

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

**Permit Evaluation
and
Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT
Minor Revisions**

**for
Shell Martinez Refinery, Shell Oil Products US
Facility #A0011**

Facility Address:
3485 Pacheco Blvd.
Martinez, CA 94533

Mailing Address:
P O Box 711
Martinez, CA 94533

August 2007

Application 15599

Application Engineer: Bhagavan Krishnaswamy
Site Engineer: Bhagavan Krishnaswamy

TABLE OF CONTENTS

A.	Background	3
B.	Facility Description.....	4
C.	Permit Content.....	4
I.	Standard Conditions	4
II.	Equipment	4
III.	Generally Applicable Requirements.....	4
IV.	Source-Specific Applicable Requirements.....	5
V.	Schedule of Compliance.....	10
VI.	Permit Conditions.....	10
VII.	Applicable Limits and Compliance Monitoring Requirements.....	13
VIII.	Test Methods.....	15
IX.	Permit Shield:	15
X.	Revision History.....	15
XI.	Glossary.....	16
D.	Alternate Operating Scenarios	16
	APPENDIX A.....	17
	APPENDIX B	21

Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit,” as defined by BAAQMD Regulation 2-6-218, more than 100 tons per year of several regulated air pollutants, and more than 10 tons per year of a hazardous air pollutant, formaldehyde.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

The District issued the initial Title V permit to this facility on December 1, 2003.

The purpose of this action is to obtain enforceable limits for S-1510 CP F-66 CCU Feed Preheater (F-66) and S-1511 CP F-67 CCU LGO Reboiler (F-67), as required by the consent decree between the EPA and Shell (relevant portions of which are attached in Appendix B). These sources were retrofitted with ultra low NOx burners (ULNB) under application number 13410 in November 2005 to enhance compliance with Regulation 9 “Inorganic Gaseous Pollutants,” Rule 10 “Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators and Process Heaters in Petroleum Refineries.”

On March 21, 2001, Shell entered into a Consent Decree with the U.S. Environmental Protection Agency (EPA) to resolve several environmental issues at nine refineries it owns and operates within the U.S. (“Shell-EPA Consent Decree,” S. D. Tex., Case No. H-01-0978). The refinery in Martinez, CA is one of them. The Shell-EPA Consent Decree requires that Shell complete a program to reduce overall NOx emissions from heaters and boilers within those refineries, including the Martinez refinery. The Shell-EPA Consent Decree requires that in order to obtain credit for projects conducted at those refineries that result in NOx reductions, Shell must apply for and receive enforceable permit limits from the local permitting authority.

The addition of enforceable limits is a minor revision of the Major Facility Review permit for the following reasons:

- The change is not considered a major modification under 40 CFR Parts 51 (NSR) or 52 (PSD).

- The change is not considered a modification under 40 CFR Parts 60 (NSPS), 61 (NESHAPS), or Section 112 of the Clean Air Act (HAP).
- There is no significant change or relaxation of monitoring. The control system is subject to and will continue to be subject to continuous monitoring of NO_x and O₂ levels.
- No term is established to allow the facility to avoid an applicable requirement.
- No case-by-case determination has been made.
- No facility-specific determination for ambient impacts, visibility analysis, or increment analysis on portable sources has been made.
- The limits are not the incorporation of a requirement promulgated by EPA under the authority of the Clean Air Act.

The proposed changes to the permit are shown in "~~strikeout~~/underline" format. In this action, the District is soliciting public comment only on the revisions proposed in this action. When the permit is finalized, the tracking marks will be removed.

This statement of basis does not address the factual and legal basis for any other permit terms. These are addressed in the comprehensive statements of basis that were prepared for the initial issuance of the permit and subsequent reopenings and revisions. These are available on request.

B. Facility Description

The facility description can be found in the statement of basis that was prepared for the reopening issued on December 16, 2004. It is available on request from the Engineering Division of the District.

The revisions to the permit do not cause an increase in any emissions.

C. Permit Content

Additional information concerning the legal and factual basis of the Title V permit conditions is presented below. The information is organized by the relevant section of the Title V permit.

I. Standard Conditions

No changes to Section I are proposed.

II. Equipment

There are no changes to the "Permitted Sources" table, "Abatement Devices" table, or to the exempt source table.

III. Generally Applicable Requirements

No changes to this section are proposed in this action.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements for permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA into the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the SIP rule is not the current District rule, the SIP rule or the necessary portions of the SIP rule are cited separately after the District rule. The SIP portions will be federally enforceable; the non-SIP versions will not be federally enforceable, unless EPA has approved them through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions (unless they have been assigned a District permit condition number, in which case they are included as BAAQMD permit conditions). The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District’s or EPA’s websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of changes to monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Changes to permit:

Citations for conditions 23559 and 23560 have been added to Table IV-BA for sources S1510 and S1511.

**Table IV – BA
Source-specific Applicable Requirements
S1510 - CP F-66 CCU PREHEAT,
S1511 - CP F-67 CCU LGO REBOIL**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Regulation 1	General Provisions and Definitions (5/02/01)		
1-520	Continuous Emission Monitoring	Y	
1-520.8	Monitors as required by Regulation 10, 12 and Section 2-1-403	Y	

