



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

OFFICE OF THE DISTRICT COUNSEL

Telephone: (415) 749-4920

Fax: (415) 749-5103

May 6, 2003

Via Facsimile and U.S. Mail

Alan Ramo, Esq.
Golden Gate University
536 Mission Street
San Francisco, CA 94105

Suma Peesapati, Esq.
Communities for a Better Environment
1611 Telegraph Ave., Suite 450
Oakland, CA 94612

Re: Valero Regulation 9-10 Alternate Compliance Plan and Attachments to
Engineer Evaluation

Dear Alan and Suma:

You have requested that the District provide you with the Regulation 9-10 Alternate Compliance Plan (ACP) submitted by Valero that is the subject of the Environmental Impact Report certified by the District on February 14, 2003. You have also asked that the District provide you with the attachments referred to in the Engineering Evaluation that was posted on the District's Website on June 20, 2002. The requested documents are enclosed. Our records indicate that the Engineering Evaluation with all attachments was sent to you in hard copy on June 19, 2002, along with the notice of the District's June 19, 2002, preliminary decision to approve the Valero ACP. Copies of the June 19, 2002, notice sent to Richard Drury of Communities for a Better Environment and Alan Ramo of Golden Gate University are also enclosed. Please note that the Notice Inviting Public Comment made clear that the application materials were available for inspection upon request. We are happy to provide you with these notices and attachments again.

The four enclosed documents requested by you are each preceded by a page inserted for labeling purposes. These documents are as follows:

1) 7 pages constituting the attachments to the Engineering Evaluation that was posted on the District's Website on June 20, 2002.

Alan Ramo and Suma Peesapati

May 6, 2003

Page 2

- 2) 9 pages constituting the ACP submitted by Valero in August of 2001.
- 3) 7 pages constituting an ACP revision submitted by Valero in November of 2001.
- 4) 1 page submitted by Valero to the District, date unknown.

If you have any questions regarding these documents, I may be reached at (415) 749-5077.

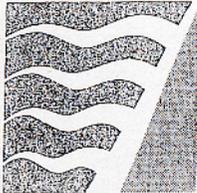
Sincerely,



Adan Schwartz
Senior Assistant Counsel

Enclosures

CC: Daniel Taffe (via mail)
Mike Rockett (via mail)



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

June 19, 2002

ALAMEDA COUNTY
Roberta Cooper
Scott Haggerty
(Vice-Chairperson)
Nate Miley
Shelia Young

Mr. Richard Toshiyuki Drury,
Communities for a Better Environment
1611 Telegraph Avenue, Suite 450
Oakland, CA 94612-2150

CONTRA COSTA COUNTY
Mark DeSaulnier
Mark Ross
Gayle Uilkema

Subject: **Valero Refining Company - California
Use of IERC's for Regulation 9, Rule 10 Compliance
Application No. 3915**

MARIN COUNTY
Harold C. Brown, Jr.

Dear Mr. Drury:

NAPA COUNTY
Brad Wagenknecht

This letter is to inform you that the Air Pollution Control Officer has made a preliminary decision to approve the Alternative Compliance Plan (ACP) which includes the use of Interchangeable Emission Reduction Credits (IERC's) generated from the following sources at the Valero Refining Company in Benicia, CA.

SAN FRANCISCO COUNTY
Chris Daly
Leland Yee
(Vacant)

- S-3 **Crude Preheat Furnace, F-101**
- S-4 **Reduced Crude Preheat Furnace, F-102**

SAN MATEO COUNTY
Jerry Hill
Marland Townsend
(Secretary)

We have completed our evaluation of this application and intend to approve the ACP and the use of IERC's for Regulation 9, Rule 10 compliance unless public comments present information to change this decision.

SANTA CLARA COUNTY
Randy Attaway
(Chairperson)
Liz Kniss
Julia Miller
Dena Mossar

Enclosed for your information is a copy of the engineering evaluation of this application and a copy of the Notice Inviting Written Public Comment. I would appreciate any comments you may have on the intended action. The final date for comments is July 25, 2002. If you have any questions, please contact Douglas W. Hall, Supervising Air Quality Engineer, at (415) 749-4706, or electronically via E-mail at dhall@baaqmd.gov.

