VENOCO, INC.

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VENTURA COUNTY
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A.P.C.D.

October 25, 2012

Mr. Kerby Zozula, Supervisor
Engineering Division
Ventura County APCD
669 County Square Drive
Ventura, CA 93003

Subject: Reissuance Application for Part 70 Permit - Platform Gail

Dear Mr. Zozula:

We are responding to your letter of August 6, 2012 regarding the Platform Gail Part 70 Reissuance Application. Responses to your three comments are provided below. A copy of your letter is attached for reference to the comments made.

1. A signed copy of the Compliance Plan Cover Sheet from the application is attached.
2. Venoco submitted its latest annual compliance certification to the District with its letter dated February 15, 2012. This certification is within the referenced 6-18 month window prior to the expiration date of the Part 70 permit (12/31/2012).
3. 40 CFR Part 63, Subpart ZZZZ, is applicable to stationary Reciprocating Internal Combustion Engines (RICE) that operate at a major or area source of HAP emissions. Revisions to include engines at HAPs area sources were adopted on August 20, 2010. A stationary source is a major source of HAP emissions when the HAP emissions exceed thresholds of 10 tons per year of a single HAP or 25 tons per year of combined HAPs. An Area Source of HAPs is any stationary source of HAP emissions that is not a major source. California-defined toxic emissions are shown in the Part 70 reissuance application, in the Air Toxics Emissions Summary Report. Most of these toxics listed are also included in the definition of HAPs in Clean Air Act 112(b). These data indicate that Platform Gail is an Area Source of HAPs. Thus, Subpart ZZZZ is applicable to the RICEs at the source. Subpart ZZZZ requirements vary in this instance depending on several factors, including:

    - Whether the engine is compression-ignition (CI), or spark-ignited (SI);
    - Whether the engine is new or existing. A new engine is one constructed after June 12, 2006;
    - The engine size category, including:
        - $\leq$ 300 hp
        - 300-500 hp
        - >500 hp
    - Whether the engine is an emergency or a non-emergency engine.

There are seven affected subpart ZZZZ engines on Platform Gail in three separate compliance categories:

a. non-emergency existing CIs >500 hp:
   i. One 1300 hp Detroit Diesel back-up generator (G-04);
   ii. One 545 hp Caterpillar engine (south crane);
b. non-emergency existing CIs <300 hp:
   i. One 215 hp Caterpillar engine (north crane);
   ii. Three 140 hp Detroit Diesel turbine starter engines;
c. emergency existing CIs:
   i. One 481 hp Caterpillar emergency standby engine.

CI engines must be in compliance with subpart ZZZZ by May 3, 2013. Compliance requirements are as follows:

a. non-emergency existing CIs >500 hp:
   CO must meet 23 ppmv at 15% O_2 or be reduced by 70% and periodic maintenance.
b. non- emergency existing CIs <300 hp:
   Periodic maintenance.
c. emergency existing CIs:
   Periodic maintenance.

It is anticipated that the CO standard for CI engines can be met with installation of a diesel oxidation catalyst (DOC) on each engine.

Since the compliance date for area sources of HAPs has not yet passed, Platform Gail is currently in compliance with subpart ZZZZ. Venoco is currently developing a compliance plan to meet the 2013 requirements.

Please feel free to contact me at (805) 745-2264, or pcorcoran@venocoinc.com, if you have any questions or comments regarding this submittal.

Sincerely,

Pat Corcoran
Environmental Coordinator

Enclosures Noted

C: Chris Fox, Venoco, Inc.
Alex Bealer, Reese-Chambers

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan Cover Sheet
Part 70 Permit Reissuance Applications Forms

Instructions

A compliance plan, signed by the responsible official, must be attached to each application for reissuance of a Part 70 Permit. To complete the compliance plan, attach the following to this sheet:

1. A completed compliance plan form for all applicable requirements that are currently effective and that apply to an emission unit at your facility or to your entire facility. Only one form that refers to all currently applicable requirements needs to be completed.

2. A completed compliance plan form for each applicable requirement that will become effective during the term of your permit and that will apply to an emission unit at your facility or to your entire facility. One form for each applicable requirement with a future effective date must be completed.

3. A narrative description of how each emission unit at your facility that does not comply with an applicable requirement will achieve compliance with the requirement.

   A compliance schedule, approved as part of an order issued by the District Hearing Board, must be attached for each emission unit that is not in compliance with an applicable requirement. Each compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the applicable requirement. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject.

   A schedule for submission of certified progress reports on the compliance schedule no less frequently than every six months must also be attached.

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this compliance plan are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Larry Huskins, Operations Manager	24-Oct-2012

Compliance Plan Cover Sheet (May 22, 2002)

VENOCO, INC.

June 19, 2012

Mr. Kerby Zozula, Supervisor
Engineering Division
Ventura County APCD
669 County Square Drive
Ventura, CA 93003

Re: Reissuance Application for Part 70 Permit No. 01494 - Platform Gail

Dear Mr. Zozula:

Venoco's application for reissuance of Part 70 Permit No. 01494 is attached. The due date is July 1, 2012. Contents of the application are provided on Page 1 - Application Contents as listed in the District's "Instructions - Part 70 Permit Reissuance Applications Forms". Our check for $2,450 is enclosed to cover the filing fee of $450 and the deposit of $2,000.

Please feel free to contact me at (805) 745-2264, or pcorcoran@venocoinc.com, if you have any questions or comments regarding this submittal.

Sincerely,

Pat Corcoran
Environmental Coordinator

Enclosures Noted

C: Alex Bealer, Reese-Chambers

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PLATFORM GAIL
TITLE V REISSUANCE APPLICATION CONTENTS

1. General Facility Information Form (3 pages)
2. Facility Process Description (1 page)
   (Stationary Source Description from Part 70 Permit No. 01494)
3. Platform Gail Location Map (1 page)
4. Facility Plot Plan (Equipment Arrangement Drawings) (4 pages)
5. Process Flow Diagrams (4 pages)
6. Statement regarding Permit Tables 1 through 4 (1 page)
7. Table 1 from Part 70 Permit No. 01494 (8 pages)
8. Table 2 from Part 70 Permit No. 01494 (2 pages)
9. Table 3 from Part 70 Permit No. 01494 (2 pages)
10. Table 4 from Part 70 Permit No. 01494 (2 pages)
11. Equipment and Emissions Summary Report from Part 70 Permit No. 01494 (16 pages)
12. Air Toxics "Hot Spots" Emissions Summary Report (3 pages)
13. Compliance Plan and Certification (3 pages)
14. Statement regarding Insignificant Equipment List (1 page)
15. Insignificant Equipment List from permit (1 page)
16. CAM Plan for turbines (Permit Attachment 74.23N2/1494-rev471 (6 pages)
17. Statement regarding Oil Well List (1 page)
18. Oil Well List from permit (1 page)

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

General Facility Information
Part 70 Permit Reissuance Application Form

1. Permit Number: 0 1494 Date: May 21, 2012

2. Company Name:
Venoco Inc.

3. Company Mailing Address:
6267 Carpinteria Ave.; Suite 100

4. Company City, State Zip Code:
Carpinteria, CA 93013

5. Responsible Official and Title (as defined in 40 CFR 70.2 and VCAPCD Rule 33.1):
Larry Huskins, Operations Manager

6. Responsible Official Telephone Number:
(805) 745-2100

7. Facility Name (Usually Same As Company Name):
Platform Gail

8. Facility Street Address (or Lease Name/Field Name):
OCS Lease P-0205

9. Facility City, CA Zip Code:
Offshore of Ventura, CA

10. Title V Permit Contact Person and Title:
Pat Corcoran, Environmental Coordinator

11. Title V Permit Contact Person Telephone Number:
(805) 745-2264

12. Type of Organization:

☒ Corporation	☐ Sole Proprietorship
☐ Partnership	☐ Government

13. Facility Operating Schedule: 24 Hours/Day 7 Days/Week 52 Weeks/Year

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14. Facility SIC Code: 1311

CAM(Compliance Assurance Monitoring) Plans

15. Are you required to submit a CAM plan for any emissions unit at this facility? ☒ Yes ☐ No

If yes, submit a CAM plan for each emissions unit as an attachment to the application. See the District CAM plan instructions for more detail. CAM Plan for turbines - see Attachment 74.23N2/1494 from PTO 01494, Conditions 4 - 7 (attached)

If you answer yes to any of questions 16 through 18 below, submit supplemental information as an attachment to the application. See instructions for more detail.

16. Does this application request alternative operating scenarios pursuant to Rule 33.4.B? ☐ Yes ☒ No

17. Does this application request voluntary emission caps pursuant to Rule 33.4.C? ☐ Yes ☒ No

18. Does this application include any proposed exemptions from otherwise applicable requirements pursuant to Rule 33.2.A.5? ☐ Yes ☒ No

Miscellaneous Federal Requirements

19. Has this facility been required to prepare a federal Risk Management Plan pursuant to Section 112(r) of the federal Clean Air Act and 40 CFR Part 68? ☐ Yes ☒ No

If yes, has the federal Risk Management Plan been submitted to the implementing agency? ☐ Yes ☐ No

If a federal Risk Management Plan is required but has not been submitted to the implementing agency, provide a detailed explanation as an attachment to the application.

20. Does this facility conduct any activities that are regulated by the federal protection of stratospheric ozone requirements in 40 CFR Part 82? ☐ Yes ☒ No

21. Is this facility subject to the acid rain requirements in 40 CFR Part 72 through 40 CFR Part 78? ☐ Yes ☒ No

22. Is this facility subject to the federal outer continental shelf air regulations in 40 CFR Part 55? ☒ Yes ☐ No

Permit Shields

23. Does the current Part 70 permit for this facility include any permit shields? ☐ Yes ☒ No

If yes, is the basis for each permit shield still correct? ☐ Yes ☐ No

If the current Part 70 permit contains any permit shield for which the basis is no longer correct, provide a detailed explanation as an attachment to the application.

New Generally Applicable Requirement

24. Rule 74.11.1 requires that new large water heaters and new small boilers with a rated heat input capacity greater than or equal to 75,000 BTU per hour and less than or equal to 2,000,000 BTU per hour be certified by the manufacturer to meet certain nitrogen oxide emission standards. Are you complying with the requirements of Rule 74.11.1 by purchasing and installing only certified units? ☒ Yes ☐ No

If no, provide a detailed explanation as an attachment to the application.

Facilities Must Submit Process Descriptions, Plot Plans, and Process Flow Diagrams That Provide the Following:

25. General Nature of Business (e.g., Autobody Painting, Gasoline Storage & Dispensing, Oil Production, etc.)
    Oil & Gas Extraction
26. Facility Process Description
    Attached
27. A Street Map or Road Map That Shows the Location of the Facility in Ventura County.
    Attached
28. A Facility Map That Clearly Indicates the Facility Boundaries and the Location of Permitted Equipment.
    Attached
29. A Process Flow Diagram That Traces the Processes Throughout All Permitted Equipment from Start to Finish.
    Attached

30. Certification by Responsible Official (as defined in 40 CFR 70.2 and VCAPCD Rule 33.1)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information provided for this Part 70 Permit Application are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Larry Huskins, Operations Manager	19-June-2012

General Facility Information (May 22, 2002)

1.b. PERMIT SUMMARY AND STATEMENT OF BASIS

Stationary Source Description

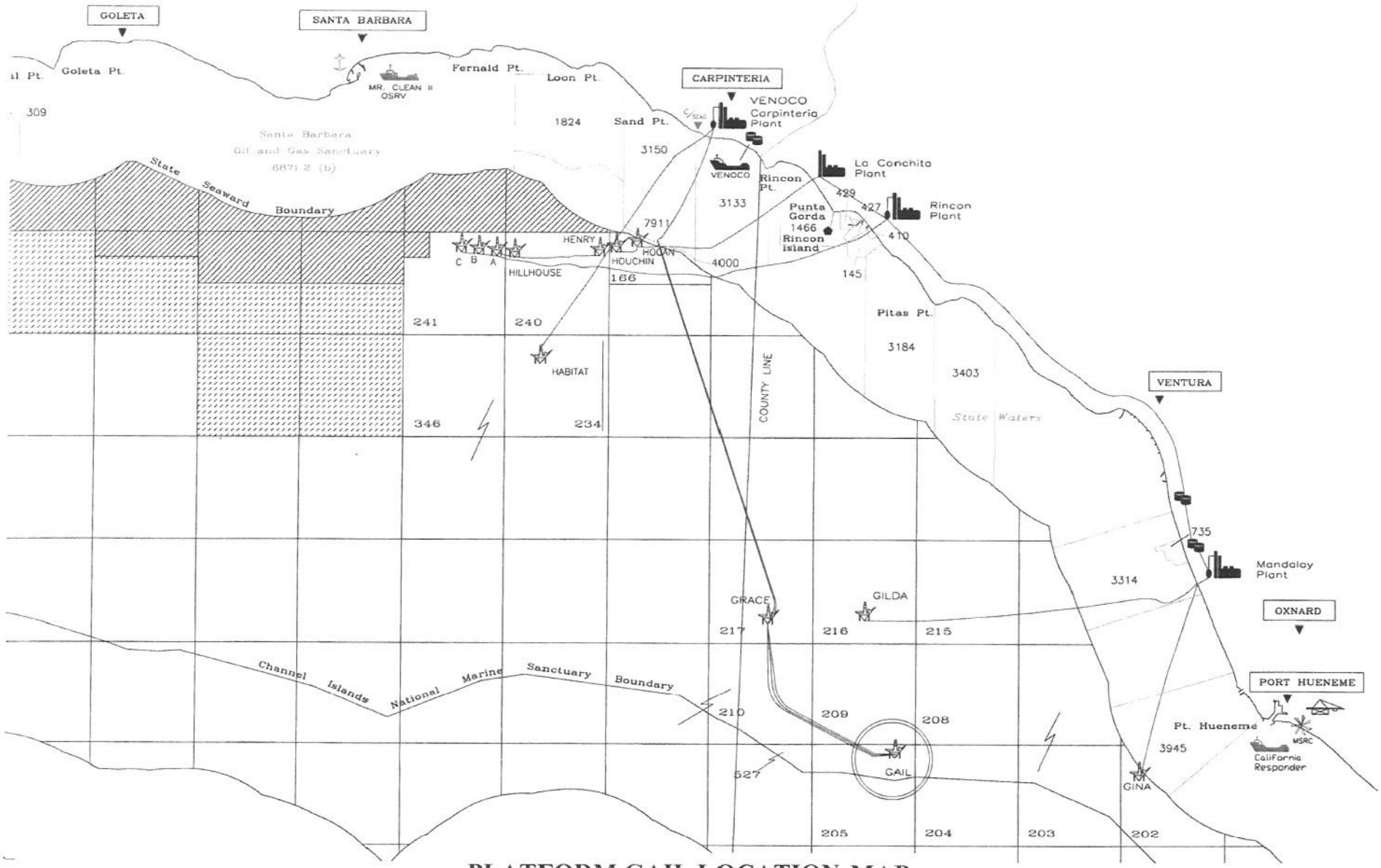
This stationary source is an oil platform, Platform Gail, located offshore of Ventura, California. The source is a crude oil production facility and has a Standard Industrial Classification (SIC) Code of 1311, Crude Oil Production. The source operates various oil production and processing equipment, including wells, tanks, a glycol dehydrator system, flares, three 4.0 MW Allison turbines and diesel engines. The three 4.0 MW Allison turbines provide electrical power for the platform. The engines on the platform are used to start the turbines, for the operation of cranes, and for backup electrical power. This stationary source is subject to the Part 70 permit program based upon the potential to emit reactive organic compounds (ROC), nitrogen oxides (NOx), and carbon monoxide (CO).

As discussed in more detail throughout this Permit Summary and Statement of Basis, this permit applies to emissions units that are required to have a permit to operate pursuant to District Rule 10, "Permits Required", and District Rule 23, "Exemptions from Permit". These emissions units are listed in Table No. 2 in Section No. 2 of this permit. However, as discussed below, some equipment that is exempt from permit pursuant to District Rule 23, "Exemptions from Permit", may be subject to District rules such as District Rule 50, "Opacity". This includes "Insignificant Activities" as listed in Section No. 6 of the permit. In addition, "Short Term Activities" as listed in Section No. 10 of the permit are subject to certain rules and regulations. This permit does not shield the permittee from complying with any Federal, State, or District rule or regulation that is not specifically addressed in the permit or any rule or regulation that may come into effect during the term of the permit.