**Table IV – BA
Source-specific Applicable Requirements
S1510 - CP F-66 CCU PREHEAT,
S1511 - CP F-67 CCU LGO REBOIL**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
1-522	Continuous Emission Monitoring and Recordkeeping Procedures	Y	
1-522.1	Approval of Plans and Specifications	Y	
1-522.2	Installation Scheduling	Y	
1-522.3	CEM Performance Testing	Y	
1-522.4	Periods of Inoperation	Y	
1-522.5	Daily Monitor Calibration	Y	
1-522.6	CEM Maintenance	Y	
1-522.7	Excess Emissions Reported (Nature, Extent, and Cause)	N	
1-522.8	Monitoring Data Submittal	Y	
1-522.9	Records	Y	
1-522.10	Monitors Required By 1-521 or 2-1-403	Y	
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	
1-523.1	Periods of Inoperation Reported	Y	
1-523.2	Periods of Inoperation Per Incident	Y	
1-523.3	Violations of Permit Conditions Reported (Nature, Extent, and Cause)	N	
1-523.4	Records	Y	
1-523.5	Maintenance and Calibration Required	N	
SIP Regulation 1	PROVISIONS NO LONGER IN CURRENT RULE General Provisions and Definitions (6/28/99)		
1-522.7	Excess Emissions Reported (Nature, Extent, Cause, and Corrective Action)	Y	
1-523.3	Violations of Permit Conditions Reported (Nature, Extent, Cause, and Corrective Action)	Y	
BAAQMD Regulation 2, Rule 9	Interchangeable Emission Reduction Credits (04/07/99)		
2-9-302	Use of IERC's	N	
2-9-303	Alternative Compliance Plan Using IERC's	N	
2-9-304	Restrictions on the Use of IERC's	N	
2-9-306	Environmental Benefit Surcharge	N	
2-9-501	Monitoring and Record Keeping	N	
2-9-502	Alternative Compliance Plan Recordkeeping and Reporting	N	
BAAQMD Regulation 6	Particulate Matter and Visible Emissions (09/04/98)		
6-301	Ringelmann No. 1 Limitation	Y	
6-304	Tube Cleaning	Y	

**Table IV – BA
Source-specific Applicable Requirements
S1510 - CP F-66 CCU PREHEAT,
S1511 - CP F-67 CCU LGO REBOIL**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
6-305	Visible Particles	Y	
6-310	Particle Weight Limitation	Y	
6-310.3	0.15 grain per dscf at 6% O ₂	Y	
6-401	Appearance of Emissions	Y	
BAAQMD Regulation 9, Rule 1	Inorganic Gaseous Pollutants - Sulfur Dioxide (3/15/95; SIP approved 6/8/99)		
9-1-304	Fuel Burning (Liquid and Solid Fuels)	Y	
9-1-502	Continuous Emission Monitoring If Required by APCO	Y	
BAAQMD Regulation 9, Rule 10	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators, and Process Heaters in Petroleum Refineries (7/17/02)		
9-10-301	Emission Limit for Facility, NO _x : 0.033 lb NO _x /MMBTU	N	
9-10-301.1	...Start-up/Shutdown Contribution	N	
9-10-301.2	...Out-of-Service Units Contribution	N	
9-10-301.3	...Test-firing on Non-gaseous fuel Contribution	N	
9-10-303	Federal Interim Facility-wide NO _x emission rate limit	Y	
9-10-305	CO emission limit	N	
9-10-502	Monitoring	N	
9-10-502.1	CEMS for NO _x , CO, and O ₂	N	
9-10-502.2	Fuel flowmeters	N	
9-10-504	Recordkeeping	N	
9-10-504.1	For All Sources Subject to 9-10-301, 303, 305	N	
9-10-505	Reporting	N	
SIP Regulation 9, Rule 10	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators, and Process Heaters in Petroleum Refineries (3/29/01)		
9-10-502	Monitoring	Y	
NSPS 40 CFR 60 Subpart A	Standards of Performance for New Stationary Sources (12/23/71)	Y	
60.7	Notification and record keeping	Y	
60.8	Performance tests	Y	
60.11	Compliance with standards and maintenance requirements	Y	
60.11(a)	Performance test	Y	
60.11(d)	Good air pollution control practice for minimizing emissions	Y	
60.11(f)	Special provisions	Y	

**Table IV – BA
Source-specific Applicable Requirements
S1510 - CP F-66 CCU PREHEAT,
S1511 - CP F-67 CCU LGO REBOIL**

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
60.11(g)	Any credible evidence or information	Y	
60.12	Circumvention	Y	
60.13	Monitoring requirements	Y	
60.19	General notification and reporting requirements	Y	
NSPS 40 CFR 60 Subpart J	Standards of Performance for Petroleum Refineries (7/1/00)		
60.104	Standards for Sulfur Oxides: Compliance Schedule	Y	
60.104(a)(1)	Fuel gas H2S limit	Y	
60.105	Monitoring of Emissions and Operations	Y	
60.105(a)(4)	monitoring requirement for H2S (dry basis) in fuel gas prior to combustion (in lieu of separate combustion device exhaust SO2 monitors as required by 60.105(a)(3))	Y	
60.105(e)(3)	Excess SO ₂ emission definitions for 60.7(c)	Y	
60.106	Test methods and procedures	Y	
60.106(e)	Method 11 shall be used to verify compliance with 60.104(a)(1)	Y	
BAAQMD Condition # 7618			
Part A	Emissions limitations [basis: Regulation 2-2-302]	Y	
Part B	Emissions profiles and emission factors [basis: Regulation 2-2-302]	Y	
Part B.1	Baseline profiles [basis: Regulation 2-2-302]	Y	
Part B.3	Emission factors used for combustion [basis: Regulation 2-2-302]	Y	
Part B.6	Modification of baseline profiles for particulate, NO _x , SO ₂ , and CO [basis: Regulation 2-2-302]	Y	
Part C	Actions resulting from non-compliance [basis: Regulation 2-2-302]	N	
Part C.d	Total fuel usage [basis: Regulation 2-2-302]	Y	
Part C.e	Sulfur content limit of liquid fuel [basis: Regulation 2-2-302]	Y	
Part E	Fuel Conditions [basis: Regulation 2-2-302]	Y	
Part E.1	Sulfur limit of liquid fuel [Regulation 9-1-304]	Y	
Part F	Reporting [basis: Cumulative Increase]	Y	
Part G	Records [basis: Cumulative Increase]	Y	
BAAQMD Condition # 16688			
Part 1	Maximum firing rate [basis: Regulation 2-1-234]	N	

Table IV – BA
Source-specific Applicable Requirements
S1510 - CP F-66 CCU PREHEAT,
S1511 - CP F-67 CCU LGO REBOIL