SOLANO COUNTY
(Vacant)

SONOMA COUNTY
Tim Smith
Pamela Torliatt

Very truly yours,

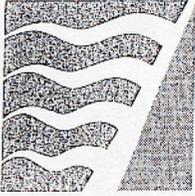
Ellen Garvey

Air Pollution Control Officer

William C. Norton
INTERIM CEO/EXECUTIVE
SECRETARY

Ellen Garvey
AIR POLLUTION
CONTROL OFFICER

EG:DWH:dwh



June 19, 2002

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

ALAMEDA COUNTY
Roberta Cooper
Scott Haggerty
(Vice-Chairperson)
Nate Miley
Shelia Young

Mr. Alan Ramo
Director, Environmental Law and Justice School
Golden Gate University School of Law
536 Mission Street
San Francisco, CA 94105-2968

CONTRA COSTA COUNTY
Mark DeSaulnier
Mark Ross
Gayle Uilkema

Subject: **Valero Refining Company - California
Use of IERC's for Regulation 9, Rule 10 Compliance
Application No. 3915**

MARIN COUNTY
Harold C. Brown, Jr.

Dear Mr. Ramo:

NAPA COUNTY
Brad Wagenknecht

This letter is to inform you that the Air Pollution Control Officer has made a preliminary decision to approve the Alternative Compliance Plan (ACP) which includes the use of Interchangeable Emission Reduction Credits (IERC's) generated from the following sources at the Valero Refining Company in Benicia, CA.

SAN FRANCISCO COUNTY
Chris Daly
Leland Yee
(Vacant)

- S-3 **Crude Preheat Furnace, F-101**
- S-4 **Reduced Crude Preheat Furnace, F-102**

SAN MATEO COUNTY
Jerry Hill
Marland Townsend
(Secretary)

We have completed our evaluation of this application and intend to approve the ACP and the use of IERC's for Regulation 9, Rule 10 compliance unless public comments present information to change this decision.

SANTA CLARA COUNTY
Randy Attaway
(Chairperson)
Liz Kniss
Julia Miller
Dena Mossar

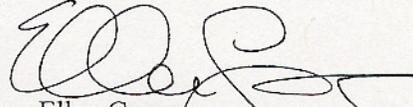
Enclosed for your information is a copy of the engineering evaluation of this application and a copy of the Notice Inviting Written Public Comment. I would appreciate any comments you may have on the intended action. The final date for comments is July 25, 2002. If you have any questions, please contact Douglas W. Hall, Supervising Air Quality Engineer, at (415) 749-4706, or electronically via E-mail at dhall@baaqmd.gov.

SOLANO COUNTY
(Vacant)

SONOMA COUNTY
Tim Smith
Pamela Torliatt

Very truly yours,

William C. Norton
INTERIM CEO/EXECUTIVE
SECRETARY


Ellen Garvey
Air Pollution Control Officer

Ellen Garvey
AIR POLLUTION
CONTROL OFFICER

EG:DWH:dwh

NOTICE INVITING WRITTEN PUBLIC COMMENT

Notice is hereby given that the Air Pollution Control Officer (APCO) has made a preliminary decision to approve an Alternative Compliance Plan (ACP) to permit the Valero Refining Company (formerly Exxon and then Exxon Mobil) refinery in Benicia, California to use Interchangeable Emission Reduction credits (IERC's) to comply with the nitrogen oxides (NOx) requirements of Regulation 9, Rule 10. The IERC's were granted in Application number 19971 due to bankable emissions reductions in NOx from the S-3 Crude Preheat Furnace F-101 and S-4 Reduced Crude Preheat Furnace F-102.

The Air Pollution Control Officer (APCO) has prepared a Draft Environmental Impact Report (EIR) on this project to comply with the California Environmental Quality Act (CEQA). The draft EIR is available for review at the BAAQMD office at 939 Ellis Street, San Francisco, on the District website (www.baaqmd.gov), or may be obtained by calling the BAAQMD at (415) 749-4721.

