbs/yr
PST's #8	80Ø X 40	35,000	Gasoline	331,579	1,228
#9	80Ø X 40	35,000	Gasoline	331,579	1,228
					Total 2,456

Note: Ø represents the diameter x Height.

7. Since the VOC emissions from the sources referenced in #6 are considered to be area-wide (facility) emissions, compliance verification shall be by periodic visual inspections of the equipment used to store/transfer the petroleum product. The visual inspections shall be conducted by the DER's St. Johns River District office. Any corrective action shall be concurred with the District office.
8. Annual operating reports shall be submitted to the DER's St. Johns River District office or its designee and shall be due on January 14 of each calendar year. This report shall contain records of the gasoline throughput.
9. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the DER's St. Johns River District office prior to 90 days of the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

Issued this \_\_\_\_ day of \_\_\_\_\_, 19\_\_

7 Attachments

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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57478  
Date of Issue:  
Expiration Date: December 31, 1983  
County: Brevard  
Latitude/Longitude: 28° 24' 20" N/80° 36' 09" W  
Section/Township/Range:  
Project: Gasoline Storage Tank No. 15, equipped with an internal floating pan roof and primary seal.

This permit is issued under the provisions of Chapter(s) 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:

For the establishment of a permit for the gasoline storage tank No. 15 at the applicant's existing bulk gasoline and petroleum storage/transfer terminal located at No. 10 Tanker Turn Road, Cape Canaveral, Florida. The UTM coordinates are Zone 17-589.9 km East and 3142.0 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on page 4 of the "Specific Conditions."

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16).
2. C. H. Fancy's Letter of Incompleteness dated July 23, 1982.
3. John J. McNally's letter dated November 3, 1982.
4. C. H. Fancy's Letter of Incompleteness dated November 30, 1982.
5. John J. McNally's letter dated December 10, 1982.
6. C. H. Fancy's letter dated January 13, 1983.
7. John J. McNally's letter dated January 18, 1983.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57478  
Date of Issue:  
Expiration Date: December 31, 1983

**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 therefor 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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57478  
Date of Issue:  
Expiration Date: December 31, 1983

b. the period of noncompliance, 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.

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)
  - ( ) 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.
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.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57478  
Date of Issue:  
Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

1. Construction/installation should reasonably conform to the application, plans, documents, and amendments submitted.
2. The applicant should report any delays in construction/installation and completion to the DER's St. Johns River District office.
3. Annual hours of operation will be 8760.
4. The applicant must prevent pollutant odors from reaching off-plant property.
5. If not existing, a containment dike/berm shall be erected around the storage tank No. 15 to contain spills, leaks, etc., to prevent ground-water contamination, and to aid in the clean-up of spills, leaks, etc. and prevent excess odors that could occur from the vaporization of the volatile organic compounds (VOC). If any spills, leaks, etc. occur, the DER's St. Johns River District office shall be promptly notified.

6. Expected gasoline throughput of the petroleum storage tank (PST) No. 15 and the projected potential VOC emissions are:

<u>Source</u>	<u>Dimensions</u> <u>feet</u>	<u>Capacity</u> <u>barrels</u>	<u>Product Stored</u>	<u>Throughput</u> <u>bbls/yr</u>	<u>VOC Emissions</u> <u>lbs/yr</u>
PST #15	100Ø X 40	55,000	Gasoline	521,053	136,301

Note: Ø represents the diameter x Height.

7. Since the VOC emissions from the source referenced in #6 are considered to be area-wide (facility) emissions, compliance verification shall be by periodic visual inspections of the equipment used to store/transfer the petroleum product. The visual inspections shall be conducted by the DER's St. Johns River District office. Any corrective action shall be concurred with the District office.
8. Annual operating reports shall be submitted to the DER's St. Johns River District office or its designee and shall be due on January 14 of each calendar year. This report shall contain records of the gasoline throughput.
9. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the DER's St. Johns River District office prior to 90 days of the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

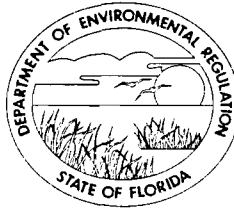
Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

7 Attachments

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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57479  
Date of Issue:  
Expiration Date: December 31, 1983  
County: Brevard  
Latitude/Longitude: 28° 24' 20" N/80° 36' 09" W  
Section/Township/Range:  
Project: Gasoline Storage Tanks, Nos. 17 and 18, each equipped  
with an internal floating pan roof and primary seal.

This permit is issued under the provisions of Chapter(s) 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:

For the establishment of a permit for the gasoline storage tanks, Nos. 17 and 18, at the applicant's existing bulk gasoline and petroleum storage/transfer terminal located at No. 10 Tanker Turn Road, Cape Canaveral, Florida. The UTM coordinates are Zone 17-589.9 km East and 3142.0 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on page 4 of the "Specific Conditions."

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16).
2. C. H. Fancy's Letter of Incompleteness dated July 23, 1982.
3. John J. McNally's letter dated November 3, 1982.
4. C. H. Fancy's Letter of Incompleteness dated November 30, 1982.
5. John J. McNally's letter dated December 10, 1982.
6. C. H. Fancy's letter dated January 13, 1983.
7. John J. McNally's letter dated January 18, 1983.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57479  
Date of Issue:  
Expiration Date: December 31, 1983

**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 therefor 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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57479  
Date of Issue:  
Expiration Date: December 31, 1983

b. the period of noncompliance, 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.

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.
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.



PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57479  
Date of Issue:  
Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

1. Construction/installation should reasonably conform to the application, plans, documents, and amendments submitted.
2. The applicant should report any delays in construction/installation and completion to the DER's St. Johns River District office.
3. Annual hours of operation will be 8760.
4. The applicant must prevent pollutant odors from reaching off-plant property.
5. If not existing, a containment dike/berm shall be erected around each storage tank, Nos. 17 and 18, to contain spills, leaks, etc., to prevent ground-water contamination, and to aid in the clean-up of spills, leaks, etc. and prevent excess odors that could occur from the vaporization of the volatile organic compounds (VOC). If any spills, leaks, etc. occur, the DER's St. Johns River District office shall be promptly notified.
6. Expected gasoline throughput of the petroleum storage tanks (PST's), Nos. 17 and 18, and their projected potential VOC emissions are:

Source	Dimensions feet	Capacity barrels	Product Stored	Throughput bbls/yr	VOC Emissions lbs/yr
PST's #17	143Ø X 42	100,000	Gasoline	947,368	2,188
#18	143Ø X 42	100,000	Gasoline	947,368	2,188
					Total: 4,376

Note: Ø represents the diameter x Height.

7. Since the VOC emissions from the sources referenced in #6 are considered to be area-wide (facility) emissions, compliance verification shall be by periodic visual inspections of the equipment used to store/transfer the petroleum product. The visual inspections shall be conducted by the DER's St. Johns River District office. Any corrective action shall be concurred with the District office.
8. Annual operating reports shall be submitted to the DER's St. Johns River District office or its designee and shall be due on January 14 of each calendar year. This report shall contain records of the gasoline throughput.
9. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the DER's St. Johns River District office prior to 90 days of the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

Issued this \_\_\_ day of \_\_\_\_\_, 19\_\_\_

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

7 Attachments

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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57480  
Date of Issue:  
Expiration Date: December 31, 1983  
County: Brevard  
Latitude/Longitude: 28° 24' 20" N/80° 36' 09" W  
Section/Township/Range:  
Project: South Loading Rack (2 Gasoline and 2 Non-Gasoline  
Positions) and a Vapor Recovery System.

This permit is issued under the provisions of Chapter(s) 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:

For the modification to the existing South Loading Rack (SLR; 2 Gasoline, 1 Diesel (No. 2 Fuel Oil), and 1 Jet Kerosene Position) and the construction/installation of a vapor recovery system (VRS) to service the SLR during gasoline loading operations. The UTM coordinates are Zone 17-589.9 km East and 3142.0 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on pages 4 and 5 of the "Specific Conditions."

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16).
2. C. H. Fancy's Letter of Incompleteness dated July 23, 1982.
3. John J. McNally's letter dated November 3, 1982.
4. C. H. Fancy's Letter of Incompleteness dated November 30, 1982.
5. John J. McNally's letter dated December 10, 1982.
6. C. H. Fancy's letter dated January 13, 1983.
7. John J. McNally's letter dated January 18, 1983.
8. Attachment to Specific Condition No. 8.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57480  
Date of Issue:  
Expiration Date: December 31, 1983

**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 therefor 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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57480  
Date of Issue:  
Expiration Date: December 31, 1983

b. the period of noncompliance, 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.

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)
  - ( ) 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.
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.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57480  
Date of Issue:  
Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

1. Construction/installation should reasonably conform to the application, plans, documents, and amendments submitted.
2. The applicant should report any delays in construction/installation and completion to the DER's St. Johns River District office.
3. Annual hours of operation will be 8760.
4. The applicant must prevent pollutant odors from reaching off-plant property.
5. Maximum allowable VOC emissions from the vapor recovery system (VRS) servicing the South Loading Rack (SLR) shall not exceed 6.715 lbs/hr/loading position (13.43 lbs/hr-total of 2 positions) and 14.93 TPY of gasoline loaded.
6. The maximum loading rate of the SLR, total of the two loading positions, is 68,000 gallons per hour. Total annual gasoline throughput at the SLR shall not exceed 3,600,000 barrels per year (bbls/yr).
7. Compliance with the mass emission limitation of Specific Condition No. 5 shall be determined in accordance with the method referred in 17-2.700(6)(c)2.b.(i), FAC (EPA 450/2-77-026, Appendix A). At least 30 days prior to the date of compliance testing, the DER's St. Johns River District office or its designee shall be notified in order to witness the test.
8. During the compliance test, the gasoline loading rate shall be representative of "normal operation" as outlined in the attached EPA test method guideline, EPA 450/2-77-026, Appendix A, section 5-2.
9. Expected petroleum (non-gasoline) throughput of the SLR (2 positions) and their projected potential emissions are:

Source	Positions/Product Transferred	Throughput	VOC Emissions
		<u>bbls/yr</u>	<u>lbs/yr</u>
SLR	1 Diesel	324,000	248.13
	1 Jet kerosene	16,800	15.44
		Total:	263.57

10. Since the VOC emissions from the petroleum products transferred from the source referenced in #9 are considered to be area-wide (facility) emissions, compliance verification shall be by periodic visual inspections of the equipment used to transfer the petroleum products. The visual inspections shall be conducted by the DER's St. Johns River District office. Any corrective action shall be concurred with the District office.
11. Annual operating reports shall be submitted to the DER's St. Johns River District office or its designee and shall be due January 14 of each calendar year. This report shall contain records of the gasoline and petroleum (non-gasoline) throughput.
12. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the DER's St. Johns River District office prior to 90 days of the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-57480  
Date of Issue:  
Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

Issued this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_

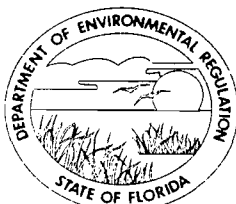
STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

---

8 Attachments

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

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-62236  
Date of Issue:  
Expiration Date: December 31, 1983  
County: Brevard  
Latitude/Longitude: 28° 24' 20" N/80° 36' 09" W  
Section/Township/Range:  
Project: North Loading Rack (Non-Gasoline) and Petroleum Storage  
Tanks (Non-Gasoline), Nos. 1-6, 10-14, equipped with  
fixed roofs.

This permit is issued under the provisions of Chapter(s) 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:

For the establishment of a permit for the North Loading Rack containing 5 petroleum (non-gasoline) loading positions (2 Diesel (No. 2 Fuel Oil), 1 No. 6 Fuel Oil, 1 Jet Kerosene, 1 AC-20/RC-70) and for the petroleum (non-gasoline) storage tanks, Nos. 1, 2, 3, 4, 5, 6, 10, 11, 12, 13 and 14, equipped with fixed roofs, at the applicant's existing bulk gasoline and petroleum storage/transfer terminal located at No. 10 Tanker Turn Road, Cape Canaveral, Florida. The UTM coordinates are Zone 17-589.9 km East and 3142.0 km North.

Construction shall be in accordance with the permit application and plans, documents, amendments, and drawings except as otherwise noted on pages 4 and 5 of the "Specific Conditions."

Attachments are as follows:

1. Application to Construct Air Pollution Sources, DER Form 17-1.122(16).
2. John J. McNally's letter dated November 3, 1982.
3. C. H. Fancy's Letter of Incompleteness dated November 30, 1982.
4. John J. McNally's letter dated December 10, 1982.
5. C. H. Fancy's letter dated January 13, 1983.
6. John J. McNally's letter dated January 18, 1983.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-62236  
Date of Issue:  
Expiration Date: December 31, 1983

**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 therefor 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



PERMITEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-62236  
Date of Issue:  
Expiration Date: December 31, 1983

b. the period of noncompliance, 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.

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)
  - ( ) 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.
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.

PERMITTEE: Belcher Oil Company  
 Port Canaveral Bulk Gasoline Terminal  
 P. O. Box 525500  
 Miami, Florida 33152

I.D. Number:  
 Permit/Certification Number: AC 05-62236  
 Date of Issue:  
 Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

1. Construction/installation should reasonably conform to the application, plans, documents, and amendments submitted.
2. The applicant should report any delays in construction/installation and completion to the DER's St. Johns River District office.
3. Annual hours of operation will be 8760.
4. The applicant must prevent pollutant odors from reaching off-plant property.
5. If not existing, a containment dike/berm shall be erected around each storage tank, Nos. 1-6, 10-14, to contain spills, leaks, etc., to prevent ground-water contamination, and to aid in the clean-up of spills, leaks, etc. and prevent excess odors that could occur from the vaporization of the volatile organic compounds (VOC). If any spills, leaks, etc. occur, the DER's St. Johns River District office shall be promptly notified.
6. Expected petroleum (non-gasoline) throughput of the petroleum storage tanks (PST's), Nos. 1-6 and 10-14, and the North Loading Rack (NLR, 5 non-gasoline loading positions), and their projected potential VOC emissions are:

Source	Dimensions feet	Capacity barrels	Product Stored	Throughput bbls/yr	VOC Emissions lbs/yr
PST's #1	120Ø X 40	80,000	Diesel	662,040	2,401
#2	100Ø X 40	55,000	No. 6 Fuel Oil	366,000	61
#3	80Ø X 40	35,000	Jet A	84,000	1,027
#4	60Ø X 40	20,000	AC-20	86,183	---
#5	19Ø X 24	1,200	AC-20	5,171	---
#6	60Ø X 40	20,000	AC-20	86,183	---
#10	30Ø X 24	3,000	RC-70	6,000	2,718
#11	30Ø X 24	3,000	RC-70	6,000	2,718
#12	40Ø X 40	9,000	Diesel	74,480	323
#13	40Ø X 40	9,000	Diesel	74,480	323
#14	21Ø X 24	1,500	AC-20	6,463	---
<u>Positions/Product Transferred</u>					
NLR	2 Diesel			487,000	373.0
	1 No. 6 Fuel Oil			366,000	2.46
	1 Jet Kerosene			67,200	61.80
	1 AC-20/RC-70			12,000	271.46
Total					10,280

Note: Ø represents the diameter x Height.

PERMITTEE: Belcher Oil Company  
Port Canaveral Bulk Gasoline Terminal  
P. O. Box 525500  
Miami, Florida 33152

I.D. Number:  
Permit/Certification Number: AC 05-62236  
Date of Issue:  
Expiration Date: December 31, 1983

**SPECIFIC CONDITIONS:**

7. Since the VOC emissions from the sources referenced in #6 are considered to be area-wide (facility) emissions, compliance verification shall be by periodic visual inspections of the equipment used to store/transfer the petroleum products. The visual inspections shall be conducted by the DER's St. Johns River District office. Any corrective action shall be concurred with the District office.
8. Annual operating reports shall be submitted to the DER's St. Johns River District office or its designee and shall be due on January 14 of each calendar year. This report shall contain records of the petroleum throughput.
9. The applicant will demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit to the DER's St. Johns River District office prior to 90 days of the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until the expiration date or issuance of an operating permit.

Issued this \_\_\_\_ day of \_\_\_\_\_, 19\_\_

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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6 Attachments

ATTACHMENTS For:

AC 05-57476  
-57477  
-57478  
-57479  
-57480

ATTACHMENT 1

DER

JUL 14 1982

BAQM

AIR POLLUTION SOURCE  
OPERATION PERMIT APPLICATION  
FOR  
BELCHER OIL COMPANY  
CAPE CANAVERAL SERVICE TERMINAL  
(Gasoline Storage and Transfer)

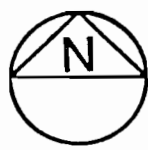
June, 1982

## INTRODUCTION

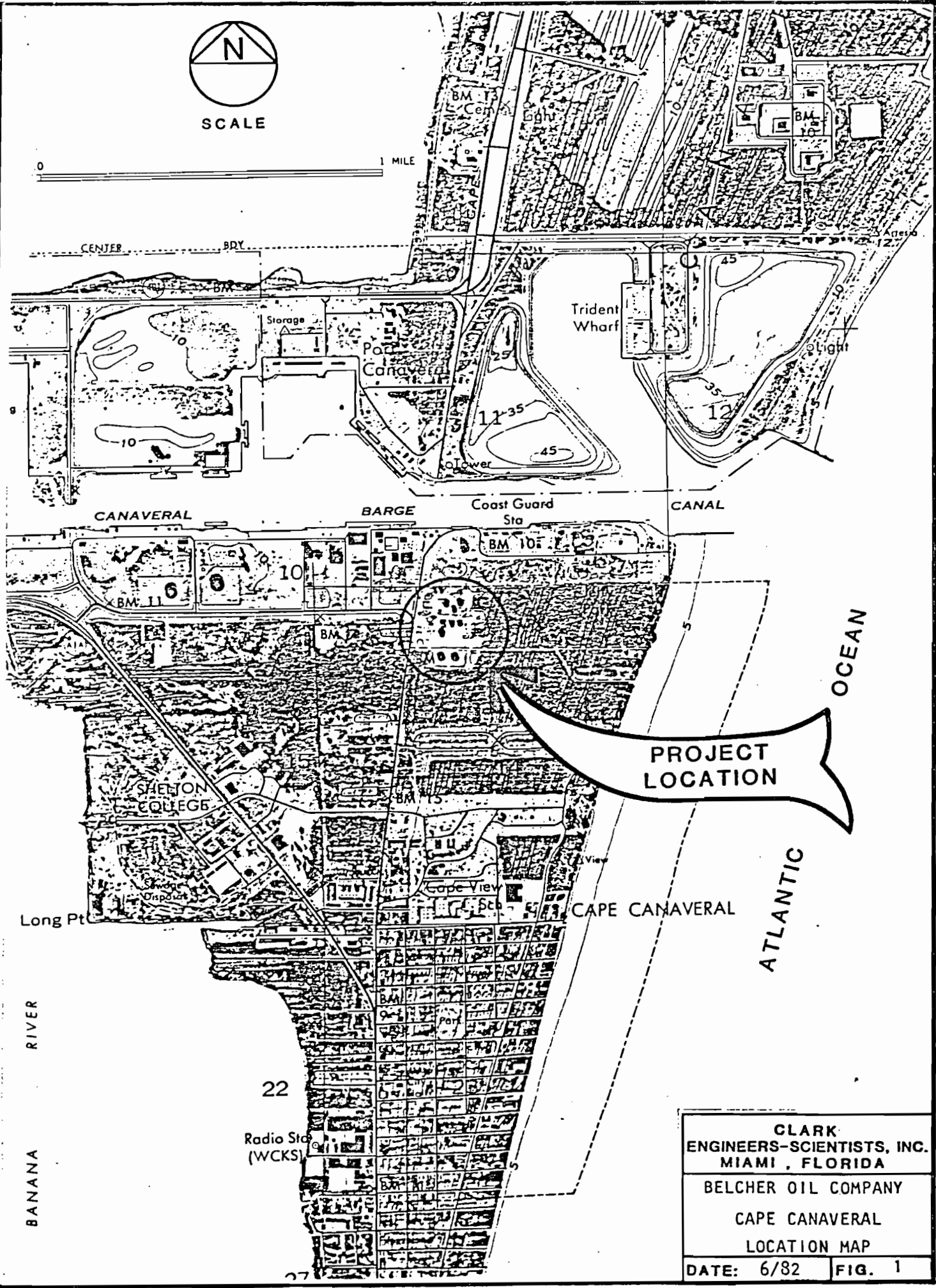
Belcher Oil Company operates a petroleum storage/transfer terminal at Port Canaveral, Florida. The location of this facility is shown in Figure 1. The facility includes a tank farm consisting of numerous storage tanks and two loading racks used for product transfer. The location of these tanks and loading racks is shown in Figure 2. Table 1 lists tank characteristics and product information. Gasoline is included as one of the products handled at the facility and requires the installation of a vapor recovery unit for the loading of this product. All the gasoline product leaving the terminal is loaded through the south loading rack. The vapor recovery unit will be installed at this loading rack location.

The operation of this petroleum storage/transfer facility requires an Air Pollution Source Permit issued by the State Department of Environmental Regulation. The applications that follow are for all tankage that is in gasoline service and the loading rack with the vapor recovery system for gasoline loading. Individual applications have been completed for each of the tanks unless the tanks are identical and are being used for the same product. A separate application has been completed for the south loading rack which is equipped with a vapor recovery unit for gasoline loading.

Calculations for the emissions from each of these tanks and for the loading rack with the vapor recovery unit follow the applications. Attached also is the manufacturer's description for the vapor recovery unit. Table 2 and Table 3 present the total hydrocarbon losses associated with the storage and transfer of gasoline product at this facility.