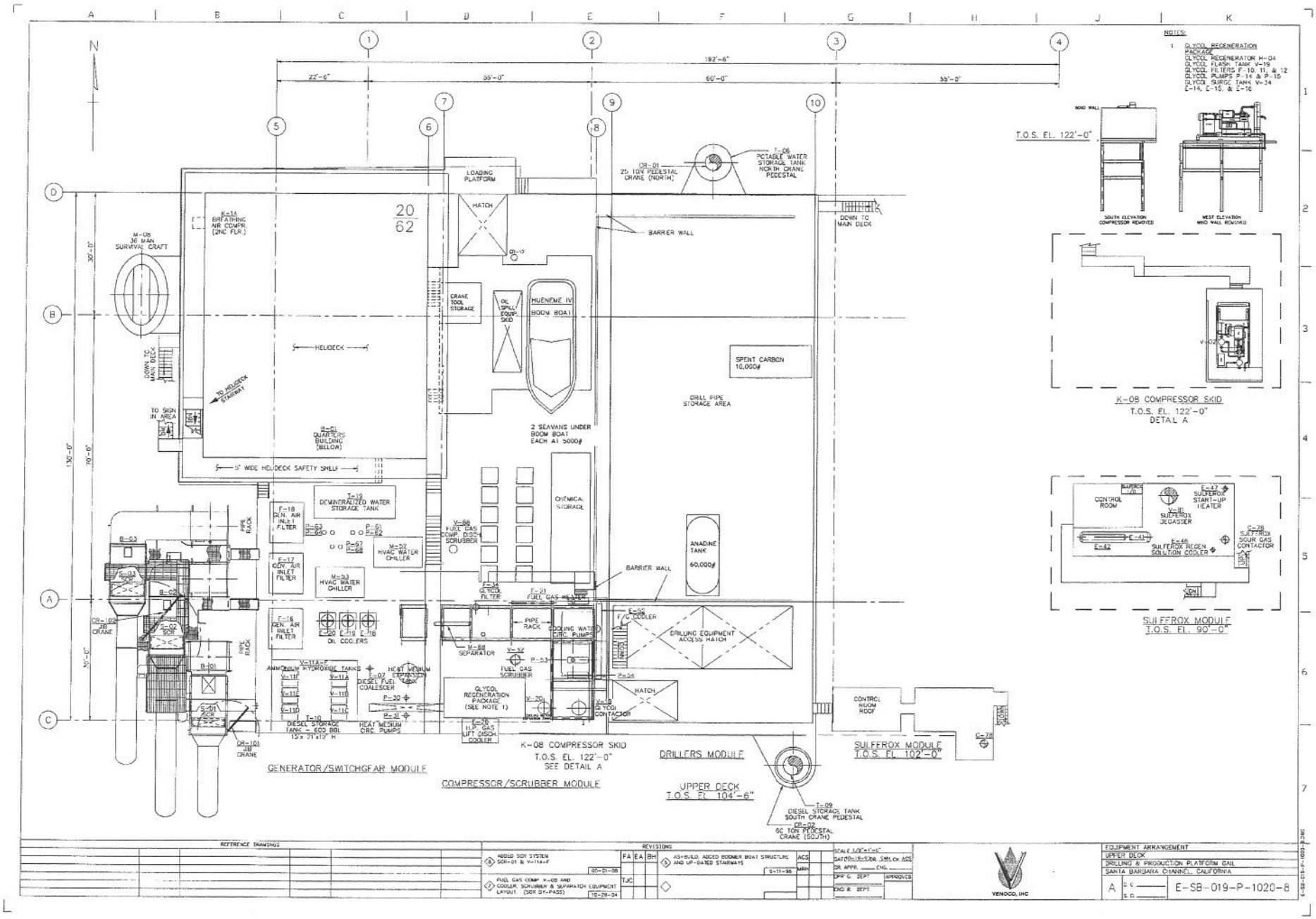
Stationary Source Emissions

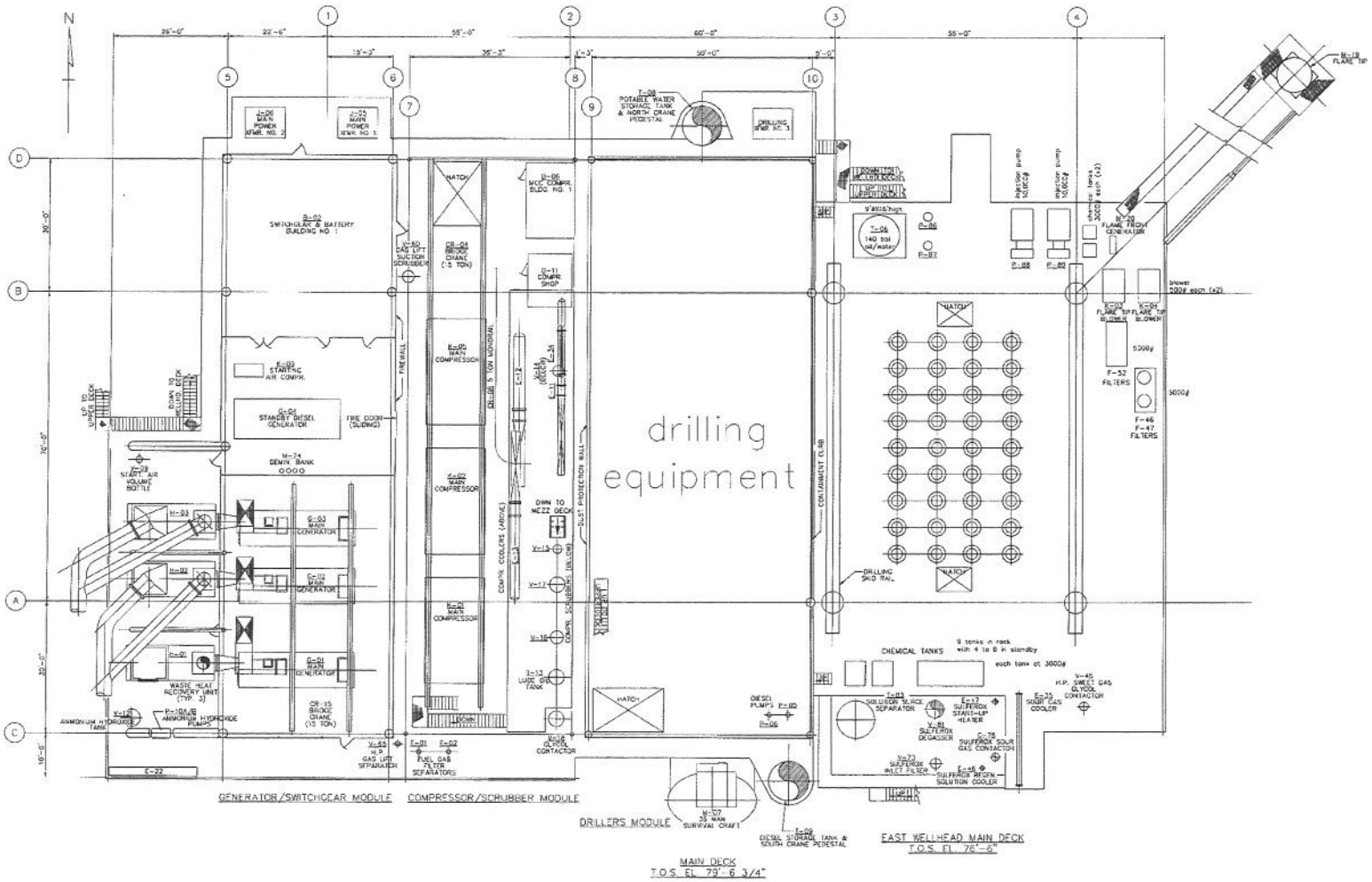
In Ventura County, the Part 70 permit thresholds are 50 tons per year for ROC and NOx and 100 tons per year for PM, SOx, and CO, pursuant to Rule 33.B.2. Ventura County's nonattainment classification with the federal ozone standard has been in transition and is currently set at "Serious". This stationary source is subject to the Part 70 permit program based upon the potential to emit nitrogen oxides (NOx) and carbon monoxide (CO) in excess of these thresholds as shown in Table No. 4 in Section No. 4 of this Permit to Operate. The purpose of Table No. 4 is to document the permitted emissions of the criteria pollutants ROC, NOx, PM, SOx, and CO for this stationary source. District Rule 29, "Conditions on Permits", requires permitted emissions to be included on each Permit to Operate. District Rule 29 requires that annual permitted emissions be based on a 12 calendar month rolling period and be expressed in units of tons per year. Hourly permitted emissions are required to be expressed in units of pounds per hour. Permitted emissions for a stationary source are required to be determined by aggregating the permitted emissions for each emissions unit at the stationary source.

Criteria pollutant emissions (ROC, NOx, PM, SOx, and CO) result from the combustion of diesel fuel, natural gas, and produced gas in the turbines, engines, and flares. Criteria pollutants are also emitted from the diesel and gasoline engines associated with the crew boats, work boats,



PLATFORM GAIL LOCATION MAP


NOTES:
1. GLYCOL REGENERATION PACKAGE
GLYCOL REGENERATOR H-04
GLYCOL FLASH TANK V-19
GLYCOL FILTERS F-10, 11, & 12
GLYCOL PUMPS P-14 & P-15
GLYCOL SURGE TANK V-34
E-14, E-15, & E-16
192'-6"
22'-6"
55'-0"
60'-0"
55'-0"
T.O.S. EL. 122'-0"
SOUTH ELEVATION COMPRESSOR REMOVED
WEST ELEVATION WIND WALL REMOVED
K-08 COMPRESSOR SKID
T.O.S. EL. 122'-0"
DETAIL A
SULFEROX MODULE
T.O.S. EL. 90'-0"
CONTROL ROOM
SULFEROX START-UP HEATER
SULFEROX DEGASSER
SULFEROX REGEN SOLUTION COOLER
SULFEROX SOUR GAS CONTACTOR
LOADING PLATFORM
HATCH
BARRIER WALL
DOWN TO MAIN DECK
PORTABLE WATER STORAGE TANK NORTH CRANE PEDESTAL
25 TON PEDESTAL CRANE (NORTH)
M-05 36 MAN SURVIVAL CRAFT
K-14 BREATHING AIR COMPR. (2ND FLR.)
20
62
HELIDECK
DOWN TO MAIN DECK
TO HELIDECK STAIRWAY
TO SIGN IN AREA
B-01 QUARTERS BUILDING (BELOW)
5' WIDE HELIDECK SAFETY SHELF
CRANE TOOL STORAGE
OIL SPILL EQUIP. SKID
HUENEME IV BOOM BOAT
2 SEAVANS UNDER BOOM BOAT EACH AT 5000#
SPENT CARBON 10,000#
DRILL PIPE STORAGE AREA
CHEMICAL STORAGE
ANADINE TANK 60,000#
T-19 DEMINERALIZED WATER STORAGE TANK
F-18 GEN. AIR INLET FILTER
F-17 CONV. AIR INLET FILTER
F-16 GEN. AIR INLET FILTER
M-52 HVAC WATER CHILLER
M-53 HVAC WATER CHILLER
V-88 FUEL GAS COMP. DISCH. SCRUBBER
F-14 GLYCOL FILTER
F-21 FUEL GAS HEATER
E-56 F/G COOLER
PIPE RACK
COOLING WATER CIRC. PUMPS
DRILLING EQUIPMENT ACCESS HATCH
M-88 SEPARATOR
V-32 FUEL GAS SCRUBBER
P-53
P-54
V-20
V-18 GLYCOL CONTACTOR
GLYCOL REGENERATION PACKAGE (SEE NOTE 1)
E-20 E-19 E-18 OIL COOLERS
AMMONIUM HYDROXIDE TANKS
V-11A-F
HEAT MEDIUM EXPANSION TANK
E-07 DIESEL FUEL COALESCER
P-30
P-31
T-10 DIESEL STORAGE TANK - 600 BBL 15'x 21'x12' H
HEAT MEDIUM CIRC. PUMPS
E-26 H.P. GAS LIFT DISCH. COOLER
B-03
B-04
B-02
B-01
C-02 SOR
C-01 SOR
CR-102 JIB CRANE
CR-101 JIB CRANE
GENERATOR/SWITCHGEAR MODULE
COMPRESSOR/SCRUBBER MODULE
K-08 COMPRESSOR SKID
T.O.S. EL. 122'-0"
SEE DETAIL A
DRILLERS MODULE
UPPER DECK
T.O.S. EL. 104'-6"
CONTROL ROOM ROOF
SULFEROX MODULE
T.O.S. EL. 102'-0"
C-78
T-09 DIESEL STORAGE TANK SOUTH CRANE PEDESTAL
CR-02 6C TON PEDESTAL CRANE (SOUTH)
REFERENCE DRAWINGS
REVISIONS
ADDED SOR SYSTEM SOR-01 & V-11A-F
05-01-08
FUEL GAS COMP K-08 AND COOLER, SCRUBBER & SEPARATOR EQUIPMENT LAYOUT. (SOR SY-PASS)
10-29-04
AS-BUILD, ADDED BOOMER BOAT STRUCTURE AND UP-DATED STAIRWAYS
5-11-98
SCALE 3/8"=1'-0"
DATE 10-19-92
DR. APPR. ENG.
OPR G. DEPT
ENG R. DEPT
APPROVED
VENOCO, INC
EQUIPMENT ARRANGEMENT
UPPER DECK
DRILLING & PRODUCTION PLATFORM CARL
SANTA BARBARA CHANNEL, CALIFORNIA
A
E-SB-019-P-1020-8



REFERENCE DRAWINGS

REVISIONS

3	REMOVED V-53 CRUDE OIL STABILIZER	3-30-2010	ACS	JT	3	AS-BUILT SCR	11-27-07
2	ADDED PROPOSED P-90	11-22-00	ACS	HSK	1	ISSUED FOR APPROVAL	4-7-95

JC EFA SH JC

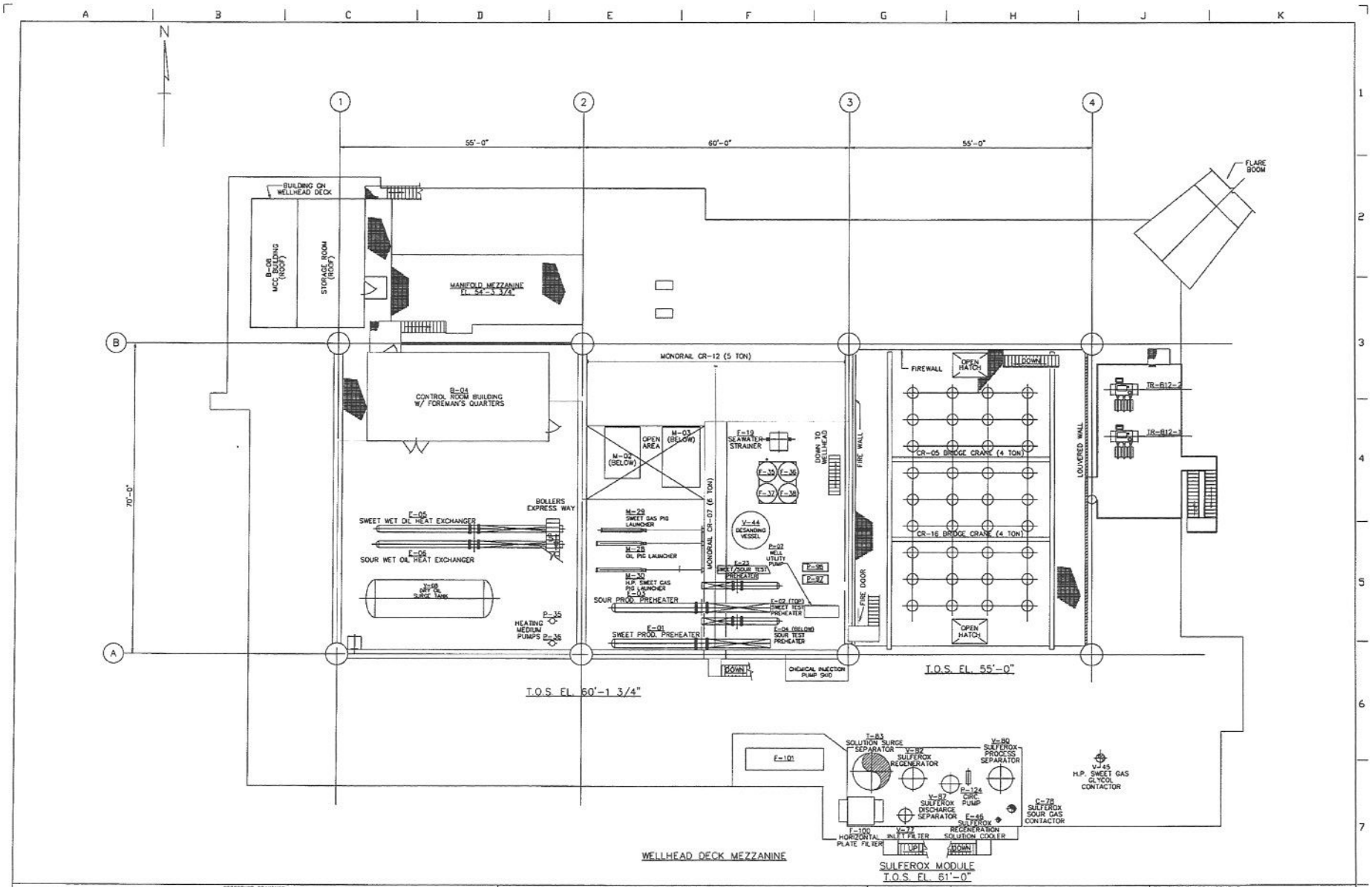
SCALE: 1/8"=1'-0"
DATE: 03-30-2010
DR. APPR. ____ DATE ____
DPM'G. DEPT. ____ APPROVED
ENG'R. DEPT. ____

VENOCO, INC

EQUIPMENT ARRANGEMENT
MAIN DECK
DRILLING & PRODUCTION PLATFORM GAIL
SANTA BARBARA CHANNEL, CALIFORNIA

A | C.C. ____ | C.G. ____ | F-SB-019-P-1010-9

E-SB-019-P-1010-9.DWG



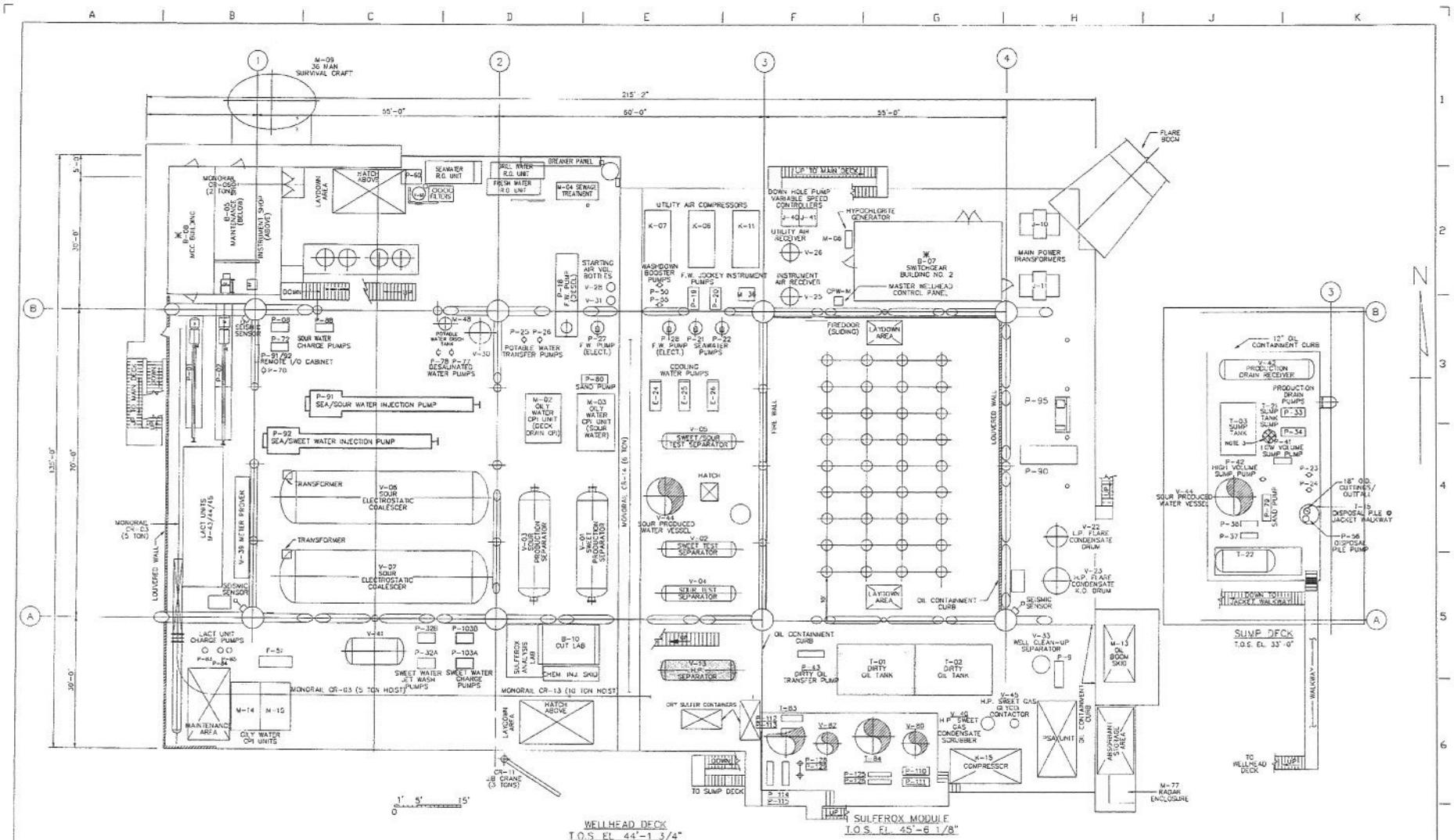
REFERENCE DRAWINGS

REVISIONS

1	ISSUED FOR SEAWATER PROJECT HAZOP		
2	REVISED CHARGE PUMP LOCATION		
3	AS BUILT FOR PSA PACKAGE	3-30-2010	AG
4	ISSUED FOR CONSTRUCTION		

SCALE 1/8"=1'-0"
DATE 6-20-92 DR. SMB CK.
DR. APPR. ENG. CAG
DRFG. DEPT. APPROVED
ENG'R. DEPT.