The application (number 1047) for this ACP is available for public inspection at the District Headquarters, 939 Ellis Street, San Francisco, CA 94109 in the Permit Services Division, 3rd Floor.

For: The Air Pollution Control Officer invites written public comment on the preliminary decision. Comments should be submitted to Douglas W. Hall, Supervising Air Quality Engineer, at the above address by July 25, 2002. The APCO will consider comments on the preliminary decision before taking Final Action.

Dated at San Francisco, the 19th day of June, 2002.

Ellen Garvey
Air Pollution Control Officer
Bay Area Air Quality Management District

No. 5684
Published June 25, 2002

STATE OF CALIFORNIA, }
County of Solano. } ss.

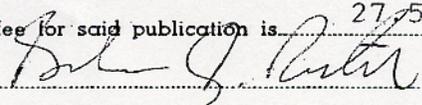
Barbara Z. Richardson

being duly

sworn, deposes and says, that he is and was during all the time herein mentioned, one of the Printers and Publishers of the newspaper called THE BENICIA HERALD and NEW ERA, Published in the City of Benicia, County of Solano and State of California. That said BENICIA HERALD and NEW ERA is a newspaper published for the dissemination of local and telegraphic news and intelligence of a general character; has a bona fide subscription list of paying subscribers and has been established, printed and published in the City of Benicia, County of Solano, State of California, for more than one year and that the Notice Inviting Written Public Comment

of which the annexed is a true, printed copy, was published in said newspaper for the period of One Time viz:

commencing on the 25th day of June, 2002
and ending on the same day of 2002
and as often during said period as said paper was issued
and that the fee for said publication is 27.55 Dollars



Subscribed and sworn to before me, }
this }
day of 20..... }

Notary Public
in and for the said County of Solano,
State of California

***7 pages constituting the attachments to the Engineering
Evaluation posted on the District's Website on June 20, 2002***

TABLE 1
TYPICAL CALCULATION OF REQUIRED IERC REQUIREMENTS AFTER JULY 1, 2002

| Source | Description | Maximum Rated Capacity <i>mmBTU/hr</i> | Typical Firing Rate* <i>mmBTU/hr</i> | Existing Control Equipment | NOx Emission Factor <i>lb/mmBTU</i> | Typical NOx Emissions <i>lb/day</i> |
|--|---|---|--|----------------------------------|--|--|
| Valero Refining Plant (#12626) | | | | | | |
| S-7 (F-103) | Jet Hydrofiner Hydrogen Preheat Furnace | 53 | 25 | None | 0.184 | 110.40 |
| S-20 (F-104) | Naphtha Feed Preheat | 62 | 38 | None | 0.155 | 141.36 |
| S-21 (F-301) | Stream Methane Reforming Furnace | 614 | 514 | LNB | 0.047 | 579.79 |
| S-22 (F-351) | Stream Methane Reforming Furnace | 614 | 460 | LNB | 0.048 | 529.92 |
| S-23 (F-401) | HCU Recycle Gas Furnace | 200 | 170 | LNB/TDN | 0.040 | 163.2 |
| S-24 (F-601) | Cat Feed Hydrofiner Treat Gas Furnace | 33 | 22 | None | 0.282 | 148.90 |
| S-25 (F-701) | FCCU Preheat Furnace | 230 | 205 | None | 0.133 | 654.36 |
| S-26 (F-801) | Cat Naphtha Hydrofiner Furnace | 33 | 12 | None | 0.155 | 44.64 |
| S-30 to S-33 (F-2901 to F2904) | Powerformer Furnaces | 463 | 356 | None | 0.141 | 1204.70 |
| S-34 (F-2905) | Powerformer Regeneration Furnace | 74 | 9 | None | 0.146 | 31.54 |
| S-35 (F-2906) | Powerformer Reactivation Furnace | 14 | 2 | None | 0.146 | 7.01 |
| S-40 (SG-2301) | Utility Boiler | 218 | 81 | LNB/FGR | 0.029 | 56.38 |
| S-41 (SG 2302) | Utility Boiler | 218 | 83 | None | 0.148 | 294.82 |
| S-173 (F-902) | Coker Steam Superheater Furnace | 20 | 12 | LNB | 0.049 | 14.11 |
| S-220 (F-4460) | Hot Oil Furnace | 351 | 259 | SCR | 0.008 | 49.73 |
| Valero Asphalt Plant (#13193) | | | | | | |
| S-19 (H-1) | Crude Furnace | 33 | 30 | | .033 | 23.76 |
| S-20 (H-2A) | Small Boiler | 15 | 10 | | .033 | 7.92 |
| S-21 (H-2B) | Small Boiler | 15 | 10 | | .033 | 7.92 |
| Typical Operations | | 3260 | 2298 | | .074 | 4070.46 |
| Typical Allowable NOx Emissions | | | | | .033 | 1820.02 |
| Typical Excess NOx Emissions | | | | | | 2250.44 |