SCALE

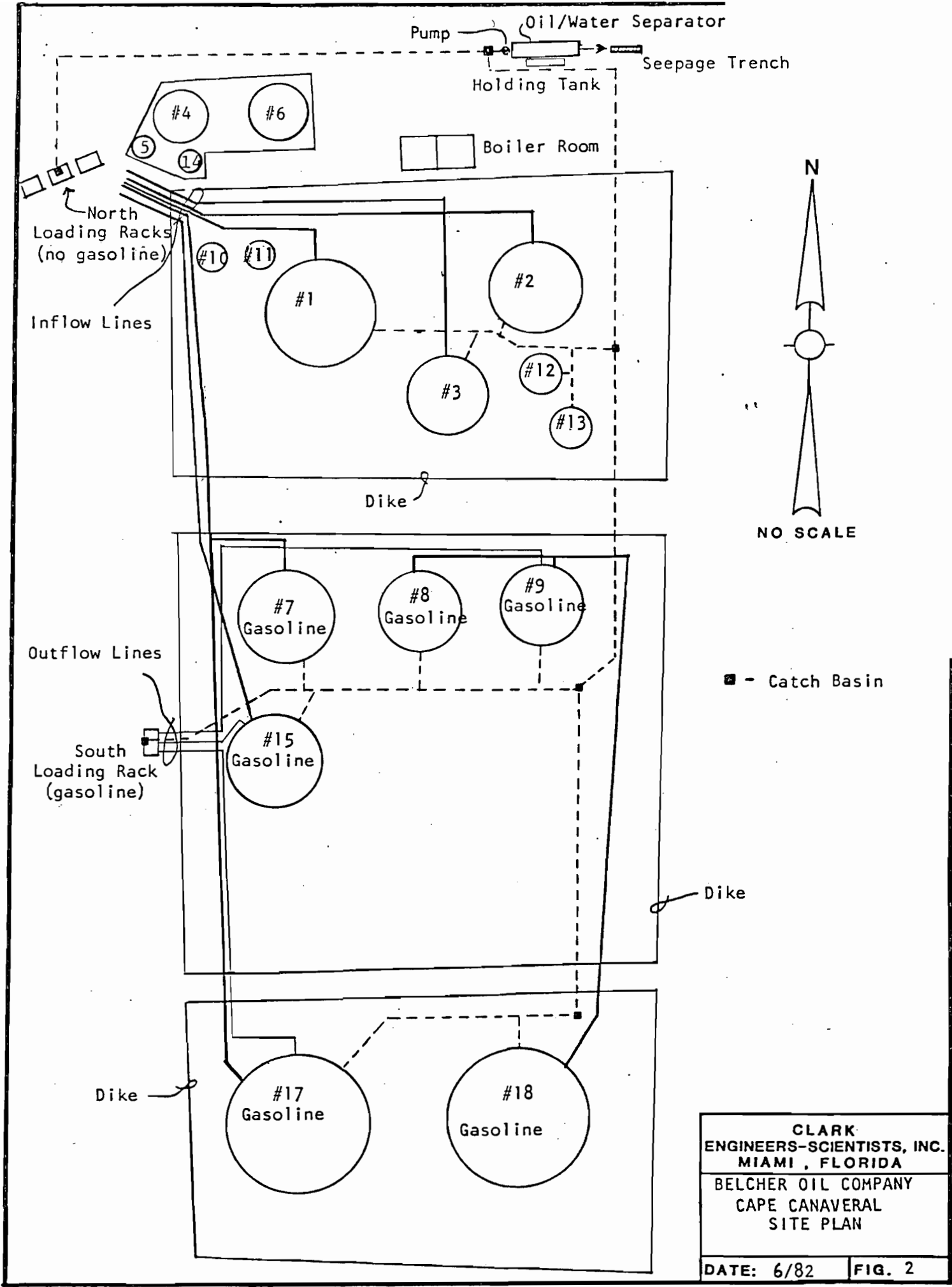


PROJECT LOCATION

ATLANTIC OCEAN

CLARK ENGINEERS-SCIENTISTS, INC. MIAMI, FLORIDA	
BELCHER OIL COMPANY	
CAPE CANAVERAL LOCATION MAP	
DATE: 6/82	FIG. 1





CLARK ENGINEERS-SCIENTISTS, INC. MIAMI, FLORIDA	
BELCHER OIL COMPANY CAPE CANAVERAL SITE PLAN	
DATE: 6/82	FIG. 2

Table #1  
Belcher Oil Company  
Pt. Canaveral Terminal  
Tank and Loading Rack Information

<u>Tank No.</u>	<u>Type</u>	<u>Capacity (bbl)</u>	<u>Product</u>	<u>Dimensions (ft)</u>
#1	Cone	80,000	No. 2 Oil	120Ø X 40
#2	Cone	55,000	No. 6 Oil	100Ø X 40
#3	Cone	35,000	Jet A	80Ø X 40
#4	Cone	20,000	AC-20	60Ø X 40
#5	Cone	1,200	AC-20	19Ø X 24
#6	Cone	20,000	AC-20	60Ø X 40
#7	Internal Float	55,000	Gasoline	100Ø X 40
#8	Internal Float	35,000	Gasoline	80Ø X 40
#9	Internal Float	35,000	Gasoline	80Ø X 40
#10	Cone	3,000	RC-70	30Ø X 24
#11	Cone	3,000	RC-70	30Ø X 24
#12	Cone	9,000	No. 2 Oil	40Ø X 40
#13	Cone	9,000	No. 2 Oil	40Ø X 40
#14	Cone	1,500	AC-20	21Ø X 24
#15	Ext. Float	55,000	Gasoline	100Ø X 40
#17	Internal Float	100,000	Gasoline	143Ø X 42
#18	Internal Float	100,000	Gasoline	143Ø X 42

Loading Racks:

<u>South</u>	<u>North</u>
3 Gasoline	2 Diesel
1 Diesel	1 Bunker
1 Jet Kerosene	2 Asphalt
	1 Jet Kerosene

Notes: (1) No Tank 16

TABLE 2

Gasoline Storage Tank Information  
-Summary of Standing/Withdrawal Emissions-

Tank	Type	Capacity (bbls)	Dimensions (ft)	Throughput (bbls/yr)	Losses (lbs/yr)		
					Standing	Withdrawal	Total
7	int float	55,000	100ø X 40	521,053	1,493	41	1,534
8	int float	35,000	80ø X 40	331,579	1,195	33	1,228
9	int float	35,000	80ø X 40	331,579	1,195	33	1,228
15	ext float	55,000	100ø X 40	521,053	136,260	41	136,301
17	int float	100,000	143ø X 42	947,368	2,136	53	2,189
18	int float	100,000	143ø X 42	947,368	2,136	53	2,189
-	-	380,000	-	3,600,000	144,415	254	144,669

Note: (1) Detailed calculations for gasoline standing/withdrawal losses presented in Appendix I following applications.

TABLE 3

Loading Losses  
(South Loading Rack) (1)

<u>Product</u>	<u>Emissions</u>		<u>Potential Emissions</u>	
	Maximum Hourly <u>(lbs/hr)</u>	Actual Annual <u>(T/yr)</u>	Maximum Hourly <u>(lbs/hr)</u>	Actual Annual <u>(T/yr)</u>
No. 2 Oil	0.766	0.124	0.766	0.124
Jet Kerosene	0.919	0.008	0.919	0.008
Gasoline	<u>62.21</u>	<u>37.33</u>	<u>746.51</u>	<u>447.91</u>
	63.89	37.46	748.20	448.04

Note: (1) Vapor recovery system services only the three gasoline loading positions.

ENVIRONMENTAL CONSULTANTS - ENGINEERS - ARCHITECTS, INC.  
MIAMI, FLORIDA

Job Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/21/82  
DESCRIPTION Port Canaveral - Hydrocarbon CHECKED BY KML DATE \_\_\_\_\_  
Storage Emissions SHEET 1 OF 14

I. Air Pollution Source Permit Application  
Gasoline Storage/Transfer Hydrocarbon Emission  
Calculations

LEONARD E. GLANIC ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/21/82  
DESCRIPTION Port Canaveral - Hydrocarbon CHECKED BY KML DATE \_\_\_\_\_  
Storage Emissions SHEET 2 OF 14

Gasoline Storage Tank Information

-Storage Tank Characteristics-

Tank	Type	Capacity (bbls)	Dimensions (ft)	Throughput (bbls/yr)
7	int float	55,000	100Ø X 40	521,053
8	int float	35,000	80Ø X 40	331,579
9	int float	35,000	80Ø X 40	331,579
15	ext float	55,000	100Ø X 40	521,053
17	int float	100,000	143Ø X 42	947,368
18	int float	100,000	143Ø X 42	947,368
-	-	380,000	-	3,600,000

Notes:

- (1) Total gasoline throughput - 300,000 barrels per month  
3,600,000 barrels per year
- (2) Throughput per tank based on tank volume

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/21/82  
 DESCRIPTION Port Canaveral - Tank CHECKED BY KML DATE \_\_\_\_\_  
Emissions SHEET 3 OF 14

### A. Breathing and Standing Losses

$$L_s = K_s V^N P^* D M_v K_e E_f \quad [lb/yr]$$

$K_s$  = seal factor ( $lb\text{-mole}/(ft(mi/hr)^N yr)$ )

$V$  = avg. wind speed (mi/hr)

$N$  = seal related wind speed exponent

$P^*$  = vapor pressure function

$D$  = tank diameter

$M_v$  = avg. vapor molecular weight ( $lb/lb\text{-mole}$ )

$K_e$  = product factor

$E_f$  = secondary seal factor

$P_A$  = average atmospheric pressure (psia) = 14.7

### Climatological Data\*

$$T_{avg\ max} = 79^\circ F$$

$$T_{avg\ min} = 68^\circ F$$

$$T_{avg\ mean} = 73^\circ F$$

$$V = 8.1 \text{ mi/hr}$$

\* Source: NOAA Climatological data for Patrick AFB (Cocoa Beach).

ENVIRONMENTAL CONSULTING ENGINEERS & SCIENTISTS, INC.  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/21/82  
 DESCRIPTION Port Conaveral - Tank CHECKED BY KML DATE \_\_\_\_\_  
Emissions SHEET 4 OF 14

### Tank 7

internal float - gasoline

$K_s = 0.7$  } seals are vapor mounted resilient  
 $N = 0.4$  } type seals - primary

$P = 6.4$  psia  $P_A = 14.7$  psia

$P^* = 0.14$

$D = 100'$

$M_v = 66$

$K_c = 1.0$

$E_f = 1.0$

$$L_s = K_s V^N P^* D M_v K_c E_f \quad [lb/yr]$$

$$L_s = (0.7)(8.1)^{0.4} (0.14)(100)(66)(1)(1)$$

$$L_s = 1,493 \quad lbs/yr = 0.747 \text{ tns/yr} = 0.17 \text{ lbs/hr}$$

### Tank 8

internal float - gasoline

$K_s = 0.7$  } vapor mounted resilient seals -  
 $N = 0.4$  } primary only

$P^* = .14$

$D = 80'$

$M_v = 66$

$K_c = 1.0$

$E_f = 1.0$

$$L_s = (0.7)(8.1)^{0.4} (0.14)(80)(66)(1)(1)$$

$$L_s = 1,195 \quad lbs/yr. = 0.598 \text{ tns/yr} = 0.14 \frac{lbs}{hr}$$



W. W. WILSON & ASSOCIATES ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 80141 COMPUTED BY JJM DATE 6/21/82  
DESCRIPTION Port Conaveral - Tank CHECKED BY KML DATE \_\_\_\_\_  
Emissions SHEET 5 OF 14

### Tank 9

internal float - gasoline

$$K_s = 0.7$$

$$N = 0.4$$

$$P = 6.4$$

$$P^* = 0.14$$

$$D = 80$$

$$M_v = 66$$

$$K_c = 1.0$$

$$E_f = 1.0$$

$$L_s = (0.7)(8.1)^{0.4} (0.14)(80)(66)(1)(1)$$

$$L_s = 1,195 \text{ lbs/yr.} = 0.598 \text{ tns/yr} = 0.14 \text{ lbs/hr}$$

### Tank 15

external float - gasoline

$$K_s = 1.2$$

$$N = 2.3$$

$$P = 6.4 \text{ psia} \quad P_a = 14.7 \text{ psia}$$

$$P^* = 0.14$$

$$D = 100'$$

$$M_v = 66$$

$$K_c = 1.0$$

$$E_f = 1.0$$

$$L_s = (1.2)(8.1)^{2.3} (0.14)(100')(66)(1)(1)$$

$$L_s = 136,260 \text{ lbs/yr} = 68.13 \text{ tns/yr} = 15.6 \frac{\text{lbs}}{\text{hr}}$$

ENVIRONMENTAL PROTECTION AGENCY - CONTRACT NO. 68-01-0001-0001, INC.  
MIAMI, FLORIDA

Client Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/21/82  
DESCRIPTION Port Canaveral - Tank CHECKED BY KML DATE \_\_\_\_\_  
Emissions SHEET 6 OF 14

Tank 17

internal float - gasoline

$$K_s = 0.7$$

$$N = 0.4$$

$$P = 6.4$$

$$P^* = 0.14$$

$$D = 143$$

$$M_v = 66$$

$$K_c = 1.0$$

$$E_f = 1.0$$

$$L_s = (0.7)(8.1)^4(0.14)(143)(66)(1)(1)$$

$$L_s = 2,136 \text{ lbs/yr} = 1.068 \text{ tons/yr} = 0.24 \text{ lbs/hr}$$

Tank 18

internal float - gasoline

$$K_s = 0.7$$

$$N = 0.4$$

$$P = 6.4$$

$$P^* = 0.14$$

$$D = 143$$

$$M_v = 66$$

$$K_c = 1.0$$

$$E_f = 1.0$$

$$L_s = (0.7)(8.1)^4(0.14)(143)(66)(1)(1)$$

$$L_s = 2,136 \text{ lbs/yr} = 1.068 \text{ tons/yr} = 0.24 \text{ lbs/hr}$$

$$\begin{aligned} \text{Total Standing Losses (gasoline)} &= \underline{\underline{144,415 \text{ lbs/yr}}} \\ &= 72.21 \text{ tons/yr} = 16.49 \text{ lbs/hr} \end{aligned}$$

ENVIRONMENTAL ENGINEERS - SCIENTISTS, INC.  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
 DESCRIPTION Port Canaveral - Tank Emissions CHECKED BY KML DATE \_\_\_\_\_  
 SHEET 7 OF 14

## B. Working and Withdrawal Losses:

$$\text{Withdrawal Loss: } L_w = \frac{(0.943)(Q)(c)(w_L)}{D}$$

Q = average thpt (bbls/yr)

c = clingage factor (bbl/1000 ft<sup>2</sup>)

w<sub>L</sub> = liquid density (lb/gal)

D = tank diameter (ft.)

### Tank 7

$$Q = 521,053 \text{ bbls/yr}$$

$$c = 0.0015$$

$$w_L = 5.6$$

$$D = 100'$$

$$L_w = \frac{(0.943)(Q)(c)(w_L)}{D}$$

$$L_w = \frac{(0.943)(521,053)(.0015)(5.6)}{100'}$$

$$L_w = 41.3 \text{ lbs/yr} = 0.02 \text{ tns/yr} = 0.005 \frac{\text{lbs}}{\text{hr}}$$

W. W. L. D. CHEMICAL ENGINEERS - SCIENTISTS, INC.  
 SAN FRANCISCO

Belcher Oil Company, JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
 DESCRIPTION Port Canaveral - Tank Emissions CHECKED BY KML DATE \_\_\_\_\_  
 SHEET 8 OF 14

### Tank 8

$$Q = 331,579 \text{ bbls/yr}$$

$$c = 0.0015$$

$$W_L = 5.6$$

$$D = 80'$$

$$L_w = \frac{(0.943)(331,579)(.0015)(5.6)}{80'}$$

$$L_w = 32.8 \text{ lbs/yr.} = 0.016 \text{ tons/yr} = 0.004 \text{ lbs/hr}$$

### Tank 9

$$Q = 331,579 \text{ bbls/yr}$$

$$c = 0.0015$$

$$W_L = 5.6$$

$$D = 80'$$

$$L_w = \frac{(0.943)(331,579)(.0015)(5.6)}{80'}$$

$$L_w = 32.8 \text{ lbs/yr.} = 0.016 \text{ tons/yr} = 0.004 \text{ lbs/hr}$$

### Tank 15

$$Q = 521,053 \text{ bbls/yr}$$

$$c = 0.0015$$

$$W_L = 5.6$$

$$D = 100'$$

$$L_w = \frac{(0.943)(521,053)(.0015)(5.6)}{100'}$$

$$L_w = 44.3 \text{ lbs/yr.} = 0.021 \text{ tons/yr} = 0.005 \text{ lbs/hr}$$

W. W. WILCOX, INC. ENGINEERS - SCIENTISTS, INC.  
 MIAMI, FLORIDA

JOE Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
 DESCRIPTION Port Conaveral - Tank CHECKED BY KML DATE \_\_\_\_\_  
Emissions SHEET 9 OF \_\_\_\_\_

Tank 17

$$Q = 947,368$$

$$C = .0015$$

$$W_L = 5.6$$

$$D = 143'$$

$$L_w = \frac{(0.943)(947,368)(.0015)(5.6)}{143'}$$

$$L_w = 52.5 \text{ lbs/yr.} = .026 \frac{\text{tms}}{\text{yr}} = .006 \frac{\text{lbs}}{\text{hr}}$$

Tank 18

$$Q = 947,368$$

$$C = 0.0015$$

$$W_L = 5.6$$

$$D = 143'$$

$$L_w = \frac{(0.943)(947,368)(.0015)(5.6)}{143'}$$

$$L_w = 52.5 \text{ lbs/yr} = .026 \frac{\text{tms}}{\text{yr}} = .006 \frac{\text{lbs}}{\text{hr}}$$

Total Withdrawal Losses (gasoline) = 253.2 lbs/yr.

ENVIRONMENTAL CONSULTING ENGINEERS - CONSULTANTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET 10 OF 14

### c. Loading Losses: (South Loading Rack)

$$L_L = \frac{12.46 \text{ SPM}}{T} \left[ 1 - \frac{\text{EFF}}{100} \right] \left[ \frac{16s}{10^{3.61}} \right]$$

S = saturation factor, submerged loading, normal dedicated service

P = true vapor pressure (psia)

T = temperature of liquid loaded (°R)

M = vapor molecular weight (lb/lb-mole)

EFF = vapor recovery unit efficiency

#### Notes:

- (1) Product data and loading rates from Belcher Oil Company
- (2) Loading loss equation from U.S. Environmental Protection Agency Publication AP-42.

## Section III Air Pollution Sources and Control Devices Airborne Contaminants Emitted

### I. Maximum Hourly Emission

- maximum throughput flow per loading position - 700 gal/min.

W. W. L. D. E. G. A. L. L. ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET 11 OF 14

1) No. 2 Oil:

1 loading position  $\therefore$  max flow is 700 gal/min  
or 42,000 gal/hr

$$S = 0.6$$

$$P = 0.010$$

$$T = 533^{\circ}R$$

$$M = 130$$

$$L_L = \frac{(12.46)(.6)(.010)(130)}{533} \left( \frac{\text{lbs}}{10^3 \text{ gal}} \right) (42,000 \text{ gal/hr})$$

$$L_L = 0.766 \text{ lbs/hr}$$

2) Jet Kerosene:

1 loading position  $\therefore$  max flow is 700 gal/min  
or 42,000 gal/hr.

$$S = .6$$

$$P = .012$$

$$T = 533$$

$$M = 130$$

$$L_L = \frac{(12.46)(.6)(.012)(130)}{533} \left( \frac{\text{lbs}}{10^3 \text{ gal}} \right) (42,000 \text{ gal/hr.})$$

$$L_L = 0.919 \text{ lbs/hr.}$$

(3) Gasoline:

3 loading positions  $\therefore$  max flow is 2100 gal/min  
or 126,000 gal/hr

$$S = 1 \text{ (vapor recovery unit)}$$

$$P = 6.4$$

$$T = 533$$

$$M = 66$$

$$L_L = \frac{(12.46)(1)(6.4)(66)}{533} \left( \frac{\text{lbs}}{10^3 \text{ gal}} \right) (1-.95)(126,000 \text{ gal/hr})$$

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MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET 12 OF 14

$$L_L = 62.21 \text{ lbs/hr}$$

$$\text{Total Maximum Emission} = \underline{\underline{63.89 \text{ lbs/hr}}}$$

## II Actual Annual Emissions

(2) No. 2 Oil :  $Q = 324,000 \text{ bbls/yr}$

$$L_L = \frac{(12.46)(.6)(.010)(130)}{533} \frac{\text{lbs}}{10^3 \text{ gal}} \times 324,000 \times 42$$

$$L_L = 248.1 \text{ lbs/yr} = 0.124 \text{ tons/yr}$$

(2) Jet Kerosene :  $Q = 16,800 \text{ bbls/yr}$

$$L_L = \frac{(12.46)(.6)(.012)(130)}{533} \left( \frac{\text{lbs}}{10^3 \text{ gal}} \right) \times 16,800 \times 42$$

$$L_L = 15.44 \text{ lbs/yr} = 0.0077 \text{ tons/yr}$$

(3) Gasoline :  $Q = 3.6 \times 10^6 \text{ bbls/yr}$

$$L_L = \frac{(12.46)(1)(6.4)(66)}{533} \frac{\text{lbs}}{(10^3 \text{ gal})} (1-.95)(3.6 \times 10^6)(42)$$

$$L_L = 74,651 \text{ lbs/yr} = 37.33 \text{ tons/yr}$$

$$\text{Total Actual Emissions} = 74,915 \frac{\text{lbs}}{\text{yr}} = \underline{\underline{37.46 \frac{\text{tons}}{\text{yr}}}}$$



E. J. WALSH & F. W. GILBERT ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET 13 OF 14

### III Allowable Emissions \*

$$L_L = (80 \text{ mg/l}) (3.785 \text{ l/gal}) \left( \frac{16}{454,592} \text{ mg} \right) (126,000 \text{ gal/hr})$$

$$L_L = 83.93 \text{ lbs/hr.}$$

\* Allowable Emissions calculated for gasoline products only - No 2 oil and Jet Kerosene not considered.