EQUIPMENT ARRANGEMENT
WELLHEAD DECK MEZZANINE
PLATFORM GAIL
SANTA BARBARA CHANNEL
SHEET
A
C.C.
S.D.
E-SB-019-P-1050-7



REFERENCE DRAWINGS

REVISIONS

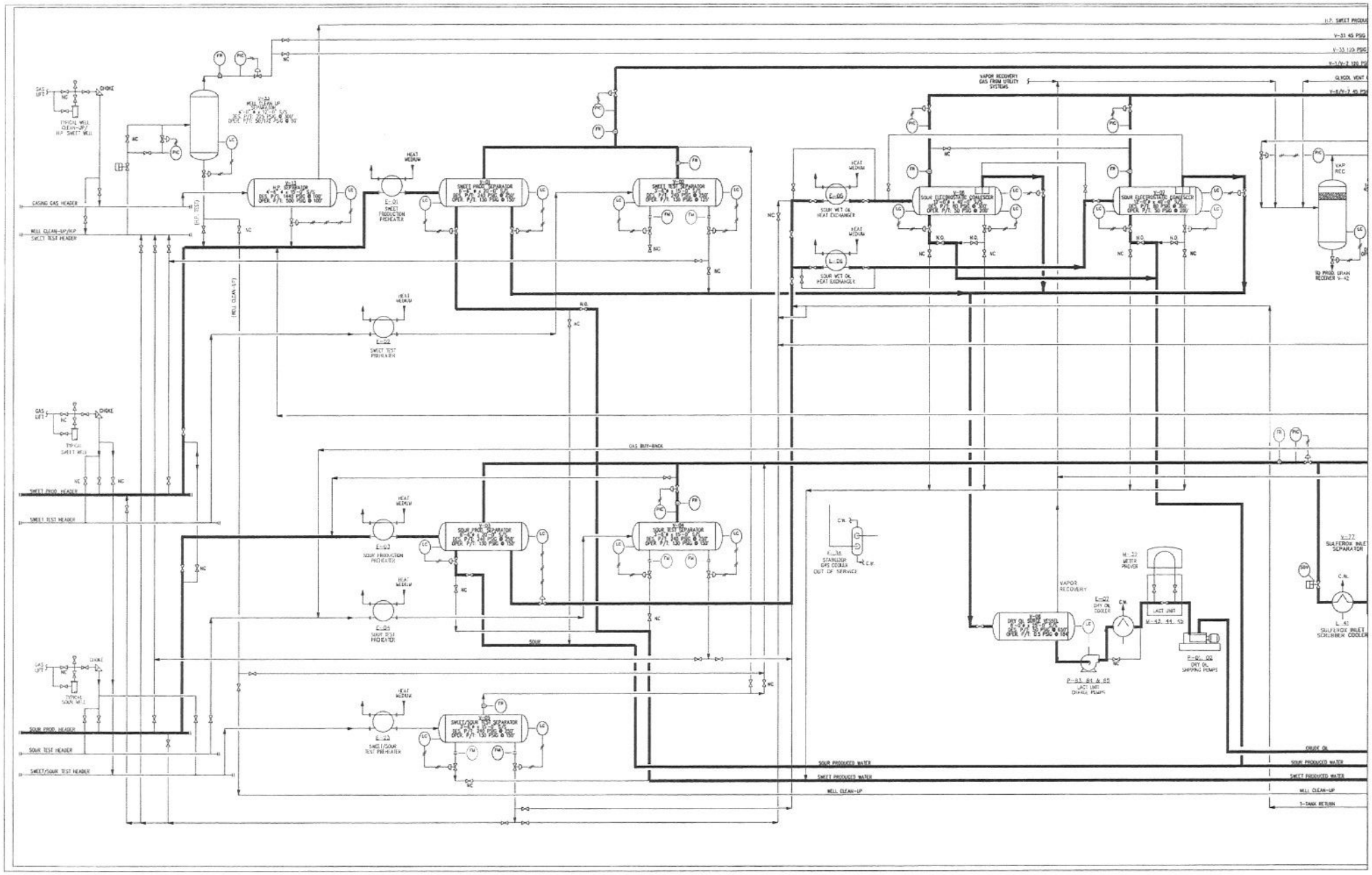
15	V-44 MODIFICATIONS	3-15-09	CFA	ACS	CF	13	PROPOSED PSA & EXHAUST COMPR	5-26-09	EFA	BH	JT
14	AS-BUILT FOR SIM PROJECT	8-22-06	ACS	MJP	CE	12	SIM ISSUED FOR CONSTRUCTION	5-28-05	ADC	KH	

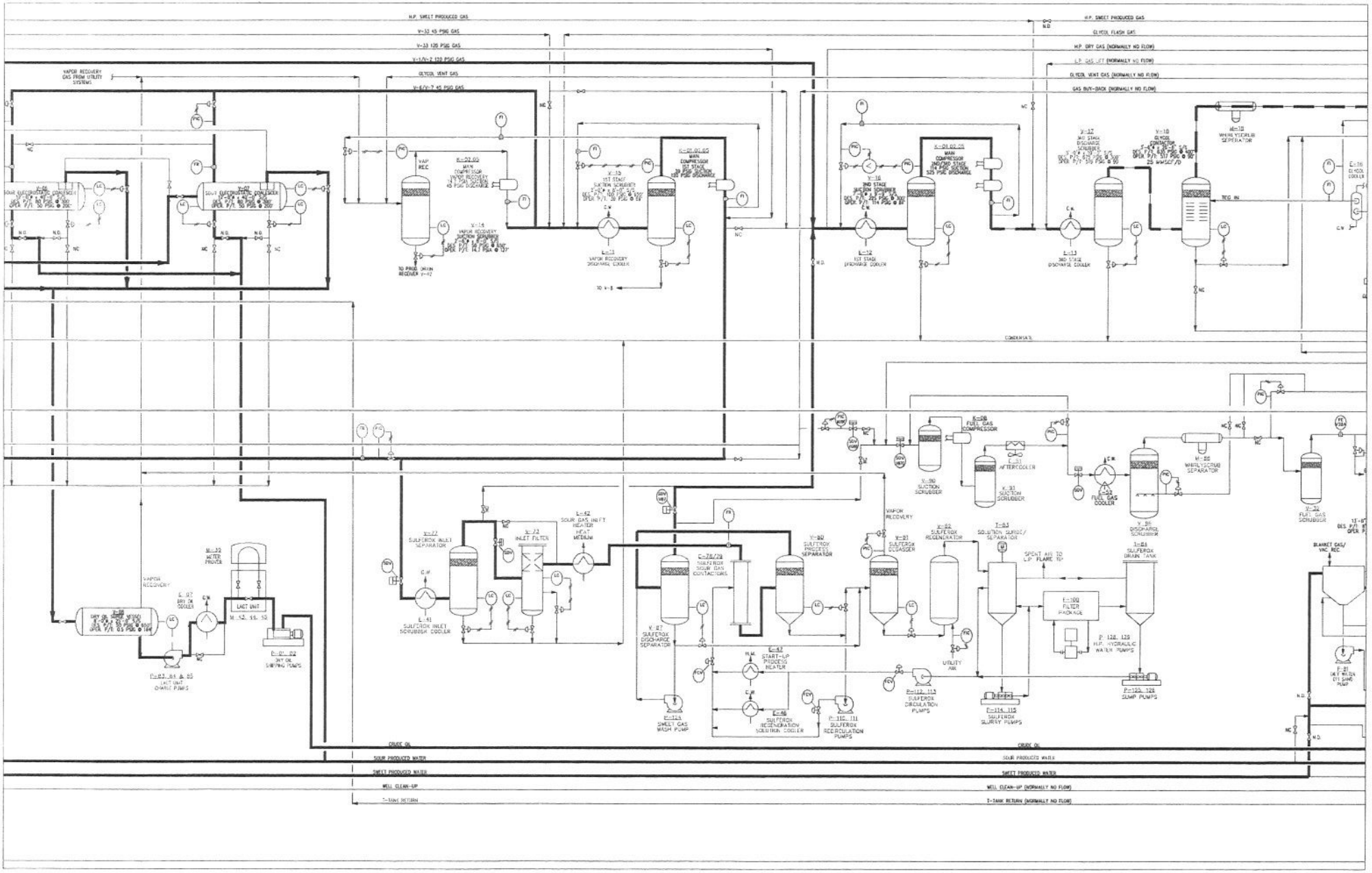
SCALE 1/8"=1'-0"
DATE 6-18-93 DR. SWM CK. ACS
DN APPR. ____ ENG. ____
OPER. DEPT. ____ APPROVED
ENG'R. DEPT. ____

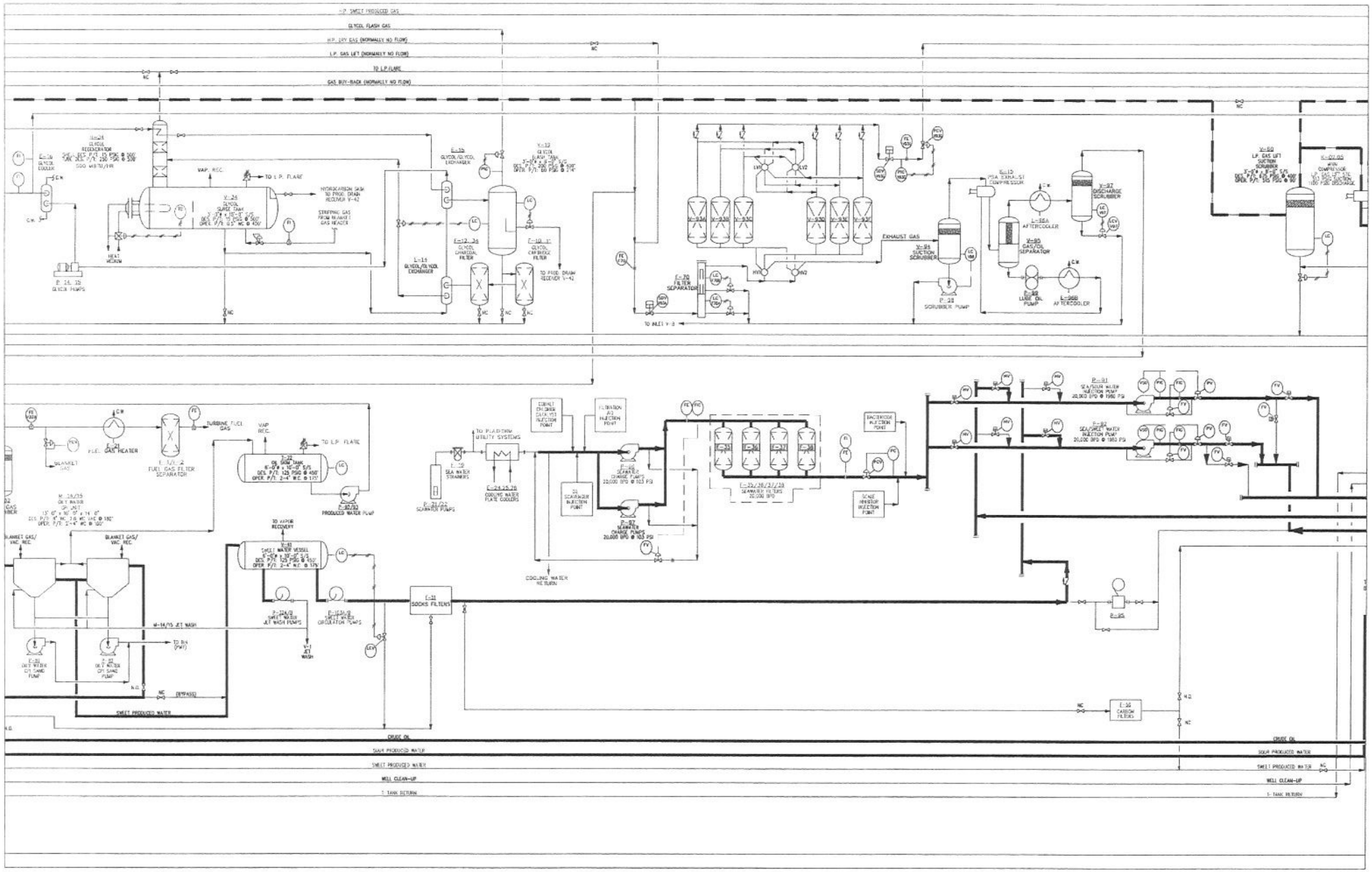
VENCO, INC.

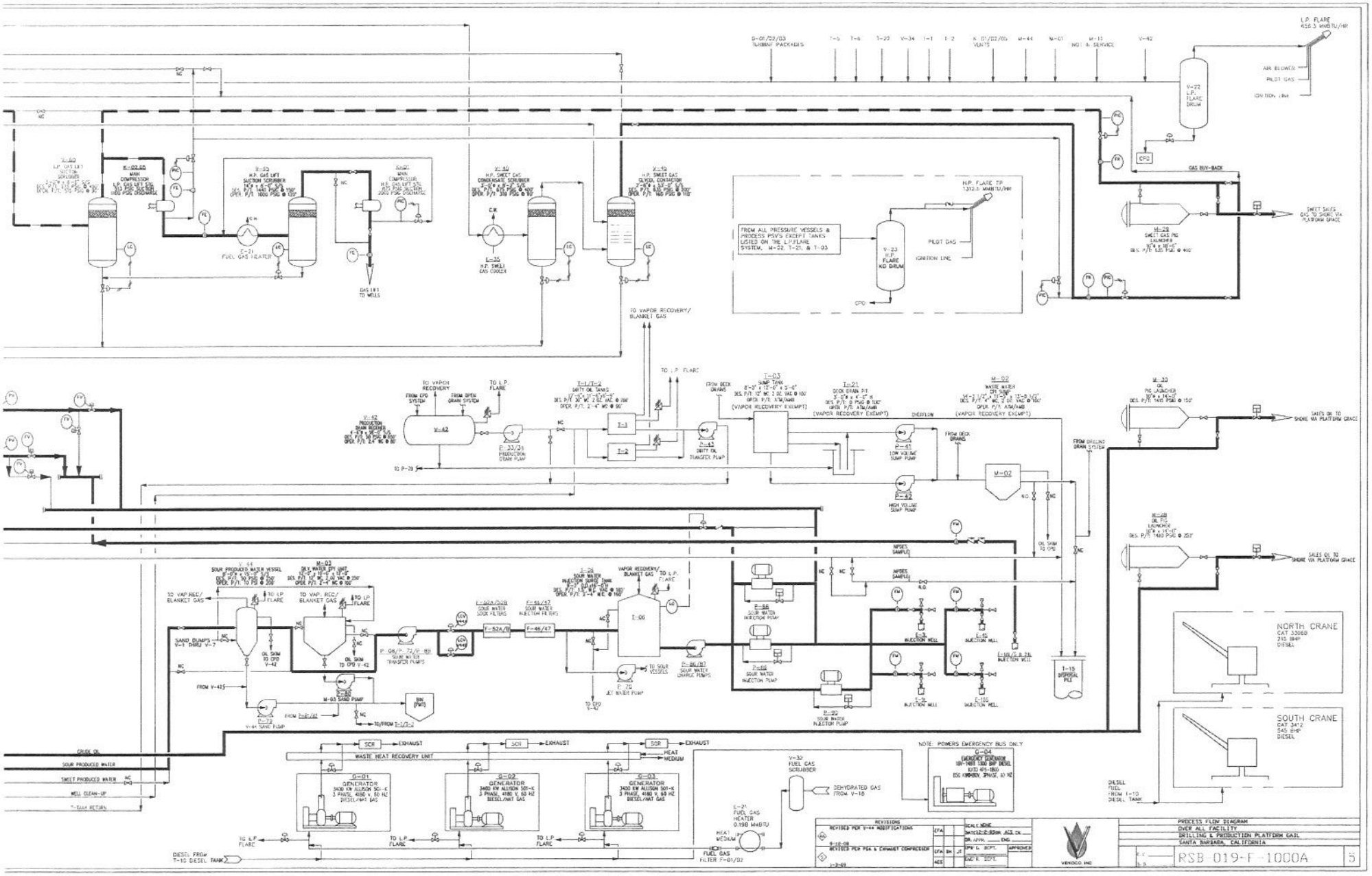
EQUIPMENT ARRANGEMENT
WELLHEAD DECK
DRILLING & PRODUCTION PLATFORM GAIL
SANTA BARBARA CHANNEL, CALIFORNIA

A C.C. ____ S.D. ____ E SB 019-P-1000-15


GAS LIFT
CHOKE
TYPICAL WELL CLEAN-UP/ H.P. SWEET WELL
WELL CLEAN-UP SEPARATOR
CASING GAS HEADER
WELL CLEAN-UP/H.P. SWEET TEST HEADER
(H.P. TEST)
(WELL CLEAN-UP)
HEAT MEDIUM
E-01 SWEET PRODUCTION PREHEATER
SWEET PROD. SEPARATOR
SWEET TEST SEPARATOR
E-02 SWEET TEST PREHEATER
TYPICAL SWEET WELL
SWEET PROD. HEADER
SWEET TEST HEADER
GAS BUY-BACK
E-03 SOUR PRODUCTION PREHEATER
SOUR PROD. SEPARATOR
SOUR TEST SEPARATOR
E-04 SOUR TEST PREHEATER
SOUR
TYPICAL SOUR WELL
SOUR PROD. HEADER
SOUR TEST HEADER
SWEET/SOUR TEST HEADER
E-05 SWEET/SOUR TEST PREHEATER
SWEET/SOUR TEST SEPARATOR
E-06 SOUR WET OIL HEAT EXCHANGER
SOUR ELECTROSTATIC COALESCER
VAPOR RECOVERY GAS FROM UTILITY SYSTEMS
GLYCOL VENT
VAP REC
TO PROD. DRAIN RECEIVER V-42
E-14 STABILIZER GAS COOLER OUT OF SERVICE
C.W.
VAPOR RECOVERY
E-07 DRY OIL COOLER
DRY OIL STORAGE
P-03, 01 & 02 LACT UNIT CHARGE PUMPS
M-23 METER PROVER
LACT UNIT
V-42, 44, 45
P-01, 02 DRY OIL SHIPPING PUMPS
V-22 SULFEROX INLET SEPARATOR
L-43 SULFEROX INLET SCRUBBER COOLER
SOUR PRODUCED WATER
SWEET PRODUCED WATER
WELL CLEAN-UP
CRUDE OIL
T-TANK RETURN