* This is a typical firing rate, not uncommon during normal operation. Although usage and emissions from these units is not expected to change as a result of the ACP, actual usage of the affected units and emissions from the affected units could go up or down depending on other operating factors unrelated to the ACP, including, for example adding or removing affected units, changes in throughput of affected units, installation of additional controls on affected units, etc.

TABLE 2

Valero Benicia
 NOx Compliance Plan for 2002 +
 Regulation 9 Rule 10

Projected NOx Credit Generation and Usage

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 + |
|---|------|------|------|------|------|--------|
| Credits received from prior year's reduction | 340 | 570 | 1330 | 800 | 300 | 300 |
| Anticipated Credits for consumption to meet 9-10 requirements | 51 | 50 | 600 | 500 | 600 | 350 |
| Balance at year end | 289 | 809 | 1539 | 1839 | 1539 | 1489 |

- Projected timing for retrofit project completion -YE 2004. Schedule adjustment for later completion may be incorporated if credit balance allows. Plans are also being considered to make some reductions as early as 2002
 - A sizable ongoing balance is projected to accommodate unplanned operations and Turnaround impacts.
 - Alternative Compliance Plan submitted February 14, 2000. Alternative Compliance Plan - Phase II submitted August 21, 2001 with a revision to Phase II to incorporate the Benicia Asphalt Plant submitted on November 14, 2001.
 - Banked NOx IERCs relinquished per the agreement between Valero and the Attorney General's office in the following amounts and by the following days: 100 ton, by July 1, 2002, 100 ton by July 1, 2004 and 50 ton by July 1, 2005.
- Current Retrofit Implementation Schedule: To be reassessed in 2002

| | |
|---------------------------|-------------|
| A/C Application Submittal | 1Q03 (1) |
| Final Engineering | 4Q02 - 4Q03 |
| Contract Award | 4Q03 |
| Construction | 1Q01 - 4Q04 |
| Final Compliance | 4Q04 |

ATTACHMENT I

One Month Record

Regulation 9-10 Compliance Tracking

Master@NOx 9-10 Records-1.xls sht1

| 7/1/02 | | 7/31/02 | | Date | | Fuel Gas HHV ¹ Btu/SCF | | Fuel Gas F-Factor | | Fired Heat Duty - MBtu/hr ² | | NOx Conc - ppm@3%O ₂ ³ | | Emission Rate - lb NOx/MBtu | | Mass Emissions - lb NOx/day | | Total Emissions | | Req'd ⁴ | | |
|--------|--|---------|--|------|--|-----------------------------------|--|-------------------|--|--|--|--|--|-----------------------------|--|-----------------------------|--|-----------------|--|--------------------|--|--|
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

003915

Average = (non-0)

| | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Max Rated Capacity:

| | | |
|-----|-----|-----|
| 230 | 463 | 218 |
|-----|-----|-----|

- Notes:
- (1) The IERC requirement is calculated in accordance with 2.9-605 and includes the 10% environmental benefit surcharge.
 - (2) For sources out of service use prior 30 operating day average, per 9-10-301.2. For SJU or SID use most recent District approved source test, per 9-10-301.1.
 - (3) NOx concentration based on CEMS data.