### IV Potential Emissions

#### Maximum hourly

(1) No. 2 Oil:  $L_L = 0.766 \text{ lbs/hr}$

(2) Jet Kerosene:  $L_L = 0.919 \text{ lbs/hr}$

(3) Gasoline:

$$L_L = \frac{(12.46)(6)(6.4)(66)(16)}{533} \left( \frac{16}{10^6 \text{ gal}} \right) (126,000 \text{ gal/hr})$$

$$L_L = 746.51 \text{ lbs/hr}$$

$$\text{Total Potential Maximum} = \underline{\underline{748.20 \text{ lbs/hr}}}$$

ENGINEERING - SOLUTIONS, INC.  
MIAMI, FLORIDA

JOE Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 6/22/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET 14 OF 14

### Annual Potential

(1) No. 2 Oil :  $L_L = 0.124 \text{ tons/yr}$

(2) Jet Kerosene:  $L_L = 0.0077 \text{ tons/yr}$

(3) Gasoline :

$$L_L = \frac{(12.46)(.6)(6.4)(66)(16s)}{533} \left( \frac{3.6 \times 10^6}{10^3 \text{ gal}} \right) (42)$$

$$L_L = 895,814 \text{ lbs/yr} = 447.91 \frac{\text{tons}}{\text{yr}}$$

$$\text{Total Annual Potential} = 896,077 \frac{\text{lbs}}{\text{yr}} = \underline{\underline{448.04 \frac{\text{tons}}{\text{yr}}}}$$

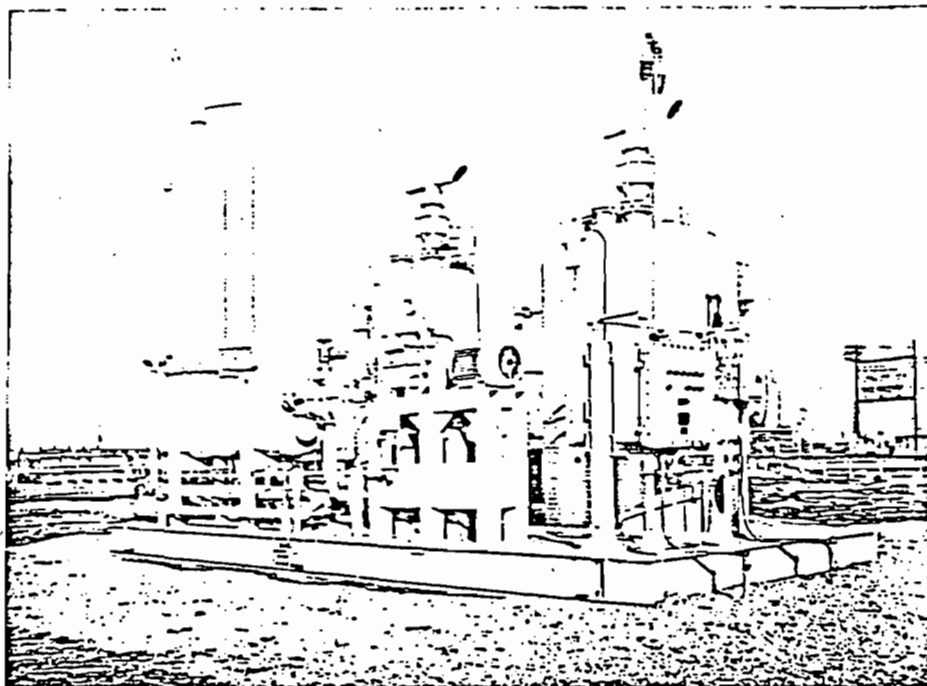
II. VAPOR RECOVERY SYSTEM-  
MANUFACTURER'S PROCESS  
DESCRIPTION



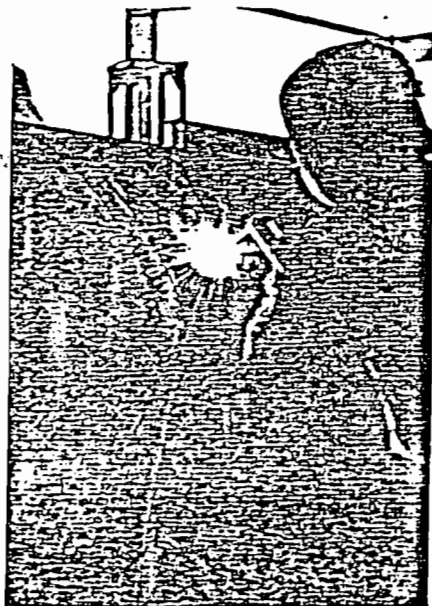
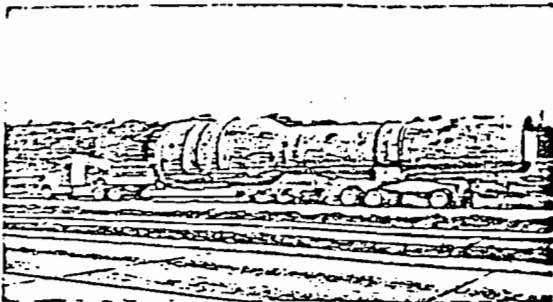
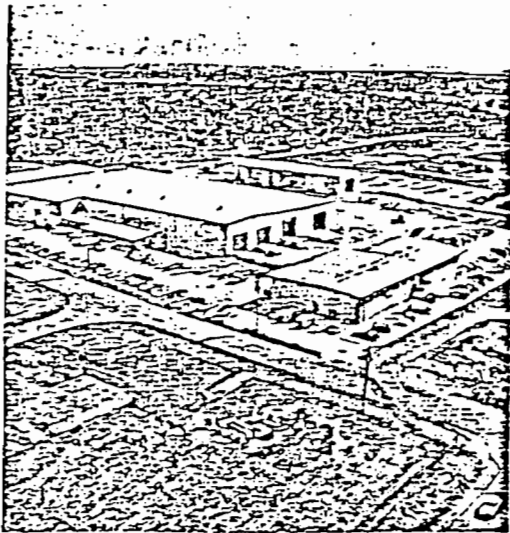
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# The McGill Adsorption/Absorption Gasoline Vapor Recovery System

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# McGILL INCORPORATED THE TECHNOLOGY PEOPLE



McGILL INCORPORATED  
P.O. Box 9667  
Tulsa, OK 74107  
918-445-2431  
Telex 79-6434

BROCK, EASLEY, INC.  
80 Inverness Drive East  
Englewood, Colorado 80112  
303-773-2333  
Telex 910-935-0119

Other Offices in

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EQUIPMENT SPECIALISTS, INC.  
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Clark, New Jersey 07066  
201-388-8300  
Telex 13-8927

GOBLE & BROWN, INC.  
6400 SW Freeway, Suite 300  
Houston, Texas 77074  
713-780-4448  
Telex 79-1071

Other Offices in

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MYERS-AUBREY COMPANY  
7477 East 46th Place  
P.O. Box 45370  
Tulsa, Oklahoma 74145  
918-622-3500  
Telex 79-6075

Other Offices in

- St. Louis, Missouri 314-569-1522
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CROMPTON CLOSE  
BASILDON, ESSEX  
UK SS14 3BA  
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Telex 99231 a/c 851

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12-38 Talavera Rd.  
P.O. Box 63  
North Ryde, NSW 2113  
Australia  
phone — 888-6577  
Telex AA20832 a/c 790

ADSORPTION/ABSORPTION GASOLINE RECOVERY SYSTEM  
PROCESS DESCRIPTION

STEP 1 - EQUALIZE -

In Step 1, air contaminated with gasoline fumes (inlet vapor) flows from a loading or storage facility to two carbon adsorption beds, "A" and "B". Bed "B" has been receiving inlet vapor for several minutes and a considerable portion of the carbon is saturated with recovered hydrocarbon. Bed "A" has just completed a regeneration process and has little recovered hydrocarbons adsorbed on its carbon. The air portion of the inlet vapors flows from beds "A" and "B" and to the atmosphere. Under normal conditions, this air contains less than 3000 ppm (v) of hydrocarbons (over 99% of the fumes have been removed from the inlet vapor to produce the clean air vent).

A liquid ring vacuum pump operates continuously while the system operates. The suction of the vacuum pump during the "Equalize Step" is atmospheric air which is drawn into the system across the minimum flow valve. Motive force for the liquid ring vacuum pump is water which is separated from the air in the separator and flows through the cooler and back to the vacuum pump. The cooler is a shell and tube heat exchanger which uses gasoline to cool the water. The air flows to the absorber after being separated from the water in the separator. The air is contacted with gasoline in the absorber and becomes saturated with hydrocarbons after which it passes out of the absorber and flows back to beds "A" and "B" after mixing with inlet vapor.

The gasoline which provides cooling in the cooler and contact with air in the absorber is pumped from gasoline storage. After passing through the cooler and absorber, the gasoline flows to a chamber of the separator which is separated from the vacuum pump cooling water by a weir. From this chamber, the gasoline is pumped back to the storage tank from which it was drawn originally.

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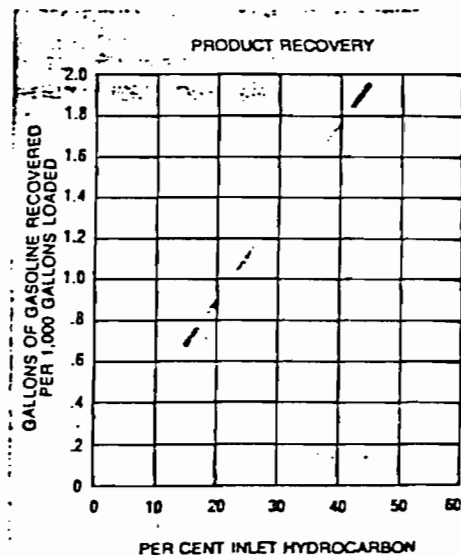
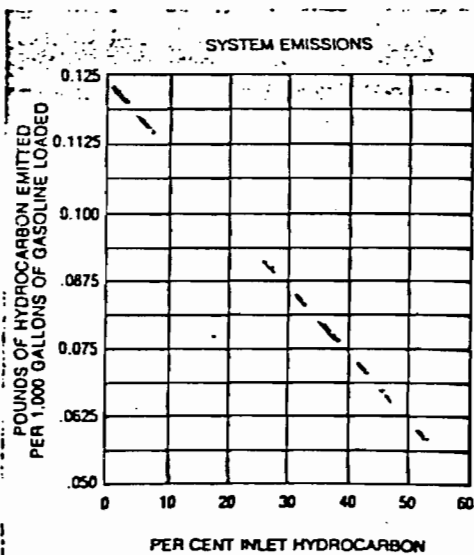
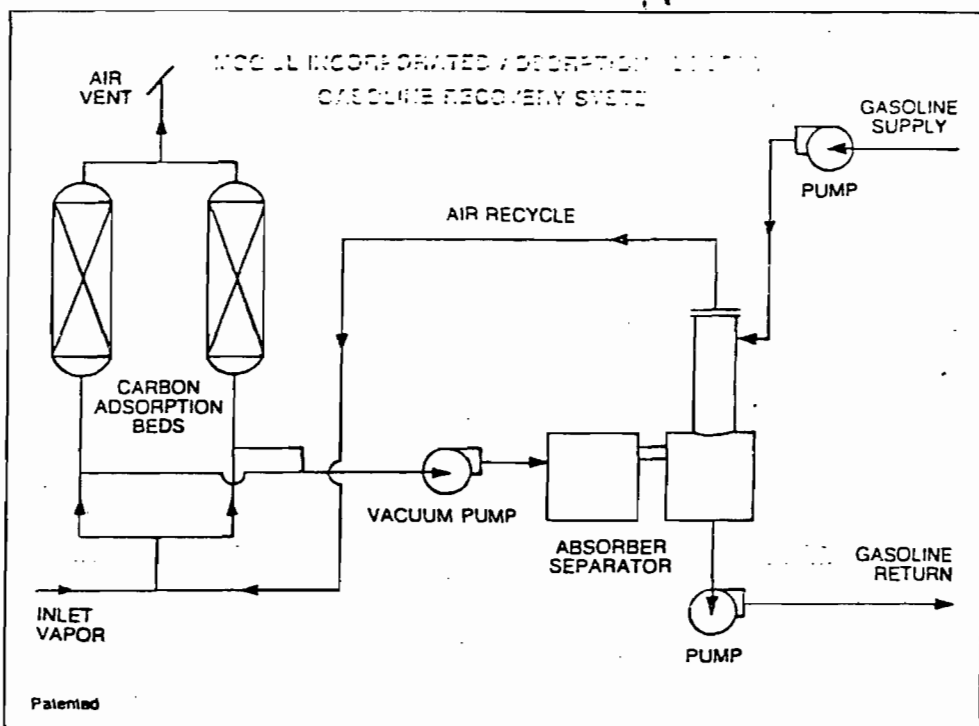
The basic operation utilizes dual activated carbon adsorption beds, which remove hydrocarbons from the incoming contaminated air. An absorber combines these hydrocarbons with gasoline from the bulk storage tank. The combined hydrocarbons and gasoline are then circulated back into the original storage tank.

Under normal conditions, the vented air from the McGill system contains less than 3000 ppm (v) of hydrocarbons, producing a clean air vent with over 99% of the fumes removed from the inlet vapor.

The Patented McGill  
Carbon Adsorption Recovery

McGill Incorporated developed the carbon Adsorption/Absorption Vapor Recovery System in 1976. And we patented it. It meets all EPA standards. It is working for many satisfied customers at refineries and bulk gasoline loading terminals. It is a remarkable success. By 1977 this patented system made McGill the undisputed industry leader in the gasoline vapor recovery field. This was no fluke or accident. But a direct result of the way we think; the way we approach a problem. With simplicity.

The simplest design is normally the most difficult to engineer. That's why so few process systems manage to incorporate this basic virtue. But McGill has always been dedicated to doing what no one else could do. We achieved simplicity. And simplicity means ease of operation, reliability, reduction of maintenance. It also means minimum operating expense, maximum operating efficiency. Is it any wonder a company would patent such a design?



STEP 2 - "A" BED PROCESSING  
"B" BED REGENERATING

In Step 2, all of the inlet vapor is directed through bed "A" by closing the inlet valve of bed "B". The outlet valve of bed "B" is also closed, and the suction valve which connects bed "B" to the liquid ring vacuum pump is opened. Hydrocarbons which were adsorbed on the carbon in bed "B" are removed by application of vacuum. A portion of these hydrocarbons condense in the liquid ring vacuum pump and float on the vacuum pump cooling water surface. These heavy hydrocarbons flow over a weir which divides the chambers of the separator, mix with gasoline, and are pumped to gasoline storage.

A portion of the hydrocarbons which are vacuumed from bed "B" flow through the separator as vapors and pass up the absorber. These hydrocarbon vapors are absorbed into the gasoline and are also pumped back to gasoline storage. A small amount of air is also vacuumed from bed "B". This air passes through the absorber, is saturated with gasoline, and flows to the inlet vapor stream.

STEP 3 - "A" BED PROCESSING  
"B" BED REGENERATING WITH PURGE

In Step 3, inlet vapors continue to flow only to bed "A" and hydrocarbons collect on the carbon surface. Most of the hydrocarbons have been removed from bed "B" and only the high boiling or "heavy" hydrocarbons remain on the carbon. The heavy hydrocarbons are removed from the carbon with hot air. The air flows from the atmosphere, across the purge valve, and through a heater. The heated air flows to bed "B" which is now at a pressure of about 25 mm Hg absolute. This hot air applied at low vacuum acts as a stripping agent to clean the heavy hydrocarbons from the carbon. The hydrocarbons removed by the hot air are blended into the gasoline as described in Step 2, and the hot air flows back to the inlet vapor line.

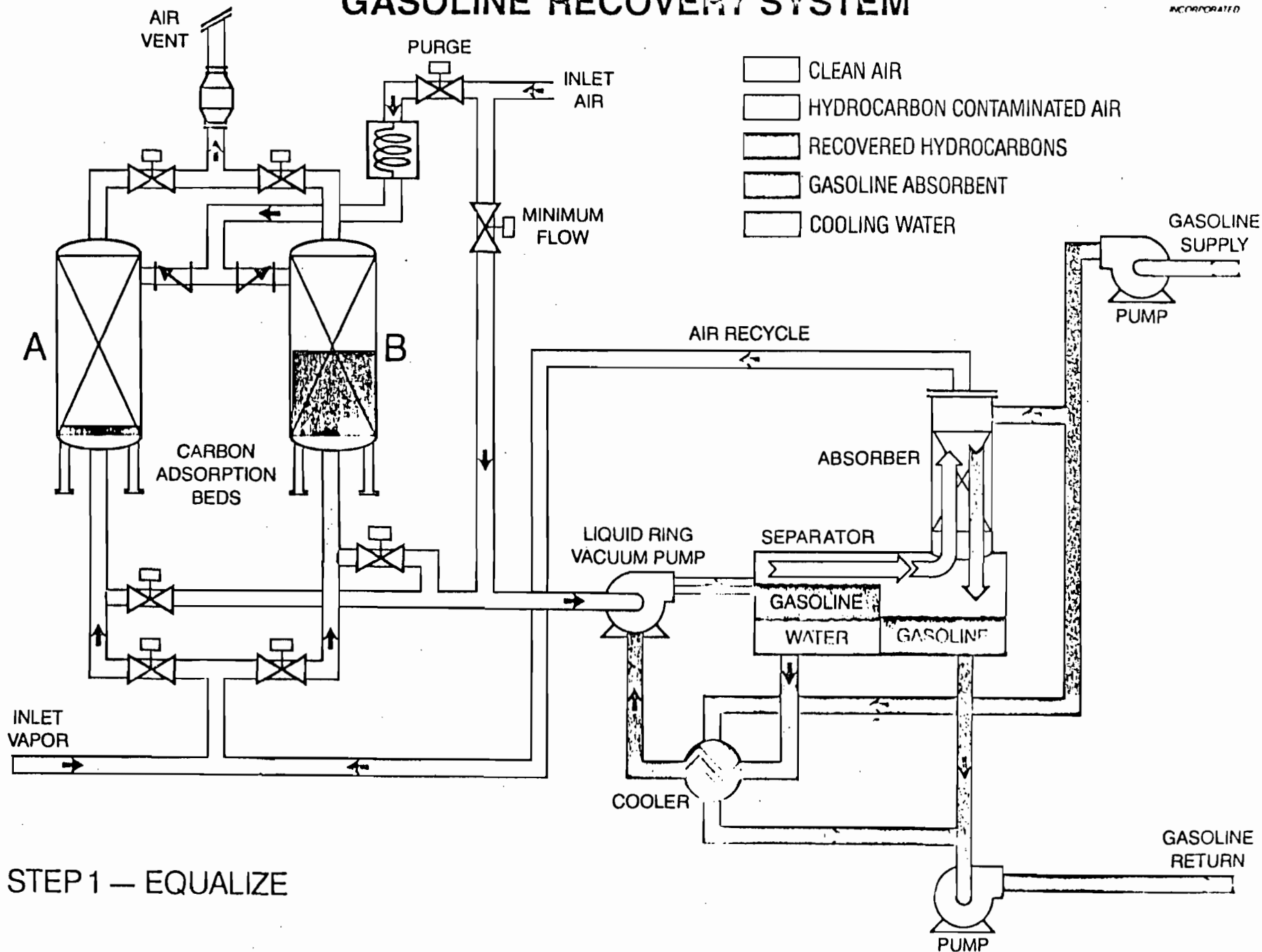
STEP 4 - EQUALIZE

Step 4 is identical to Step 1 except that bed "A" will be regenerated following Step 4. The system will continue to cycle for a short period of time after all loading stops in order to prepare the system for the next surge of loading.