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition # 18265			
Part 1	Sources subject to Regulation 9-10 (basis: Regulation 9-10-301 & 305)	N	
Part 2	O2 monitor and recorder requirement (basis: Regulation 9-10-502)	N	
Part 8	For sources with NOx CEMS, semi-annual source test for CO at as-found conditions (basis: Regulation 9-10-502, 1-522)	N	
Part 10	Source test records (basis: recordkeeping; Regulation 9-10-504)	N	
Part 11	CEM for NOx and O2 monitoring [basis: Regulation 9-10-502]	N	
Part 13	IERC required to comply with Regulation 9-10 [Regulation 2-9-303]	N	
Part 14	Monthly summary of daily actual emissions, daily allowable emissions, and actual NOx emission rate (lb/MM BTU) [basis: Regulation 9-10-504]	N	
Part 15	Monthly sum of daily totals [basis: Regulation 9-10-504]	N	
Part 17	Alternative compliance plan [basis: Regulation 9-10-502]	N	
Part 20	Maintain fuel flow meter [basis: Regulation 9-10-503]	N	
Part 21	Recordkeeping [basis: Regulation 9-10-503]	N	
BAAQMD Condition # 18618			
Part 3	Visible emissions inspection (basis: Regulation 2-6-409.2)	Y	
Part 4	Fuel certification (basis: Regulation 2-6-409.2)	Y	
Part 6	Visible emission inspection during tube cleaning (basis: Regulation 2-6-409.2)	Y	
Part 7	Recordkeeping (basis: Regulation 2-6-409.2)	Y	
<u>BAAQMD Condition # 23559</u>	<u>Applies to S1510</u>		
<u>Part 1</u>	<u>Fuel type limitation (basis: Regulation 2-1-301)</u>	<u>Y</u>	
<u>Part 2</u>	<u>Average NOx emissions factor limit (basis: Shell-EPA Consent Decree)</u>	<u>Y</u>	
<u>BAAQMD Condition # 23560</u>	<u>Applies to S1511</u>		
<u>Part 1</u>	<u>Fuel type limitation (basis: Regulation 2-1-301)</u>	<u>Y</u>	
<u>Part 2</u>	<u>Average NOx emissions factor limit (basis: Shell-EPA Consent Decree)</u>	<u>Y</u>	

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 that provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

No changes to Section V are proposed.

VI. Permit Conditions

Each permit condition is identified with a unique numerical identifier, up to five digits.

All changes to existing permit conditions are clearly shown in “strike-out/underline” format in the proposed permit. When the permit is issued, all 'strike-out' language will be deleted and all “underline” language will be retained, subject to consideration of comments received.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- **BACT:** This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- **Cumulative Increase:** This term is used for a condition imposed by the APCO that limits a source’s operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- **Offsets:** This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.

- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- TRMP: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.

The proposed addition of BAAQMD permit conditions 23559 and 23560 are in the evaluation report for Application 15598, which is attached and which is part of this statement of basis. The conditions as issued in the application are shown below:

CONDITION 23559

For S-1510

1. Only gaseous fuel shall be burned in S1510.
[basis: Regulation 2-1-301]
2. The owner/operator shall operate S1510 to not exceed 0.05 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. The annual average heat input rate used to calculate the allowable (potential to emit) NO_x emissions shall be the source's maximum permitted daily heat input rate of 4,800 MMBTU (HHV)/day expressed on a 24-hour basis as 200 MMBTU (HHV)/hr. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters, and shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[basis: Shell-EPA Consent Decree]

CONDITION 23560

For S-1511

1. Only gaseous fuel shall be burned in S1511.
[Basis: Regulation 2-1-301]
2. The owner/operator shall operate S1511 to not exceed 0.033 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. The annual average heat input rate used to calculate the allowable (potential to emit) NO_x emissions shall be the source's maximum permitted daily heat input rate of 1,440 MMBTU (HHV)/day expressed on a 24-hour basis as 60 MMBTU (HHV)/hr. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters, and shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[basis: Shell-EPA Consent Decree]

Part 2 of Conditions 23559 and 23560 require a calculation of annual potential to emit based on a maximum average heat input. This potential to emit is used to calculate a maximum allowable annual NO_x limit. In this action, the District proposes to amend the condition to insert the maximum allowable annual NO_x limit instead of expressing this limit in the form of a calculation. The revised conditions are shown below:

CONDITION 23559

For S-1510

1. Only gaseous fuel shall be burned in S1510.
[Basis: Regulation 2-1-301]
- ~~2. The owner/operator shall operate S1510 to not exceed 0.05 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. The annual average heat input rate used to calculate the allowable (potential to emit) NO_x emissions shall be the source's maximum permitted daily heat input rate of 4,800 MMBTU (HHV)/day expressed on a 24-hour basis as 200 MMBTU (HHV)/hr. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters, and shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[basis: Shell-EPA Consent Decree]~~
2. The owner/operator shall operate S1510 to not exceed 0.05 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters.
[Basis: Shell-EPA Consent Decree]
3. The owner/operator shall ensure that the allowable NO_x emissions from S1510 do not exceed 43.8 tons per year. The allowable NO_x emissions shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[Basis: Shell-EPA Consent Decree]

CONDITION 23560

For S-1511

1. Only gaseous fuel shall be burned in S1511.
[Basis: Regulation 2-1-301]
- ~~2. The owner/operator shall operate S1511 to not exceed 0.033 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. The annual average heat input rate used to calculate the allowable (potential to emit) NO_x emissions shall be the source's maximum permitted daily heat input rate of 1,440 MMBTU (HHV)/day expressed on a 24-hour basis as 60 MMBTU (HHV)/hr. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters, and shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[basis: Shell-EPA Consent Decree]~~
2. The owner/operator shall operate S1511 to not exceed 0.033 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters.
[Basis: Shell-EPA Consent Decree]

3. The owner/operator shall ensure that the allowable NOx emissions from S1511 do not exceed 8.6724 tons per year. The allowable NOx emissions shall include emissions associated with startups, shutdowns, upsets and malfunctions.

[Basis: Shell-EPA Consent Decree]

Inserting the limit that results from the calculation instead of the calculation itself is clearer, and will make the condition more enforceable.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements that apply to each source. The summary includes a citation for each monitoring requirement, frequency, and type. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

Changes to permit:

See the evaluation for Application 15598 for the explanation of the addition of the new NOx emission limits.