H.P. SWEET PRODUCED GAS
V-32 45 PSIG GAS
V-33 120 PSIG GAS
V-10/V-7 120 PSIG GAS
GLYCOL VENT GAS
V-6/V-7 45 PSIG GAS
VAPOR RECOVERY GAS FROM UTILITY SYSTEMS
GLYCOL FLASH GAS
H.P. DRY GAS (NORMALLY NO FLOW)
L.P. GAS JET (NORMALLY NO FLOW)
GLYCOL VENT GAS (NORMALLY NO FLOW)
GAS BUY-BACK (NORMALLY NO FLOW)
K-02.05 MAIN COMPRESSOR VAPOR RECOVERY 1ST STAGE SUCTION SCRUBBER 45 PSIG DISCHARGE
K-01.02.05 MAIN COMPRESSOR 1ST STAGE 30 PSIG SUCTION 120 PSIG DISCHARGE
K-01.02.05 MAIN COMPRESSOR 2ND/3RD STAGE 115 PSIG SUCTION 525 PSIG DISCHARGE
V-14 VAPOR RECOVERY SUCTION SCRUBBER
V-15 1ST STAGE SUCTION SCRUBBER
V-16 2ND STAGE SUCTION SCRUBBER
V-17 3RD STAGE DISCHARGE SCRUBBER
V-18 GLYCOL CONTACTOR 25 MMSCF/D
M-10 WHIRLYSCRUB SEPERATOR
E-16 GLYCOL COOLER
TEG IN
TO PROD. DRAIN RECEIVER V-47
E-11 VAPOR RECOVERY DISCHARGE COOLER
E-12 1ST STAGE DISCHARGE COOLER
E-13 3RD STAGE DISCHARGE COOLER
CONFIDENTIAL
K-08 FUEL GAS COMPRESSOR
V-90 SUCTION SCRUBBER
E-51 AFTERCOOLER
V-91 SUCTION SCRUBBER
E-52 FUEL GAS COOLER
V-95 DISCHARGE SCRUBBER
M-22 WHIRLYSCRUB SEPARATOR
V-92 FUEL GAS SCRUBBER
DES. P/T: 13-0 OPER. P/T:
BLANKET GAS/ VAC REC
F-21 OILY WATER DYLSAND PUMP
V-72 INLET FILTER
L-42 SOUR GAS INLET HEATER HEAT MEDIUM
V-77 SULFEROX INLET SEPARATOR
L-41 SULFEROX INLET SCRUBBER COOLER
C-78/79 SULFEROX SOUR GAS CONTACTORS
V-80 SULFEROX PROCESS SEPARATOR
V-81 SULFEROX SCRUBBER
V-82 SULFEROX REGENERATOR
T-83 SOLUTION SURGE/ SEPARATOR
SPENT AIR TO L.P. FLARE TIP
T-84 SULFEROX DRAIN TANK
T-100 FILTER PACKAGE
P-128, 129 H.P. HYDRAULIC WATER PUMPS
P-126, 127 SUMP PUMPS
V-87 SULFEROX DISCHARGE SEPARATOR
E-43 START-UP PROCESS HEATER
E-46 SULFEROX REGENERATION SOLUTION COOLER
P-110, 111 SULFEROX RECIRCULATION PUMPS
P-112, 113 SULFEROX CIRCULATION PUMPS
P-114, 115 SULFEROX SLURRY PUMPS
P-124 SWEET GAS WASH PUMP
UTILITY AIR
VAPOR RECOVERY
M-32 METER PROVER
E-97 DRY OIL COOLER
LACT UNIT
M-42, 44, 50
P-97, 98 DRY OIL SHIPPING PUMPS
P-93, 94 & 95 LACT UNIT CHARGE PUMPS
CRUDE OIL
SOUR PRODUCED WATER
SWEET PRODUCED WATER
WELL CLEAN-UP
T-TANK RETURN
CRUDE OIL
SOUR PRODUCED WATER
SWEET PRODUCED WATER
WELL CLEAN-UP (NORMALLY NO FLOW)
T-TANK RETURN (NORMALLY NO FLOW)


H.P. SWEET PRODUCED GAS
GLYCOL FLASH GAS
H.P. DRY GAS (NORMALLY NO FLOW)
L.P. GAS LIFT (NORMALLY NO FLOW)
TO L.P. FLARE
GAS BUY-BACK (NORMALLY NO FLOW)
NC
E-26 GLYCOL COOLER
H-24 GLYCOL REGENERATOR
V-24 GLYCOL SURGE TANK
VAP. REC.
TO L.P. FLARE
HYDROCARBON GAS TO PROC. DRAIN RECEIVER V-42
STRIPPING GAS FROM HEAVY GAS HEATER
HEAT HEXCHN
P-24, 25 GLYCOL PUMPS
E-35 GLYCOL/GLYCOL EXCHANGER
V-12 GLYCOL FLASH TANK
E-12, 34 GLYCOL CHARCOAL FILTER
E-10, 11 GLYCOL CARTRIDGE FILTER
TO PROC. DRAIN RECEIVER V-42
L-14 GLYCOL/GLYCOL EXCHANGER
V-93A
V-93B
V-93C
V-93D
V-93E
V-93F
EXHAUST GAS
E-20 FILTER SEPARATOR
TO INLET V-3
E-15 PSA EXHAUST COMPRESSOR
V-95 SUCTION SCRUBBER
P-28 SCRUBBER PUMP
L-95A AFTERCOOLER
V-95 GAS/OIL SEPARATOR
E-95 LUBE OIL PUMP
L-95B AFTERCOOLER
V-97 DISCHARGE SCRUBBER
V-80 L.P. GAS LIFT SUCTION SCRUBBER
K-02/05 MAIN COMPRESSOR
L.P. GAS LIFT SITE TO PSE DISCHARGE
TURBINE FUEL GAS
VAP. REC.
TO L.P. FLARE
BLANKET GAS
F.U.E. GAS HEATER
E-1/2/3 FUEL GAS FILTER SEPARATOR
V-22 OIL SURGE TANK
P-30/31 PRODUCED WATER PUMP
M-16/15 JET WASH UNIT
BLANKET GAS/ VAC. REC.
TO VAPOR RECOVERY
V-40 SWEET WATER VESSEL
P-34A/B SWEET WATER JET WASH PUMPS
P-16A/B SWEET WATER GRIDLATOR PUMPS
V-1 JET WASH
TO B/H (PWT)
E-21 OILY WATER OT TANK PUMP
E-22 OILY WATER OT TANK PUMP
N.O.
NC (BYPASS)
SWEET PRODUCED WATER
E-31 SOCKS FILTERS
E-36 SEA WATER STRAINERS
E-24/25 SCAVENGER PUMPS
TO PLATFORM UTILITY SYSTEMS
E-24,25,26 COOLING WATER PLATE COOLERS
COOLING WATER RETURN
EMULSIFIER DATA VIST INJECTION POINT
FLOCCULANT A3 INJECTION POINT
D3 SCAVENGER INJECTION POINT
P-86 SCAVENGER CHARGE PUMPS 20,000 BPD @ 103 PSI
P-87 SEAWATER CHARGE PUMPS 20,000 BPD @ 103 PSI
E-32/33/34/35 SEAWATER HEATERS 20,000 BPD
BACTERICIDE INJECTION POINT
SCALE INHIBITOR INJECTION POINT
P-91 SEA/SOUR WATER INJECTION PUMP 20,000 BPD @ 1900 PSI
P-92 SEA/SWEET WATER INJECTION PUMP 20,000 BPD @ 1900 PSI
P-95
E-36 CARBON FILTERS
CRUDE OIL
SOUR PRODUCED WATER
SWEET PRODUCED WATER
WELL CLEAN-UP
T. TANK RETURN


L.P. FLARE
456.3 MMBTU/HR
AIR BLOWER
PILOT GAS
IGNITION LINE
V-22
L.P.
FLARE
DRUM
GAS BUY-BACK
SWEET SALES
GAS TO SHORE VIA
PLATFORM GRACE
M-23
SWEET GAS PIG
LAUNCHER
H.P. FLARE TIP
1,312.5 MMBTU/HR
FROM ALL PRESSURE VESSELS &
PROCESS PSV'S EXCEPT TANKS
LISTED ON THE L.P.FLARE
SYSTEM, M-22, T-21, & T-03
V-23
H.P.
FLARE
KO DRUM
PILOT GAS
IGNITION LINE
CPD
V-60
L.P. GAS LIFT
SUCTION
SCRUBBER
K-02/03
MAIN
COMPRESSION
V-50
H.P. GAS LIFT
SUCTION SCRUBBER
E-21
FUEL GAS HEATER
K-01
MAIN
COMPRESSOR
GAS LIFT
TO WELLS
V-40
H.P. SWEET GAS
CONDENSATE SCRUBBER
E-35
H.P. SWELL
GAS COOLER
V-42
H.P. SWEET GAS
GLYCOL CONTACTOR
TO VAPOR RECOVERY/
BLANKET GAS
TO L.P. FLARE
V-42
PRODUCTION
DRAIN RECEIVER
TO VAPOR
RECOVERY
FROM OPD
SYSTEM
FROM OPEN
DRAIN SYSTEM
TO L.P.
FLARE
P-32/31
PRODUCTION
DRAIN PUMP
TO P-70
T-1/T-2
DIRTY OIL TANKS
T-1
T-2
P-43
DIRTY OIL
TRANSFER PUMP
FROM DECK
DRAINS
T-03
SUMP TANK
(VAPOR RECOVERY EXEMPT)
T-21
DECK DRAIN P/T
(VAPOR RECOVERY EXEMPT)
OVERFLOW
P-41
LOW VOLUME
SUMP PUMP
P-42
HIGH VOLUME
SUMP PUMP
M-02
WASTE WATER
SPT TANK
(VAPOR RECOVERY EXEMPT)
FROM DECK
DRAINS
FROM DRILLING
DRAIN SYSTEM
OIL SKIM
TO OPD
M-20
OIL
PIG LAUNCHER
SALES OIL TO
SHORE VIA PLATFORM GRACE
M-28
OIL PIG
LAUNCHER
SALES OIL TO
SHORE VIA PLATFORM GRACE
V-44
SOUR PRODUCED WATER VESSEL
M-03
DRY WATER DPY UNIT
TO VAP. REC/
BLANKET GAS
TO L.P.
FLARE
SAND DUMPS
V-1 THRU V-7
OIL SKIM
TO OPD
V-42
FROM V-42S
M-03 SAND PUMP
P-72
V-44 SAND PUMP
BIN
(TWO)
TO/FROM T-1/T-2
P-08/P-72/P-80
SOUR WATER
TRANSFER PUMPS
F-52A/B
SOUR WATER
SOCK FILTERS
F-45/47
SOUR WATER
INJECTION FILTERS
F-46/47
T-26
SOUR WATER
INJECTION SURGE TANK
VAPOR RECOVERY/
BLANKET GAS
TO L.P.
FLARE
E-06
P-70
JET WATER PUMP
TO OPD
T-42
TO SOUR
VESSELS
P-86/87
SOUR WATER
CHARGE PUMPS
P-88
SOUR WATER
INJECTION PUMP
P-89
SOUR WATER
INJECTION PUMP
INFDES
SAMPLE
E-39
INJECTION WELL
E-40
INJECTION WELL
E-100/E-8-26
INJECTION WELL
E-105
INJECTION WELL
T-15
DISPOSAL
PILE
NORTH CRANE
CAT 3306B
210 BHP
DIESEL
SOUTH CRANE
CAT 3412
545 BHP
DIESEL
DIESEL
FUEL
FROM T-10
DIESEL TANK
CRUDE OIL
SOUR PRODUCED WATER
SWEET PRODUCED WATER
WELL CLEAN-UP
T-TANK RETURN
SCR
EXHAUST
WASTE HEAT RECOVERY UNIT
HEAT
MEDIUM
G-01
GENERATOR
3400 KW ALLISON 501-K
3 PHASE, 4160 V, 60 HZ
DIESEL/NAT GAS
G-02
GENERATOR
3400 KW ALLISON 501-K
3 PHASE, 4160 V, 60 HZ
DIESEL/NAT GAS
G-03
GENERATOR
3400 KW ALLISON 501-K
3 PHASE, 4160 V, 60 HZ
DIESEL/NAT GAS
TO L.P.
FLARE
DIESEL FROM
T-10 DIESEL TANK
E-21
FUEL GAS
HEATER
0.198 MMBTU
HEAT
MEDIUM
FUEL GAS
FILTER F-01/02
V-32
FUEL GAS
SCRUBBER
DEHYDRATED GAS
FROM V-18
NOTE: POWERS EMERGENCY BUS ONLY
G-04
EMERGENCY GENERATOR
100-1000 1300 BHP DIESEL
(LTD 495-1000)
(50 KW/BHP), 3PHASE, 60 HZ
REVISIONS
REVISED PER V-44 MODIFICATIONS
REVISED PER PGA & EXHAUST COMPRESSOR
SCALE: NONE
DATE: 2-2-93
DR. APPR. ENG.
DFN & DPT.
APPROVED
DATE DPT.
VENOCO, INC
PROCESS FLOW DIAGRAM
OVER ALL FACILITY
DRILLING & PRODUCTION PLATFORM GAIL
SANTA BARBARA, CALIFORNIA
RSB-019-F-1000A
5

STATEMENT REGARDING PERMIT TABLES 1 THROUGH 4

Venoco has reviewed the following tables from Part 70 Permit No. 01494 and believes them to be correct.

Table 1.c.1 - Specific Applicable Requirements
Table 1.c.2 - Permit Specific Conditions
Table 1.c.3 - General Applicable Conditions
Table 1.c.4. - General Requirements for Short-Term Activities
Table 2 - Permitted Equipment and Applicable Requirements
Table 3 - Permitted Throughput/Consumption Limits
Table 4 - Permitted Emissions

Copies of the referenced tables are attached following this statement.

1.c. PERIODIC MONITORING SUMMARY

This periodic monitoring summary is intended to aid the permittee in quickly identifying key monitoring, recordkeeping, and reporting requirements. It is not intended to be used as a "stand alone" monitoring guidance document that completely satisfies the requirements specifically applicable to this facility. The following tables are included in the periodic monitoring summary:

- Table 1.c.1. - Specific Applicable Requirements
- Table 1.c.2. - Permit-Specific Conditions
- Table 1.c.3. - General Applicable Requirements
- Table 1.c.4. - General Requirements for Short-Term Activities

1.c.1. Specific Applicable Requirements

The Specific Applicable Requirements Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 7 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
71 1N1	Rules 71.1.B.1.a, 74.10	•Quarterly inspection of the following components for proper operation: gas compressor, hatches, relief valves, pressure regulators, flare, as applicable •Verbal notice of maintenance activities •Rule 74.10 inspections •Annual compliance certification including verification that tanks are equipped with a vapor recovery system	•Records of quarterly inspections and tank maintenance activities •Rule 74.10 records	None	None	
71.1N6	Rules 71.1.B.3, 71.1.D.1.c, 74.10	•Annual compliance certification including verification of the integrity of the roof and pressure-vacuum relief valve •Rule 74.10 inspections	•Records of number of days the tank has stored or held crude oil during the maintenance operation, location of the tank relative to a tank battery, and whether tank was connected to vapor recovery •Records to show integrity of roof and PV valves for tanks not permanently located at facility •Rule 74.10 records	None	None	
71.5N1	Rules 71.5.B.1.a.1, 71.5.B.2, 71.5.B.3, 71, 71.1, and 74.10	•Rule 74.10 inspections •Annual compliance certification including visual inspection to ensure system is closed and leak free	•Records of visual inspections •Records of current glycol dehydrator information •Rule 74.10 records	None	None	Gas Leak - EPA Method 21, Appendix A

1.c.1. Specific Applicable Requirements (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods
74.9N7	Rule 74.9.D.3	•Annual compliance certification •Hours of operation	•Records of operating hours •Date, time, duration, and reason for emergency operation •Records of engine data	None	None
74.9N8	Rule 74.9.D.8	•Annual compliance certification including engine's usage (fuel consumption or operating hours)	•Records of engine data including maximum hourly fuel consumption, actual annual usage, engine manufacturer, model number, operator ID number, and engine location	•Report of hours of operation or fuel usage	
74.9N9	Rule 74.9.D.9	•Annual compliance certification •Routine surveillance to ensure diesel-fired engine is used to power cranes and welding equipment only	•Records of engine data including engine function (usage), manufacturer, model number, operator identification number, and engine location	None	None
74.23N2/1494	Rules 26 (BACT); 74.23.B.1, 74.23.B.2.a and b, and 74.23.B.4 40 CFR Part 64 (CAM)	•Annual source test (NOx, O2, fuel HHV) •ADGS to continuously monitor type and amount fuel consumed at all loads, and at loads less than 1000 KW; water to fuel ratio; elapsed operation time; and turbine inlet temperature, urea injection rate (Turbine G-1), and SCR inlet temperature (Turbine G-1) •Annual compliance certification including actual annual fuel consumption and annual source tests	•Records of ADGS data •Records of water to fuel ratio •Fuel type and fuel consumption •Fuel type and consumption at < 1000 KW •Elapsed operation time •Turbine inlet temperature •Urea injection rate (Turbine G-1) •SCR inlet temp (Turbine G-1) •Number, duration, and cause of excursions, and corrective action taken (CAM) •Annual source test reports	•Report of fuel usage •Annual source test report •Number, duration, and cause of excursions, and corrective action taken (CAM)	•NO_x - EPA Method 20 •O2 - ARB Method 100 •Fuel Oil HHV – ASTM Method D240-87 •Gaseous fuel HHV – ASTM Method D1826-88
NSPS GG	40 CFR Part 60 Subparts A and GG	•Continuous monitors for fuel consumption and water to fuel ratio •Sulfur content of gaseous fuel semi-annually •Sulfur content of liquid fuels after each fuel transfer to storage tank from any other source •Monitor periods of excess emissions, startup, shutdown, operation malfunction, control equipment malfunction, or monitoring system/device malfunction •Source test (NOx, SOx, and O2) upon District request •Annual compliance certification	•Records of CEMs data and performance tests •Records of startup, shutdown, and malfunctions •Records of periods of excess emissions •Records of sulfur content of fuel •Records of firing emergency fuel	•Quarterly reports of excess emissions (any one-hour period), exceedances of sulfur content of fuel, firing of emergency fuel, monitoring systems performance, and/or emissions and monitoring summary	•Sulfur content of liquid fuels – ASTM Method D2880-71 •Sulfur content of gaseous fuels – ASTM D1072-80, D3031-81, D4084-82, or D3246-81 •NOx – EPA Method 20 •SOx – EPA Method 20 •O2 – EPA Method 20
ATCM Engine N3	ATCM for Stationary Compression Ignition Engines – OCS	•Fuel type records •Fuel use records	•Fuel type records •Fuel use records	None	None