# HYDROTECH ADSORPTION - ABSORPTION GASOLINE RECOVERY SYSTEM

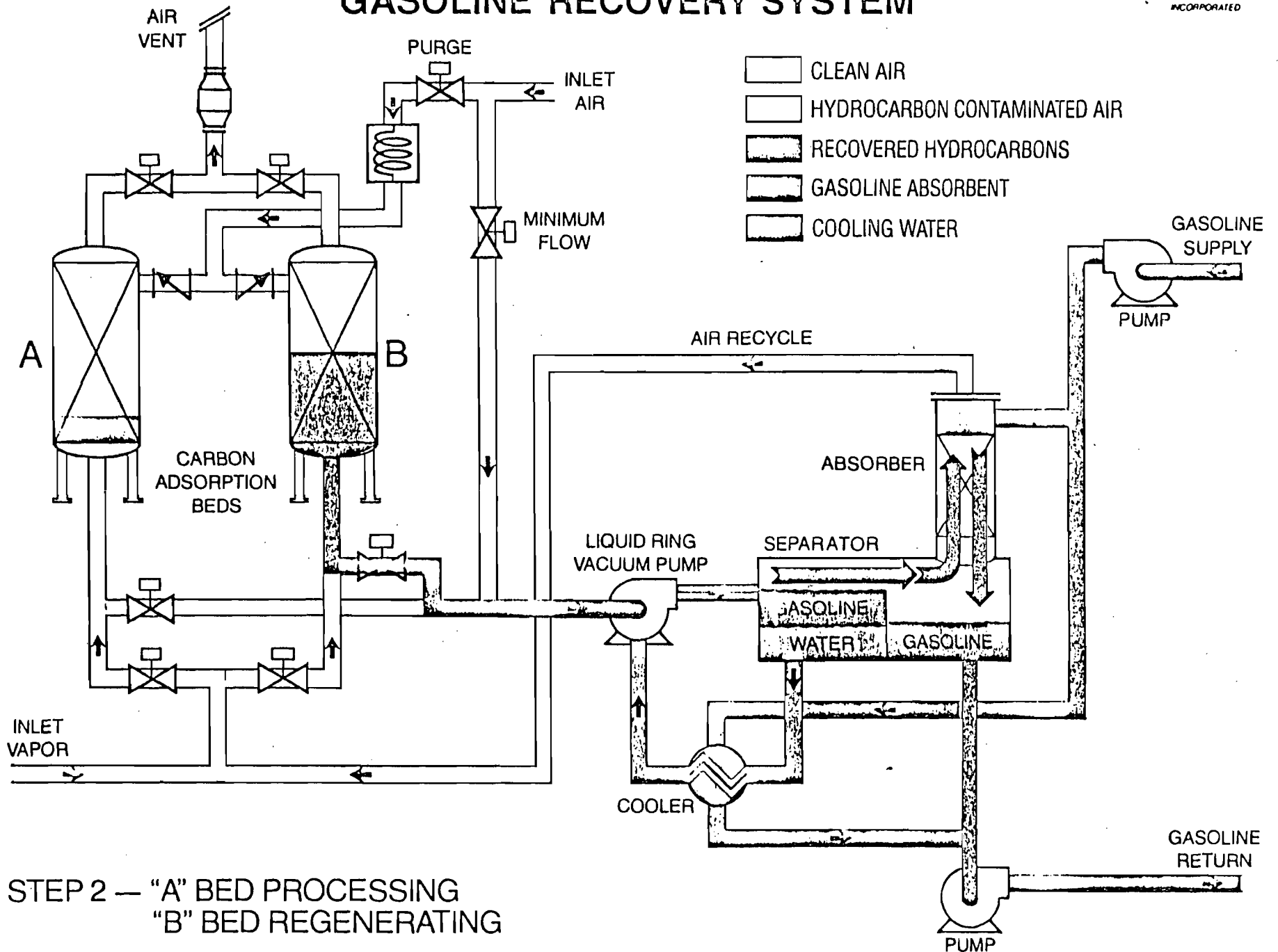
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STEP 1 - EQUALIZE

# HYDROTECH ADSORPTION – ABSORPTION GASOLINE RECOVERY SYSTEM

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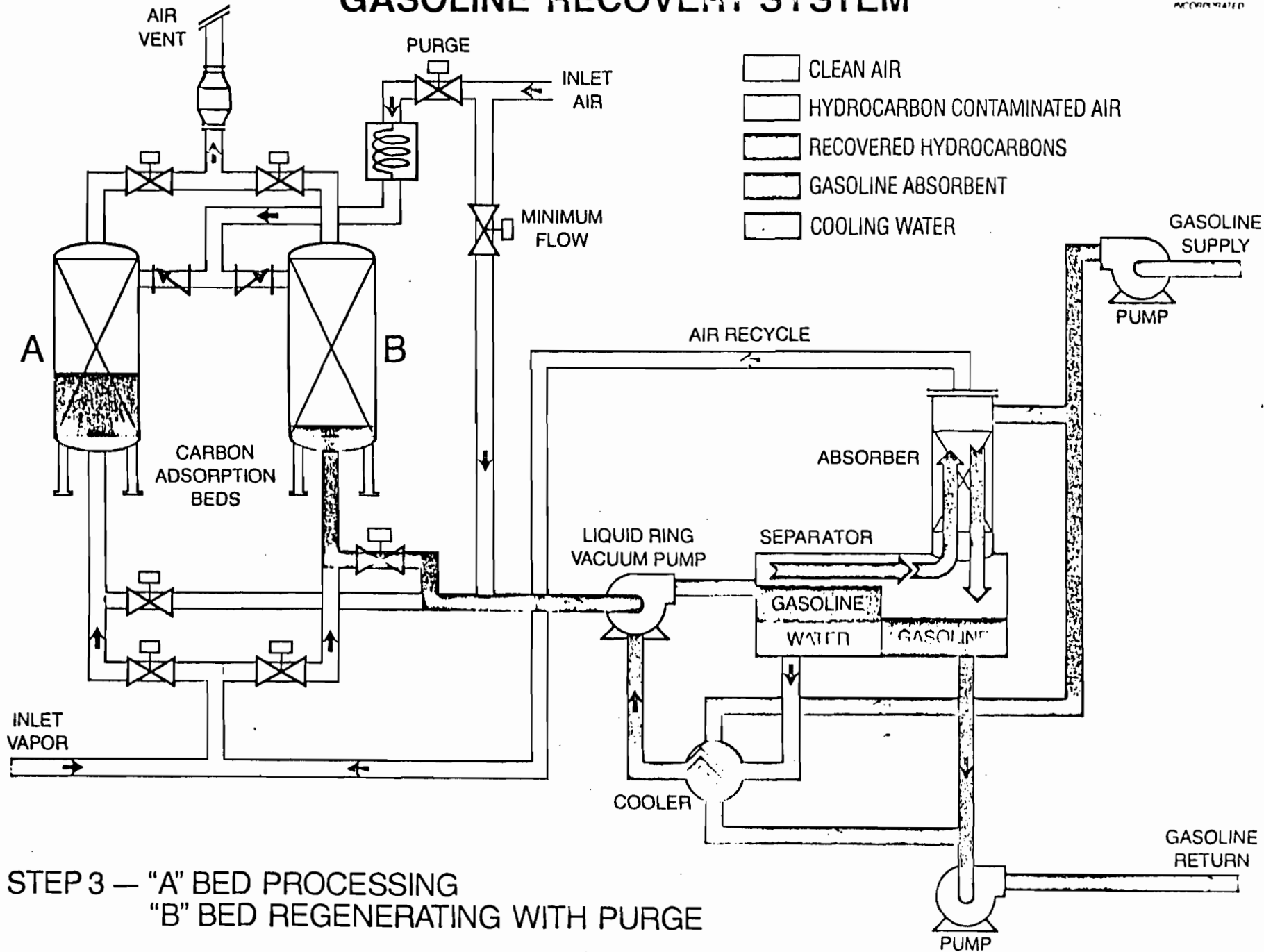


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# HYDROTECH ADSORPTION — ABSORPTION GASOLINE RECOVERY SYSTEM

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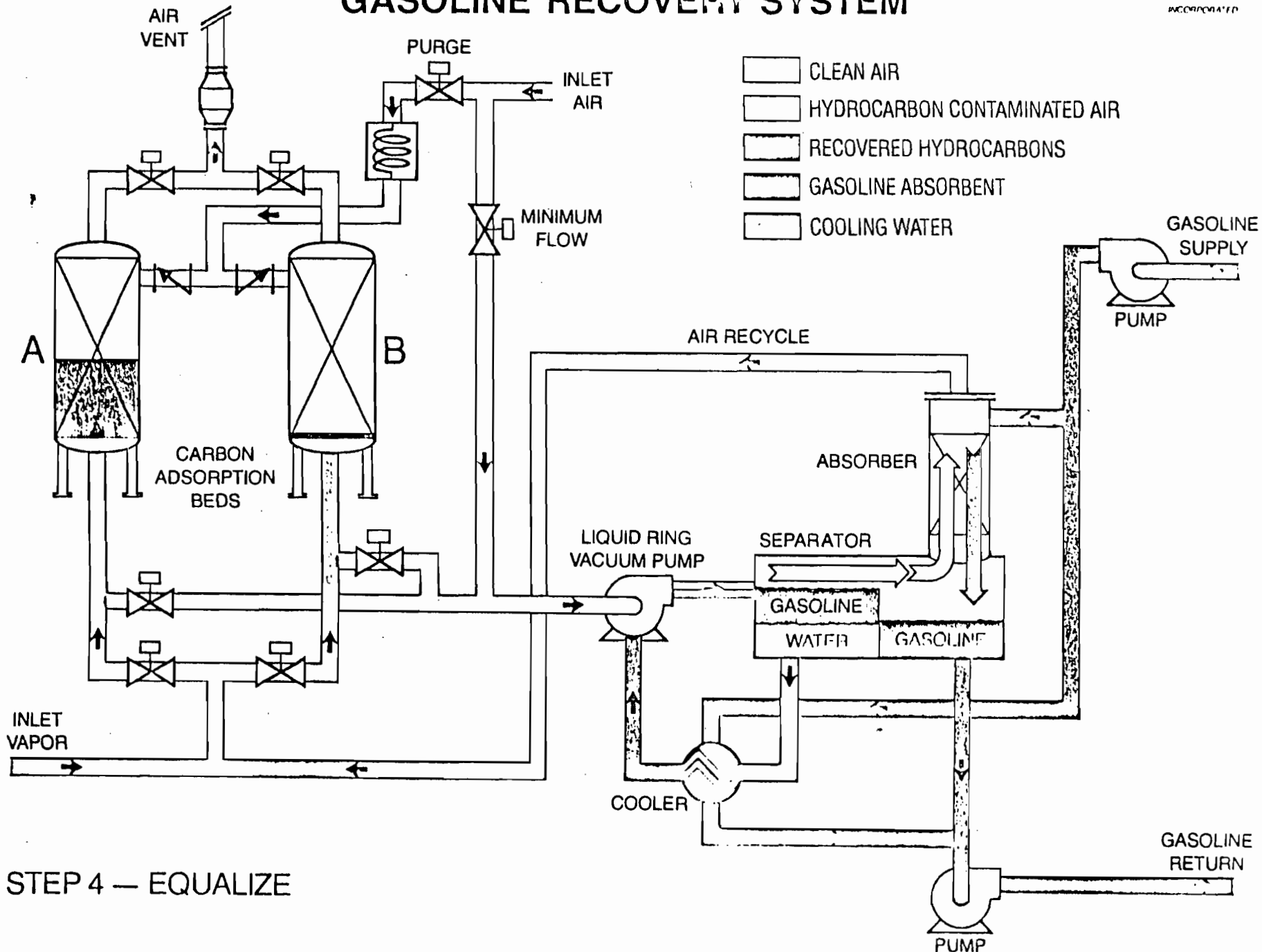
STEP 3 — "A" BED PROCESSING  
"B" BED REGENERATING WITH PURGE

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# HYDROTECH ADSORPTION — ABSORPTION GASOLINE RECOVERY SYSTEM

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AC 05-57476

AC 05-57476

**PAID**  
JUN 25 1982

SAINT JOHNS  
RIVER DISTRICT

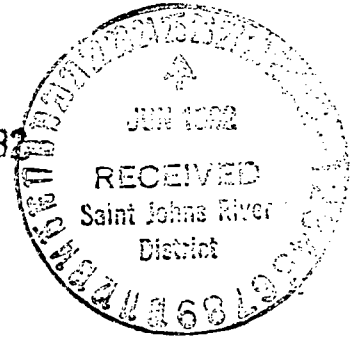


**DER**

JUL 14 1982

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

APPLICATION TO OPERATE/CONS **BAQM**  
AIR POLLUTION SOURCES



SOURCE TYPE: Petroleum Storage Tank [ ] New<sup>1</sup> [X] Existing<sup>1</sup>  
APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification  
COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Gasoline Storage Tank No. 7

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral  
UTM: East \_\_\_\_\_ North \_\_\_\_\_  
Latitude 28° 24' 20" N Longitude 80° 36' 09" W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer  
APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company

I certify that the statements made in this application for a Air Pollution Source Operation 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: [Signature]  
P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)

Date: 6/24/82 Telephone No. (305) 551-5444

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 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: [Signature]  
Kuang-Mei Lo  
Name (Please Type)

(Affix Seal)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)  
7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)

Florida Registration No. 21225 Date: 6/24/82 Telephone No. (305) 665-5736

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

Petroleum storage/transfer facility including tanks for gasoline service. These tanks are equipped with floating pan roofs. (See Figure 2 - Site Plan and Table 1 - Tank Information)

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

- Air Pollution Operation - Heaters - A005-9421, A005-9422, A005-9423

Issuance date: May 30, 1978 Expiration date: May 1, 1983

- Industrial Disposal Operation: Application submitted

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code?  Yes  No

F. Normal equipment operating time: hrs/day 24; days/wk 7; wks/yr 52; if power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: N/A

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

- |                                                                                                                                       |            |
|---------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. Is this source in a non-attainment area for a particular pollutant?                                                                | <u>No</u>  |
| a. If yes, has "offset" been applied?                                                                                                 | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?                                                                        | <u>N/A</u> |
| c. If yes, list non-attainment pollutants.                                                                                            | <u>N/A</u> |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.                                        | <u>No</u>  |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u>  |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?                                              | <u>No</u>  |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>  |

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

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

A. Raw Materials and Chemicals Used in your Process, if applicable: **Not Applicable**

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:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Standing	0.17	.747	Good practice	0.17	0.17	.747	Tanks
Withdrawal	.005	.02	in Accordance with FAC Section 17.2	.005	.005	.02	Tanks
<b>Total</b>	<b>0.175</b>	<b>.767</b>		<b>.175</b>	<b>.175</b>	<b>.767</b>	<b>Tanks</b>

D. Control Devices: (See Section V, Item 4) **Not Applicable**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable



E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contractor

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): Not Applicable

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.

Gas Flow Rate: \_\_\_\_\_ ACFM Gas Exit Temperature: \_\_\_\_\_ °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

SECTION IV: INCINERATOR INFORMATION Not Applicable

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

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**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. **Not Applicable**
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 calculation sheets)
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). (See attached calculation sheet)
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, etc.). (See Manufacturer's Description)
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 Manufacturer's Description)
6. An 8½" 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 Figure 2 - Site Plan)
7. An 8½" 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 Figure 1 - Location Map)
8. An 8½" 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 Figure 2 - Site Plan)

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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**      **Not Applicable**

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).

- |                                                                                                                                                                                                            |                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. Control Device/System:</li> <li>2. Operating Principles:</li> <li>3. Efficiency:*</li> <li>5. Useful Life:</li> <li>7. Energy:</li> <li>9. Emissions:</li> </ul> | <ul style="list-style-type: none"> <li>4. Capital Costs:</li> <li>6. Operating Costs:</li> <li>8. Maintenance Cost:</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|

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

\*Explain method of determining D 3 above.

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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant 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

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup>\* \_\_\_\_\_ 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.

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 <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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.

AC 05-57477



AC 05-57477

**PAID**

JUN 25 1982

SAINT JOHNS  
RIVER DISTRICT

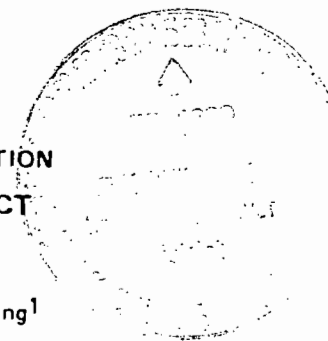
**DER**



JUL 14 1982

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

**BAOM**  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES



SOURCE TYPE: Petroleum Storage Tank  New<sup>1</sup>  Existing<sup>1</sup>

APPLICATION TYPE:  Construction  Operation  Modification

COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Gasoline Storage Tanks No. 8 and 9

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral

UTM: East \_\_\_\_\_ North \_\_\_\_\_  
Latitude 28° 24' 20" N Longitude 80° 36' 09" W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer

APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

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A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company

I certify that the statements made in this application for a Air Pollution Source Operation 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: [Signature]  
P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)

Date: 6/24/82 Telephone No. (305) 551-5444

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 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: [Signature]  
Kuang-Mei Lo  
Name (Please Type)

(Affix Seal)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)  
7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)

Florida Registration No. 21225 Date: 6/24/82 Telephone No. (305) 665-5736

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.  
Petroleum storage/transfer facility including tanks for  
gasoline service. These tanks are equipped with floating pan roofs.  
(See Figure 2 - Site Plan and Table 1 - Tank Information)

B. Schedule of project covered in this application (Construction Permit Application Only)  
 Start of Construction N/A Completion of Construction N/A

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.)  
N/A

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.  
- Air Pollution Operation - Heaters - A005-9421, A005-9422, A005-9423  
Issuance date: May 30, 1978 Expiration date: May 1, 1983  
- Industrial Disposal Operation: Application submitted

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No

F. Normal equipment operating time: hrs/day 24; days/wk 7; wks/yr 52; if power plant, hrs/yr \_\_\_\_\_;  
 if seasonal, describe: N/A

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

1. Is this source in a non-attainment area for a particular pollutant? No
  - a. If yes, has "offset" been applied? N/A
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
  - c. If yes, list non-attainment pollutants.  
N/A
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No
3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. No
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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

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

A. Raw Materials and Chemicals Used in your Process, if applicable: **Not Applicable**

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:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Standing	0.28	1.20	Good practice	0.28	0.28	1.20	Tanks
Withdrawal	.008	.032	in Accordance with FAC Section 17.2	.008	.008	.032	Tanks
<b>Total</b>	<b>.288</b>	<b>1.232</b>		<b>.288</b>	<b>.288</b>	<b>1.232</b>	<b>Tanks</b>

D. Control Devices: (See Section V, Item 4) **Not Applicable**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contract

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): Not Applicable

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.

Gas Flow Rate: \_\_\_\_\_ ACFM Gas Exit Temperature: \_\_\_\_\_ °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

**SECTION IV: INCINERATOR INFORMATION Not Applicable**

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\* If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- Total process input rate and product weight – show derivation. **Not Applicable**
- 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 calculation sheets)
- Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). (See attached calculation sheet)
- 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, etc.). (See Manufacturer's Description)
- 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 Manufacturer's Description)
- An 8½" 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 Figure 2 - Site Plan)
- An 8½" 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 Figure 1 - Location Map)
- An 8½" 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 Figure 2 - Site Plan)

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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**      **Not Applicable**

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:
- 5. Useful Life:
- 6. Operating Costs:
- 7. Energy:
- 8. Maintenance Cost:
- 9. Emissions:

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.

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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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



(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant 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

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup> \_\_\_\_\_ 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.

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 <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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.

AC 05-57478

AC 05-57478

**PAID**

JUN 25 1982

SAINT JOHNS  
RIVER DISTRICT

**DER**

JUL 14 1982



**BAQM**

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Petroleum Storage Tank [ ] New<sup>1</sup> [X] Existing<sup>1</sup>  
APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification  
COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Gasoline Storage Tank No. 15

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral  
UTM: East \_\_\_\_\_ North \_\_\_\_\_  
Latitude 28 ° 24 ' 20" N Longitude 80 ° 36 ' 09 " W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer  
APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company  
I certify that the statements made in this application for a Air Pollution Source Operation  
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: [Signature]  
P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)  
Date: 6/24/82 Telephone No. (305) 551-5444

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 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: [Signature]  
Kuang-Mei Lo  
Name (Please Type)

(Affix Seal)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)  
7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)  
Date: 6/24/82 Telephone No. (305) 665-5736

Florida Registration No. 21225

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

Petroleum storage/transfer facility including tanks for  
gasoline service. These tanks are equipped with floating pan roofs.  
(See Figure 2 - Site Plan and Table 1 - Tank Information)

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

- Air Pollution Operation - Heaters - A005-9421, A005-9422, A005-9423

Issuance date: May 30, 1978 Expiration date: May 1, 1983

- Industrial Disposal Operation: Application submitted

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr \_\_\_\_\_ ;  
 if seasonal, describe: N/A

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

1. Is this source in a non-attainment area for a particular pollutant? No

a. If yes, has "offset" been applied? N/A

b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A

c. If yes, list non-attainment pollutants.  
N/A

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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

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

A. Raw Materials and Chemicals Used in your Process, if applicable: **Not Applicable**

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

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

- Total Process Input Rate (lbs/hr): \_\_\_\_\_
- Product Weight (lbs/hr): \_\_\_\_\_

C. Airborne Contaminants Emitted:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Standing	15.6	68.13	Good practice	15.6	15.6	68.13	Tanks
Withdrawal	.005	.021	in Accordance with FAC Section 17.2	.005	.005	.021	Tanks
<b>Total</b>	<b>15.605</b>	<b>68.151</b>		<b>15.605</b>	<b>15.605</b>	<b>68.151</b>	<b>Tanks</b>

D. Control Devices: (See Section V, Item 4) **Not Applicable**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contractor

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): Not Applicable

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.

Gas Flow Rate: \_\_\_\_\_ ACFM Gas Exit Temperature: \_\_\_\_\_ °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

SECTION IV: INCINERATOR INFORMATION Not Applicable

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. **Not Applicable**
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 calculation sheets)
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). (See attached calculation sheets)
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, etc.). (See Manufacturer's Description)
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 Manufacturer's Description)
6. An 8½" 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 Figure 2 - Site Plan)
7. An 8½" 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 Figure 1 - Location Map)
8. An 8½" 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 Figure 2 - Site Plan)



- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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**      **Not Applicable**

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: | 4. Capital Costs:    |
| 2. Operating Principles:  | 6. Operating Costs:  |
| 3. Efficiency: *          | 8. Maintenance Cost: |
| 5. Useful Life:           |                      |
| 7. Energy:                |                      |
| 9. Emissions:             |                      |

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

\*Explain method of determining D 3 above.

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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power — KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant 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

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup>• \_\_\_\_\_ 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.

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 <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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.

AC 05-57479

**P A I D**  
JUN 25 1982



**DER**  
JUL 14 1982  
**BAQM**  
RECEIVED  
SAINT JOHNS RIVER DISTRICT

SAINT JOHNS  
RIVER DISTRICT

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Petroleum Storage Tank  New<sup>1</sup>  Existing<sup>1</sup>  
APPLICATION TYPE:  Construction  Operation  Modification  
COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Gasoline Storage Tanks No. 17 and 18

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral  
UTM: East \_\_\_\_\_ North \_\_\_\_\_  
Latitude 28 ° 24 ' 20 " N Longitude 80 ° 36 ' 09 " W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer  
APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company

I certify that the statements made in this application for a Air Pollution Source Operation 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: [Signature]  
P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)  
Date: 6/24/82 Telephone No. (305) 551-5444

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 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: [Signature]  
Kuang-Mei Lo  
Name (Please Type)

(Affix Seal)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)  
7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)

Florida Registration No. 21225 Date: 6/24/82 Telephone No. (305) 665-5736

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

Petroleum storage/transfer facility including tanks for gasoline service. These tanks are equipped with floating pan roofs. (See Figure 2 - Site Plan and Table 1 - Tank Information)

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

- Air Pollution Operation - Heaters - A005-9421, A005-9422, A005-9423

Issuance date: May 30, 1978 Expiration date: May 1, 1983

- Industrial Disposal Operation: Application submitted

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr \_\_\_\_\_ ;

if seasonal, describe: N/A

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

1. Is this source in a non-attainment area for a particular pollutant? No

a. If yes, has "offset" been applied? N/A

b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A

c. If yes, list non-attainment pollutants.  
N/A

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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



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

A. Raw Materials and Chemicals Used in your Process, if applicable: **Not Applicable**

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:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Standing	0.48	2.14	Good practice in Accordance with FAC Section 17.2	0.48	0.48	2.14	Tanks
Withdrawal	.012	.052		.012	.012	.052	Tanks
<b>Total</b>	<b>0.492</b>	<b>2.19</b>		<b>0.492</b>	<b>0.492</b>	<b>2.19</b>	<b>Tanks</b>

D. Control Devices: (See Section V, Item 4) **Not Applicable**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. — 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contractor

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): Not Applicable

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.