**Table VII – AR
Applicable Limits and Compliance Monitoring Requirements
1510 – CP F-66 CCU PREHEAT, S1511 – CP F-67 CCU LGO REBOIL**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-301	Y		Ringelmann No. 1 for no more than 3 minutes/hour	BAAQMD Condition # 18618 Part 3 and 7	P/10 ⁶ gallon of fuel combusted	Visible Inspection
Opacity	BAAQMD 6-304	Y		Ringelmann No. 2 for no more than 3 minutes/hour during tube cleaning	BAAQMD Condition # 18618 Part 6 and 7	P/E (during tube cleaning)	Visible Inspection
FP	BAAQMD 6-310.3	Y		0.15 grain per dscf at 6% O ₂	BAAQMD Condition # 18618 Part 3 and 7	P/10 ⁶ gallon of fuel combusted	Visible Inspection
SO ₂	BAAQMD 9-1-304	Y		Sulfur content of liquid fuel limited to 0.5% by weight	BAAQMD Condition # 18618 Part 4	P/10 ⁶ gallon of fuel combusted	Sampling and Analysis
<u>NOx</u>	<u>Shell-EPA Consent Decree (S. D. Tex., H-01-0978)</u>	<u>Y</u>		<u>S1510</u> <u>NOx emission rate shall not exceed 0.05 lb NOx/MMBtu, rolling hourly 8,760-hour average, including start up, shut down, malfunctions, and upsets.</u>	<u>Condition # 23559, Part 2</u>	<u>C</u>	<u>NOx CEM, fuel flow meter</u>

Table VII – AR
Applicable Limits and Compliance Monitoring Requirements
1510 – CP F-66 CCU PREHEAT, S1511 – CP F-67 CCU LGO REBOIL

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NOx	Shell-EPA Consent Decree (S. D. Tex., H-01-0978)	Y		S1510 Allowable NOx emissions shall not exceed 43.8 TPY including start up, shut down, malfunctions, and upsets.	Condition # 23559, Part 3	C	NOx CEM, fuel flow meter
NOx	Shell-EPA Consent Decree (S. D. Tex., H-01-0978)	Y		S1511 NOx emission rate shall not exceed 0.033 lb NOx/MMBtu, rolling hourly 8,760-hour average, including start up, shut down, malfunctions, and upsets.	Condition # 23560, Part 2	C	NOx CEM, fuel flow meter
NOx	Shell-EPA Consent Decree (S. D. Tex., H-01-0978)	Y		S1511 Allowable NOx emissions shall not exceed 8.6724 TPY including start up, shut down, malfunctions, and upsets.	Condition # 23560, Part 3	C	NOx CEM, fuel flow meter
NOx	BAAQMD 9-10-301	N		Refinery-wide NOx emission rate shall not exceed 0.033 lb/MMBtu, operating-day average	BAAQMD 9-10-502, 9-10-504.2, 9-10-505, 1-522 and 1-523; Condition # 18265 Parts 1, 2, 8, 10, 11-13, 15, 17, 20-21	C	NOx and O ₂ CEM, monitoring, records, and reporting
NOx	BAAQMD 9-10-303	Y		NOx emission rate shall not exceed 0.2 lb/MMBtu, operating-day average (facility-wide)	BAAQMD 9-10-502, 9-10-504.2, 9-10-505, 1-522 and 1-523; Condition # 18265 Parts 1, 2, 8, 10, 11-13, 15, 17, 20-21	C	NOx and O ₂ CEM, monitoring, records, and reporting
CO	BAAQMD 9-10-305	N		CO emissions shall not exceed 400 ppmv dry at 3% O ₂ , operating-day average	BAAQMD 9-10-502, 9-10-504.2, 9-10-505, 1-522 and 1-523	C	Monitoring, records, and reporting
SO ₂	NSPS Subpart J 60.104(a)(1)	Y		Fuel gas H ₂ S limited to 0.10 gr/dscf (163 ppm)	NSPS Subpart J 60.105(a)(4) and 60.105(e)(3)	C	H ₂ S analyzer

**Table VII – AR
Applicable Limits and Compliance Monitoring Requirements
1510 – CP F-66 CCU PREHEAT, S1511 – CP F-67 CCU LGO REBOIL**

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x , SO ₂ , CO and PM	BAAQMD Condition #7618, Part A	Y		Daily emission increases over baseline profile shall be offset by reductions below profile at a ratio of at least 2.0:1	BAAQMD Condition #7618, Part B, F and G	P/D	Calculation, reporting and records
NO _x , SO ₂ , CO and PM	BAAQMD Condition #7618, Part C.d	Y		If profile has more than 5 non-complying days, the fuel usage at sources under the cap shall not exceed 14,730 NLFE (net liquid fuel equivalent) barrels per stream day	BAAQMD Condition #7618, Part G	P/E	Records
SO ₂	BAAQMD Condition #7618, Part C.e	Y		If profile has more than 5 non-complying days, the sulfur content of liquid fuel shall be limited to 1.0 ton/day (or 1.3 ton/day if flexicoker is down)	BAAQMD Condition #7618, Part G	P/E	Records
SO ₂	BAAQMD Condition #7618, Part E1	Y		Sulfur content of liquid fuel limited to 0.5% by weight	BAAQMD Condition #18618 Part 4	P/10 ⁶ gallon of fuel combusted	Sampling and Analysis
Through-put	BAAQMD Condition #16688	N		Maximum firing rate (higher heating value)	BAAQMD Condition #18618, Part 2	P/D and A	Records

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements. If a rule or permit condition requires ongoing testing, the requirement will also appear in Section VI of the permit.

Changes to permit:

No test methods have been added.

IX. Permit Shield:

No changes to permit shields are proposed in this revision.

X. Revision History

The revision history will be updated when the minor revision is issued.

XI. Glossary

No changes to the glossary are proposed in this revision.

D. Alternate Operating Scenarios

No alternate operating scenario has been requested for this facility.