Month's Total =

| | | |
|--|--|--|
| | | |
|--|--|--|

Regulation 9-10 Compliance Tracking

| DATE | Fuel Gas to HHV Btu/scf | Fuel Gas F-Factor | Fired Heat Duty - MBtu/hr ⁽¹⁾ | | | | Emission Rate - lb NOx/mbtu ⁽²⁾ | | | | Mass Emissions - lb NOx/hour | | | | Total Emissions | | Req'd ⁽²⁾ IERC's lb NOx | |
|------------|-------------------------|-------------------|--|------------|------------|-------------|--|------------|------------|-------------|------------------------------|------------|------------|-------------|-----------------|------------------|------------------------------------|--|
| | | | F-2906 S-35 | F-601 S-24 | F-801 S-26 | F-902 S-173 | F-2906 S-35 | F-601 S-24 | F-801 S-26 | F-902 S-173 | F-2906 S-35 | F-601 S-24 | F-801 S-26 | F-902 S-173 | Actual lb NOx | Allowable lb NOx | | |
| 07/01/2002 | | | | | | | | | | | | | | | | | | |
| 07/02/2002 | | | | | | | | | | | | | | | | | | |
| 07/03/2002 | | | | | | | | | | | | | | | | | | |
| 07/04/2002 | | | | | | | | | | | | | | | | | | |
| 07/05/2002 | | | | | | | | | | | | | | | | | | |
| 07/06/2002 | | | | | | | | | | | | | | | | | | |
| 07/07/2002 | | | | | | | | | | | | | | | | | | |
| 07/08/2002 | | | | | | | | | | | | | | | | | | |
| 07/09/2002 | | | | | | | | | | | | | | | | | | |
| 07/10/2002 | | | | | | | | | | | | | | | | | | |
| 07/11/2002 | | | | | | | | | | | | | | | | | | |
| 07/12/2002 | | | | | | | | | | | | | | | | | | |
| 07/13/2002 | | | | | | | | | | | | | | | | | | |
| 07/14/2002 | | | | | | | | | | | | | | | | | | |
| 07/15/2002 | | | | | | | | | | | | | | | | | | |
| 07/16/2002 | | | | | | | | | | | | | | | | | | |
| 07/17/2002 | | | | | | | | | | | | | | | | | | |
| 07/18/2002 | | | | | | | | | | | | | | | | | | |
| 07/19/2002 | | | | | | | | | | | | | | | | | | |
| 07/20/2002 | | | | | | | | | | | | | | | | | | |
| 07/21/2002 | | | | | | | | | | | | | | | | | | |
| 07/22/2002 | | | | | | | | | | | | | | | | | | |
| 07/23/2002 | | | | | | | | | | | | | | | | | | |
| 07/24/2002 | | | | | | | | | | | | | | | | | | |
| 07/25/2002 | | | | | | | | | | | | | | | | | | |
| 07/26/2002 | | | | | | | | | | | | | | | | | | |
| 07/27/2002 | | | | | | | | | | | | | | | | | | |
| 07/28/2002 | | | | | | | | | | | | | | | | | | |
| 07/29/2002 | | | | | | | | | | | | | | | | | | |
| 07/30/2002 | | | | | | | | | | | | | | | | | | |
| 07/31/2002 | | | | | | | | | | | | | | | | | | |

Average =

| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

 (non-0)

Max Rated Capacity:

| | | | |
|----|----|----|----|
| 14 | 33 | 33 | 20 |
|----|----|----|----|

 Month's Total =

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

- Notes:
- (1) For sources out of service use prior 30 operating day average, per 9-10-301.2. For S/U or S/D use most recent District approved source test, per 9-10-301.1.
 - (2) The IERC requirement is calculated in accordance with 2-9-605 and includes the 10% environmental benefit surcharge.
 - (3) NOx concentration based on initial source test results and may include a contingency increase. Emission levels will be confirmed by semiannual source tests.