Gas Flow Rate: \_\_\_\_\_ ACFM Gas Exit Temperature: \_\_\_\_\_ °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

**SECTION IV: INCINERATOR INFORMATION Not Applicable**

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- Total process input rate and product weight – show derivation. **Not Applicable**
- 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 calculation sheets)
- Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). (See attached calculation sheet)
- 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, etc.). (See Manufacturer's Description)
- 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 Manufacturer's Description)
- An 8½" 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 Figure 2 - Site Plan)
- An 8½" 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 Figure 1 - Location Map)
- An 8½" 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 Figure 2 - Site Plan)

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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      Not Applicable**

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).

- |                                                                                                                                                                                                             |                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. Control Device/System:</li> <li>2. Operating Principles:</li> <li>3. Efficiency: *</li> <li>5. Useful Life:</li> <li>7. Energy:</li> <li>9. Emissions:</li> </ul> | <ul style="list-style-type: none"> <li>4. Capital Costs:</li> <li>6. Operating Costs:</li> <li>8. Maintenance Cost:</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|

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

\*Explain method of determining D 3 above.

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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power — KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant 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

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup> • \_\_\_\_\_ Wind spd/dlr

Period of monitoring \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ to \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 month day year month day year

Other data recorded \_\_\_\_\_

Attach all data or statistical summaries to this application.

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 <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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.



AC 05-57480

**CLARK**  
engineers-scientists

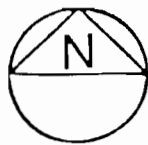
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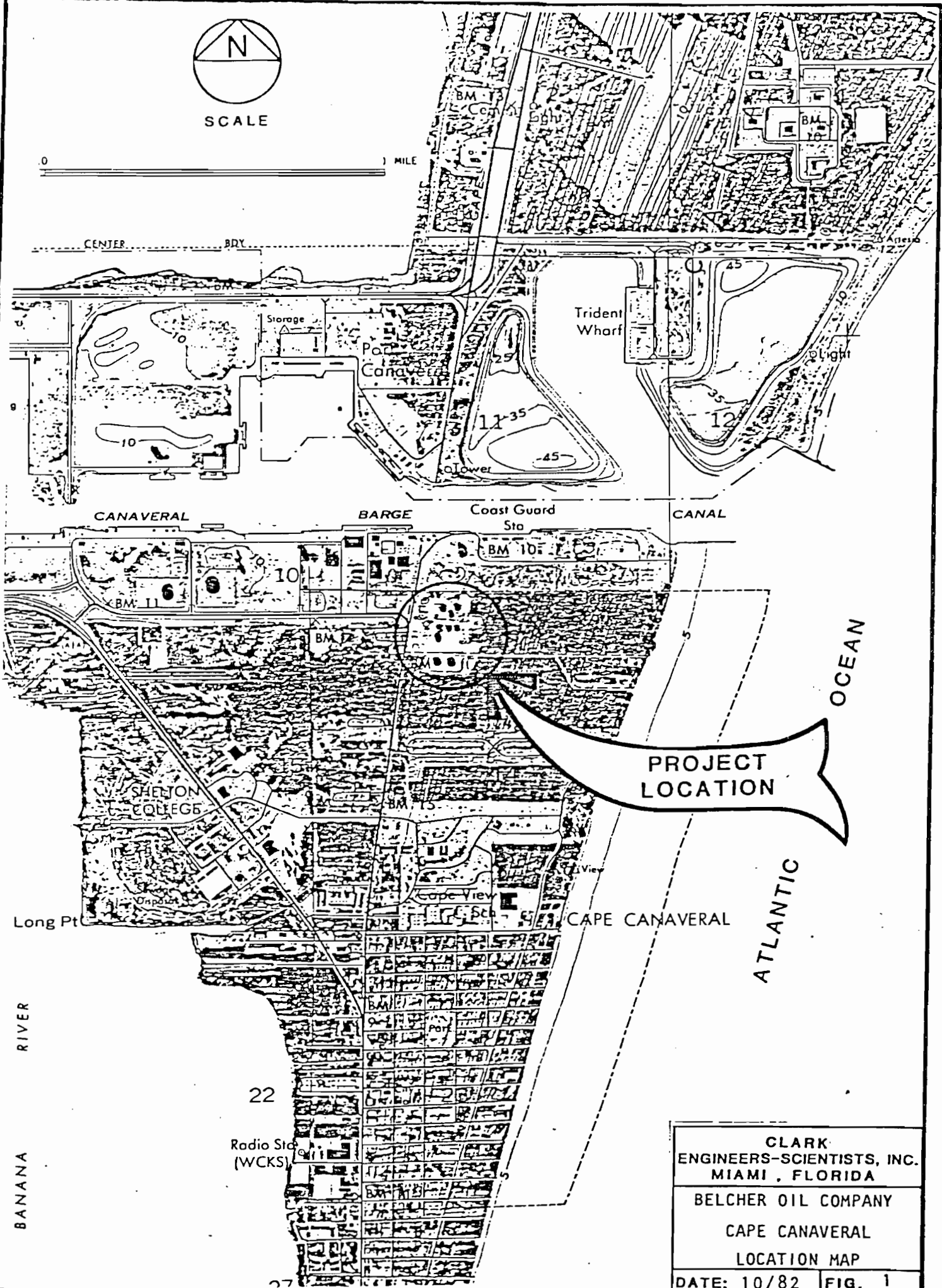
BAQM

AIR POLLUTION SOURCE  
OPERATION PERMIT APPLICATION  
FOR  
BELCHER OIL COMPANY  
CAPE CANAVERAL SERVICE TERMINAL  
(Gasoline Storage and Transfer)

Revised  
October 1982



SCALE



CENTER BDY.

Trident Wharf

Storage

Port Canaveral

Lower

CANAVERAL

BARGE

Coast Guard Sta

CANAL

PROJECT LOCATION

OCEAN

ATLANTIC

SHELTON COLLEGE

CAPE CANAVERAL

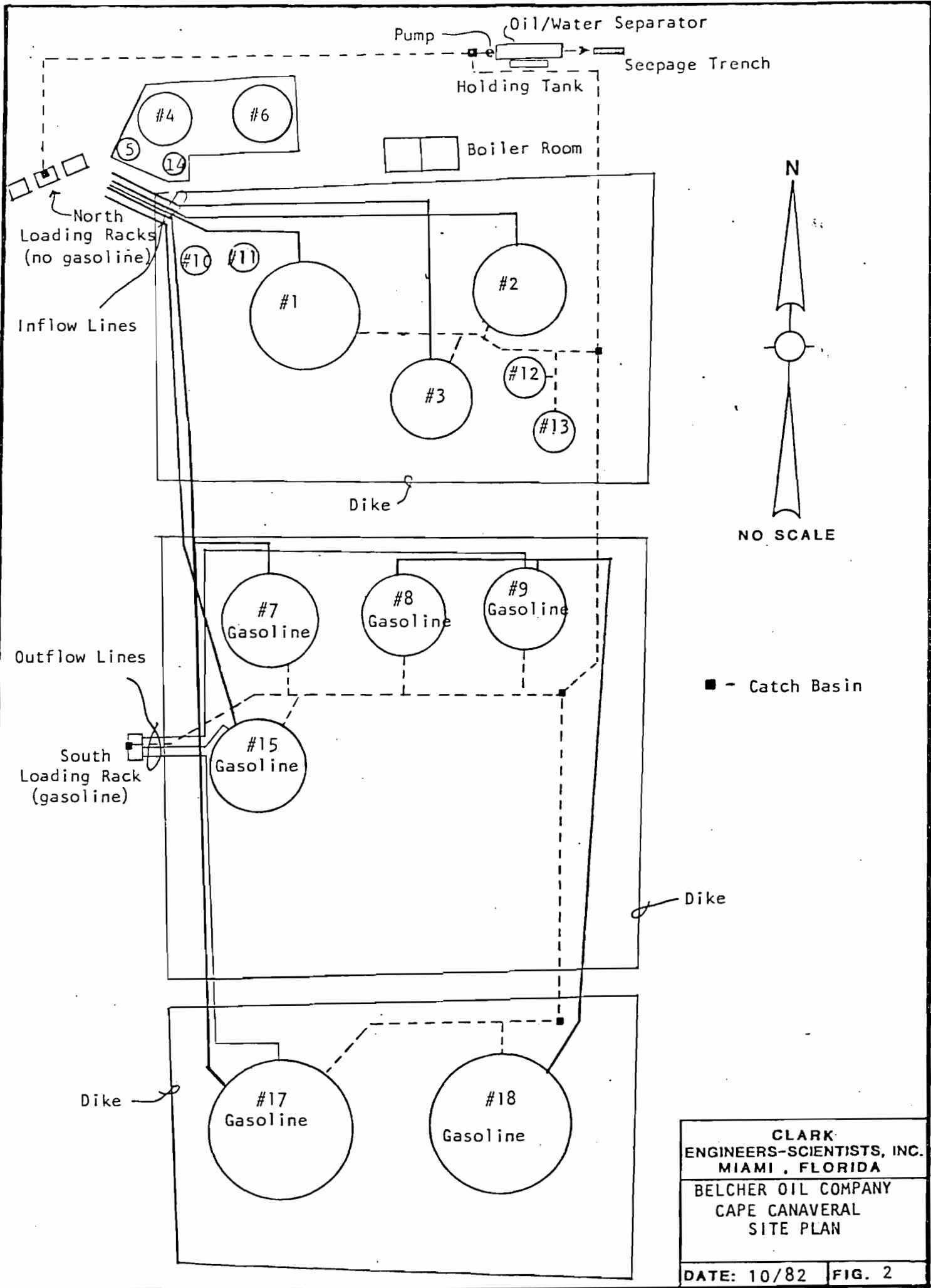
Long Pt

BANANA RIVER

22

Radio Sta (WCKS)

CLARK ENGINEERS-SCIENTISTS, INC. MIAMI, FLORIDA	
BELCHER OIL COMPANY	
CAPE CANAVERAL LOCATION MAP	
DATE: 10/82	FIG. 1



CLARK ENGINEERS-SCIENTISTS, INC. MIAMI, FLORIDA	
BELCHER OIL COMPANY CAPE CANAVERAL SITE PLAN	
DATE: 10/82	FIG. 2

Table #1

Belcher Oil Company

Pt. Canaveral Terminal

Tank and Loading Rack Information

<u>Tank No.</u>	<u>Type</u>	<u>Capacity (bbl)</u>	<u>Product</u>	<u>Dimensions (ft)</u>
#1	Cone	80,000	No. 2 Oil	120Ø X 40
#2	Cone	55,000	No. 6 Oil	100Ø X 40
#3	Cone	35,000	Jet A	80Ø X 40
#4	Cone	20,000	AC-20	60Ø X 40
#5	Cone	1,200	AC-20	19Ø X 24
#6	Cone	20,000	AC-20	60Ø X 40
#7	Internal Float	55,000	Gasoline	100Ø X 40
#8	Internal Float	35,000	Gasoline	80Ø X 40
#9	Internal Float	35,000	Gasoline	80Ø X 40
#10	Cone	3,000	RC-70	30Ø X 24
#11	Cone	3,000	RC-70	30Ø X 24
#12	Cone	9,000	No. 2 Oil	40Ø X 40
#13	Cone	9,000	No. 2 Oil	40Ø X 40
#14	Cone	1,500	AC-20	21Ø X 24
#15	Ext. Float	55,000	Gasoline	100Ø X 40
#17	Internal Float	100,000	Gasoline	143Ø X 42
#18	Internal Float	100,000	Gasoline	143Ø X 42

Loading Rack Positions

<u>South</u>	<u>North</u>
2 Gasoline	2 Diesel
1 Diesel	1 Bunker
1 Jet Kerosene	1 Asphalt
	1 Jet Kerosene

Notes: (1) No Tank 16

TABLE 2

Gasoline Storage Tank Information  
-Summary of Standing/Withdrawal Emissions-

Tank	Type	Capacity (bbls)	Dimensions (ft)	Throughput (bbls/yr)	Losses (lbs/yr)		
					Standing	Withdrawal	Total
7	int float	55,000	100Ø X 40	521,053	1,493	41	1,534
8	int float	35,000	80Ø X 40	331,579	1,195	33	1,228
9	int float	35,000	80Ø X 40	331,579	1,195	33	1,228
15	ext float	55,000	100Ø X 40	521,053	136,260	41	136,301
17	int float	100,000	143Ø X 42	947,368	2,136	53	2,189
18	int float	100,000	143Ø X 42	947,368	2,136	53	2,189
-	-	380,000	-	3,600,000	144,415	254	144,669

Note: (1) Detailed calculations for gasoline standing/withdrawal losses presented in Appendix I following applications.

TABLE 3

Loading Losses  
(South Loading Rack) (1)

<u>Product</u>	<u>Emissions</u>		<u>Potential Emissions</u>	
	Maximum Hourly (lbs/hr)	Actual Annual (T/yr)	Maximum Hourly (lbs/hr)	Actual Annual (T/yr)
No. 2 Oil	0.620	0.124	.620	0.124
Jet Kerosene	0.744	0.008	.744	0.008
Gasoline	<u>13.43</u>	<u>14.93</u>	<u>402.88</u>	<u>447.91</u>
	14.79	15.06	404.24	448.04

Note: (1) Vapor recovery system services the gasoline product loading.

DER

NOV 09 1982

BAQM



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Loading Rack with Vapor Recovery Unit [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Loading Rack with Vapor Recovery Unit (South Loading Rack)

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral

UTM: East \_\_\_\_\_ North \_\_\_\_\_  
Latitude 28 ° 24 ' 20" N Longitude 80 ° 36 ' 09" W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer

APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company

I certify that the statements made in this application for a Air Pollution Source Operation 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: [Signature]  
P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)

Date: 11/5/82 Telephone No. (305) 551-5444

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 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: [Signature]  
Kuang-Mei Lo  
Name (Please Type)

(Affix Seal)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)  
7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)

Florida Registration No. 21225 Date: 11/5/82 Telephone No. (305) 665-573

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)



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.

Petroleum storage/transfer facility including tanks for gasoline service. A carbon absorption/adsorption vapor recovery unit will be installed at the south loading rack to recover displaced contaminated air during transport truck loading operations. The VRU will be in full compliance. (Figure 2-Site Plan and Table 1-Loading Rack Information)

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction approx. 6 months Completion of Construction approx. 3 months

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.)

Total cost of pollution control system and installation:

163,000 equipment

112,000 installation

275,000 total

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

- Air Pollution Operation - Heaters - A005-9421, A005-9422, A005-9423

Issuance date: May 30, 1978 Expiration date: May 1, 1983

- Industrial Disposal Operation: Application submitted

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No

F. Normal equipment operating time: hrs/day 24; days/wk 7; wks/yr 52; if power plant, hrs/yr \_\_\_\_\_;

if seasonal, describe: Vapor Recovery Unit will be operated to accommodate transport truck loading of gasoline product.

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

1. Is this source in a non-attainment area for a particular pollutant?

No

a. If yes, has "offset" been applied?

N/A

b. If yes, has "Lowest Achievable Emission Rate" been applied?

N/A

c. If yes, list non-attainment pollutants.

N/A

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.

No

3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII.

No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?

No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?

No

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

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

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

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:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
No. 2 Oil	0.62	0.12	Good practice		0.62	0.12	South
Jet Kerosene	0.74	0.01	in Accordance		0.74	0.01	Loading
Gasoline	13.43	14.93	with FAC Section		402.88	447.97	Rack
			17.2; 80 mg/l				
Total	14.79	15.06	product loaded	83.93	404.24	448.04	""

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

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )
McGill-Carbon Absorption/Adsorption Vapor Recovery System (Model No. MRC-404HS)	V.O.C.	98*	Not Applicable	see calc.

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\*This efficiency value is based on manufacturer's specifications.

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr.

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contract

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):\*

Stack Height: 2 @ 12' above ground ft Stack Diameter: 6" at outlet T \_\_\_\_\_ ft

Gas Flow Rate: max 264.7/stack ACFM Gas Exit Temperature: approximately ambient °F

Water Vapor Content: \_\_\_\_\_ % Velocity: 22.5 FPS

\*Above values represent flow rate at maximum loading rate. The flow rate will vary depending on actual loading rate.

SECTION IV: INCINERATOR INFORMATION Not Applicable

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

BEST AVAILABLE COPY

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. **Not Applicable**
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 calculation sheets)
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). (See attached calculation sheets)
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, etc.). (See Manufacturer's Description)
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 Manufacturer's Description)
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 Figure 2 - Site Plan)
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 Figure 1 - Location Map)
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 Figure 2 - Site Plan)

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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**      **Not Applicable**

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: | 4. Capital Costs:    |
| 2. Operating Principles:  | 5. Operating Costs:  |
| 3. Efficiency:*           | 6. Maintenance Cost: |
| 7. Energy:                |                      |
| 8. Emissions:             |                      |

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.

10 Stack Parameters

- a. Height: ft.
- b. Diameter: ft.
- c. Flow Rate: ACFM
- d. Temperature: OF
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

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

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant must provide this information when available. Should this information not be available, applicant must state the reason why.



## A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup> \_\_\_\_\_ 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.

## 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 <sup>2</sup>	_____ grams/sec

## E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

## 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.

WALTER E. COLANGELO ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/29/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET \_\_\_\_\_ OF \_\_\_\_\_

BELCHER OIL COMPANY  
PORT CANAVERAL FACILITY  
HYDROCARBON LOADING LOSSES  
SOUTH LOADING RACK

OCTOBER, 1982

W. W. WILSON & ASSOCIATES ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/29/82  
DESCRIPTION Port Canaveral - Loading CHECKED BY KML DATE \_\_\_\_\_  
Losses - South Loading Rack SHEET 1 OF 6

### C Loading Losses: (South Loading Rack)

$$L_L = \frac{12.46 \text{ SPM}}{T} \left[ 1 - \frac{\text{EFF}}{100} \right] \frac{\text{lbs}}{10^3 \text{ gal}}$$

S = saturation factor, submerged bottom loading, normal dedicated service

P = true vapor pressure (psia)

T = temperature of liquid loaded (°R)

M = vapor molecular weight (lb/lb-mole)

EFF = vapor recovery unit efficiency

#### Notes:

- (1) Product data and loading rates from Belcher Oil Company
- (2) Loading loss equation from the U.S. Environmental Protection Agency Publication AP-42.

$$T = 73^\circ \text{F} = 533^\circ \text{R}$$

$$\text{EFF} = \text{efficiency of vapor recovery unit} = 98\%$$

THE AMERICAN CONSULTING ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/29/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY KML DATE \_\_\_\_\_  
Loading Emissions SHEET 2 OF 6

Section III Air Pollution Sources and Control  
Devices - Airborne Contaminants  
Emitted

I Maximum Hourly Emission

- maximum throughput flow per loading position:

- 4 trks/hr

- 8500 gallons/trk

$$Q_{\max} = (4)(8500) = 34,000 \text{ gallons/psn/hr}$$

1) No. 2 Oil

1 loading position  $\therefore$  max flow = 34,000 galls/hr.

$$S = 0.6$$

$$P = 0.01$$

$$T = 533$$

$$M = 130$$

$$L_L = \frac{(12.46)(.6)(.01)(130)}{533} \quad (34,000 \text{ galls/hr})$$

$$(10^3)$$

$$L_L = 0.620 \text{ lbs/hr}$$

ENVIRONMENTAL CHEMICAL ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JM DATE 10/29/82  
DESCRIPTION Cape Canaveral - Hydromix CHECKED BY KML DATE \_\_\_\_\_  
Loading Emission SHEET 3 OF 6

## 2) Jet Kerosene

1 loading position ∴ max flow = 34,000 gal/hr

$$S = 0.6$$

$$P = .012$$

$$T = 533$$

$$M = 130$$

$$L_L = \frac{(12.46)(.6)(.012)(130)}{533} (34,000) \quad (10^3 \text{ gal})$$

$$L_L = 0.744 \text{ lbs/hr.}$$

## 3) Gasoline

2 loading positions ∴ max flow = 68,000 gals/hr

$$S = 1.0$$

$$P = 6.4$$

$$T = 533$$

$$M = 66$$

$$L_L = \frac{(12.46)(1.0)(6.4)(66)}{533} (1-.98)(68,000) \quad (10^3 \text{ gal})$$

$$L_L = \left(0.19749 \frac{\text{lbs}}{10^3 \text{ gals}}\right) (68,000 \text{ gals/hr})$$

$$L_L = 13.43 \text{ lbs/hr}$$

Total Maximum Emission = 14.79 lbs/hr

W. A. ... ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 80141 COMPUTED BY JJM DATE 10/29/82  
DESCRIPTION Cape Cavaeral - Hydrocarbon CHECKED BY KML DATE \_\_\_\_\_  
Loading Emissions SHEET 4 OF 6

## II Actual Annual Emissions

(1) No. 2 Oil  $Q = 324,000 \text{ bbls/yr}$

$$L_L = \frac{(12.46)(.6)(.010)(130)}{533 (10^3)} \times (324,000)(42)$$

$$L_L = 248.1 \text{ lbs/yr.} = 0.124 \text{ tons/yr.}$$

(2) Jet Kerosene

$$L_L = \frac{(12.46)(.6)(.012)(130)}{(533) (10^3 \text{ gal})} \times 16,800 \times 42$$

$$L_L = 15.4 \frac{\text{lbs}}{\text{yr}} = 0.008 \text{ tons/yr}$$

(3) Gasoline

$$L_L = \frac{(12.46)(1)(6.4)(66)}{533} \frac{\text{lbs.}}{10^3 \text{ gal}} ((.98)(3.6 \times 10^6))(42)$$

$$L_L = 29,860 \text{ lbs/yr} = 14.93 \text{ tons/yr.}$$

$$\begin{aligned} \text{Total Actual Emissions} &= 30,124 \text{ lbs/yr} \\ &= \underline{15.06 \text{ tons/yr}} \end{aligned}$$

W. W. W. E. ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/29/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY KML DATE \_\_\_\_\_  
Loading Emissions SHEET 5 OF 6

### III Allowable Emissions\*

$$L_L = (80 \text{ mg/l}) (3.785 \text{ l/gal}) \left( \frac{1 \text{ lb}}{454,592 \text{ mg}} \right) (68,000 \text{ gal/hr})$$

$$L_L = 45.3 \text{ lbs/hr.}$$

\* Allowable Emissions calculated for gasoline products only - No. 2 oil and jet kerosene not considered

### IV Potential Emissions

#### Maximum hourly

(1) No 2 Oil :  $L_L = 0.620 \text{ lbs/hr}$

(2) Jet Kerosene :  $L_L = 0.744 \text{ lbs/hr}$

(3) Gasoline :  $L_L = \frac{(12.46)(.6)(64)(66)}{(533)(10^3)} (68,000)$

$$L_L = 402.88 \text{ lbs/hr.}$$

Potential Hourly Maximum = 404.24 lbs/hr.