1.c.2. Permit-Specific Conditions

The Permit-Specific Conditions Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 8 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
PO1494PC1 - Condition No. 1	Rules 29 General Recordkeeping	•Annual compliance certification •Monthly records of throughput and consumption	•Monthly records	None	None	
PO1494PC1 - Condition No. 2	Rule 29 Maximum Number of Oil Wells	•Annual compliance certification	None	None	None	
PO1494PC1 - Condition No. 3	Rule 26 Well Operations - BACT Requirements	•Annual compliance certification	None	None	None	
PO1494PC1 - Condition No. 4	Rule 29 Maximum Sulfur Content of Diesel Fuel	•Fuel records or fuel supplier certification containing sulfur content of each diesel fuel delivery •Annual compliance certification	Fuel records	None	None	
PO1494PC1 - Condition No. 5	Rules 26 and 29 Crew Boat and Work Boat Emission Limits	•Diesel fuel consumption for boats servicing Platforms Grace and Gail •Monthly calculations of emissions (boats) •Annual compliance certification	•Monthly records of diesel fuel consumption •Monthly calculations of emissions (boats)	None	None	
PO1494PC1 – Condition No. 6	Rule 29 Crew Boats Shall Not Be Used Simultaneously	•Maintain a log book of hours and days of crew boat operation •Annual compliance certification	•Maintain a log book of hours and days of crew boat operation	None	None	
PO1494PC1 – Condition No. 7	Rule 29 Work Boats Shall Not Be Used Simultaneously	•Maintain a log book of hours and days of work boat operation •Annual compliance certification	•Maintain a log book of hours and days of work boat operation	None	None	
PO1494PC1 - Condition No. 8	Rule 29 Solvent Recordkeeping	•Monthly records of solvent purchase and usage •Annual compliance certification	•Monthly records of solvent purchase and usage	None	None	

1.c.2. Permit-Specific Conditions (Continued)

PO1494PC2 - Condition Nos. 1 and 4	Rule 29 Flare Fuel Consumption	•Flare gas consumption •Identify emergency vs. non-emergency usage •Annual compliance certification	•Monthly records of flare gas consumption	None	None	
PO1494PC2 - Condition Nos. 2 and 3	Rule 71.1 Flare Ignition System Operation	•Monthly tests of flare's ignition system •Annual compliance certification	•Records of ignition system tests and maintenance activities	None	None	
PO1494PC3	Rules 29 and 71.4 Drain Pit Operation	•Annual compliance certification	None	None	None	Function of the pit is to act as a containment berm
PO1494PC4	Rule 29 Backup Generator Operation	•Annual compliance certification	None	None	None	Should not be fired simultaneously with any of the three (3) turbines except during startup or shutdown

1.c.3. General Applicable Requirements

The General Applicable Requirements Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 9 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
50	Rule 50	•Routine surveillance •Visual inspections •Annual compliance certification, including a formal survey •Opacity readings upon request •Notification required for uncorrectable visible emissions	•All occurrences of visible emissions for periods>3min in any one hour •Annual formal survey of all emissions units	None	•Opacity - EPA Method 9	
54.B.1 (OCS)	Rule 54.B.1	•Annual compliance certification •Identify planned vs. unplanned flaring event •Identify date, time, duration, flare volume, and estimated sulfur emissions per flare event •Upon request, source test for sulfur compounds at point of discharge	•Representative fuel analysis or exhaust analysis and compliance demonstration •Flare records	None	•Sulfur Compounds - EPA Test Method 6, 6A, 6C, 8, 15, 16A,16B, or SCAQMD Method 307-94, as appropriate	
54.B.2 (OCS)	Rule 54.B.2	•Annual compliance certification •Identify planned vs. unplanned flaring event •Identify date, time, duration, flare volume, and estimated sulfur emissions per flare event •Determine ground or sea level concentrations of SO_2, upon request	•Representative fuel analysis or exhaust analysis and modeling data or other compliance demonstration •Flare records	None	•SO_2 - BAAQMD Manual of Procedures, Vol.VI, Section 1, Ground Level Monitoring for H_2S and SO_2	
57.1	Rule 57.1	•Annual compliance certification	None	None	None	•Not required based on District analysis
64.B.1	Rule 64.B.1	•Annual compliance certification •None for PUC-quality gas •Annual test for non PUC-quality gas (submit with annual compliance certification)	•Annual fuel gas analysis for non PUC-quality gas	None	•SCAQMD Method 307-94	

1.c.3. General Applicable Requirements (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
64.B.2	Rule 64.B.2	•Annual compliance certification •Fuel supplier's certification, or fuel test per each delivery (submit with annual compliance certification)	•Fuel supplier's certification, or fuel test per each delivery	None	•ASTM Method D4294-83 or D2622-87	
71.1.C	Rules 71.1.C and 74.10	•Annual compliance certification •Rule 74.10 inspections •Visual inspection to ensure collection system is closed •Quarterly inspection of flare to ensure proper operation	•Records of inspections of flare •Rule 74.10 records	None	None	•Compliance with Rule 74.10 ensures compliance with the gas collection system's maintenance requirements
71.4.B.1	Rule 71.4.B.1	•Annual compliance certification to ensure there are no first stage sumps	None	None	None	
71.4.B.3	Rule 71.4.B.3	•Annual compliance certification •Routine surveillance and visual inspections of well cellars	•Records of maintenance or well workover activity during periods of crude oil storage	None	None	
74.6	Rule 74.6	•Annual compliance certification •Maintain current solvent information •Routine surveillance of solvent cleaning activities •Upon request, solvent testing	•Records of current solvent information	None	•ROC content-EPA Test Method 24 or 24A •Identity of solvent components-ASTM E168-67, ASTM E169-87, or ASTM E260-85 •True vapor pressure or composite partial pressure -ASTM D2879-86 •Initial boiling point-ASTM 1078-78 or published source •Spray gun active/passive solvent losses-SCAQMD Method (10-3-89)	

1.c.3. General Applicable Requirements (Continued)

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
74.10	Rule 74.10	•Annual compliance certification •Identify leaking components •Inspections every shift or 8 hours at natural gas processing plants •Daily and/or weekly inspections for specified equipment •Quarterly inspections for specified components •Pressure relief valve inspections •Annual update to Operator Management Plan •Notification of major leaks in critical components •Notification of repeat leaks	•Records of leak inspections in inspection log	None	•Gas Leaks - EPA Method 21 •ROC Concentration of Gas Streams - ASTM E168-88, ASTM E169-87, or ASTM E260-85 •Weight percentage of evaporated compounds of liquids – ASTM Method D 86-82 •API Gravity - ASTM Method D287	
74.11.1	Rule 74.11.1	•Annual compliance certification •Maintain identification records of large water heaters and small boilers	•Records of current information of large water heaters and small boilers	None	None	•Rule only applies to future installation of large water heaters and small boilers
74.22	Rule 74.22	•Annual compliance certification •Maintain furnace identification records	•Records of current furnace information	None	None	•Rule only applies to future installation of natural gas-fired, fan-type furnaces

1.c.4. General Requirements for Short-Term Activities

The General Requirements for Short-Term Activities Table includes a summary of the monitoring requirements, recordkeeping requirements, reporting requirements, and test methods associated with the attachments contained in Section No. 10 of this permit.

Attachment No./ Condition No.	Applicable Rule or Requirement	Monitoring	Recordkeeping	Semi-annual Reports	Test Methods	Comments
74.1	Rule 74.1	•Annual compliance certification •Routine surveillance and visual inspections of abrasive blasting operation •Abrasive blasting records	•Abrasive blasting records	None	•Visible emission evaluation-Section 92400 of CCR	
74.2	Rule 74.2	•Annual compliance certification •Routine surveillance •Maintain VOC records of coatings used	•Maintain VOC records of coatings used	None	•VOC content-EPA Method 24, CARB Method 432 • Acid content-ASTM Method D 1613-85, •Metal content-SCAQMD Method 311-91	
74.16N1494	Rule 74.16	•Annual compliance certification to ensure electric power drilling, and/or drilling engine has valid APCD Permit to Operate and meets NOx limit •Annual source tests (NOx) or engine manufacturer certification	•Records of source tests or engine manufacturer certification	None	•NO_x-ARB Method 100	
40CFR.61.M	40 CFR Part 60, Subpart M	•Annual compliance certification •See 40 CFR Part 61.145 for inspection procedures	•See 40 CFR Part 61.145 for recordkeeping procedures	•See 40 CFR Part 61.145 for notification procedures	•See 40 CFR Part 61.145 for test methods	

\\APCDBULLPEN\DivData\ENG\TITLEV\TV Permits\PO1494\Permit III\Periodic Monitoring Table-421.doc

TABLE NO. 2

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Part 70 Permit No. 01494
Permitted Equipment and Applicable Requirements

M:\TITLEV\TV Permits\P01494\PERMIT\B\Tables_REV441.xls

Equipment	71.1	71.5	74.9	74.23	40 CFR Part 64	NSPS GG	Engine ATCM	Additional Requirements
OCS Platform Gail								
1 - 300 BBL Slop Tank (T-1) VR	1							
1 - 300 BBL Slop Tank (T-2) VR	1							
1 - 256 BBL Oily Water CPI Unit (M-03) VR	1							
1 - 200 BBL PWT (T-06) VR	1							
1 - 40 BBL Oil Skim Tank (T-22) VR	1							
1 - 50 BBL Hydrocyclone Surge Vessel (V-41) VR	1							
1 - 256 BBL Oily Water CPI Separator (M-14) VR	1							
1 - 256 BBL Oily Water CPI Separator (M-15) VR	1							
1 - 256 BBL Waste Water CPI Sump (M-02) VR	1							
1 - 225 BBL Dry Oil Surge LACT Tank (V-8) VR	1							
1 - 134 BBL De-sanding Vessel (V-44) VR	1							
1 - 85 BBL Sump Tank (T-3) VR	1							
1 - 51 BBL Production Drain Tank (V-42) VR	1							
1 - 51 BBL SulfurOx Degasser Tank (V-81) VR	1							
1 - 7 BBL Vapor Recovery Suction Scrubber (V-14) VR	1							
1 - 7.07 Sqft Deck Drain Pit (T-21) Containment Berm-Exempt								PC3
1 - Glycol Dehydrator System consisting of:								
1 - 0.5 MMBTU/Hr Glycol Reboiler Vent (H-04)VR		1						
1 - Glycol Surge Tank (V-34) VR		1						
1 - Glycol Contactor Pressure Vessel (V-18)		1						
1 - Glycol Flash Tank (V-19) VR		1						
1 - 1312.5 MMBTU/Hr High Pressure Flare								PC1,PC2
1 - 656.3 MMBTU/Hr Low Pressure Flare								PC1,PC2
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-1) Equipped with water injection and SCR for NOx control				2/1494	X	X		PC1
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-2) Equipped with water injection and SCR for NOx control				2/1494	X	X		PC1
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-3) Equipped with water injection and SCR for NOx control				2/1494	X	X		PC1
1 - 1300 BHP (850 KW) Detroit Diesel Back-up Generator (G-04)			8				3	PC1, PC4
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine			8				3	PC1
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine			8				3	PC1
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine			8				3	PC1
1 - 545 BHP Diesel Engine (South Crane)			9				3	PC1
1 - 215 BHP Diesel Engine (North Crane)			9				3	PC1
1 - 481 BHP Caterpillar Diesel Emergency Standby Engine, Model 3408 DITA, Serial No. 67U10240, I.D. P-18, used for fire suppression			7				3	PC1
Boom Boat Engines (Boomer)								
2 - 200 BHP Diesel Main Engines (Volvo Penta)								PC1
Crew Boat Engines								
"Glenn C"								
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 124 BHP Diesel Generator Engines (Detroit 4-71N)								PC1
"Doug C"								
3 - 535 BHP Diesel Main Engines (Detroit 6062)								PC1
2 - 50.5 BHP Diesel Generator Engines (Lugger L984)								PC1
"Jackie C"								
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)								PC1
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)								PC1
"Aces Wild"								
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)								PC1
"Wendy Tide"								
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)								PC1
"Robbie Tide"								
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)								PC1
"Messenger"								
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)								PC1
"Danny C"								
2 - 365 BHP Diesel Main Engines (Caterpillar 3406 C)								PC1
1 - 40 BHP Diesel Generator Engine (Isuzu 4JB1)								PC1

TABLE NO. 2

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Part 70 Permit No. 01494
Permitted Equipment and Applicable Requirements

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Equipment	71.1	71.5	74.9	74.23	40 CFR Part 64	NSPS GG	Engine ATCM	Additional Requirements
1 - 32 BHP Diesel Generator Engine (Northern Lights M20)								PC1
1 - 46 BHP Diesel Hydraulic Engine (Detroit 271)								PC1
"Ace High"								
2 - 650 BHP Diesel Main Engines (Detroit 12V92TI)								PC1
1 - 510 BHP Diesel Main Center Engine (Detroit 12V71TI)								PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)								PC1
Work Boat Engines								
"San Miguel"								
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B DITA SCAC)								PC1
2 - 247 BHP Diesel Generator Engines (Caterpillar 3306 DIT)								PC1
1 - 550 BHP Diesel Thruster Engine (Caterpillar 3408 DITA)								PC1
1 - 315 BHP Diesel Compressor Engine (Caterpillar 3306 DITA)								PC1
1 - 306 BHP Diesel Aux Pump Engine (Caterpillar 3406 DIT)								PC1
1 - 273 BHP Diesel Winch Engine (Detroit 8V-71)								PC1
"Victory Seahorse"								
2 - 2500 BHP Diesel Main Engines (EMD 16-645-ED3A)								PC1
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)								PC1
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)								PC1
"Santa Cruz"								
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B)								PC1
2 - 245 BHP Diesel Generator Engines (Caterpillar 3306)								PC1
1 - 515 BHP Diesel Thruster Engine (Caterpillar 3408)								PC1
"Toby Tide"								
2 - 1125 BHP Diesel Main Engines (Caterpillar D399TA)								PC1
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)								PC1
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)								PC1
"Sea Tide"								
2 - 1220 BHP Diesel Main Engines (DDEC 12V149TI)								PC1
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)								PC1
1 - 200 BHP Diesel Thruster Engine (Detroit 6V-71)								PC1
"Robin J"								
2 - 600 BHP Diesel Main Engines (GM 1692)								PC1
2 - 21 BHP Diesel Generator Engines (GM 471)								PC1
"O'Neil Tide"								
2 - 1125 BHP Diesel Main Engines (Caterpillar D399T/A)								PC1
2 - 243 BHP Diesel Generator Engines (Caterpillar 3306 DIT)								PC1
1 - 325 BHP Diesel Thruster Engine (Caterpillar 3406 DIT)								PC1
1 - 325 BHP Diesel Aux Fire Pump Engine (Caterpillar 3406 DIT)								PC1
2 - 243 BHP Diesel Aux Liquid Pump Engines (Caterpillar 3306 DIT)								PC1
"Jackie C"								
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)								PC1
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)								PC1
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)								PC1
"Patriot II"								
2 - 626 BHP Diesel Main Engines (Detroit 16V92)								PC1
2 - 103 BHP Diesel Generator Engines (Detroit 4-71)								PC1
1- 103 BHP Diesel Fire Water Pump Engine (Detroit 4-71)								PC1
"Freedom"								
2 - 626 BHP Diesel Main Engines (Detroit 16V92)								PC1
2 - 76 BHP Diesel Generator Engines (Detroit 3-71)								PC1
1- 103 BHP Diesel Fire Water Pump Engine (Detroit 4-71)								PC1
For Use Throughout Platform								
30 - Oil Wells								PC1
2 - 500 BBL Closed Top Portable Tanks	6							

TABLE NO. 3

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Part 70 Permit No. 01494
Permitted Throughput/Consumption Limits

J:\TITLEV\TV Permits\PO1494\PERMITH\Tables REV4d.xls Equipment	Throughput Permit Limit	District (D)/ Federal(F) Enforceable	Calculation Throughput	Calculation Procedure
OCS Platform Gail				
1 - 300 BBL Slop Tank (T-1) VR				
1 - 300 BBL Slop Tank (T-2) VR				
1 - 256 BBL Oily Water CPI Unit (M-03) VR				
1 - 200 BBL PWT (T-06) VR				
1 - 40 BBL Oil Skim Tank (T-22) VR				
1 - 50 BBL Hydrocyclone Surge Vessel (V-41) VR				
1 - 256 BBL Oily Water CPI Separator (M-14) VR				
1 - 256 BBL Oily Water CPI Separator (M-15) VR				
1 - 256 BBL Waste Water CPI Sump (M-02) VR				
1 - 225 BBL Dry Oil Surge LACT Tank (V-8) VR				
1 - 134 BBL De-sanding Vessel (V-44) VR				
1 - 85 BBL Sump Tank (T-3) VR				
1 - 51 BBL Production Drain Tank (V-42) VR				
1 - 51 BBL SulfurOx Degasser Tank (V-81) VR				
1 - 7 BBL Vapor Recovery Suction Scrubber (V-14) VR				
1 - 7.07 Sqft Deck Drain Pit (T-21) Containment Berm-Exempt				
1 - Glycol Dehydrator System consisting of:	No Limit		8760 hr/yr	
1 - 0.5 MMBTU/Hr Glycol Reboiler Vent (H-04)VR				
1 - Glycol Surge Tank (V-34) VR				
1 - Glycol Contactor Pressure Vessel (V-18)				
1 - Glycol Flash Tank (V-19) VR				
1 - 1312.5 MMBTU/Hr High Pressure Flare	4.9 MMCF/Yr	F	4.9 MMCF/Yr	
1 - 656.3 MMBTU/Hr Low Pressure Flare	2.31 MMCF/Yr	F	2.31 MMCF/Yr	
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-1)				
Equipped water injection and SCR for NOx control @ All Loads	1,325 MMCF/Yr & 335,000 Gal/Yr	F	1,316 MMCF/Yr & 185,000 Gal/Yr	
@ < 1000 KW	9.0 MMCF/Yr & 150,000 Gal/Yr	F	9.0 MMCF/Yr & 150,000 Gal/Yr	
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-2)				
Equipped water injection and SCR for NOx control @ All Loads	*		*	
@ < 1000 KW	**		**	
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-3)				
Equipped water injection and SCR for NOx control @ All Loads	*		*	
@ < 1000 KW	**		**	
1 - 1300 BHP (850 KW) Detroit Diesel Back-up Generator (G-04)	32,130 Gal/Yr	F	32,130 Gal/Yr	
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine	960 Gal/Yr	F	960 Gal/Yr	
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine	++		++	
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine	++		++	
1 - 545 BHP Diesel Engine (South Crane)	21,339 Gal/Yr	F	21,339 Gal/Yr	
1 - 215 BHP Diesel Engine (North Crane)	++		++	
1 - 481 BHP Caterpillar Diesel Emergency Standby Engine, Model 3408 DITA, Serial No. 67U10240, I.D. P-18, used for fire suppression	50 Hr/Yr [1]	D	50 Hr/Yr	
Boom Boat (Boomer)				
2 - 200 BHP Diesel Main Engines (Volvo Penta)	1,406 Gal/Yr	F	1,406 Gal/Yr	
Crew Boat Engines				
"Glenn C"			53.1 Mgal/Yr	
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)			++	
2 - 124 BHP Diesel Generator Engines (Detroit 4-71N)			++	
ROC	2.77 TPY	F		
NOx	46.87 TPY	F		
PM	2.80 TPY	F		
SOx	0.63 TPY	F		
CO	8.52 TPY	F		
"Doug C"				
3 - 535 BHP Diesel Main Engines (Detroit 6062)	++		++	
2 - 50.5 BHP Diesel Generator Engines (Lugger L984)	++		++	
"Jackie C"				
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	++		++	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	++		++	
1 - 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	++		++	
"Aces Wild"				
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	++		++	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	++		++	
"Wendy Tide"				
4 - 510 BHP Diesel Main Engines (Detroit, 12V71TI)	++		++	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	++		++	
"Robbie Tide"				
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	++		++	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	++		++	
"Messenger"				
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	++		++	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	++		++	