H:\engineering\title V...\1.0 ... \a0011\M Revision- 15599 \A0011-sob-15599.doc

APPENDIX A
ENGINEERING EVALUATION FOR APPLICATION 15598

ENGINEERING EVALUATION
Shell Oil Products US – Martinez Refinery, Plant: 11
Application: 15598

Background

Shell Martinez Refinery (Shell) has submitted this application to obtain enforceable limits, in the form of permit conditions, for the following sources:

S-1510 CP F-66 CCU Feed Preheater (F-66); 200 MMBTU/hr
S-1511 CP F-67 CCU LGO Reboiler (F-67); 60 MMBTU/hr

The above sources were retrofitted with ultra low NO_x burners (ULNB) under application number 13410 in November 2005 to enhance compliance with Regulation 9 “Inorganic Gaseous Pollutants”, Rule 10 “Nitrogen Oxides and Carbon Monoxide from Boilers, Steam Generators and Process Heaters in Petroleum Refineries”.

On March 21, 2001, Shell entered into a voluntary settlement with the U.S. Environmental Protection Agency (EPA) to resolve several environmental issues at refineries it owns and operates within the U.S. The refinery in Martinez, CA is one such refinery. A Consent Decree (CD) was lodged with the EPA that includes the requirement that Shell will complete a program to reduce overall NO_x emissions from heaters and boilers at the select few refineries that are part of the CD. To obtain credit for projects conducted at the select few refineries that are part of the CD and which result in NO_x reductions, Shell is required by the CD to apply for and receive enforceable permit limits from the local permitting authority based on the following CD excerpt:

The allowable emissions from any heater or boiler is defined in the CD as
“(E_{allowable}) = The requested portion of the permitted allowable pounds of NO_x per million BTU for heater or boiler i / (2000 pounds per ton) x [(the lower of permitted or maximum heat input rate capacity in million BTU per hour for heater or boiler i) x (the lower of 8760 or permitted hours per year).”

As an example, consider S-1510. The permitted allowable emission rate for the above source is 0.05 lbs NO_x/MMBTU, and the lower of its permitted or maximum heat input rate capacity is 200 MMBTU/hr. Therefore, E_{allowable} for S-1510 is 43.8 TPY¹. In similar fashion, the E_{allowable} for S-1511 is 8.6724 TPY. The allowable emissions derived above is inclusive of emissions associated with startups, shutdowns, upsets and malfunctions for sources S-1510 and S-1511, because the CD does not explicitly state that such emission types must be excluded when estimating the allowable emissions.

The District is the local permitting authority for the Martinez refinery. The NO_x emission reductions from the retrofitting the above heaters are also being used in part to meet the NO_x reduction requirements from heaters and boilers in Shell's NO_x Control Plan for Heaters and Boilers. Shell will demonstrate compliance with the allowable emissions derived in the preceding paragraph for sources S-1510 and S-1511 by continually monitoring their NO_x emissions and fuel usage rates via NO_x CEMS and fuel flow meters, respectively.

¹ (0.05 lbs NO_x/MMBTU) x (ton/2000 lbs) x (200 MMBTU/hr) x (8,760 hr/yr) = 43.8 TPY

On December 1, 2003, the District issued Shell a Title V operating permit. The proposed changes to Shell's Title V permit stemming from incorporating the new permit condition required by the CD qualifies as a minor permit revision i.e. a revision to an existing Title V permit that is neither an administrative amendment as defined in Section 2-6-201, nor a significant permit revision as defined in Section 2-6-226. Minor revisions to an existing Title V permit are subject to a 45-day US EPA review, but are not subject to a public notice.

Emissions Summary

The issuance of an enforceable limit in the form of a new permit condition as required by the CD will not increase or change of emissions at the refinery.

Statement Of Compliance

Sources S-1510 and S-1511 were retrofitted with Callidus Ultra Low NO_x Burners to enhance Shell's compliance with the above rule. In addition, the above sources are also equipped with NO_x and O₂ CEMS. Therefore, the above sources are expected to comply with Regulation 9, Rule 10.

The project is categorically exempt from the District's CEQA regulation, per Section 2-1-312.11.1 because the issuance of an enforceable limit in the form of a new permit condition as required by the CD will not result in an emissions increase. Shell has submitted Appendix H "Environmental Information Form".

The project is over 1,000 feet from the nearest school and is therefore not subject to the public notification requirements of Reg. 2-1-412.

BACT, PSD, NSPS, and NESHAPS are not triggered.

Offsets are not required.

Permit Condition:

For S-1510

3. Only gaseous fuel shall be burned in S1510.
[Basis: Regulation 2-1-301]
4. The owner/operator shall operate S1510 to not exceed 0.05 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. The annual average heat input rate used to calculate the allowable (potential to emit) NO_x emissions shall be the source's maximum permitted daily heat input rate of 4,800 MMBTU (HHV)/day expressed on a 24-hour basis as 200 MMBTU (HHV)/hr. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters, and shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[basis: Shell-EPA Consent Decree]

For S-1511

3. Only gaseous fuel shall be burned in S1511.
[Basis: Regulation 2-1-301]
4. The owner/operator shall operate S1511 to not exceed 0.033 lb NO_x/MMBTU (HHV) based on a rolling hourly 8,760-hour average heat input. The annual average heat input rate used to calculate the allowable (potential to emit) NO_x emissions shall be the source's maximum permitted daily heat input rate of 1,440 MMBTU (HHV)/day expressed on a 24-hour basis as 60 MMBTU (HHV)/hr. Compliance with the NO_x emission rate (in lb NO_x/MMBTU) shall be determined using data gathered by NO_x CEMS and fuel flow meters, and shall include emissions associated with startups, shutdowns, upsets and malfunctions.
[basis: Shell-EPA Consent Decree]

Recommendation:

Issue Shell an enforceable limit in the form of a new permit condition for sources S-1510 and S-1511 as required by the CD. Incorporate the new permit condition into Shell's Title V permit under Application 15599.