ENVIRONMENTAL & CHEMICAL ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/29/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Loading Emissions SHEET 6 OF 6

### Annual Potential

- (1) No. 2 Oil :  $L_L = 0.124$  tons/yr  
(2) Jet Kerosene :  $L_L = 0.008$  tons/yr  
(3) Gasoline :

$$L_L = \frac{(12.46)(.6)(6.4)(66)}{(533)} \frac{(3.6 \times 10^6)}{(10^3 \text{ gal})} (42)$$

$$L_L = 895,814 \text{ lbs/yr} = 447.91 \text{ tons/yr}$$

$$\underline{\text{Total Annual Potential} = 448.04 \text{ tons/yr.}}$$



**PAID**

JUN 25 1982

SAINT JOHNS  
RIVER DISTRICT

**DER**

JUL 14 1982

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
**BAQM**  
APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES



SOURCE TYPE: Loading Rack with Vapor Recovery Unit [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Loading Rack with Vapor Recovery Unit (South Loading Rack)

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral

UTM: East \_\_\_\_\_ North \_\_\_\_\_

Latitude 28 ° 24 ' 20 "N Longitude 80 ° 36 ' 09 "W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer

APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company

I certify that the statements made in this application for a Air Pollution Source Operation 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: [Signature]

P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)

Date: 6/24/82 Telephone No. (305) 551-5444

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 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: [Signature]

Kuang-Mei Lo  
Name (Please Type)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)

7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)

Florida Registration No. 21225 Date: 6/24/82 Telephone No. (305) 665-5736

(Affix Seal)

<sup>1</sup> See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.

Petroleum storage/transfer facility including tanks for gasoline service. A carbon absorption/adsorption vapor recovery unit will be installed at the south loading rack to recover displaced contaminated air during transport truck loading operations. The VRU will be in full compliance. (Figure 2-Site Plan and Table 1-Loading Rack Information)

B. Schedule of project covered in this application (Construction Permit Application Only)

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Issuance date: May 30, 1978 Expiration date: May 1, 1983  
- Industrial Disposal Operation: Application submitted

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F. Normal equipment operating time: hrs/day 24; days/wk 7; wks/yr 52; if power plant, hrs/yr \_\_\_\_\_; if seasonal, describe: Vapor Recovery Unit will be operated to accommodate transport truck loading of gasoline product.

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

- |                                                                                                                                       |            |
|---------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. Is this source in a non-attainment area for a particular pollutant?                                                                | <u>No</u>  |
| a. If yes, has "offset" been applied?                                                                                                 | <u>N/A</u> |
| b. If yes, has "Lowest Achievable Emission Rate" been applied?                                                                        | <u>N/A</u> |
| c. If yes, list non-attainment pollutants.                                                                                            | <u>N/A</u> |
| 2. Does best available control technology (BACT) apply to this source? If yes, see Section VI.                                        | <u>No</u>  |
| 3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. | <u>No</u>  |
| 4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source?                                              | <u>No</u>  |
| 5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source?                                       | <u>No</u>  |

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

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

A. Raw Materials and Chemicals Used in your Process, if applicable: **Not Applicable**

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:

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
No. 2 Oil	0.77	0.12	Good practice		0.77	0.12	South
Jet Kerosene	0.92	0.01	in Accordance		0.92	0.01	Loading
Gasoline	62.21	37.33	with FAC Section		746.51	447.91	Rack
			17.2; 80 mg/l				
Total	63.89	37.46	product loaded	83.93	748.20	448.04	" " "
	(calc shts 11,12)			(calc sht 13)	(calc shts 13,14)		

D. Control Devices: (See Section V, Item 4) **Not Applicable**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )
McGill-Carbon Absorption/Adsorption Vapor Recovery System (Model No. MRC-404HS)	V.O.C.	98*	Not Applicable	see calc.

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. - 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

\*This efficiency value is based on manufacturer's specifications. Actual efficiency value used in calculations is 95%.

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contract

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):\*

Stack Height: 2 @ 12' above ground \_\_\_\_\_ ft. Stack Diameter: 6" at outlet T \_\_\_\_\_ ft.

Gas Flow Rate: max 264.7/stack ACFM Gas Exit Temperature: approximately ambient °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: 22.5 FPS

\*Above values represent flow rate at maximum loading rate. The flow rate will vary depending on actual loading rate.

SECTION IV: INCINERATOR INFORMATION Not Applicable

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

Please provide the following supplements where required for this application.

1. Total process input rate and product weight – show derivation. **Not Applicable**
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 calculation sheets)
3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test). (See attached calculation sheets)
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, etc.). (See Manufacturer's Description)
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 Manufacturer's Description)
6. An 8½" 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 Figure 2 - Site Plan)
7. An 8½" 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 Figure 1 - Location Map)
8. An 8½" 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 Figure 2 - Site Plan)

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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      Not Applicable**

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:
- 5. Useful Life:
- 6. Operating Costs:
- 7. Energy:
- 8. Maintenance Cost:
- 9. Emissions:

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.

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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power — KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:

a.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:
- (5) Environmental Manager:
- (6) Telephone No.:

\*Explain method of determining efficiency above.

(7) Emissions\*:

Contaminant	Rate or Concentration

(8) Process Rate\*:

b.

- (1) Company:
- (2) Mailing Address:
- (3) City:
- (4) State:

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



(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant 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

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup> • \_\_\_\_\_ 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.

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 <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

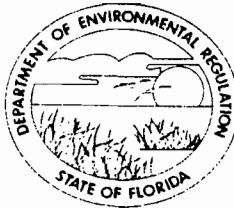
G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

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 2

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

July 23, 1982

Mr. P. W. Moldenhauer  
Belcher Oil Company  
P.O. Box 525500  
Miami, Florida 33152

RE: Air Pollution Construction Permit Applications for  
Port Canaveral Terminal

Dear Mr. Moldenhauer:

The referenced applications (Permit Numbers AC 05-57476, 57477, 57478, 57479, 57480) have been transferred to my office for processing.

The applications have been determined incomplete until receipt of additional information. Processing of the applications will resume when the questions outlined below have been answered.

As proposed in the applications, the project is potentially subject to the Prevention of Significant Deterioration (PSD) Preconstruction Review Requirements, Section 17-2.500, Florida Administrative Code (FAC). The provisions of this section would apply to any new construction resulting in emissions exceeding 100 tons per year of any criteria pollutant. Since total Volatile Organic Compounds (VOC) emitted would exceed 100 TPY, the Belcher - Port Canaveral terminal would be subject to this section of the rule, which requires application of Best Available Control Technology (BACT). If VOC emissions were limited to under 100 TPY, the terminal would be permitted as a minor facility.

Therefore, to properly evaluate the project, the following information is required:

1. Please submit a summary of Contemporaneous Emission Changes as provided in 17-2.500(2)(e), a copy of which I am enclosing. Creditable emission changes, along with the actual proposed VOC emission

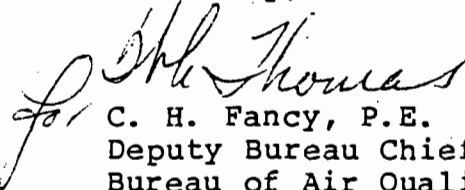
Mr. P. W. Moldenhauer  
July 23, 1982  
Page Two

increases will determine rule applicability for the project.

2. Please complete Section VI, Best Available Control Technology, of the application (new copy enclosed). This is required if VOC emissions exceed 100 tons per year in your final proposal.
3. The application for the loading rack/vapor recovery unit indicates three loading positions, each rated at 700 gallons/minute maximum flow. These appear to be loading "arms" (or connections) which connect to one tanker. The hourly maximum loading capacity is actually determined by the number of tankers that can be filled in one hour per position, or lane, rather than the maximum flow through the loading arms. Please clarify what the maximum loading capacity would be.

As mentioned earlier, I am enclosing a copy of Section 17-2 for assistance completing the applications. Please call Tim Powell at (904) 488-1344 if you have any questions.

Sincerely,

*for* 

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

CHF:TP:ras

Enclosure

cc: Kuang-Mei Lo, Clark Engineers - Scientists, Inc.  
Chuck Collins, FDER, SJRD

ATTACHMENT 3

**CLARK**  
engineers-scientists

DER

NOV 03 1982

November 3, 1982

BAQM

Mr. Bruce Mitchell  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Store Road  
Tallahassee, Florida 32301 - 8241

Re: Air Pollution Permit  
Applications for Belcher  
Oil Company - Port  
Canaveral Terminal  
(AC05-57476, 57477,  
57478, 57479, 57480)

Dear Mr. Mitchell:

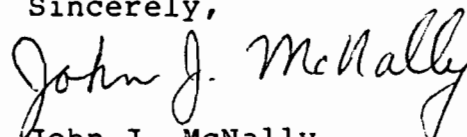
Enclosed please find four copies of the Air Pollution Source Permit Application for the south loading rack at the Port Canaveral terminal. This application has been revised to reflect a 98% vapor recovery efficiency and a maximum flow rate based on truck loading capability for each loading position.

Also enclosed, are four copies of the permit application which includes the emission resulting from the remaining product storage tanks and the north loading rack operations. A check in the amount of \$20.00 is included to satisfy the application fee.

The total emissions resulting from this terminal are summarized in the attached table. As indicated, these emissions do not exceed 100 tons per year.

Please do not hesitate to call if you have any questions regarding these materials.

Sincerely,

  
John J. McNally

JJM:lao  
8014.1

Enclosures

cc: P.W. Moldenhauer



Belcher Oil Company  
Port Canaveral Terminal  
Total Product Emissions

Source	Losses lbs/yr			Total
	Breathing/ Standing	Working/ Withdrawal	Loading	
Tanks 7,8,9,15,17,18 and South Loading Rack	144,415	254	30,124	174,793 (87.40)
Tanks 1-6/10-14 and North Loading Rack	8,025	1,546	709	10,280 (5.14)
Totals - lbs/yr - (T/yr)	152,440 (76.22)	1,800 (.90)	30,833 (15.42)	185,073 (92.54)

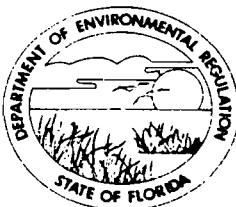
8014.1  
11/3/82



ATTACHMENT 4

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

November 30, 1982

Mr. P. W. Moldenhauer  
Belcher Oil Company  
P. O. Box 525500  
Miami, Florida 33152

Re: Completeness Review for Port Canaveral Terminal  
Construction Permit Applications: AC 05-57476,  
57477, 57478, 57479, 57480, 62236.

Dear Mr. Moldenhauer:

The Bureau received an amendment to the above referenced applications, AC 05-57476-57480, on November 9, 1982. Because the amendment also requested that eleven (11) other storage tanks be permitted that were not contained in the original applications to construct (AC 05-57476-57480), the Bureau assigned it a permit number, AC 05-62236.

After review of the amendment and its contents, the above referenced construction permit applications have been determined to be incomplete. Processing of the applications will resume when the data requested below has been submitted to the Bureau:

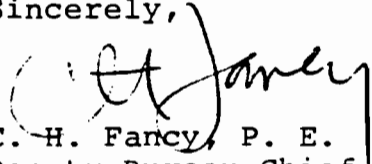
1. The number 6.4 psia was used for the gasoline true vapor pressure (TVP) in the calculations for VOC losses. Since there are no references to its origin, submit, by storage tank, the Reid Vapor Pressure (RVP) of the gasoline(s) to be stored in tanks Nos. 7, 8, 9, 15, 17, and 18, as determined by ASTM-D-323-58 (1968). Also, submit for the same storage tanks the TVP of the gasoline(s) to be stored as determined in accordance with methods described in API Bullentin 2517, Evaporation Loss from Floating Roof Tanks, 1962.

Mr. P. W. Moldenhauer  
November 30, 1982  
Page Two

2. The incorrect application fee (\$20.00) was submitted for the above referenced construction permit, AC 05-62236. The minimum fee per source is \$100.00, in accordance with Chapter 17-4.05(4)(a)5., Florida Administrative Code (FAC). Therefore, for eleven storage tanks the total correct application fee is \$1100.00. The balance due the Department is \$1080.00.

If there are any questions, please call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,

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

BM/ks

cc: Kuang-Mei Lo, Clark Engineers  
Scientist, Inc.  
Chuck Collins  
Martha Hall

ATTACHMENT 5



December 10, 1982

Mr. Bruce Mitchell  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

DER  
DEC 11 1982  
3:00 PM

Re: Belcher Oil Company - Port  
Canaveral Terminal Air  
Pollution Source Permit  
Application

Dear Mr. Mitchell:

The following information is in response to your letter, dated November 30, 1982, requesting additional information for the air pollution source permit applications for the Belcher Oil Company's Port Canaveral storage facility. As we discussed during our telephone conversation, a Reid Vapor Pressure of 10 psi was used in the gasoline emission calculations in the permit application. This value is considered to be a representative annual value for the gasoline product handled at the facility.

Enclosed please find a check in the amount of \$1,080 to satisfy the balance of the application fee as a result of the recent increase in the application fee schedule.

Please do not hesitate to contact me if you have any additional questions regarding these applications.

Sincerely,

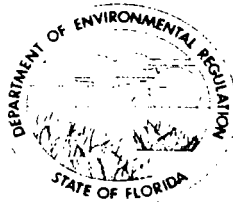
*John J. McNally*  
John J. McNally

JJM/imr  
8014.1

ATTACHMENT 6

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

January 13, 1983

CERTIFIED MAIL

Mr. P. W. Moldenhauer  
Belcher Oil Company  
P. O. Box 525500  
Miami, Florida 33152

Re: Construction Permit Applications: AC 05-57476, -57477,  
-57478, -57479, -57480, and -62236.

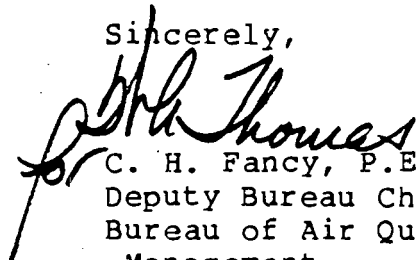
Dear Mr. Moldenhauer:

In the attempt to establish rule applicability, I spoke with your consultant, John McNally, about the above referenced applications. Since the construction date(s) for the existing storage tanks is critical in determining rule applicability, it will be necessary to receive the following data:

1. Submit the date(s) of construction for each existing storage tank contained in the above referenced applications.

If there are any questions, please call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,

  
C. H. Fancy, P.E.

Deputy Bureau Chief  
Bureau of Air Quality  
Management

CHF/RBM/bjm

cc: Kuang-Mei Lo, Clark Engineers-Scientists, Inc.  
John McNally, Clark Engineers-Scientists, Inc.  
Chuck Collins  
Martha Hall

ATTACHMENT 7



# CLARK

engineers-scientists

January 18, 1983

Mr. Bruce Mitchell  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

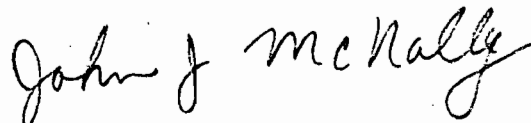
DER  
JAN 21 1983  
BAQM

Re: Belcher Oil Company  
Port Canaveral Facility  
Air Pollution Permit Applica-  
tion (AC05-57476-80, AC05-  
62236)

Dear Mr. Mitchell:

The following information is in response to your request for the date of construction for each of the storage tanks at the Belcher Oil Company's Port Canaveral facility. The construction dates for each of these tanks are listed on the attached sheet.

Sincerely,



John J. McNally

JJM:imr  
8014.1

cc: P.W. Moldenhauer

BELCHER OIL COMPANY  
PORT CANAVERAL FACILITY

<u>Tank No.</u>	<u>Type</u>	<u>Capacity (bbl)</u>	<u>Product</u>	<u>Dimensions (ft)</u>	<u>Date of Construction</u>
#1	Cone	80,000	No. 2 Oil	120Ø X 40	1954
#2	Cone	55,000	No. 6 Oil	100Ø X 40	1954
#3	Cone	35,000	Jet A	80Ø X 40	1954
#4	Cone	20,000	AC-20	60Ø X 40	1963
#5	Cone	1,200	AC-20	19Ø X 24	1963
#6	Cone	20,000	AC-20	60Ø X 40	1963
#7	Internal Float	55,000	Gasoline	100Ø X 40	1958
#8	Internal Float	35,000	Gasoline	80Ø X 40	1958
#9	Internal Float	35,000	Gasoline	80Ø X 40	1958
#10	Cone	3,000	RC-70	30Ø X 24	1959
#11	Cone	3,000	RC-70	30Ø X 24	1959
#12	Cone	9,000	No. 2 Oil	40Ø X 40	1961
#13	Cone	9,000	No. 2 Oil	40Ø X 40	1961
#14	Cone	1,500	AC-20	21Ø X 24	1963
#15	Ext. Float	55,000	Gasoline	100Ø X 40	1969
#17	Internal Float	100,000	Gasoline	143Ø X 42	1974
#18	Internal Float	100,000	Gasoline	143Ø X 42	1974

Notes: (1) No Tank 16

ATTACHMENT 8

## **5.2 Terminal Status During Test Period**

The test procedure is designed to measure control system performance under conditions of normal operation. Normal operation will vary from terminal-to-terminal and from day-to-day. Therefore, no specific criteria can be set forth to define normal operation. The following guidelines are provided to assist in determining normal operation.

### **5.2.1 Closing of Loading Racks**

During the test period, all loading racks shall be open for each product line which is controlled by the system under test. Simultaneous use of more than one loading rack shall occur to the extent that such use would normally occur.

**5.2.2 Simultaneous use of more than one dispenser on each loading rack shall occur to the extent that such use would normally occur.**

**5.2.3 Dispensing rates shall be set at the maximum rate at which the equipment is designed to be operated. Automatic product dispensers are to be used according to normal operating practices.**

## **5.3 Vapor Control System Status During Tests**

Applicable operating parameters shall be monitored to demonstrate that the processing unit is operating at design levels. For intermittent vapor processing units employing a vapor holder, each test repetition shall include at least one fully automatic operation cycle of the vapor holder and processing device. Tank trucks shall be essentially leak free as determined by EPA Mobile Source Enforcement Division.

ATTACHMENTS For:

AC 05-62236

ATTACHMENT 1



DER

NOV 09 1982

BAQM

AIR POLLUTION SOURCE  
OPERATION PERMIT APPLICATION  
FOR  
BELCHER OIL COMPANY  
CAPE CANAVERAL SERVICE TERMINAL

October, 1982

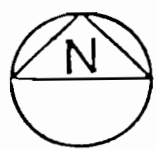
## INTRODUCTION

Belcher Oil Company operates a petroleum storage/transfer terminal at Port Canaveral, Florida. The location of this facility is shown in Figure 1. The facility includes a tank farm consisting of numerous storage tanks and two loading rack locations used for product transfer. The location of these tanks and loading racks is shown in Figure 2. Table 1 lists tank characteristics and product information. Gasoline is included as one of the products handled at the facility and requires the installation of a vapor recovery unit for the loading of this product. All the gasoline product leaving the terminal is loaded through the south loading rack. The vapor recovery unit will be installed at this loading rack location.

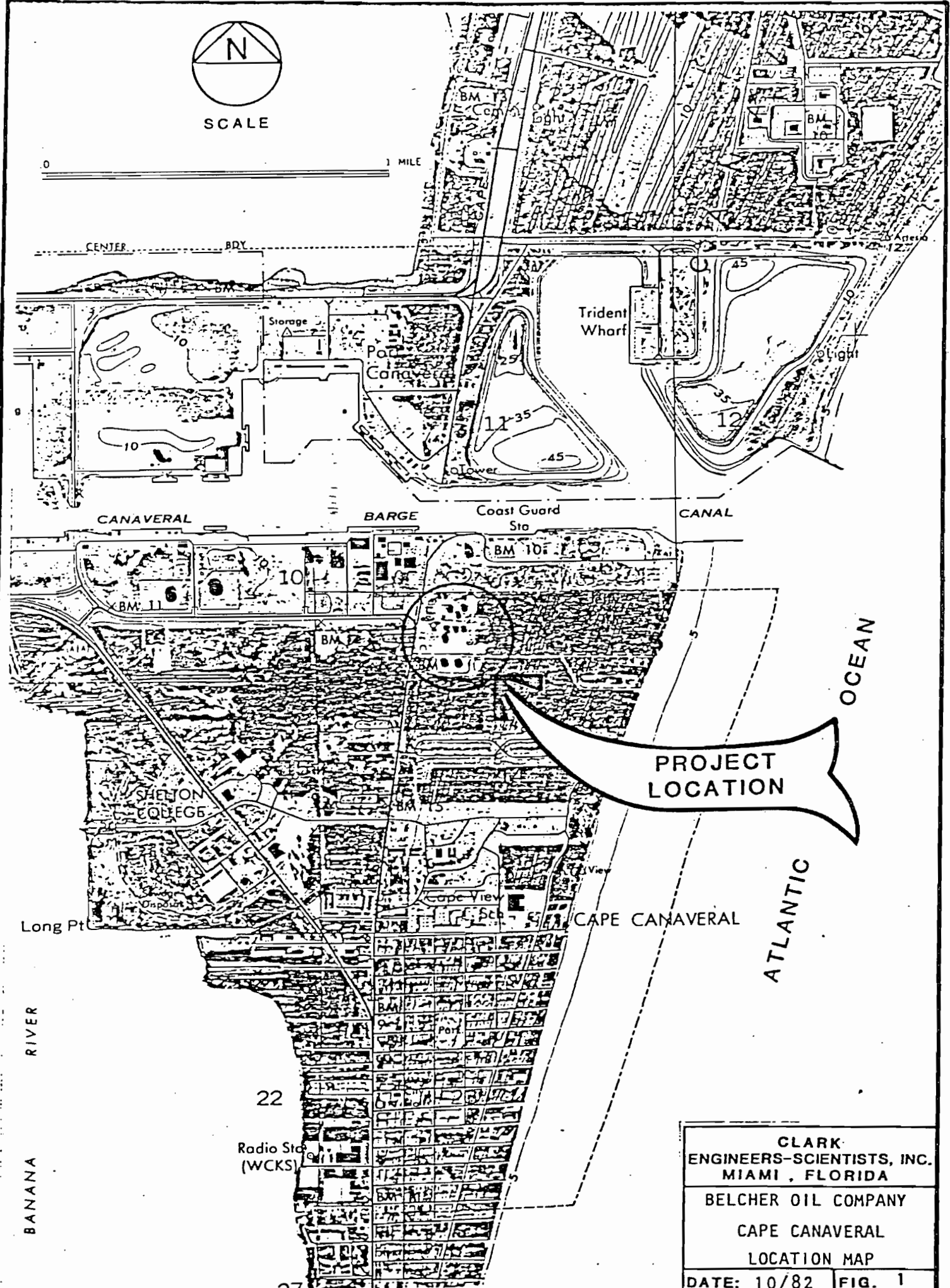
The operation of this petroleum storage/transfer facility requires an Air Pollution Source Permit issued by the State Department of Environmental Regulation. Permit applications have been previously submitted for the tanks, loading rack and vapor recovery system used for gasoline service. The application that follows is for the loading rack and all the storage tanks utilized for storage and transfer of petroleum products other than gasoline.