TABLE NO. 3

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
Part 70 Permit No. 01494
Permitted Throughput/Consumption Limits

M:\TTLE V\TV Permits\PO1494\PERMIT\TBLs_REV441.xls Equipment	Throughput Permit Limit	District (D)/ Federal(F) Enforceable	Calculation Throughput	Calculation Procedure
"Danny C"				
2 - 365 BHP Diesel Main Engines (Caterpillar 3406 C)	++		++	
1 - 40 BHP Diesel Generator Engine (Isuzu 4JB1)	++		++	
1 - 32 BHP Diesel Generator Engine (Northern Lights M20)	++		++	
1 - 46 BHP Diesel Hydraulic Engine (Detroit 271)	++		++	
"Ace High"				
2 - 650 BHP Diesel Main Engines (Detroit 12V92TI)	++		++	
1 - 510 BHP Diesel Main Center Engine (Detroit 12V71TI)	++		++	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	++		++	
Work Boat Engines				
"San Miguel"				
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B DITA SCAC)	++		114,000 Gal/yr	
2 - 247 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	++		++	
1 - 550 BHP Diesel Thruster Engine (Caterpillar 3408 DITA)	++		++	
1 - 315 BHP Diesel Compressor Engine (Caterpillar 3306 DITA)	++		++	
1 - 306 BHP Diesel Aux Pump Engine (Caterpillar 3406 DIT)	++		++	
1 - 273 BHP Diesel Winch Engine (Detroit 8V-71)	++		++	
"Victory Seahorse"				
2 - 2500 BHP Diesel Main Engines (EMD 16-645-ED3A)	++		++	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	++		++	
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	++		++	
"Santa Cruz"				
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B)	++		++	
2 - 245 BHP Diesel Generator Engines (Caterpillar 3306)	++		++	
1 - 515 BHP Diesel Thruster Engine (Caterpillar 3408)	++		++	
"Toby Tide"				
2 - 1125 BHP Diesel Main Engines (Caterpillar D399TA)	++		++	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	++		++	
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	++		++	
"Sea Tide"				
2 - 1220 BHP Diesel Main Engines (DDEC 12V149TI)	++		++	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	++		++	
1 - 200 BHP Diesel Thruster Engine (Detroit 6V-71)	++		++	
"Robin J"				
2 - 600 BHP Diesel Main Engines (GM 1692)	++		++	
2 - 21 BHP Diesel Generator Engines (GM 471)	++		++	
"O'Neil Tide"				
2 - 1125 BHP Diesel Main Engines (Caterpillar D399T/A)	++		++	
2 - 243 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	++		++	
1 - 325 BHP Diesel Thruster Engine (Caterpillar 3406 DIT)	++		++	
1 - 325 BHP Diesel Aux Fire Pump Engine (Caterpillar 3406 DIT)	++		++	
2 - 243 BHP Diesel Aux Liquid Pump Engines (Caterpillar 3306 DIT)	++		++	
"Jackie C"				
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	++	F	++	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	++	F	++	
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	++	F	++	
"Patriot II"				
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	++	F	++	
2 - 103 BHP Diesel Generator Engines (Detroit 4-71)	++	F	++	
1- 103 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	++	F	++	
"Freedom"				
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	++	F	++	
2 - 76 BHP Diesel Generator Engines (Detroit 3-71)	++	F	++	
1- 103 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	++	F	++	
For Use Throughout Platform				
30 - Oil Wells				
2 - 500 BBL Closed Top Portable Tanks				

Notes:
1 - 50 Hours per year is for maintenance purposes. Emergency use is unlimited.
* - Included in Above Limit for All Loads
** - Included in Above Limit for @ < 1000 KW
++ - Included in Limit Above

TABLE NO. 4

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

Part 70 Permit No. 01494

Permitted Emissions

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Equipment	TONS PER YEAR						POUNDS PER HOUR					
	ROC	NOx	PM	SOx	CO	NH3	ROC	NOx	PM	SOx	CO	NH3
OCS Platform Gail												
1 - 300 BBL Slop Tank (T-1) VR	0.01						<0.01					
1 - 300 BBL Slop Tank (T-2) VR	0.01						<0.01					
1 - 256 BBL Oily Water CPI Unit (M-03) VR	0.01						<0.01					
1 - 200 BBL PWT (T-06) VR	<0.01						<0.01					
1 - 40 BBL Oil Skim Tank (T-22) VR	<0.01						<0.01					
1 - 50 BBL Hydrocyclone Surge Vessel (V-41) VR	<0.01						<0.01					
1 - 256 BBL Oily Water CPI Separator (M-14) VR	0.01						<0.01					
1 - 256 BBL Oily Water CPI Separator (M-15) VR	0.01						<0.01					
1 - 256 BBL Waste Water CPI Sump (M-02) VR	0.02						<0.01					
1 - 225 BBL Dry Oil Surge LACT Tank (V-8) VR	0.01						<0.01					
1 - 134 BBL De-sanding Vessel (V-44) VR	<0.01						<0.01					
1 - 85 BBL Sump Tank (T-3) VR	0.01						<0.01					
1 - 51 BBL Production Drain Tank (V-42) VR	<0.01						<0.01					
1 - 51 BBL SulfurOx Degasser Tank (V-81) VR	<0.01						<0.01					
1 - 7 BBL Vapor Recovery Suction Scrubber (V-14) VR	<0.01						<0.01					
1 - 7.07 Sqft Deck Drain Pit (T-21) Containment Berm-Exempt												
1 - Glycol Dehydrator System consisting of:	8.10						1.85					
1 - 0.5 MMBTU/Hr Glycol Reboiler Vent (H-04)VR												
1 - Glycol Surge Tank (V-34) VR												
1 - Glycol Contactor Pressure Vessel (V-18)												
1 - Glycol Flash Tank (V-19) VR												
1 - 1312.5 MMBTU/Hr High Pressure Flare	0.13	0.17	0.01	0.81	0.95		68.00	89.25	6.56	413.44	485.63	
1 - 656.3 MMBTU/Hr Low Pressure Flare	0.06	0.08	0.01	0.38	0.45		34.00	44.63	3.28	206.75	242.85	
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-1) Equipped with water injection and SCR for NOx control	1.47	7.83	4.88	1.58	191.85	21.23	0.28	3.44	1.73	7.26	35.43	3.92
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-2) Equipped with water injection and SCR for NOx control	*	*	*	*	*	*	*	*	*	*	*	*
1 - 4800 BHP (4.0 MW) Allison NG/Diesel Turbine Generator (501-KB5) (G-3) Equipped with water injection and SCR for NOx control	*	*	*	*	*	*	*	*	*	*	*	*
1 - 1300 BHP (850 KW) Detroit Diesel Back-up Generator (G-04)	**	**	**	**	**		2.51	35.46	2.53	0.57	7.71	
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine	0.02	0.23	0.02	<0.01	0.05		0.33	4.64	0.33	0.07	1.01	
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine	*	*	*	*	*		0.33	4.64	0.33	0.07	1.01	
1 - 140 BHP Detroit Diesel (4-53) Turbine Starter Engine	*	*	*	*	*		0.33	4.64	0.33	0.07	1.01	
1 - 545 BHP Diesel Engine (South Crane)	0.35	4.99	0.36	0.08	1.09		1.79	25.28	1.81	0.40	5.50	
1 - 215 BHP Diesel Engine (North Crane)	*	*	*	*	*		*	*	*	*	*	
1 - 481 BHP Caterpillar Diesel Emergency Standby Engine, Model 3408 DITA, Serial No. 67U10240, I.D. P-18, used for fire suppression	0.03	0.40	0.03	0.01	0.09		0.28	4.00	0.29	0.06	0.87	
Boom Boat (Boomer)												
2 - 200 BHP Diesel Main Engines (Volvo Penta)	0.02	0.33	0.02	0.01	0.07		0.94	13.32	0.95	0.21	2.90	
Crew Boat Engines												
"Glenn C"												
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	0.88	14.89	0.89	0.20	2.71		4.80	81.23	4.85	1.09	14.77	
2 - 124 BHP Diesel Generator Engines (Detroit 4-71N)	*	*	*	*	*		0.58	9.87	0.59	0.13	1.80	
"Doug C"												
3 - 535 BHP Diesel Main Engines (Detroit 6062)	*	*	*	*	*		*	*	*	*	*	
2 - 50.5 BHP Diesel Generator Engines (Lugger L984)	*	*	*	*	*		*	*	*	*	*	
"Jackie C"												
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	*	*	*	*		*	*	*	*	*	
"Aces Wild"												
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
"Wendy Tide"												
4 - 510 BHP Diesel Main Engines (Detroit, 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
"Robbie Tide"												
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
"Messenger"												
3 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 75 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
"Danny C"												
2 - 365 BHP Diesel Main Engines (Caterpillar 3406 C)	*	*	*	*	*		*	*	*	*	*	
1 - 40 BHP Diesel Generator Engine (Isuzu 4JB1)	*	*	*	*	*		*	*	*	*	*	
1 - 32 BHP Diesel Generator Engine (Northern Lights M20)	*	*	*	*	*		*	*	*	*	*	
1 - 46 BHP Diesel Hydraulic Engine (Detroit 271)	*	*	*	*	*		*	*	*	*	*	

TABLE NO. 4

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

Part 70 Permit No. 01494

Permitted Emissions

M:\TITLEV\TV Permits\PO1494\PERMITTED\Tables REV441.xls

Equipment	TONS PER YEAR						POUNDS PER HOUR					
	ROC	NOx	PM	SOx	CO	NH3	ROC	NOx	PM	SOx	CO	NH3
"Ace High"												
2 - 650 BHP Diesel Main Engines (Detroit 12V92TI)	*	*	*	*	*		*	*	*	*	*	
1 - 510 BHP Diesel Main Center Engine (Detroit 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
Work Boat Engines												
"San Miguel"												
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B DITA SCAC)	1.89	31.98	1.91	0.43	5.81		7.71	130.49	7.79	1.74	23.73	
2 - 247 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	*	*	*	*	*		1.16	19.64	1.17	0.26	3.57	
1 - 550 BHP Diesel Thruster Engine (Caterpillar 3408 DITA)	*	*	*	*	*		1.29	21.88	1.31	0.29	3.98	
1 - 315 BHP Diesel Compressor Engine (Caterpillar 3306 DITA)	*	*	*	*	*		0.74	12.51	0.75	0.17	2.27	
1 - 306 BHP Diesel Aux Pump Engine (Caterpillar 3406 DIT)	*	*	*	*	*		0.72	12.17	0.73	0.16	2.21	
1 - 273 BHP Diesel Winch Engine (Detroit 8V-71)	*	*	*	*	*		0.64	10.88	0.65	0.15	1.98	
"Victory Seahorse"												
2 - 2500 BHP Diesel Main Engines (EMD 16-645ED3A)	*	*	*	*	*		*	*	*	*	*	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	*	*	*	*		*	*	*	*	*	
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	*	*	*	*	*		*	*	*	*	*	
"Santa Cruz"												
2 - 2000 BHP Diesel Main Engines (Caterpillar 3516B)	*	*	*	*	*		*	*	*	*	*	
2 - 245 BHP Diesel Generator Engines (Caterpillar 3306)	*	*	*	*	*		*	*	*	*	*	
1 - 515 BHP Diesel Thruster Engine (Caterpillar 3408)	*	*	*	*	*		*	*	*	*	*	
"Toby Tide"												
2 - 1125 BHP Diesel Main Engines (Caterpillar D399TA)	*	*	*	*	*		*	*	*	*	*	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	*	*	*	*		*	*	*	*	*	
1 - 300 BHP Diesel Thruster Engine (Detroit 8V-71)	*	*	*	*	*		*	*	*	*	*	
"Sea Tide"												
2 - 1220 BHP Diesel Main Engines (DDEC 12V149TI)	*	*	*	*	*		*	*	*	*	*	
2 - 200 BHP Diesel Generator Engines (Detroit 8V-71)	*	*	*	*	*		*	*	*	*	*	
1 - 200 BHP Diesel Thruster Engine (Detroit 6V-71)	*	*	*	*	*		*	*	*	*	*	
"Robin J"												
2 - 600 BHP Diesel Main Engines (GM 1692)	*	*	*	*	*		*	*	*	*	*	
2 - 21 BHP Diesel Generator Engines (GM 471)	*	*	*	*	*		*	*	*	*	*	
"O'Neil Tide"												
2 - 1125 BHP Diesel Main Engines (Caterpillar D399T/A)	*	*	*	*	*		*	*	*	*	*	
2 - 243 BHP Diesel Generator Engines (Caterpillar 3306 DIT)	*	*	*	*	*		*	*	*	*	*	
1 - 325 BHP Diesel Thruster Engine (Caterpillar 3406 DIT)	*	*	*	*	*		*	*	*	*	*	
1 - 325 BHP Diesel Aux Fire Pump Engine (Caterpillar 3406 DIT)	*	*	*	*	*		*	*	*	*	*	
2 - 243 BHP Diesel Aux Liquid Pump Engines (Caterpillar 3306 DIT)	*	*	*	*	*		*	*	*	*	*	
"Jackie C"												
4 - 510 BHP Diesel Main Engines (Detroit 12V71TI)	*	*	*	*	*		*	*	*	*	*	
2 - 65 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
1- 89 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	*	*	*	*		*	*	*	*	*	
"Patriot II"												
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	*	*	*	*	*		*	*	*	*	*	
2 - 103 BHP Diesel Generator Engines (Detroit 4-71)	*	*	*	*	*		*	*	*	*	*	
1- 103 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	*	*	*	*		*	*	*	*	*	
"Freedom"												
2 - 626 BHP Diesel Main Engines (Detroit 16V92)	*	*	*	*	*		*	*	*	*	*	
2 - 76 BHP Diesel Generator Engines (Detroit 3-71)	*	*	*	*	*		*	*	*	*	*	
1- 103 BHP Diesel Fire Water Pump Engine (Detroit 4-71)	*	*	*	*	*		*	*	*	*	*	
For Use Throughout Platform												
30 - Oil Wells	10.95						2.50					
2 - 500 BBL Closed Top Portable Tanks	0.19						0.04					
Total Permitted Emissions	24.18	60.90	8.13	3.50	203.07	21.23	130.82	527.97	35.98	632.89	838.23	3.92

* - Included in Emissions Above
** - Allison Turbine Generators are Worst Case
\+ - Back-up Generator is Worst Case

HAP Emissions Ref.: OCS HAP Emission Estimation Techniques and Calculations are included in Re-issuance Application and Maintained at the Facility.

Permitted Emissions Summary

Criteria Pollutants

01494-REN Platform Gail

Permit Period: 1/1/2011 to 12/31/2011

	Tons per Year					Pounds Per Hour				
Equipment	**ROC**	**NOx**	**PM**	**SOx**	**CO**	**ROC**	**NOx**	**PM**	**SOx**	**CO**
1 - 300 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 300 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 200 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 40 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 50 Barrel LACT Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 225 Barrel Surge Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 134 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 85 Barrel Produced Water Tank	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 51 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 51 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 [illegible] arrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - [illegible] MMBTU/hr Glycol Reboiler	8.10	0.00	0.00	0.00	0.00	1.85	0.00	0.00	0.00	0.00
1 - 1312.5 MMBTU/hr High Pressure Flare	0.13	0.17	0.01	0.81	0.95	68.00	89.25	6.56	413.44	485.63
1 - 656.3 MMBTU/hr Low Pressure Flare	0.06	0.08	0.01	0.38	0.45	34.00	44.63	3.28	206.75	242.85
1 - 4800 BHP Allison NG/Diesel Turbine	1.47	7.83	4.88	1.58	191.85	0.28	3.44	1.73	7.26	35.43
1 - 1300 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	2.51	35.46	2.53	0.57	7.71
1 - 140 BHP Detroit Diesel Engine	0.02	0.23	0.02	0.00	0.05	0.33	4.64	0.33	0.07	1.01
1 - 140 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.33	4.64	0.33	0.07	1.01
1 - 140 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.33	4.64	0.33	0.07	1.01
1 - 545 BHP Diesel Engine	0.35	4.99	0.36	0.08	1.09	1.79	25.28	1.81	0.40	5.50
1 - 481 BHP Caterpillar Diesel-Fired Emergency Standby	0.03	0.40	0.03	0.01	0.09	0.28	4.00	0.29	0.06	0.87
2 - 200 BHP Volvo Penta Diesel Engines	0.02	0.33	0.02	0.01	0.07	0.94	13.32	0.95	0.21	2.90
1 - Portable Engines for Operate of Crew Boat - Glenn C	0.88	14.89	0.89	0.20	2.71	0.00	0.00	0.00	0.00	0.00
4 - 510 BHP Detroit Diesel Engines	0.00	0.00	0.00	0.00	0.00	4.80	81.23	4.85	1.09	14.77
2 - 124 BHP Detroit Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.58	9.87	0.59	0.13	1.80
1 - Portable Engines	1.89	31.98	1.91	0.43	5.81	0.00	0.00	0.00	0.00	0.00
2 - 2000 BHP Caterpillar Diesel Engines	0.00	0.00	0.00	0.00	0.00	7.71	130.49	7.79	1.74	23.73
2 - 247 BHP Caterpillar Diesel Engines	0.00	0.00	0.00	0.00	0.00	1.16	19.64	1.17	0.26	3.57
1 - 550 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	1.29	21.88	1.31	0.29	3.98
1 - 315 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.74	12.51	0.75	0.17	2.27
1 - 306 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.72	12.17	0.73	0.16	2.21
1 - 273 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.64	10.88	0.65	0.15	1.98
30 - Oil Wells	10.95	0.00	0.00	0.00	0.00	2.50	0.00	0.00	0.00	0.00
2 - 500 Barrel Closed Top Portable Tanks	0.19	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00