K.R. Bhagavan

APPENDIX B
Excerpts from Shell Consent Decree
Title Page and Pages

UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS

UNITED STATES of AMERICA,)
)
Plaintiff, and the)
)
STATES OF DELAWARE,)
LOUISIANA, and the)
NORTHWEST AIR POLLUTION)
AUTHORITY OF THE STATE OF)
WASHINGTON,)
Plaintiff-Interveners,)
)
v)
)
MOTIVA ENTERPRISES LLC,)
EQUILON ENTERPRISES LLC,)
and DEER PARK REFINING)
LIMITED PARTNERSHIP,)
)
Defendants.)
_____)

Civil Action
No. H-01-0978
Honorable Melinda Harmon

CONSENT DECREE

WHEREAS, Plaintiff, the United States of America (hereinafter "plaintiff" or "the United States"), on behalf of the United States Environmental Protection Agency (herein, "EPA"), has simultaneously filed a Complaint and lodged this Consent Decree against Motiva Enterprises LLC, Equilon Enterprises LLC, and Deer Park Refining Limited Partnership (collectively hereinafter "the Companies"), for alleged environmental violations at nine petroleum refineries owned and/or operated by the Companies;

primary sources of these emissions are the fluid catalytic cracking units ("FCCUs"), the fluid coking unit ("FCU" (at Delaware City only), process heaters and boilers, the sulfur recovery plants, the wastewater treatment system, fugitive emissions from leaking components, and flares throughout the refinery.

IV. DEFINITIONS

8. Unless otherwise expressly provided herein, all requirements are effective upon entry of this Consent Decree and the terms used in this Consent Decree shall have the meaning given to those terms in the Clean Air Act, 42 U.S.C. §§ 7401 et seq., and the regulations promulgated thereunder. In addition, the following definitions shall apply:

(a) "Prior Actual Level of Emissions" is defined as actual emissions of NO_x in tons per year during calendar years 1998 and 1999 (or prior allowable emissions where actuals exceed allowable) as presented in Attachment 1 (1998-1999 Actual Heater and Boiler NO_x Emissions by Unit) to this Consent Decree;

(b) "Future Allowable Level of Emissions" is defined as the emission rate for each controlled heater and boiler in tons of NO_x per year as determined by permitted levels of emissions for each controlled heater and boiler in pounds of NO_x per million BTU heat input (at the higher heating value) and the lower of capacity or permitted heat input rate in million BTU per hour (at

the higher heating value) for each heater and boiler; and

(c). "Qualifying Emissions Cap" is defined as an emissions cap in tons of NO_x per year for a group of heaters and boilers within a refinery such that the heaters and boilers under the cap achieve an overall permitted average emission limit of 0.02 pounds of NO_x per million BTU or less, on a heat input based weighted average. Each heater and boiler under the cap shall be individually permitted.

(d). "Current Generation Ultra-Low NO_x Burner" is defined as those burners currently on the market that are designed to achieve a NO_x emission rate of 0.03 to 0.04 lb/mmBTU with consideration given for variations in specific heater operating conditions such as air preheat, fuel composition and bridgwall temperature.

(e). "Next Generation Ultra-Low NO_x Burner" is defined as those burners new to the market that are designed to an emission rate of 0.012 to 0.015 lb/mmBTU (HHV), when firing natural gas at typical industry firing conditions at full design load.

(f). "Controlled Heaters and Boilers" shall mean Heaters and Boilers that (1) have already, or will as a result of this Consent Decree, permanently shut down, or (2) have installed one of the following NO_x Control technologies: Selective Catalytic Reduction ("SCR"), Selective Non-Catalytic Reduction ("SNCR"), or current or next generation ultra-low NO_x burners. For the

purposes of this Consent Decree, the following units located at DPRLP shall be considered a single heater because they collectively share an overhead chamber and vent to shared stacks: H-5301, H-5302, H-5303, H-5304, and H-5350.

v. NO_x AND SO₂ EMISSIONS REDUCTIONS FROM HEATERS AND BOILERS

Program Summary: The Companies shall implement a program to reduce NO_x emissions from refinery heaters and boilers. Reductions will be accomplished through the installation of NO_x Controls, the shut down of certain units and the acceptance of lower permitted emission levels. The Companies shall incorporate lower emission levels in all applicable permits. Future compliance with the lower emission limits will be determined through source testing and the use of CEMS, where installed, predictive emissions monitoring systems ("PEMS"), or monitoring of indicator parameters. The Companies shall also accept New Source Performance Standards ("NSPS") Subpart J applicability for heaters and boilers and reduce or eliminate fuel oil firing in their heaters and boilers in an effort to reduce SO₂ emissions.

A. NO_x EMISSIONS REDUCTIONS FROM HEATERS AND BOILERS

9 On or before December 31, 2008, the Companies shall complete a program to reduce the overall NO_x emissions from the Controlled Heaters and Boilers at their refineries in an amount greater than or equal to

(a) 6413 tons per year as demonstrated by the inequality in Paragraph 10(a) with no use of emissions caps in the demonstration; or

(b) 6789 tons per year as demonstrated by the inequality in Paragraph 10(b) with the use of a qualifying emissions cap or caps in the demonstration.

(c) The Companies must elect either option 9(a) or 9(b) through notification in writing to EPA and the Plaintiff-Interveners by December 31, 2002. The Companies may propose for EPA approval an alternative

to the options in this Paragraph provided that the minimum tonnage reductions can be met under the alternative.