0000

Regulation 9-10 Compliance Tracking

07/01/2002

| DATE | Fuel Gas HHV Btus/scf | Fuel Gas F-Factor | Fixed Heat Duty - MBtu/hr ⁽¹⁾ | | | Emission Rate - lb NOx/MBtu ⁽²⁾ | | | Mass Emissions - lb NOx/hour | | | Total Emissions | | Req'd ⁽²⁾ lb NOx |
|------------|-----------------------------|----------------------|--|---------------|----------------|--|---------------|----------------|------------------------------|---------------------|--|-----------------|--|--------------------------------|
| | | | F-103 S-7 | F-104 S-20 | F-2905 S-34 | F-103 S-7 | F-104 S-20 | F-2905 S-34 | Actual lb NOx | Allowable lb NOx | | | | |
| 07/01/2002 | | | | | | | | | | | | | | |
| 07/02/2002 | | | | | | | | | | | | | | |
| 07/03/2002 | | | | | | | | | | | | | | |
| 07/04/2002 | | | | | | | | | | | | | | |
| 07/05/2002 | | | | | | | | | | | | | | |
| 07/06/2002 | | | | | | | | | | | | | | |
| 07/07/2002 | | | | | | | | | | | | | | |
| 07/08/2002 | | | | | | | | | | | | | | |
| 07/09/2002 | | | | | | | | | | | | | | |
| 07/10/2002 | | | | | | | | | | | | | | |
| 07/11/2002 | | | | | | | | | | | | | | |
| 07/12/2002 | | | | | | | | | | | | | | |
| 07/13/2002 | | | | | | | | | | | | | | |
| 07/14/2002 | | | | | | | | | | | | | | |
| 07/15/2002 | | | | | | | | | | | | | | |
| 07/16/2002 | | | | | | | | | | | | | | |
| 07/17/2002 | | | | | | | | | | | | | | |
| 07/18/2002 | | | | | | | | | | | | | | |
| 07/19/2002 | | | | | | | | | | | | | | |
| 07/20/2002 | | | | | | | | | | | | | | |
| 07/21/2002 | | | | | | | | | | | | | | |
| 07/22/2002 | | | | | | | | | | | | | | |
| 07/23/2002 | | | | | | | | | | | | | | |
| 07/24/2002 | | | | | | | | | | | | | | |
| 07/25/2002 | | | | | | | | | | | | | | |
| 07/26/2002 | | | | | | | | | | | | | | |
| 07/27/2002 | | | | | | | | | | | | | | |
| 07/28/2002 | | | | | | | | | | | | | | |
| 07/29/2002 | | | | | | | | | | | | | | |
| 07/30/2002 | | | | | | | | | | | | | | |
| 07/31/2002 | | | | | | | | | | | | | | |

Average = (non-0)

| | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Max Rated Capacity:

| | | |
|----|----|----|
| 53 | 62 | 74 |
|----|----|----|

Month's Total =

| | | |
|--|--|--|
| | | |
|--|--|--|

- Notes:
- (1) For sources out of service use prior 30 operating day average, per 9-10-301.2. For S/U or S/D use most recent District approved source test, per 9-10-301.1.
 - (2) The IERC requirement is calculated in accordance with 2-9-605 and includes the 10% environmental benefit surcharge.
 - (3) NOx concentration based on initial four point test results and may include a contingency increase. Emission levels will be confirmed by semiannual source tests.

One Month Record

Regulation 9-10 Compliance Tracking

Master@NOX 9-10 Records-1.xls sht1

| 7/1/02 | Fuel Gas HHV ⁽¹⁾ Btu/SCF | F-Factor | Fired Heat Duty - MBtu/hr ⁽²⁾ | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 SG2301 S-40 | NOx Conc - ppm@3%O ₂ ^(3,4) | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 SG2301 S-40 | Emission Rate - lb NOx/MBtu | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 SG2301 S-40 | Mass Emissions - lb NOx/day | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 SG2301 S-40 | Total Emissions Actual lb NOx | Allowable lb NOx | Req'd ⁽²⁾ IERC's lb NOx | |
|---------|-------------------------------------|----------|--|------------|------------|------------|--------------------|--|------------|------------|------------|--------------------|-----------------------------|------------|------------|------------|--------------------|-----------------------------|------------|------------|------------|--------------------|-------------------------------|------------------|------------------------------------|--|
| 7/31/02 | | | | | | | | | | | | | | | | | | | | | | | | | | |