	Tons per Year					Pounds Per Hour				
Equipment	**ROC**	**NOx**	**PM**	**SOx**	**CO**	**ROC**	**NOx**	**PM**	**SOx**	**CO**
Total	24.18	60.90	8.13	3.50	203.07	130.82	527.97	35.98	632.89	838.23

Also has Other Pollutants-See Inorganic Compounds Summary

Permitted Emissions Summary

Inorganic Compounds

01494-REN Platform Gail

Permit Period: 1/1/2011 to 12/31/2011

	Tons per Year				Pounds Per Hour			
Equipment	**NH3**	**Cl2**	**HCl**	**H2S**	**NH3**	**Cl2**	**HCl**	**H2S**
1 - 300 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 300 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 200 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 40 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 50 Barrel LACT Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 256 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 225 Barrel Surge Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 134 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 85 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 51 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 51 Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 [illegible] Barrel Produced Water Tank	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 [illegible] MMBTU/hr Glycol Reboiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 1312.5 MMBTU/hr High Pressure Flare	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 656.3 MMBTU/hr Low Pressure Flare	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 4800 BHP Allison NG/Diesel Turbine	21.23	0.00	0.00	0.00	3.92	0.00	0.00	0.00
1 - 1300 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 140 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 140 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 140 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 545 BHP Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 481 BHP Caterpillar Diesel-Fired Emergency Standby	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - 200 BHP Volvo Penta Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - Portable Engines for Operate of Crew Boat - Glenn C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4 - 510 BHP Detroit Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - 124 BHP Detroit Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - Portable Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - 2000 BHP Caterpillar Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - 247 BHP Caterpillar Diesel Engines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 550 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 315 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 306 BHP Caterpillar Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1 - 273 BHP Detroit Diesel Engine	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30 - Oil Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2 - 500 Barrel Closed Top Portable Tanks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Tons per Year				Pounds Per Hour			
Equipment	**NH3**	**Cl2**	**HCl**	**H2S**	**NH3**	**Cl2**	**HCl**	**H2S**
Total	21.23	0.00	0.00	0.00	3.92	0.00	0.00	0.00

Also has Criteria Pollutants-See Criteria Pollutants Summary

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14951 1 - 300 Barrel | Produced Water Tank (Slop Tank, T-1)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	300.0000 bbl-Cap.	0.0342 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14952 1 - 300 Barrel | Produced Water Tank (Slop Tank, T-2)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	300.0000 bbl-Cap.	0.0342 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14953 1 - 256 Barrel | Produced Water Tank (Oily Water CPI Unit, M-03)

RCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	256.0000 bbl-Cap.	0.0292 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14954 1 - 200 Barrel | Produced Water Tank (T-06)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301065 - Brth Ht 12-20' VP <1.5psi	bbl-Cap.	200.0000 bbl-Cap.	0.0228 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.3700	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14955 1 - 40 Barrel | Produced Water Tank (Oil Skim Tank, T-22)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	40.0000 bbl-Cap.	0.0046 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
tive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14956 1 - 50 Barrel | LACT Tank (Hydrocyclone Surge Vessel, V-41)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	50.0000 bbl-Cap.	0.0057 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14957 1 - 256 Barrel | Produced Water Tank (Oily Water CPI Separator, M-14)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	256.0000 bbl-Cap.	0.0292 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14958 1 - 256 Barrel | Produced Water Tank (Oily Water CPI Separator, M-15)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	256.0000 bbl-Cap.	0.0292 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14959 1 - 256 Barrel | Produced Water Tank (Waste Water CPI Sump, M-02)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301067 - Brth Ht 12-20' VP 3.1-5.0	bbl-Cap.	256.0000 bbl-Cap.	0.0292 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.02	0.00	1.4800	0.1000	0.1500	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14960 1 - 225 Barrel | Surge Tank (Dry Oil, V-8)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301066 - Brth Ht 12-20' VP 1.5-3.0	bbl-Cap.	225.0000 bbl-Cap.	0.0257 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	0.8500	0.1000	0.0900	Y	Y		Y	Vapor Recovery (90%)

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14961 1 - 134 Barrel | Produced Water Tank (De-sanding Vessel, V-44)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	134.0000 bbl-Cap.	0.0153 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14962 1 - 85 Barrel | Produced Water Tank (Sump Tank, T-3)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301063 - Brth Ht<12' VP 3.1-5.0psi	bbl-Cap.	85.0000 bbl-Cap.	0.0097 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.00	2.0300	0.1000	0.2000	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14963 1 - 51 Barrel | Produced Water Tank (Production Drain Tank, V-42)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	51.0000 bbl-Cap.	0.0058 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14964 1 - 51 Barrel | Produced Water Tank (SulfurOx Degasser Tank, V-81)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	51.0000 bbl-Cap.	0.0058 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

DEVICE NO: 14966 1 - 7 Barrel | Produced Water Tank (Vapor Recovery Suction Scrubber, V-14)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301061 - Brth Ht<12' VP <1.5 psi	bbl-Cap.	7.0000 bbl-Cap.	0.0008 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.00	0.4300	0.1000	0.0400	Y	Y		Y	Vapor Recovery (90%)

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14968 1 - 0.5 MMBTU/hr

Glycol Reboiler, equipped with a Glycol Vent (Waste Heat, H-04), Glycol Surge Tank (V-34), Glycol Contactor Pressure Vessel (V-18), and a Glycol Flash Tank (V-19)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
31000227 - Glycol Reboiler Vent	Tons	162.0350 Tons	0.0185 Tons	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	8.10	1.85	2000.0000	0.0500	100.0000	Y	Y		Y	Vapor Recovery (95%)

DEVICE NO: 14969 1 - 1312.5 MMBTU/hr

High Pressure Flare

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
10201302 - Flare	MMcf	4.9000 MMcf	1312.5000 MMBTU NG	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.13	68.00	54.4000	1.0000	54.4000	Y	Y		Y	
Nitrogen Oxides	0.17	89.25	71.4000	1.0000	71.4000	Y	Y		Y	
Particulate Matter	0.01	6.56	5.2500	1.0000	5.2500	Y	Y		Y	
Sulfur Oxides	0.81	413.44	330.7500	1.0000	330.7500	Y	Y	Y	Y	
Carbon Monoxide	0.95	485.63	388.5000	1.0000	388.5000	Y	Y		Y	

DEVICE NO: 14970 1 - 656.3 MMBTU/hr

Low Pressure Flare

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
10201302 - Flare	MMcf	2.3100 MMcf	656.3000 MMBTU NG	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.06	34.00	54.4000	1.0000	54.4000	Y	Y		Y	
Nitrogen Oxides	0.08	44.63	71.4000	1.0000	71.4000	Y	Y		Y	
Particulate Matter	0.01	3.28	5.2500	1.0000	5.2500	Y	Y		Y	
Sulfur Oxides	0.38	206.75	330.7500	1.0000	330.7500	Y	Y	Y	Y	
Carbon Monoxide	0.45	242.85	388.5000	1.0000	388.5000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14971 1 - 4800 BHP

Allison NG/Diesel Turbine Generator (501-KB5) (4.0 MW, G-1) equipped with water injection and SCR for NOx control

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20100101 - Turbine-Distillate Fired	Mgal	185.0000 Mgal	1.0200 Mgal	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.01	0.06	0.0600	1.0000	0.0600	Y	N		Y	
Nitrogen Oxides	0.31	3.44	3.3700	1.0000	3.3700	Y	Y	Y	Y	
Particulate Matter	0.16	1.73	1.6900	1.0000	1.6900	Y	Y		Y	
Sulfur Oxides	0.66	7.26	71.2000	0.1000	7.1200	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	3.08	33.99	33.3200	1.0000	33.3200	Y	N	Y	Y	
Ammonia	0.35	3.91	3.8300	1.0000	3.8300	Y	N	Y	Y	

G1,G2,G3 combined; NOx at 6.5 ppm

20100101 - Turbine-Distillate Fired	Mgal	150.0000 Mgal	0.3660 Mgal	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
'ive Organics	0.00	0.02	0.0600	1.0000	0.0600	Y	N		Y	
Nitrogen Oxides	0.51	2.47	6.7400	1.0000	6.7400	Y	N	Y	Y	
Particulate Matter	0.13	0.62	1.6900	1.0000	1.6900	Y	N		Y	
Sulfur Oxides	0.53	2.61	71.2000	0.1000	7.1200	Y	N		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	2.50	12.20	33.3200	1.0000	33.3200	Y	N	Y	Y	
Ammonia	0.29	1.40	3.8300	1.0000	3.8300	Y	N	Y	Y	

G1,G2,G3 combined; < 1000 KW; NOx at 13 ppm

20100201 - Turbine-Natural Gas	MMcf	1316.0000 MMcf	0.1260 MMcf	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	1.45	0.28	2.2100	1.0000	2.2100	Y	Y		Y	
Nitrogen Oxides	6.92	1.32	10.5100	1.0000	10.5100	Y	N	Y	Y	
Particulate Matter	4.56	0.87	6.9300	1.0000	6.9300	Y	N		Y	
Sulfur Oxides	0.39	0.08	0.6000	1.0000	0.6000	Y	N		Y	
Carbon Monoxide	185.00	35.43	281.1600	1.0000	281.1600	Y	Y	Y	Y	
Ammonia	20.45	3.92	31.0800	1.0000	31.0800	Y	Y	Y	Y	

G1,G2,&G3 combined; NOx at 2.5 ppm

20100201 - Turbine-Natural Gas	MMcf	9.0000 MMcf	0.0670 MMcf	

P^' LUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

Reactive Organics	0.01	0.15	2.2100	1.0000	2.2100	Y	N		Y
Nitrogen Oxides	0.09	1.41	21.0300	1.0000	21.0300	Y	N	Y	Y
Particulate Matter	0.03	0.46	6.9300	1.0000	6.9300	Y	N		Y
Sulfur Oxides	0.00	0.04	0.6000	1.0000	0.6000	Y	N		Y
Carbon Monoxide	1.27	18.84	281.1600	1.0000	281.1600	Y	N	Y	Y
Ammonia	0.14	2.08	31.0800	1.0000	31.0800	Y	N	Y	Y

G1,G2,G3 combined < 1000 KW; NOx at 5 ppm

DEVICE NO: 14974 1 - 1300 BHP | Detroit Diesel Engine Back-up Generator (G-04)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	32.1300 Mgal	1300.0000 BHP-d>1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.53	2.51	33.1500	1.0000	33.1500	N	Y			
Nitrogen Oxides	7.53	35.46	469.0000	1.0000	469.0000	N	Y			
Particulate Matter	0.54	2.53	33.5000	1.0000	33.5000	N	Y			
Sulfur Oxides	0.12	0.57	75.0000	0.1000	7.5000	N	Y			Low Sulfur 0.05 fuel
Carbon Monoxide	1.64	7.71	102.0000	1.0000	102.0000	N	Y			

DEVICE NO: 14975 1 - 140 BHP | Detroit Diesel Engine Turbine Starter Engine (4-53)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.9600 Mgal	140.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.02	0.33	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.23	4.64	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.02	0.33	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.07	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.05	1.01	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail Permit Period: 1/1/2011 to 12/31/2011 SIC Code 1311 - Crude Oil Production

DEVICE NO: 14976 1 - 140 BHP Detroit Diesel Engine Turbine Starter Engine (4-53)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	140.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.33	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	4.64	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.00	0.33	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.07	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	1.01	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14977 1 - 140 BHP Detroit Diesel Engine Turbine Starter Engine (4-53)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	140.0000 BHP-d<1000	

UTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.33	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	4 64	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.00	0.33	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.07	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	1.01	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 14978 1 - 545 BHP Diesel Engine (South Crane)

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	21.3000 Mgal	760.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.35	1.79	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	4.99	25.28	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.36	1.81	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.08	0.40	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	1.09	5.50	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 17390 1 - 481 BHP

Caterpillar Diesel-Fired Emergency Standby Engine, Model 3408 DITA, Serial No. 67U10240, I.D. P-18, used for fire suppression

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200103 - Diesel ICE - g/hp-hr<1000	BHP-g<1000	24050.0000 BHP-d<1000	120.2500 BHP-d<1000	Calculate Hourly Using 200 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.03	0.28	1.0700	1.0000	1.0700	Y	Y		Y	
Nitrogen Oxides	0.40	4.00	15.1000	1.0000	15.1000	Y	Y		Y	
Particulate Matter	0.03	0.29	1.0800	1.0000	1.0800	Y	Y		Y	
Sulfur Oxides	0.01	0.06	2.4200	0.1000	0.2400	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.09	0.87	3.2800	1.0000	3.2800	Y	Y		Y	

DEVICE NO: 14980 2 - 200 BHP

Volvo Penta Diesel Engines, Main Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.7030 Mgal	200.0000 BHP-d<1000	

_UTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.02	0.94	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.33	13.32	469.0000	1.0000	469.0000	Y	Y		Y	
Particulate Matter	0.02	0.95	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.01	0.21	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.07	2.90	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 17681 1 - 0

Portable Engines for Operate of Crew Boat - Glenn C

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	53.1000 Mgal	0.0000 Mgal	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.88	0.00	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	14.89	0.00	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.89	0.00	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.20	0.00	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	2.71	0.00	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 17682 4 - 510 BHP | Detroit Diesel Engines, Model 12V1T1, Main Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	510.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	4.80	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	81.23	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	4.85	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	1.09	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	14.77	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 17683 2 - 124 BHP | Detroit Diesel Engines, Model 4-71N, Generator Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	124.0000 BHP-d<1000	

UTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.58	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	9.87	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.59	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.13	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	1.80	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 15027 1 - 0 | Portable Engines for Operation of Work Boat - San Miguel

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	114.0000 Mgal	0.0000 BHP-d>1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	1.89	0.00	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	31.98	0.00	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	1.91	0.00	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.43	0.00	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	5.81	0.00	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 15028 2 - 2000 BHP | Caterpillar Diesel Engines, Model 3516B DITA SCAC, Main Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	2000.0000 BHP-d>1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	7.71	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	130.49	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	7.79	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	1.74	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	23.73	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 15029 2 - 247 BHP | Caterpillar Diesel Engines, Model 3306 DIT, Generator Engines

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	247.0000 BHP-d<1000	

'UTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	1.16	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	19.64	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	1.17	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.26	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	3.57	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 15030 1 - 550 BHP | Caterpillar Diesel Engine, Model 3408 DITA, Thruster Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	550.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	1.29	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	21.88	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	1.31	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.29	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	3.98	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail Permit Period: 1/1/2011 to 12/31/2011 SIC Code 1311 - Crude Oil Production

DEVICE NO: 15032 1 - 315 BHP Caterpillar Diesel Engine, Model 3306 DITA, Compressor Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	315.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.74	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	12.51	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.75	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.17	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	2.27	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 15033 1 - 306 BHP Caterpillar Diesel Engine, Model 3406 DIT, Aux Pump Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 Mgal	306.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.72	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	12.17	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.73	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.16	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	2.21	102.0000	1.0000	102.0000	Y	Y		Y	

DEVICE NO: 15034 1 - 273 BHP Detroit Diesel Engine, Model 8V-71, Winch Engine

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
20200102 - Diesel ICE - Industrial	Mgal	0.0000 BHP-g<1000	273.0000 BHP-d<1000	

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.00	0.64	33.1500	1.0000	33.1500	Y	Y		Y	
Nitrogen Oxides	0.00	10.88	561.0000	1.0000	561.0000	Y	Y	Y	Y	
Particulate Matter	0.00	0.65	33.5000	1.0000	33.5000	Y	Y		Y	
Sulfur Oxides	0.00	0.15	75.0000	0.1000	7.5000	Y	Y		Y	Low Sulfur 0.05 fuel
Carbon Monoxide	0.00	1.98	102.0000	1.0000	102.0000	Y	Y		Y	

Equipment and Emissions Summary

01494 - REN Platform Gail | Permit Period: 1/1/2011 to 12/31/2011 | SIC Code 1311 - Crude Oil Production

DEVICE NO: 14993 30 - 0 | Oil Wells

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
31000122 - Crude Oil Well	Well-Day	365.0000 Well-Day	0.0417 Well-Day	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	10.95	2.50	2.0000	1.0000	2.0000	Y	Y		Y	

DEVICE NO: 14994 2 - 500 Barrel | Closed Top Portable Tanks

SOURCE CLASSIFICATION CODE	SCC Units	Prmt Annual Throughput	Max Hourly Throughput	Hours Per Year (if used)
40301065 - Brth Ht 12-20' VP <1.5psi	bbl-Cap.	500.0000 bbl-Cap.	0.0571 bbl-Cap.	Calculate Hourly Using 8760 Hrs/Yr

POLLUTANT	Tons/Yr	Lbs/Hr	Uncntl EF	Cntl Factor	Cntl EF	APE?	HPE?	EF Over	CF Over	Control Device
Reactive Organics	0.19	0.04	0.3700	1.0000	0.3700	Y	Y		Y	

AIR TOXICS EMISSIONS SUMMARY REPORT

The following two pages are the Air Toxics Emissions Summary Report for this facility. Toxic combustion emissions (first page) were determined based on fuel use reported for Calendar Year 2011. Non-combustion emissions, as weight fractions of ROCs, were not quantifiable with available data. The second page of this report shows ROC emissions, given as permit limits since they were not quantified directly.