10. The Companies' selection of control technology must at a minimum reduce overall NO_x emissions from the Controlled Heaters and Boilers by:

(a) at least 6413 tons per year from a prior actual to future allowable basis so as to satisfy the following inequality:

$$\sum_{i=1}^n [(E_{\text{Actual}})_i - (E_{\text{Allowable}})_i] \leq 6413 \text{ tons of NO}_x \text{ per year}$$

Where:

$(E_{\text{Allowable}})_i$ = The requested portion of the permitted allowable pounds of NO_x per million BTU for heater or boiler i) / (2000 pounds per ton)] x [(the lower of permitted or maximum heat input rate capacity in million BTU per hour for heater or boiler i) x (the lower of 8760 or permitted hours per year)] ;

$(E_{\text{Actual}})_i$ = The tons of NO_x per year prior actual emissions (unless prior actuals exceed allowable emissions, then use allowable) as shown in Attachment 1 for controlled heater or boiler i; and

n = The number of heaters and boilers at all refineries that are controlled.

or

(b) at least 6789 tons per year from a prior actual to future allowable basis so as to satisfy the following inequality:

$$\sum_{g=1}^k \left[\left\{ \sum_{h=1}^m (E_{\text{Actual}})_h \right\} - (E_{\text{Cap}})_g \right]_g + \sum_{i=1}^n [(E_{\text{Actual}})_i - (E_{\text{Allowable}})_i] \leq 6789 \text{ tpy of NO}_x$$

Where:

- k = The number of qualifying emissions caps;
- m The number of heaters and boilers controlled under the qualifying emissions cap g;
- $(E_{\text{Actual}})_h$ The tons of NO_x per year prior actual emissions (unless prior actuals exceed allowable emissions, then use allowable) as shown in Attachment 1 for controlled heater or boiler h, within the qualifying emissions cap g;
- $(E_{\text{cap}})_g$ = The qualifying emissions cap in tons of NO_x per year for heaters and boilers 1 through m within qualifying emissions cap g;
- n The number of heaters and boilers at all refineries that are controlled but not under a qualifying emissions cap;
- $(E_{\text{Actual}})_i$ The tons of NO_x per year prior actual emissions (unless prior actuals exceed allowable emissions, then use allowable) as shown in Attachment 1 for the controlled heater or boiler;
- and
- $(E_{\text{Allowable}})_I$ = (The requested portion of the permitted allowable pounds of NO_x per million BTU for heater or boiler i) / (2000 pounds per ton) x [(the lower of permitted or maximum heat input rate capacity in million BTU per hour for heater or boiler i) x (the lower of 8760 or permitted hours per year)].

11 Attachment 1 to this Consent Decree provides the following information for each of the heaters and boilers at each of the refineries:

- 1 the maximum heat input capacities and allowable heat input capacities in average mmBTU/hr; and
2. the baseline actual emission rate for both calendar years 1998 and 1999 in lbs/mmBTU and tons per year.

12. The Companies shall achieve two-thirds of the combined NO_x emissions reductions from the Controlled Heaters and Boilers as set forth in Paragraph 9, by December 31, 2004. The Companies shall demonstrate compliance with this requirement by demonstrating in their March 31, 2005, annual report that have installed NO_x controls and applied for enforceable limits that will achieve the required reductions, pursuant to Part VI (Permitting). For purposes of this Consent Decree, "applied for" shall mean that the Companies have submitted a complete and timely application for the appropriate permit, permit modification, and/or permit waiver

13 Joint and several liability under this Section A shall not apply to a Company that has implemented fully its portion of the allocation identified in the Companies' approved Control Plan or the most recent plan update.

14. On or before December 31, 2008, all refineries identified in Paragraph 5 (First Addendum, May 2002) shall have installed NO_x controls on at least 30% of the heater and boiler capacity located at each refinery. The heater and boiler capacity at each refinery shall be based on the allowable Input Capacity during the 1998/1999 baseline period. The Companies may include in the 30% capacity demonstration those heaters and boilers at the (First Addendum, May 2002) refineries which have been either shut down, or for which the refinery has

installed one of the following NO_x Control technologies:
SNCR, or current or next generation ultra-low NO_x burners. In addition to the identified technologies, heaters for which a NO_x emission limit of 0.040 lbs per mmBTU or lower is accepted in a permit may also be included to satisfy the 30% capacity demonstration.

15 NO_xNO_xNO_x NO_xNO_xNO_x[Reserved.] (First Addendum, May 2002)

16. The Companies shall submit a detailed NO_x Control Plan ("Control Plan") to EPA for approval by no later than December 31, 2001, with annual updates ("Updates") on March 31 of each year for the life of the Consent Decree. The first Update shall be due on March 31, 2003 (First Addendum, May 2002) EPA shall approve the Control Plan provided that it meets the requirements of the Consent Decree. Upon receipt of EPA's approval of the initial Control Plan, the Companies shall implement the Control Plan. The Control Plan and its updates shall describe progress of the NO_x emissions reductions program for heaters and boilers towards meeting the requirements of Paragraphs 9 and 12 and shall contain the following for each heater and boiler at each refinery:

- i. All of the information required to be in Attachment 1;
- ii. The type of data used to derive the emission estimate (i.e. emission factor, stack test, or CEMS data) and the averaging period for the emissions data used in Attachment 1;
- iii. The baseline utilization rate in average mmBTU/hr for

- calendar years 1998 and 1999;
- iv. The Companies' identification of the heaters and boilers that are either already controlled and those that are likely to be controlled in accordance with Paragraph 9 and 12;
 - v. Identification of all heaters and boilers that the Companies have controlled to reduce NO_x emissions and plan to control in accordance with Paragraphs 9 and 12;
 - vi. Identification of the type of controls installed or planned with date installed or planned;
 - vii. The allowable NO_x emissions (in lbs/mmBtu) and allowable heat input rate (in mmBTU/hr) obtained or planned, dates obtained or planned, and identification of the permits in which the limits were obtained;
 - viii. The results of emissions tests and annual average CEMS data (in ppmvd at 3% O₂, lb/mmBTU, and tons per year) conducted pursuant to Paragraphs 9 and 12;
 - ix. The amount in tons per year applied or to be applied toward satisfying Paragraphs 9 and 12; and
 - x. A description of the achieved and anticipated annual progress toward satisfying Paragraphs 9 and 12 described on a refinery-by-refinery basis.

17. The Control Plan and Updates required under Paragraph 16 shall be certified by the appropriate Company official for each Company responsible for environmental management and compliance at the individual refineries covered by the report, as follows

"I certify under penalty of law that I am responsible for environmental management and compliance at the identified refinery and that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete."