Calculations for the emissions from each of these tanks and for the loading rack follow the applications. Table 2, Table 3 and Table 4 present the total hydrocarbon losses associated with the storage and transfer of all products handled at this facility except gasoline.





SCALE



PROJECT LOCATION

ATLANTIC OCEAN

CLARK ENGINEERS-SCIENTISTS, INC. MIAMI, FLORIDA	
BELCHER OIL COMPANY	
CAPE CANAVERAL LOCATION MAP	
DATE: 10/82	FIG. 1

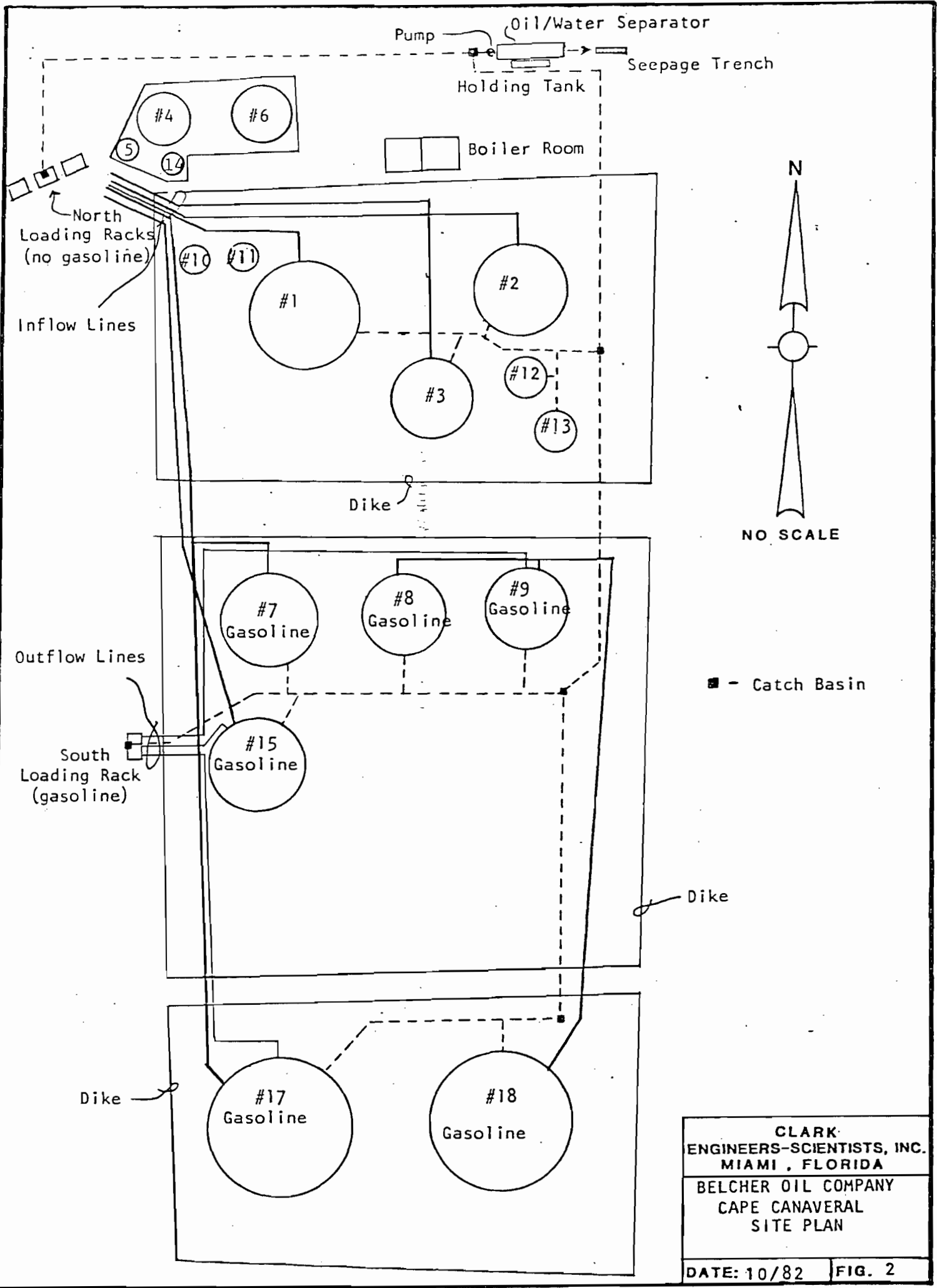


Table #1  
Belcher Oil Company  
Pt. Canaveral Terminal  
Tank and Loading Rack Information

<u>Tank No.</u>	<u>Type</u>	<u>Capacity (bbl)</u>	<u>Product</u>	<u>Dimensions (ft)</u>
#1	Cone	80,000	No. 2 Oil	120Ø X 40
#2	Cone	55,000	No. 6 Oil	100Ø X 40
#3	Cone	35,000	Jet A	80Ø X 40
#4	Cone	20,000	AC-20	60Ø X 40
#5	Cone	1,200	AC-20	19Ø X 24
#6	Cone	20,000	AC-20	60Ø X 40
#7	Internal Float	55,000	Gasoline	100Ø X 40
#8	Internal Float	35,000	Gasoline	80Ø X 40
#9	Internal Float	35,000	Gasoline	80Ø X 40
#10	Cone	3,000	RC-70	30Ø X 24
#11	Cone	3,000	RC-70	30Ø X 24
#12	Cone	9,000	No. 2 Oil	40Ø X 40
#13	Cone	9,000	No. 2 Oil	40Ø X 40
#14	Cone	1,500	AC-20	21Ø X 24
#15	Ext. Float	55,000	Gasoline	100Ø X 40
#17	Internal Float	100,000	Gasoline	143Ø X 42
#18	Internal Float	100,000	Gasoline	143Ø X 42

Loading Rack Positions:

<u>South</u>	<u>North</u>
2 Gasoline	2 Diesel
1 Diesel	1 Bunker
1 Jet Kerosene	1 Asphalt
	1 Jet Kerosene

Notes: (1) No Tank 16

Table 2

Belcher Oil Company

Cape Canaveral Terminal Product Emissions

Breathing and Working Losses

(Tanks 1-6 and 10-14)

Tank	Product	Capacity (bbls)	Throughout (bbls/yr)	Losses (lbs/yr)		
				Breathing	Working	Total
1	No. 2	80,000	662,040	1620	781	2401
2	No. 6	55,000	366,000	57	4	61
3	Kerosene	35,000	84,000	906	121	1027
4	*AC-20	20,000	86,183	-	-	-
5	*AC-20	1,200	5,171	-	-	-
6	*AC-20	20,000	86,183	-	-	-
10	RC-70	3,000	6,000	2486	232	2718
11	RC-70	3,000	6,000	2486	232	2718
12	No. 2	9,000	74,480	235	88	323
13	No. 2	9,000	74,480	235	88	323
14	*AC-20	1,500	6,463	-	-	-
				<u>8,025</u>	<u>1,546</u>	<u>9,571</u>

Emissions not calculated for AC-20 asphalt product due to extremely low vapor pressure.

Table 3

Belcher Oil Company

Cape Canaveral Terminal Product Emissions

North Loading Rack - Loading Losses

<u>Product</u>	<u>Emissions</u>		<u>Potential Emissions</u>	
	<u>Maximum Hourly (lbs/hr)</u>	<u>Actual Annual (T/yr)</u>	<u>Maximum Hourly (lbs/hr)</u>	<u>Potential Annual (T/yr)</u>
No. 2 Oil	1.24	0.19	1.24	0.19
No. 6 Oil	0.005	0.03	0.005	0.03
Jet Kerosene	0.74	0.001	0.74	0.001
RC-70	<u>18.30</u> 20.3	<u>0.14</u> 0.36	<u>18.30</u> 20.3	<u>0.14</u> 0.36

Table 4

Belcher Oil Company

Cape Canaveral Terminal

Product Emissions Summary

(Tanks 1-6 and 10-14 and North Loading Rack)

<u>Losses</u>	<u>(lbs/yr)</u>
Breathing	8,025
Working	1,546
<u>Loading</u>	<u>709</u>
Total Hydrocarbon Losses =	<u>10,280 lbs/yr</u>
	<u>5.14 T/yr</u>



DER

NOV 09 1982

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

BAQM

APPLICATION TO OPERATE/CONSTRUCT  
AIR POLLUTION SOURCES

SOURCE TYPE: Petroleum Storage Tank [ ] New<sup>1</sup> [X] Existing<sup>1</sup>

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

COMPANY NAME: Belcher Oil Company COUNTY: Brevard

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peeking Unit No. 2, Gas Fired) Petroleum Storage Tanks and Loading Rack

SOURCE LOCATION: Street No. 10 Tanker Turn Road City Cape Canaveral

UTM: East \_\_\_\_\_ North \_\_\_\_\_

Latitude 28 ° 24 ' 20" N Longitude 80 ° 36 ' 09 " W

APPLICANT NAME AND TITLE: Peter W. Moldenhauer, Corporate Engineer

APPLICANT ADDRESS: P.O. Box 525500, Miami, Florida 33152

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative\* of Belcher Oil Company

I certify that the statements made in this application for a Air Pollution Source Operation 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: [Signature]

P.W. Moldenhauer, Corporate Engineer  
Name and Title (Please Type)

Date: 11/5/82 Telephone No. (305) 551-5444

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 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: [Signature]

Kuang-Mei Lo  
Name (Please Type)

(Affix Seal)

Clark Engineers-Scientists, Inc.  
Company Name (Please Type)

7520 S.W. 57th Avenue 33143  
Mailing Address (Please Type)

Florida Registration No. 21225

Date: 11/5/82 Telephone No. (305) 665-5736

<sup>1</sup>See Section 17-2.02(15) and (22), Florida Administrative Code, (F.A.C.)

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.  
Petroleum storage/transfer facility for various petroleum products.

(See Figure 2 - Site Plan and Table 2 - Tank Information)

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction N/A Completion of Construction N/A

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.)

N/A

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

- Air Pollution Operation - Heaters - A005-9421, A005-9422, A005-9423

Issuance date: May 30, 1978 Expiration date: May 1, 1983

- Industrial Disposal Operation: Application submitted

E. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code? Yes  No

F. Normal equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ; if power plant, hrs/yr \_\_\_\_\_ ;  
 if seasonal, describe: N/A

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

1. Is this source in a non-attainment area for a particular pollutant? No
  - a. If yes, has "offset" been applied? N/A
  - b. If yes, has "Lowest Achievable Emission Rate" been applied? N/A
  - c. If yes, list non-attainment pollutants.  
N/A
2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No
3. Does the State "Prevention of Significant Deterioration" (PSD) requirements apply to this source? If yes, see Sections VI and VII. No
4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No
5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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



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

A. Raw Materials and Chemicals Used in your Process, if applicable: **Not Applicable**

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: (See Tables 2, 3, and 4)

Name of Contaminant	Emission <sup>1</sup>		Allowed Emission <sup>2</sup> Rate per Ch. 17-2, F.A.C.	Allowable <sup>3</sup> Emission lbs/hr	Potential Emission <sup>4</sup>		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/hr	T/yr	
Breathing	0.92	4.01	Good practice in Accordance with FAC Section 17.2		0.92	4.01	Tanks
Working	0.18	0.77			0.18	0.77	Tanks
Loading	20.30	0.36			20.30	0.36	Racks
<b>Total</b>	<b>21.40</b>	<b>5.14</b>			<b>21.40</b>	<b>5.14</b>	<b>Tanks</b>

D. Control Devices: (See Section V, Item 4) **Not Applicable**

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles <sup>5</sup> Size Collected (in microns)	Basis for Efficiency (Sec. V, It <sup>5</sup> )

<sup>1</sup>See Section V, Item 2.

<sup>2</sup>Reference applicable emission standards and units (e.g., Section 17-2.05(6) Table II, E. (1), F.A.C. – 0.1 pounds per million BTU heat input)

<sup>3</sup>Calculated from operating rate and applicable standard

<sup>4</sup>Emission, if source operated without control (See Section V, Item 3)

<sup>5</sup>If Applicable

**BEST AVAILABLE COPY**

E. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	

\*Units Natural Gas, MMCF/hr; Fuel Oils, barrels/hr; Coal, lbs/hr

Fuel Analysis:

Percent Sulfur: \_\_\_\_\_ Percent Ash: \_\_\_\_\_

Density: \_\_\_\_\_ lbs/gal Typical Percent Nitrogen: \_\_\_\_\_

Heat Capacity: \_\_\_\_\_ BTU/lb \_\_\_\_\_ BTU/gal

Other Fuel Contaminants (which may cause air pollution): \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating. Annual Average N/A Maximum N/A

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

Any liquid and solid wastes generated during tank cleaning operations are removed from the terminal by an industrial waste disposal contractor

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack): Not Applicable

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ ft.

Gas Flow Rate: \_\_\_\_\_ ACFM Gas Exit Temperature: \_\_\_\_\_ °F.

Water Vapor Content: \_\_\_\_\_ % Velocity: \_\_\_\_\_ FPS

**SECTION IV: INCINERATOR INFORMATION Not Applicable**

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs/hr Incinerated							

Description of Waste \_\_\_\_\_

Total Weight Incinerated (lbs/hr) \_\_\_\_\_ Design Capacity (lbs/hr) \_\_\_\_\_

Approximate Number of Hours of Operation per day \_\_\_\_\_ days/week \_\_\_\_\_

Manufacturer \_\_\_\_\_

Date Constructed \_\_\_\_\_ Model No. \_\_\_\_\_

	Volume (ft) <sup>3</sup>	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter \_\_\_\_\_ Stack Temp. \_\_\_\_\_

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\* Velocity \_\_\_\_\_ FPS

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device:  Cyclone  Wet Scrubber  Afterburner  Other (specify) \_\_\_\_\_

Brief description of operating characteristics of control devices: \_\_\_\_\_

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

### SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

- Total process input rate and product weight – show derivation. **Not Applicable**
- 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 calculation sheets)
- Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).(See attached calculation sheets)
- 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, etc.). **Not Applicable**
- 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). **Not Applicable**
- An 8½" 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 Figure 2 - Site Plan)
- An 8½" 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 Figure 1 - Location Map)
- An 8½" 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 Figure 2 - Site Plan)

- 9. An application fee of \$20, unless exempted by Section 17-4.05(3), F.A.C. 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**      **Not Applicable**

- 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: | 4. Capital Costs:    |
| 2. Operating Principles:  | 6. Operating Costs:  |
| 3. Efficiency: *          | 8. Maintenance Cost: |
| 5. Useful Life:           |                      |
| 7. Energy:                |                      |
| 9. Emissions:             |                      |

Contaminant	Rate or Concentration

\*Explain method of determining D 3 above.

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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*:
- 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\*:
- d. Capital Cost:
- e. Useful Life:
- f. Operating Cost:
- g. Energy\*\*:
- h. Maintenance Costs:
- 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:

\*Explain method of determining efficiency.

\*\*Energy to be reported in units of electrical power – KWH design rate.

3.

- a. Control Device:
- b. Operating Principles:
  
- c. Efficiency\*:
- d. Capital Cost:
- e. Life:
- f. Operating Cost:
- g. Energy:
- h. Maintenance Cost:

\*Explain method of determining efficiency above.

- 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\*:
  - d. Capital Cost:
  - e. Life:
  - f. Operating Cost:
  - g. Energy:
  - 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\*:
- 3. Capital Cost:
- 4. Life:
- 5. Operating Cost:
- 6. Energy:
- 7. Maintenance Cost:
- 8. Manufacturer:
- 9. Other locations where employed on similar processes:
  - a.
    - (1) Company:
    - (2) Mailing Address:
    - (3) City:
    - (4) State:
    - (5) Environmental Manager:
    - (6) Telephone No.:

\*Explain method of determining efficiency above.

- (7) Emissions\*:

Contaminant	Rate or Concentration
_____	_____
_____	_____
_____	_____

- (8) Process Rate\*:

- b.
  - (1) Company:
  - (2) Mailing Address:
  - (3) City:
  - (4) State:

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

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions\*:

Contaminant	Rate or Concentration
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(8) Process Rate\*:

10. Reason for selection and description of systems:

\*Applicant 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

Not Applicable

A. Company Monitored Data

1. \_\_\_\_\_ no sites \_\_\_\_\_ TSP \_\_\_\_\_ ( ) SO<sup>2</sup> \_\_\_\_\_ 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.

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 <sup>2</sup>	_____ grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description on 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.

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

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.



**EDWARD E. CLARKE, ENGINEERS - SCIENTISTS**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/26/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 1 OF 16

Air Pollution Source Permit Application  
Storage Tank Hydrocarbon Emission  
Calculations

**EDWARD E. CLARK, ENGINEERS - SCIENTISTS**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/26/82  
 DESCRIPTION Cape Canaveral - East CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Terminal - Tank Emissions SHEET 2 OF 16

Belcher Oil Company - Cape Canaveral Terminal

Storage Tank Information

<u>Tank</u>	<u>Capacity (bbls)</u>	<u>Dimensions (ft)</u>	<u>Product</u>
1 fixed	80,000	120 Ø X 40'	No. 2 Oil
2 fixed	55,000	100 Ø X 40'	No. 6 Oil
3 fixed	35,000	80 Ø X 40'	Jet A
4 fixed	20,000	60 Ø X 40'	AC-20
5 fixed	1,200	19 Ø X 24'	AC-20
6 fixed	20,000	60 Ø X 40'	AC-20
10 fixed	3,000	30 Ø X 24'	RC-70
11 fixed	3,000	30 Ø X 24'	RC-70
12 fixed	9,000	40 Ø X 40'	No. 2 Oil
13 fixed	9,000	40 Ø X 40'	No. 2 Oil
14 fixed	1,500	21 Ø X 24'	AC-20

**EDWARD E. CLARKE ENGINEERS - SCIENTISTS, INC.**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/26/82  
DESCRIPTION Cape Canaveral - East CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Terminal - Tank Emissions SHEET 3 OF 16

### A. Breathing Losses

$$L_B = 2.26 \times 10^{-2} M \left( \frac{P}{14.7 - P} \right)^{0.68} D^{1.73} H^{0.51} \Delta T^{0.50} F_p C K_c$$

$L_B$  = fixed roof breathing loss (lb/yr)

$M$  = molecular weight of vapor in storage tank (lb/lbmol)

$P$  = true vapor pressure at bulk liquid conditions (psia)

$D$  = tank diameter (ft)

$H$  = avg vapor space height (ft)

$\Delta T$  = avg ambient diurnal temp. change (°F)

$F_p$  = paint factor

$C$  = adjustment factor for small diameter tanks

$K_c$  = product factor

### Climatological Data :

$$T_{avg \max} = 79^\circ F$$

$$T_{avg \min} = 68^\circ F$$

$$T_{avg \text{ mean}} = 73^\circ F$$

$$V = 8.1 \text{ mi/hr}$$

Source : NOAA Climatological Data for  
Patrick AFB (Cocoa Beach)

EDWARD E. CLARKE ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/27/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 4 OF 16

Tank 1

(fixed roof - No. 2 oil)

$$\begin{aligned} M &= 130 \\ P &= 0.009 \\ D &= 120' \\ h &= 40' \\ \Delta T &= 11^\circ F \\ F_p &= 1.33 \end{aligned}$$

$$\begin{aligned} C &= 1.0 \\ K_c &= 1.0 \end{aligned}$$

$$H = 40/2 + (1/3)(.1)(60) = 22'$$

$$L_B = (2.26 \times 10^{-2}) (130) \left( \frac{.009}{14.7 - .009} \right)^{.66} (120)^{1.73} (22)^{.51} (11)^{.5} (1.33)(1)(1)$$

$$L_B = 1,620 \text{ lbs/yr}$$

Tank 2

(fixed roof - No. 6 oil)

$$\begin{aligned} M &= 190 \\ P &= 0.00006 \\ D &= 100' \\ h &= 40 \\ \Delta T &= 11 \\ F_p &= 1.33 \end{aligned}$$

$$\begin{aligned} C &= 1.0 \\ K_c &= 1.0 \end{aligned}$$

$$H = 40/2 + (1/3)(.1)(50) = 21.67$$

$$L_B = (2.26 \times 10^{-2}) (190) \left( \frac{.00006}{14.7 - .00006} \right)^{.68} (100)^{1.73} (21.7)^{.51} (11)^{.5} (1.33)(1)(1)$$

$$L_B = 57 \text{ lbs/yr}$$

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/27/82  
 DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 5 OF 16

Tank 3 (fixed roof - Jet Kerosene)

$$M = 130$$

$$C = 1.0$$

$$P = .011$$

$$K_0 = 1.0$$

$$D = 80'$$

$$h = 40'$$

$$H = \frac{40}{2} + \left(\frac{1}{3}\right) \times .1 \times (40) = 21.33$$

$$\Delta T = 11$$

$$F_p = 1.33$$

$$L_B = \left(2.26 \times 10^{-2} \times 130 \times \frac{.011}{14.7 - .011}\right)^{.68} (80)^{1.73} (21.33)^{.51} (11)^{.5} (1.33) \times (1) \times (1)$$

$$L_B = 906 \text{ lbs/yr}$$

\* Tank 4 (fixed roof - AC-20)  
 60'  $\phi$  x 40'

\* Tank 5 (fixed roof - AC-20)  
 19'  $\phi$  x 24'

\* Tank 6 (fixed roof - AC-20)  
 60'  $\phi$  x 24'

\* Emissions not calculated for AC-20 asphalt due to extremely low vapor pressure.