Venoco Platform Gail - Part 70 Permit No. 01494
Air Toxics "Hot Spots" Emissions Summary Report - 2011

Combustion Sources		Annual		
Source	Fuel Type	Fuel Usage[a]	Fuel Units	
HP & LP Flares	Gas	2.84	mmscf	
Turbines on gas	Gas	877.69	mmscf	
Turbines on diesel	Diesel	26.55	1000 gal	
Back-up Generator	Diesel	2.96	1000 gal	
Cranes	Diesel	14.853	1000 gal	
Turbine starter engines	Diesel	0.477	1000 gal	
Em. Firewater Pump	Diesel	0.045	1000 gal	5 gph for testing
Crew Boats	Diesel	84.957	1000 gal	
Supply Boats	Diesel	31.642	1000 gal	

[a] Fuel usage is from 2011 Annual Equipment Usage Report for PTO No. 01494

Total flaring	2.84	mmscf	
Total turbines	877.69	mmscf	Turbines are 4 MW or approximately 40 MMBtu/hr
Total diesel	161.484	1000 gal	

	Combustion Emission Factors				**Combustion Emissions (lb/yr)[c]**				
Pollutant Emissions	Flare (lb/mmscf)	Turbines[b] (lb/mmscf)	Diesel (lb/1000 gal)	Source	Flaring	Turbines	Diesel	Total Non-Cancer	Total Cancer
benzene	0.159	0.0058	0.1863	1	0.45	5.09	30.08	35.63	5.54
formaldehyde	1.169	0.0123	1.7261	1	3.32	10.80	278.74	292.85	14.12
PAH's (incl naphthalene)	0.014	0.0004	0.0559	1	0.04	0.35	9.03	9.42	0.39
naphthalene	0.011	0.0003	0.0197	1	0.03	0.26	3.18	3.48	0.29
acetaldehyde	0.043	0.0031	0.7833	1	0.12	2.72	126.49	129.33	2.84
acrolein	0.01	0.0027	0.0339	1	0.03	2.37	5.47	7.87	2.40
1,3-butadiene			0.2174	1	0.00	0.00	35.11	35.11	0.00
chlorobenzene			0.0002	1	0.00	0.00	0.03	0.03	0.00
propylene	2.44	0.53	0.467	1	6.93	465.18	75.41	547.52	472.11
hexane	0.029	0.0046	0.0269	1	0.08	4.04	4.34	8.46	4.12
toluene	0.058	0.0265	0.1054	1	0.16	23.26	17.02	40.44	23.42
xylenes	0.029	0.0197	0.0424	1	0.08	17.29	6.85	24.22	17.37
ethyl benzene	1.444	0.0069	0.0109	1	4.10	6.06	1.76	11.92	10.16
hydrogen chloride			0.1863	1	0.00	0.00	30.08	30.08	0.00
arsenic			0.0016	1	0.00	0.00	0.26	0.26	0.00
cadmium			0.0015	1	0.00	0.00	0.24	0.24	0.00
total chromium			0.0006	1	0.00	0.00	0.10	0.10	0.00
hexavalent chromium			0.0001	1	0.00	0.00	0.02	0.02	0.00
copper			0.0041	1	0.00	0.00	0.66	0.66	0.00
lead			0.0083	1	0.00	0.00	1.34	1.34	0.00
manganese			0.0031	1	0.00	0.00	0.50	0.50	0.00
mercury			0.002	1	0.00	0.00	0.32	0.32	0.00
nickel			0.0039	1	0.00	0.00	0.63	0.63	0.00
selenium			0.0022	1	0.00	0.00	0.36	0.36	0.00
zinc			0.0224	1	0.00	0.00	3.62	3.62	0.00
diesel particulate matter			40	2	0.00	0.00	6459.36	0.00	6459.36

Sources:

1. Ventura County APCD, "AB2588 Combustion Emission Factors", May 17, 2001
2. U.S. EPA, AP-42, Table 3.3-1. Conversion from lb/hp-hr based on 0.055 gal/hp-hr

Note:

[b] Turbine factors are from the 10-100 MMBtu/hr range in the Ventura County APCD source document.

[c] Non-cancer emissions include all except diesel particulate matter. Total cancer emissions include all non-diesel emissions plus diesel particulate matter.

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan Cover Sheet
Part 70 Permit Reissuance Applications Forms

Instructions

A compliance plan, signed by the responsible official, must be attached to each application for reissuance of a Part 70 Permit. To complete the compliance plan, attach the following to this sheet:

1. A completed compliance plan form for all applicable requirements that are currently effective and that apply to an emission unit at your facility or to your entire facility. Only one form that refers to all currently applicable requirements needs to be completed.

2. A completed compliance plan form for each applicable requirement that will become effective during the term of your permit and that will apply to an emission unit at your facility or to your entire facility. One form for each applicable requirement with a future effective date must be completed.

3. A narrative description of how each emission unit at your facility that does not comply with an applicable requirement will achieve compliance with the requirement.

   A compliance schedule, approved as part of an order issued by the District Hearing Board, must be attached for each emission unit that is not in compliance with an applicable requirement. Each compliance schedule shall contain a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the applicable requirement. The compliance schedule shall resemble, and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject.

   A schedule for submission of certified progress reports on the compliance schedule no less frequently than every six months must also be attached.

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this compliance plan are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
_____ **Larry Huskins, Operations Manager**	

Compliance Plan Cover Sheet (May 22, 2002)

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan
Applicable Requirements That Are Currently Effective

Compliance Schedule

Except for the specific applicable requirements and emission units listed below, the facility that is the subject of this application complies with all currently applicable requirements and will continue to comply with all currently applicable requirements.

Exceptions to This Declaration

Applicable Requirement	Emission Unit
No Exceptions	

Compliance Plan Currently Effective (May 22, 2002)

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT
669 County Square Drive, Ventura, CA 93003 805/645-1401 Fax 805/645-1444 www.vcapcd.org

Compliance Plan
Applicable Requirements With a Future Effective Date

Applicable Requirement

Citation:	Description:
No Applicable Requirements	

Compliance Schedule

The requirement cited and described will be applicable to my entire facility or to emission units at my facility.

Except for the specific emission units listed below, the facility that is the subject of this application will comply in a timely manner with the applicable requirement listed above and in accordance with the compliance schedule, if any, contained in the applicable requirement.

Exceptions to This Declaration

Emission Unit

STATEMENT REGARDING INSIGNIFICANT ACTIVITIES

We have reviewed the Insignificant Activities List on the following page, from Part 70 Permit No. 01494, and believe it to be correct.

Ventura County Air Pollution Control District

INSIGNIFICANT ACTIVITIES (EXEMPT EQUIPMENT)

Part 70 Permit No. 01494

INSIGNIFICANT ACTIVITIES (EXEMPT EMISSION UNITS)	BASIS FOR EXEMPTION (Size/Production Rate)	RULE 23 CITATION
** Onan Diesel Logging Unit (24 BHP)	Maximum design rating < 50 BHP	23.D.6
** Duetz Diesel Slickline Unit (43 BHP)	Maximum design rating < 50 BHP	23.D.6
Wipe Cleaning Operation	ROC content $\leq$ 25 g/l	23.F.10.b

** These units do not meet the definition of Insignificant Activity pursuant to Rule 33.1.12.c, but are exempt from District permitting requirements pursuant to Rule 23.D.6.

Ventura County Air Pollution Control District
Rule 26 (BACT) and Rule 74.23.B.1 Applicable Requirements
Stationary Gas Turbines
NOx Emission Limits
Three 4.0 MW Allison 501-KB5 Turbines

Rule 26, "New Source Review"

Conditions applied pursuant to Rule 26 are federally enforceable.

Rule 74.23, "Stationary Gas Turbines"
Adopted 01/08/02, Federally-Enforceable

40 CFR Part 64, "Compliance Assurance Monitoring"
Federally-Enforceable

Applicability:

This attachment applies to three 4.0 MW Allison Model 501-KB5 stationary gas turbines when operated on natural gas and/or diesel fuel. The turbines are designated as G-1, G-2, and G-3. The turbines are required to comply with the emission limits and monitoring requirements of Rule 74.23, "Stationary Gas Turbines". The turbines are equipped with water injection systems and SCR for NOx control. The turbines have Best Available Control Technology (BACT) NOx emission limits that are more stringent than Rule 74.23 as required by Rule 26, "New Source Review", pursuant to Authority to Construct No. 01494-370 (issued May 16, 2006).

The emissions of nitrogen oxides (NOx) from these turbines are also subject to the monitoring requirements of 40 CFR Part 64, "Compliance Assurance Monitoring" (CAM). In addition to the annual source tests required by Rule 74.23, daily monitoring is required by 40 CFR Part 64. This attachment requires that an Automatic Data Gathering System (ADGS) be used to monitor the water to fuel ratio, turbine section inlet temperature (T-5), aqueous ammonia injection rate, and SCR inlet temperature. These parameters are an indicator of compliance and a reading outside the compliance range is an excursion as defined in 40 CFR Part 64. This attachment also requires daily NOx measurements with a portable NOx analyzer at the each turbine exhaust. The daily NOx measurements are required for CAM compliance.

Conditions:

1. Turbine NOx Limits:

   Oxides of Nitrogen (NOx expressed as NO_2) emissions from Turbines G-1, G-2, and G-3 shall not exceed 2.5 ppmvd while burning natural gas and shall not exceed 6.5 ppmvd while burning diesel fuel.

Operation at loads of less than thirty percent (1,000 KW output) are exempt from the above NOx emission limits based on a 40 CFR Part 55.7 exemption request. **Oxides of Nitrogen (NOx expressed as NO_2) emissions from Turbines G-1, G-2, and G-3 while operating at loads less than thirty percent (1,000 KW output) shall not exceed 5.0 ppmvd while burning natural gas and shall not exceed 13.0 ppmvd while burning diesel fuel.**

These limits shall be referenced at fifteen (15) percent volume stack gas oxygen on a dry basis. Compliance with this condition shall be verified by annual source testing as required by Condition No. 4. These NOx emission concentration limits are required for BACT (Best Available Control Technology) compliance and are more stringent than Rule 74.23, "Stationary Gas Turbines", and 40 CFR Part 60 Subpart GG, "Standards of Performance for Stationary Gas Turbines".

2. Pursuant to Rule 74.23.B.4, the stack outlet concentration of ammonia (NH_3) at Turbines G-1, G-2, and G-3 shall not exceed 20 ppmvd, referenced at fifteen (15) percent volume stack gas oxygen on a dry basis. Compliance with this condition shall be verified by annual source testing as required by Condition No. 4.

3. The NOx and NH_3 emission limits shall not apply to the turbines when they are operated during the thermal stabilization period associated with a start-up, planned shutdown, or unplanned load change. These exemptions shall not exceed one (1) hour. For failed start-ups, each restart shall begin a new exemption period (Rule 74.23.C.1.e). A start-up is the process of bringing an applicable unit and its associated emission control device up to operating temperature (Rule 74.23.H.10). A planned shutdown is a premeditated shutdown not caused by automatic sensors or other instrumentation (Rule 74.23.H.7). An unplanned load change is the automatic release of power from the turbine and the subsequent restart; loss of power during the release must exceed forty (40) percent of the turbine rating (Rule 74.23.H.12).

4. Pursuant to Rule 74.23.B.1, each turbine shall be source tested not less than once every 12 months (annually) utilizing the following methods as detailed in Rule 74.23.F:

a.	NOx	EPA Method 20
b.	Oxygen Content	ARB Method 100
c.	NH_3	BAAQMD Method ST-1B (Jan. 20, 1982)

The average of three source test runs shall be used to determine compliance. The tests shall be conducted at 30, 50, 75, and 100 percent loads. Prior to conducting an annual emissions test, permittee shall notify the APCD Compliance Division. Written notification shall be received no less than 15 calendar days prior to the test. The emissions test report shall include the following parameters at all four loads: emissions

of NOx and NH_3 in parts per million by volume corrected to 15% oxygen on a dry basis, pounds per hour and pounds per million BTU; the amount of excess oxygen in percent by volume; the fuel and exhaust flow rates, in standard cubic feet per minute; the turbine load in MW; the water injection rate; the water to fuel ratio, turbine section inlet temperature (T-5), aqueous ammonia flow rate, and SCR inlet temperature. The test report and results shall be submitted to the APCD Compliance Division within 45 days after the test.

5. Pursuant to Rule 74.23.B.2 and 40 CFR Part 64, the permittee shall operate, and maintain in calibration, equipment that continuously measures and records the following parameters at each turbine:

   a. Water to fuel ratio;
   b. Type and amount of fuel consumed at all loads;
   c. Type and amount of fuel consumed at loads less than 1,000 KW;
   d. Elapsed time of operation;
   e. Turbine section inlet temperature (T-5);
   f. Aqueous ammonia injection rate; and
   g. SCR inlet temperature.

   An Automatic Data Gathering System (ADGS) shall be utilized to measure and record these turbine parameters. The ADGS shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's specifications and recommendations.

   The water to fuel ratio, aqueous ammonia injection rate, SCR inlet temperature, and the turbine section inlet temperature (T-5) shall be maintained at the values specified in Condition No. 6 below. A water to fuel ratio, aqueous ammonia injection rate, or an SCR inlet temperature that is less than, or a turbine section inlet temperature (T-5) that is greater than, the values specified below shall be considered an excursion as defined in 40 CFR Part 64. An excursion is defined as "a departure from an indicator range established for monitoring". Once during each eight (8) hour shift, the permittee shall observe the water to fuel ratios, aqueous ammonia injection rate, SCR inlet temperature, and turbine section inlet temperature (T-5) to check for any excursions from the values specified below. Upon detecting such an excursion, the permittee shall inspect the turbine, water injection system, and SCR system and make repairs or adjustments as necessary, and restore the water to fuel ratio, turbine section inlet temperature (T-5), aqueous ammonia injection rate, and SCR inlet temperature to values specified below as expeditiously as practicable in accordance with good air pollution control practices.

6. Pursuant to Rule 74.23.B.2 and 40 CFR Part 64, the permittee shall operate the turbines within the following parameters:

a. During operation of the turbines on natural gas at loads greater than thirty percent (1,000 KW), the water to fuel ratio (measured in units of pounds of water per pound of natural gas burned) shall be greater than or equal to 0.69 lb water/lb fuel averaged over any one hour period.

b. During operation of the turbines on diesel at loads greater than thirty percent (1,000 KW), the water to fuel ratio (measured in units of pounds water per pound diesel burned) shall be greater than 0.69 lb water/lb fuel averaged over any one hour period.

c. The aqueous ammonia injection rate (gallons per hour) at each turbine shall be greater than or equal to the rates specified below:

Minimum Ammonia Injection Rate (gal/hr)			
Natural Gas	G-01	G-02	G-03
30% Load	0.7	0.7	0.7
50% Load	0.9	0.9	0.9
75% Load	1.3	1.3	1.3
100% Load	2.0	2.0	2.0

Minimum Ammonia Injection Rate (gal/hr)			
Diesel	G-01	G-02	G-03
30% Load	1.0	1.0	1.0
50% Load	1.41	1.41	1.41
75% Load	2.0	2.5	2.0
100% Load	3.0	3.4	3.0

d. The SCR inlet temperature at each turbine shall be maintained between 500 and 750 degrees Fahrenheit.

e. The turbine section inlet temperature (T-5) at each turbine shall not exceed 1895 degrees Fahrenheit while burning natural gas or diesel.

These operating parameters are for minimum NOx control; a greater water to fuel ratio or aqueous ammonia rate may be necessary in order to achieve the NOx emission limits. Operation outside these parameters are considered to be a CAM "excursions" as defined in 40 CFR Part 64 (see Condition No. 7.c).

On an annual basis for each turbine, the water to fuel ratio, the aqueous ammonia injection rate, the SCR inlet temperature, and the turbine section inlet temperature (T-5) shall be compared to the concentrations of nitrogen oxides as measured by EPA Method 20 as described in Condition No. 4 above. If this annual EPA Method 20 testing indicates

that the specified parameters need to be revised to comply with the nitrogen oxide limits of Condition No. 1, the permittee shall submit an application to modify the permit to reflect the revised values.

7. Additional Compliance Assurance Monitoring (CAM) requirements:

The permittee shall comply with the following additional monitoring requirements for Turbines G-1, G-2, and G-3 for 40 CFR Part 64, "Compliance Assurance Monitoring", as follows:

a. The exhaust stack shall be equipped with a sampling port or other sampling location to allow the placement of a sampling probe downstream of the SCR system.

b. On a daily basis, the permittee shall measure and record the concentration of nitrogen oxides and oxygen in the exhaust using a portable emissions analyzer. The concentration of nitrogen oxides, expressed as nitrogen dioxide, shall be measured in parts per million by volume on a dry basis (ppmvd) corrected to 15% oxygen. The portable analyzer may also be installed at a fixed location near the turbine's exhausts in order to provide the required daily readings. The manufacturer and model of the portable emissions analyzer shall be subject to District approval.

c. A nitrogen oxides concentration of greater than 2.5 ppmvd at 15% oxygen while burning natural gas or greater than 6.5 ppmvd at 15% oxygen while burning diesel as measured by the portable emissions analyzer shall be considered an excursion as defined in 40 CFR Part 64. An excursion is defined as "a departure from an indicator range established for monitoring" in 40 CFR Part 64. Upon detecting such an excursion, the permittee shall inspect the engine and SCR system, make repairs or adjustments as necessary, and restore the turbine exhaust emissions to less than 2.5 ppmvd at 15% oxygen while burning natural gas or 6.5 ppmvd at 15% oxygen while burning diesel as expeditiously as practicable in accordance with good air pollution control practices.

d. The portable emissions analyzer shall be calibrated, operated, and maintained in accordance with the manufacturer's specifications and recommendations. On an annual basis, the measured concentrations of nitrogen oxides of the portable analyzer shall be compared to the concentrations of nitrogen oxides as measured by EPA Method 20 as described in Condition No. 4 above. If this annual EPA Method 20 testing indicates that the turbine is exceeding the nitrogen oxide limits of Condition No. 1 above when the portable emissions analyzer does not indicate an excursion, the permittee shall promptly notify the District and report this situation as a deviation from a Part 70 permit requirement.

e. In addition to the records required by Condition No. 9 (Rule 74.23.D) below, the permittee shall maintain records of portable emissions analyzer readings for the turbine including the date, time, nitrogen oxides concentration in ppmvd corrected to 15% oxygen, and for excursions as defined above, a summary of any corrective actions taken.

f. In addition to the reports required by Condition No. 8 (Rule 74.23.E) below, the permittee shall submit a written report to the District Compliance Division that includes the number and duration of excursions, the cause of the excursion (including unknown if applicable), and the corrective action taken.

8. Pursuant to Rule 74.23.E and 40 CFR Part 64, the permittee shall submit a report to the District every six months that contains the following information:

a. Actual annual fuel consumption for the previous twelve months for each turbine at all loads and at loads less than 1000 KW;
b. A copy of the required annual source test report(s);
c. The number and duration of excursions, the cause of the excursion (including unknown if applicable), and the corrective action taken.

9. Pursuant to Rule 74.23.D and 40 CFR Part 64, the permittee shall record and/or maintain the following information:

a. Water to fuel ratio log;
b. Type and amount of fuel consumed at all loads;
c. Type and amount of fuel consumed at loads less than 1,000 KW;
d. Elapsed time of operation;
e. Aqueous ammonia injection rate;
f. SCR inlet temperature;
g. Turbine section inlet temperature (T-5);
h. The annual source test report;
i. The number and duration of excursions the cause of the excursion (including unknown if applicable), and the corrective action taken.

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STATEMENT REGARDING OIL WELL LIST

We have reviewed the Oil Well List on the following page, from Part 70 Permit No. 01494, and find that it is correct.

Ventura County Air Pollution Control District

OIL WELL LIST

Part 70 Permit No. 01494

The following oil wells are on permit:

E-1	E-11	E-19	E-26 Short
E-3 Short	E-12 Short (shut-in)	E-20 Long	E-26 Long
E-4	E-12 Long	E-21 Short	
E-5 Long	E-13	E-22 Short	
E-6	E-14 Short	E-22 Long	
E-7 Short	E-14 Long	E-23 Short (shut-in)	
E-7 Long	E-15	E-23 Long	
E-8	E-16 Short	E-24	
E-9 Short	E-16 Long	E-25 Short	
E-10	E-17	E-25 Long	

Total = 30 Oil Wells (active) & 2 Oil Wells (inactive)

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