18 For heaters and boilers with a capacity of less

than 150 mmBTU/hr ("HHV"), for which NO_x Controls are installed pursuant to Paragraphs 9 and 10 of this Consent Decree, each Company shall conduct an initial performance test, or CEMS certification within one hundred-eighty (180) days of each heater and boiler start-up following installation of NO_x Controls, and either:

(a) Install, or continue to operate, a NO_x CEMS at the time of the installation of the NO_x Control. For purposes of this Consent Decree, CEMS is defined as a system to continuously monitor NO_x emissions that is installed, certified, calibrated, maintained, and operated in accordance with 40 C.F.R. §§ 60.11, 60.13, and 40 C.F.R. Part 60, Appendices A, B and F; or Part 75 and related Appendices. These CEMS will be used to demonstrate compliance with emission limits established under this Section;

(b) Use or develop an approved Predictive Emissions Monitoring System (PEMS) within one hundred-eighty (180) days of each unit's start-up following installation of NO_x Control, considering the full range of operating conditions; or

(c) Use the results of the initial performance test to develop the representative operating parameters for each unit to be used as indicators of compliance with the emission limit. The operating parameters shall include, at a minimum, combustion oxygen or excess air and air preheat temperature, where applicable.

19(a). For heaters and boilers with a capacity of 150 mmBTU/hr (HHV) or greater, for which NO_x Controls are installed pursuant to Paragraphs 9 and 10 of this Consent Decree, and for each heater and boiler included in a qualifying emissions cap under Paragraph 10(b), the Company shall install, or continue to operate, a NO_x CEMS at the time the NO_x Control(s) is (are)

installed under this Consent Decree. In the event two (2) or more heaters or boilers vent to a common stack, and one (1) heater or boiler has not had NO_x Controls installed, the CEMS sampling point must be set such that the unit(s) with the installed NO_x Control is monitored directly

19(b). Prior to using the NO_x reductions obtained by controlling DPRLP heaters H-5301, H-5302, H-5303, H-5304 and H-5350, DPRLP shall submit a monitoring plan to EPA for approval that would provide data sufficient to demonstrate compliance with Paragraph 10 and that accounts for differing NO_x concentrations, if any, between the two stacks.

19(c) By no later than ninety (90) days after commencement of operation of the NO_x controls, each Company shall install, certify, calibrate, maintain and operate the CEMS pursuant to 40 C.F.R. §§ 60.11 and 60.13, Part 60, Appendices A, B and F; or Part 75, and related Appendices

20. The requirements of this Section do not exempt the Companies from complying with any and all Federal, state or local requirements that may require technology upgrades based on actions or activities occurring after the date of lodging of this Consent Decree.

21 Each Company shall retain all records required to support their reporting requirements under this Section, for the life of this Consent Decree, unless other regulations require the

records to be maintained longer

B. SO₂ and NSPS REQUIREMENTS FOR HEATERS AND BOILERS

22(a). No later than March 31, 2001, Motiva shall discontinue burning of any liquid fuel in any of the heaters and boilers at the Convent and Norco, Louisiana, and Port Arthur, Texas, refineries, except in instances presented in Paragraph 22(b)

22(b). The Companies may burn liquid fuel during periods of natural gas curtailment by suppliers, or periods approved by EPA for purposes of test runs and operator training at each refinery. During periods of natural gas curtailment, test runs and operator training, the Companies shall burn only low sulfur (0.05 wt% sulfur) liquid fuel. Prior to conducting the test runs or operator training at a refinery, the Companies shall submit proposed schedules for such test runs and training periods to EPA for review and approval

23(a) Delaware City Schedule. Except as allowed under Paragraph 22(b), Motiva shall eliminate burning of any liquid fuel in all heaters and boilers at the Delaware City, Delaware refinery in accordance with the schedule below, and result in the following per day, refinery-wide, maximum liquid fuel burning by the following deadlines:

	Refinery-Wide
Maximum Fuel	
Oil Burning	

stripper overhead gas burned in the CO boilers, provided that good air pollution control practices to minimize emissions are maintained during that turnaround.

VI. PERMITTING

25. Construction. Each Company agrees to apply for and make all reasonable efforts to obtain in a timely manner all appropriate federally enforceable permits (or construction permit waivers) for the construction of the pollution control technology required to meet the above emissions reductions. For any physical or operational changes to emissions units included in an emissions cap as specified in this Consent Decree, the Companies may use either the individual unit's permitted emission rate or the combined permitted emissions rate for the cap to determine the potential to emit for an emissions unit under the cap. If the combined permitted emissions rate under the cap is used, the combined actual emissions for each unit under the cap shall also be used to determine the net emissions change.

26. Operation. As soon as practicable, but in no event later than sixty (60) days following a final determination of emission limits in accordance with Paragraphs 12 and 16(vii) each Company shall apply for and make all reasonable efforts to incorporate the concentration limits required by this Consent Decree into federally enforceable permits, in addition to Title V permits for these units and facilities.

27. NSPS Applicability. Each Company shall apply to incorporate into the relevant permits the NSPS Subpart J limits for hydrogen sulfide ("H₂S") content of fuel gas, or SO₂ emissions, where appropriate, for each heater and boiler that combusts fuel gas as set forth in this Section

VII. EMISSION CREDIT GENERATION

Program Summary: The emissions credit and netting limitations discussed below only apply to the netting units defined in this Section, and only to NO_x and SO₂ emissions necessary for compliance with EPA's Tier II and Low Sulfur Diesel requirements. The provisions of this Section are for purposes of this Consent Decree only, and may not be used or relied upon by the Companies or any other entity, including any party to this Consent Decree, for any other purpose, in any subsequent permitting or enforcement action, except as provided herein. These provisions are intended to limit the use of reductions made pursuant to this Consent Decree and are not intended to grant use of reductions as in netting and as offsets for reductions that have not been made.

28. Except as provided herein, the Companies shall not generate or use any NO_x or SO₂ emissions reductions that result from any projects conducted pursuant to this Consent Decree as credits or offsets in any PSD, major non-attainment and/or minor New Source Review ("NSR") permit or permit proceeding. Notwithstanding the above, the Companies may conduct projects pursuant to this Consent Decree that create more emission reductions than required by this Consent Decree. In such instances, the Companies, with the concurrence of the permitting authority, may retain a portion of the achieved emissions reductions for use as credits or offsets. All other emission