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY LJM DATE 10/27/62  
 DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 6 OF 16

Tank 10 \* (fixed roof - RC-70)  
 $M = 80$   $C = 1.0$   
 $P = 1.6$  psia  $K_c = 1.0$   
 $d = 30'$   
 $h = 24'$   
 $\Delta T = 11^\circ F$   
 $F_p = 1.33$

$$L_B = (2.26 \times 10^{-2}) (80) \left( \frac{1.6}{14.7 - 1.6} \right)^{.68} (30)^{1.73} (12.5)^{.51} (11)^{.5} (1.33) (1) (1) =$$

$$L_B = 2,486 \text{ lbs/yr}$$

Tank 11 \* (fixed roof RC-70)  
 $L_B = 2,486 \text{ lbs/yr}$

Tank 12 (fixed roof - No. 2 oil)

$$M = 130$$

$$P = .009$$

$$D = 40'$$

$$h = 40'$$

$$\Delta T = 11^\circ F$$

$$F_p = 1.33$$

$$C = 1.0$$

$$K_c = 1.0$$

$$H = 40/2 + (1/3)(.1)(20) = 20.67$$

$$L_B = (2.26 \times 10^{-2}) (130) \left( \frac{.009}{14.7 - .009} \right)^{.68} (40)^{1.73} (20.67)^{.51} (11)^{.5} (1.33) (1) (1)$$

$$L_B = 235 \text{ lbs/yr}$$

\* RC-70 product - 70% asphalt, 30% naptha;  
 emissions calculated using product characteristics  
 of naptha.

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 804.1 COMPUTED BY JJM DATE 10/27/82  
 DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 7 OF 16

Tank 13 (fixed roof - No. 2 oil)

$$\begin{aligned} M &= 130 \\ P &= 0.009 \\ D &= 40' \\ h &= 40' \\ \Delta T &= 11 \end{aligned}$$

$$\begin{aligned} F_p &= 1.33 \\ C &= 1.0 \\ K_c &= 1.0 \end{aligned}$$

$$H = \frac{40}{2} + \left(\frac{1}{3} \times 1\right)(20) = 20.67'$$

$$L_B = (2.26 \times 10^2)(130) \left(\frac{.009}{14.7 - .009}\right)^{.68} (40)^{1.73} (20.67)^{.51} (11)^{.5} (1.33)(1)(1)$$

$$L_B = 235 \text{ lbs/yr}$$

\* Tank 14 (fixed roof - AC-20)  
 21' x 24'

Total Breathing Losses = 8,025 lbs/yr

\* Emissions not calculated for AC-20 asphalt due to extremely low vapor pressure.

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/27/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 8 OF 16

### B. Working Losses

$$L_w = 2.40 \times 10^{-2} M P K_N K_c$$

- $L_w$  = fixed roof working loss (lb/10<sup>3</sup> gal thrpt)  
 $M$  = vapor molecular weight (lb/lb mole)  
 $P$  = true vapor pressure (psia)  
 $K_N$  = turnover factor  
 $K_c$  = product factor

Product throughput proportioned by tank volume.

### Product throughput:

No. 2 oil	811,000	bbbls/yr
No. 6 oil	366,000	bbbls/yr
Jet A	84,000	bbbls/yr
AC-20	184,000	bbbls/yr
RC-70	12,000	bbbls/yr



**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/27/82  
 DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 9 OF 16

Tank 1 No. 2 oil - 80,000 bbls

$$M = 130 \quad K_N = 1$$

$$P = .009 \quad K_c = 1$$

$$Q_1 = (811,000) \left( \frac{80}{98} \right) =$$

662,041

$$L_w = (2.40 \times 10^{-2}) (130) (.009) (1) (1) \left( \frac{1 \text{ bs}}{10^3 \text{ gal}} \right) \times (811,000) \left( \frac{80}{98} \right) (42)$$

$$L_w = 781 \text{ lbs/yr}$$

Tank 2 No. 6 oil - 55,000 bbls

$$M = 190 \quad K_N = 1$$

$$P = .00006 \quad K_c = 1$$

$$Q_2 = 366,000 \text{ bbls/yr}$$

$$L_w = (2.40 \times 10^{-2}) (190) (.00006) (1) (1) \left( \frac{1 \text{ bs}}{10^3 \text{ gal}} \right) (366,000) (42)$$

$$L_w = 4.2 \text{ lbs/yr}$$

Tank 3 Jet Kerosene - 35,000 bbls

$$M = 130 \quad K_N = 1$$

$$P = .011 \quad K_c = 1$$

$$Q_3 = 84,000 \text{ bbls/yr}$$

$$L_w = (2.40 \times 10^{-2}) (130) (.011) (1) (1) \left( \frac{1 \text{ bs}}{10^3 \text{ gal}} \right) (84,000) (42)$$

$$L_w = 121 \text{ lbs/yr}$$

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/27/82  
DESCRIPTION Cape Conoveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Storage Emissions SHEET 10 OF 16

Tank 4 AC-20 - 20,000 bbls

Tank 5 AC-20 - 1,200 bbls

Tank 6 AC-20 - 20,000 bbls

Tank 10\* RC-70 - 3,000 bbls

$$M = 80 \quad K_N = 1$$

$$P = 1.6 \quad K_c = 1$$

$$Q_o = (12,000)(1/2)(.3) = 1,800 \text{ bbls/yr}$$

$$L_w = (2.40 \times 10^{-2})(80)(1.6)(1)(1) \left( \frac{\text{lbs}}{10^3 \text{ gal}} \right) (1,800)(42)$$

$$L_w = 232 \text{ lbs/yr}$$

Tank 11\* RC-70 3,000 bbls

$$L_w = 232 \text{ lbs/yr}$$

\* RC-70 product is 30% naptha  $\therefore$  30% of product throughput used in calculation.

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 10/27/82  
DESCRIPTION Cape Canaveral - Hydrocarbon Storage Emissions CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SHEET 11 OF 16

Tank 12 No. 2 - 9,000 bbls

$$M = 130 \quad K_N = 1$$

$$P = .009 \quad K_a = 1$$

$$Q_{12} = (811,000 \times \frac{9}{98}) =$$

$$L_w = (2.40 \times 10^{-2})(130)(.009)(1)(1) \frac{\text{lbs}}{10^3 \text{ gal}} (811,000 \times \frac{9}{98})(42)$$

$$L_w = 88 \text{ lbs/yr}$$

Tank 13 No. 2 oil - 9,000 bbls

$$M = 130 \quad K_N = 1.0$$

$$P = .009 \quad K_c = 1.0$$

$$Q_{13} = (811,000 \times \frac{9}{98}) =$$

$$L_w = (2.40 \times 10^{-2})(130)(.009)(1)(1) \frac{\text{lbs}}{10^3 \text{ gal}} (811,000)(\frac{9}{98})(42)$$

$$L_w = 88 \text{ lbs/yr}$$

Tank 14 AC-20 - 1,500 bbls

Total Working Losses = 1546 lbs/yr

EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE \_\_\_\_\_  
DESCRIPTION Cape Canaveral - Hydrocarbon Emissions CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SHEET 12 OF 16

### C. Loading Losses (North Loading Rack)

$$L_L = 12.46 \frac{SPM}{T} \left[ \frac{16}{10^3 \text{ gal}} \right]$$

M = vapor molecular weight 16/16 mole  
P = vapor pressure (psia)  
T = bulk temp (°R)  
S = saturation factor

submerged loading, normal dedicated service ∴ S = 0.6

#### Notes:

- (1) Product data and loading rates from Belcher Oil Company
- (2) Loading loss equation from the U.S. Environmental Protection Agency Publication AP-42
- (3) RC-70 product - 70% asphalt and 30% naptha; naptha characteristics used for 30% of throughput.
- (4) Product throughput at North Loading Rack:
 

Diesel	487,000	(bbls/yr)	No. 6	366,000
Jet Kerosene	67,200	(bbls/yr)		
RC-70	12,000	(bbls/yr)		

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 11/1/82  
 DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Emissions SHEET 13 OF 16

Section III Air Pollution Sources and  
Control Devices - Airborne  
Contaminants Emitted

I Maximum Hourly Emission

- maximum throughput flow per loading position:

- 4 trks/hr
- 8500 gallons/trk

$$Q_{max} = (4)(8500) = 34,000 \text{ gal./hr/position}$$

1) Diesel - No. 2 Oil

2 loading positions  $\therefore$  max flow = 68,000 gals/hr

$$S = 0.6 \quad T = 533^\circ R$$

$$P = 0.01 \quad M = 130$$

$$L_L = \frac{(12.46)(.6)(.01)(130)}{533 (10^3)} \quad 68,000 \text{ gals/hr}$$

$$L_L = 1.24 \text{ lbs/hr}$$

2) No. 6 Oil

1 loading position  $\therefore$  max flow = 34,000 gals/hr

$$S = 0.6 \quad T = 533$$

$$P = .00006 \quad M = 190$$

$$L_L = \frac{(12.46)(.6)(.00006)(190)}{533 (10^3)} \quad 34,000$$

$$L_L = 0.005 \text{ lbs/hr}$$

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 11/1/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Emissions SHEET 14 OF 16

3) Jet Kerosene

1 loading position ∴ max flow = 34,000 gals/hr

$$S = 0.6 \quad T = 533$$

$$P = .012 \quad M = 130$$

$$L_L = \frac{(12.46)(.6)(.012)(130)}{533} \quad \frac{34,000}{(10^3)}$$

$$L_L = 0.74 \text{ lbs/hr}$$

4) AC-20 / RC-70

1 loading position ∴ max flow = 34,000 gals/hr

$$S = 0.6 \quad T = 533$$

$$P = 1.6 \quad M = 80$$

$$L_L = \frac{(12.46)(.6)(1.6)(80)}{533} \quad \frac{(34,000)(.3)}{(10^3)}$$

$$L_L = 18.3 \text{ lbs/hr}$$

Total Maximum Hourly Emission = 20.3 lbs/hr

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
 MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 11/1/82  
 DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
Emissions SHEET 15 OF 16

## II Actual Annual Emissions

(1) No. 2 Oil

$$L_L = \frac{(12.46)(0.6)(.01)(130)}{533} (487,000)(42) \quad (10^3)$$

$$L_L = 373.0 \text{ lbs/yr} = 0.19 \text{ tns/yr}$$

(2) Kerosene

$$L_L = \frac{(12.46)(.6)(.012)(130)}{533} (67,200 \frac{\text{bb/s}}{\text{yr}} \times 42) \quad (10^3)$$

$$L_L = 61.8 \text{ lbs/yr} = 0.03 \text{ tns/yr}$$

(3) No. 6 Oil

$$L_L = \frac{(12.46)(.6)(.00006)(190)}{533} (366,000)(42) \quad (10^3)$$

$$L_L = 2.46 \text{ lbs/yr}$$

(4) RC-70

$$L_L = \frac{(12.46)(.6)(1.6)(80)}{533} (12,000)(.3)(42) \quad (10^3)$$

$$L_L = 271.5 \text{ lbs/yr} = 0.14 \text{ tns/yr}$$

Total Actual Annual Emissions = 709  $\frac{\text{lbs}}{\text{yr}} = 0.36 \frac{\text{tns}}{\text{yr}}$

**EDWARD E. CLARK ENGINEERS - SCIENTISTS, INC.**  
MIAMI, FLORIDA

JOB Belcher Oil Company JOB NO. 8014.1 COMPUTED BY JJM DATE 11/1/82  
DESCRIPTION Cape Canaveral - Hydrocarbon CHECKED BY KML DATE \_\_\_\_\_  
Loading Emissions SHEET 16 OF 16

### III Potential Emissions

#### Maximum Hourly

- |               |               |        |
|---------------|---------------|--------|
| 1) No 2 Oil:  | $L_L = 1.24$  | lbs/hr |
| 2) No. 6 Oil: | $L_L = 0.005$ | lbs/hr |
| 3) Kerosene : | $L_L = 0.74$  | lbs/hr |
| 4) RC-70 :    | $L_L = 18.3$  | lbs/hr |

Total Potential Hourly Maximum = 20.3 lbs/hr

#### Annual Potential

- |               |               |        |
|---------------|---------------|--------|
| 1) No. 2 oil  | $L_L = 373.0$ | lbs/yr |
| 2) No. 6 oil  | $L_L = 2.46$  | lbs/yr |
| 3) Kerosene : | $L_L = 61.8$  | lbs/yr |
| 4) RC-70      | $L_L = 271.5$ | lbs/yr |

Total Annual Potential = 0.36 tons/yr



ATTACHMENT 2

NOV 09 1982

November 3, 1982

BAQM

Mr. Bruce Mitchell  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Store Road  
Tallahassee, Florida 32301 - 8241

Re: Air Pollution Permit  
Applications for Belcher  
Oil Company - Port  
Canaveral Terminal  
(AC05-57476, 57477,  
57478, 57479, 57480)

Dear Mr. Mitchell:

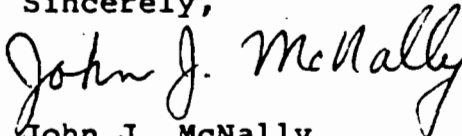
Enclosed please find four copies of the Air Pollution Source Permit Application for the south loading rack at the Port Canaveral terminal. This application has been revised to reflect a 98% vapor recovery efficiency and a maximum flow rate based on truck loading capability for each loading position.

Also enclosed, are four copies of the permit application which includes the emission resulting from the remaining product storage tanks and the north loading rack operations. A check in the amount of \$20.00 is included to satisfy the application fee.

The total emissions resulting from this terminal are summarized in the attached table. As indicated, these emissions do not exceed 100 tons per year.

Please do not hesitate to call if you have any questions regarding these materials.

Sincerely,

  
John J. McNally

JJM:lao  
8014.1

Enclosures

cc: P.W. Moldenhauer



Belcher Oil Company  
Port Canaveral Terminal  
Total Product Emissions

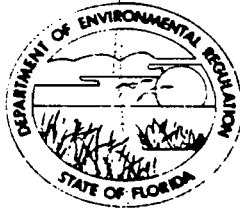
Source	Losses lbs/yr			Total
	Breathing/ Standing	Working/ Withdrawal	Loading	
Tanks 7,8,9,15,17,18 and South Loading Rack	144,415	254	30,124	174,793 (87.40)
Tanks 1-6/10-14 and North Loading Rack	8,025	1,546	709	10,280 (5.14)
Totals - lbs/yr - (T/yr)	152,440 (76.22)	1,800 (.90)	30,833 (15.42)	185,073 (92.54)

8014.1  
11/3/82

ATTACHMENT 3

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

November 30, 1982

Mr. P. W. Moldenhauer  
Belcher Oil Company  
P. O. Box 525500  
Miami, Florida 33152

Re: Completeness Review for Port Canaveral Terminal  
Construction Permit Applications: AC 05-57476,  
57477, 57478, 57479, 57480, 62236.

Dear Mr. Moldenhauer:

The Bureau received an amendment to the above referenced applications, AC 05-57476-57480, on November 9, 1982. Because the amendment also requested that eleven (11) other storage tanks be permitted that were not contained in the original applications to construct (AC 05-57476-57480), the Bureau assigned it a permit number, AC 05-62236.

After review of the amendment and its contents, the above referenced construction permit applications have been determined to be incomplete. Processing of the applications will resume when the data requested below has been submitted to the Bureau:

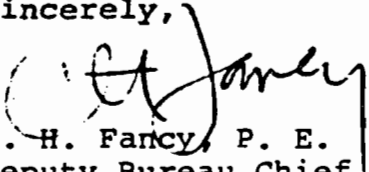
1. The number 6.4 psia was used for the gasoline true vapor pressure (TVP) in the calculations for VOC losses. Since there are no references to its origin, submit, by storage tank, the Reid Vapor Pressure (RVP) of the gasoline(s) to be stored in tanks Nos. 7, 8, 9, 15, 17, and 18, as determined by ASTM-D-323-58 (1968). Also, submit for the same storage tanks the TVP of the gasoline(s) to be stored as determined in accordance with methods described in API Bullentin 2517, Evaporation Loss from Floating Roof Tanks, 1962.

Mr. P. W. Moldenhauer  
November 30, 1982  
Page Two

2. The incorrect application fee (\$20.00) was submitted for the above referenced construction permit, AC 05-62236. The minimum fee per source is \$100.00, in accordance with Chapter 17-4.05(4)(a)5., Florida Administrative Code (FAC). Therefore, for eleven storage tanks the total correct application fee is \$1100.00. The balance due the Department is \$1080.00.

If there are any questions, please call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,



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

BM/ks

cc: Kuang-Mei Lo, Clark Engineers  
Scientist, Inc.  
Chuck Collins  
Martha Hall

ATTACHMENT 4



December 10, 1982

Mr. Bruce Mitchell  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

DER  
DEC 14 1982  
BAQM

Re: Belcher Oil Company - Port  
Canaveral Terminal Air  
Pollution Source Permit  
Application

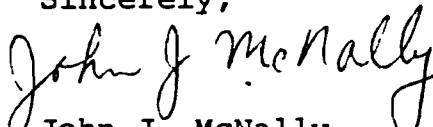
Dear Mr. Mitchell:

The following information is in response to your letter, dated November 30, 1982, requesting additional information for the air pollution source permit applications for the Belcher Oil Company's Port Canaveral storage facility. As we discussed during our telephone conversation, a Reid Vapor Pressure of 10 psi was used in the gasoline emission calculations in the permit application. This value is considered to be a representative annual value for the gasoline product handled at the facility.

Enclosed please find a check in the amount of \$1,080 to satisfy the balance of the application fee as a result of the recent increase in the application fee schedule.

Please do not hesitate to contact me if you have any additional questions regarding these applications.

Sincerely,

  
John J. McNally

JJM/imr  
8014.1



ATTACHMENT 5

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

January 13, 1983

CERTIFIED MAIL

Mr. P. W. Moldenhauer  
Belcher Oil Company  
P. O. Box 525500  
Miami, Florida 33152

Re: Construction Permit Applications: AC 05-57476, -57477,  
-57478, -57479, -57480, and -62236.

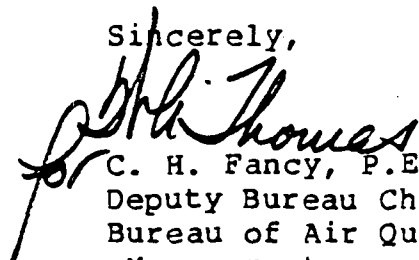
Dear Mr. Moldenhauer:

In the attempt to establish rule applicability, I spoke with your consultant, John McNally, about the above referenced applications. Since the construction date(s) for the existing storage tanks is critical in determining rule applicability, it will be necessary to receive the following data:

1. Submit the date(s) of construction for each existing storage tank contained in the above referenced applications.

If there are any questions, please call Bruce Mitchell at (904) 488-1344 or write to me at the above address.

Sincerely,

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

CHF/RBM/bjm

cc: Kuang-Mei Lo, Clark Engineers-Scientists, Inc.  
John McNally, Clark Engineers-Scientists, Inc.  
Chuck Collins  
Martha Hall

ATTACHMENT 6

# CLARK

engineers-scientists

January 18, 1983

Mr. Bruce Mitchell  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-8241

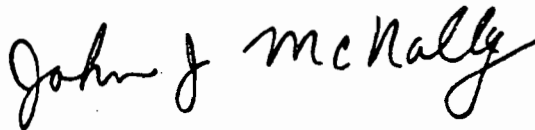
DER  
JAN 21 1983  
BAQM

Re: Belcher Oil Company  
Port Canaveral Facility  
Air Pollution Permit Application (AC05-57476-80, AC05-62236)

Dear Mr. Mitchell:

The following information is in response to your request for the date of construction for each of the storage tanks at the Belcher Oil Company's Port Canaveral facility. The construction dates for each of these tanks are listed on the attached sheet.

Sincerely,



John J. McNally

JJM:imr  
8014.1

cc: P.W. Moldenhauer

BELCHER OIL COMPANY  
PORT CANAVERAL FACILITY

<u>Tank No.</u>	<u>Type</u>	<u>Capacity (bbl)</u>	<u>Product</u>	<u>Dimensions (ft)</u>	<u>Date of Construction</u>
#1	Cone	80,000	No. 2 Oil	120Ø X 40	1954
#2	Cone	55,000	No. 6 Oil	100Ø X 40	1954
#3	Cone	35,000	Jet A	80Ø X 40	1954
#4	Cone	20,000	AC-20	60Ø X 40	1963
#5	Cone	1,200	AC-20	19Ø X 24	1963
#6	Cone	20,000	AC-20	60Ø X 40	1963
#7	Internal Float	55,000	Gasoline	100Ø X 40	1958
#8	Internal Float	35,000	Gasoline	80Ø X 40	1958
#9	Internal Float	35,000	Gasoline	80Ø X 40	1958
#10	Cone	3,000	RC-70	30Ø X 24	1959
#11	Cone	3,000	RC-70	30Ø X 24	1959
#12	Cone	9,000	No. 2 Oil	40Ø X 40	1961
#13	Cone	9,000	No. 2 Oil	40Ø X 40	1961
#14	Cone	1,500	AC-20	21Ø X 24	1963
#15	Ext. Float	55,000	Gasoline	100Ø X 40	1969
#17	Internal Float	100,000	Gasoline	143Ø X 42	1974
#18	Internal Float	100,000	Gasoline	143Ø X 42	1974

Notes: (1) No Tank 16