Timestamp

Average = (non-0)

Max Rated Capacity: 614 614 200 351 218

Month's Total =

- Notes:
- (1) Vaporized pentane may, on infrequent occasion, be blended into the fuel gas to F-4460. When it is, its HHV of 3976 Btu/SCF is ratio'd into the F-4460 calculation.
 - (2) The IERC requirement is calculated in accordance with 2-9-605 and includes the 10% environmental benefit surcharge.
 - (3) For sources out of service use prior 30 operating day average, per 9-10-301.2. For S/U or S/D use most recent District approved source test, per 9-10-301.1.
 - (4) NOx concentration based on CEMS data.

000000

*9 pages constituting the ACP submitted by Valero in August of
2001*

Alternate Compliance Plan – Phase II

In accordance with District Regulation 2-9, this Alternate Compliance Plan for Phase II is proposed for utilizing IERC credits, as generated and approved in accordance with Regulation 2-9, to assist in meeting compliance requirements of District Regulation 9-10 for the remaining affected units.

Regulation 9-10 requires that NOx emissions not exceed certain limits. The rule has been phased in over a two year period requiring that affected units representing 50% of the total heat input capacity be subject to the regulation effective July 1, 2000. The remaining affected units are to be in compliance by July 1, 2002. This ACP – Phase II proposes utilizing IERC credits on a daily basis, if required, to meet these limitations for the remaining affected units at the Valero Benicia Refinery.

To comply with the requirements of 2-9-303.4, records will be kept reflecting daily emission calculations. Attached are examples of the spreadsheets to be used beginning in July 2002. The initial spreadsheet has been expanded to include the additional sources being regulated. SG-2901 and SG-703 are not included due to plans to shutdown and surrender their operating permits prior to July 1, 2002.

As required by 2-9-502.3, quarterly reports will be submitted as described.

As required by 2-9-303.6 and 2-9-502.4, the required annual reconciliation report with IERC credits will be submitted within 30 days following the end of each ACP.

The Valero Refinery currently holds three approved IERC Certificates (1-A, 1-B, and 5-C) for a total credit of 290.8 tons of NOx. Attachment II of the June 9, 2000 letter addressing the NOx control plan for refinery heaters and boilers forecasts credit generation and usage through 2005. The required credits will be furnished from these certificates.

003010

Regulation 9-10 Compliance Tracking

07/01/2002

| DATE | Fuel Gas HHV Btu/scf | Fuel Gas F-Factor | Fired Heat Duty - Mbtuhr ⁽¹⁾ F-103 S-7 | F-104 S-20 | F-2905 S-34 | Emission Rate - lb NOx/Mbtuhr ⁽²⁾ F-103 S-7 | F-104 S-20 | F-2905 S-34 | Mass Emissions - lb NOx/hour F-103 S-7 | F-104 S-20 | F-2905 S-34 | Total Emissions Actual lb NOx | Allowable lb NOx | Req'd ⁽²⁾ lb NOx |
|------------|----------------------|-------------------|---|---------------|----------------|--|---------------|----------------|--|---------------|----------------|-------------------------------------|---------------------|--------------------------------|
| 07/01/2002 | | | | | | | | | | | | | | |
| 07/02/2002 | | | | | | | | | | | | | | |
| 07/03/2002 | | | | | | | | | | | | | | |
| 07/04/2002 | | | | | | | | | | | | | | |
| 07/05/2002 | | | | | | | | | | | | | | |
| 07/06/2002 | | | | | | | | | | | | | | |
| 07/07/2002 | | | | | | | | | | | | | | |
| 07/08/2002 | | | | | | | | | | | | | | |
| 07/09/2002 | | | | | | | | | | | | | | |
| 07/10/2002 | | | | | | | | | | | | | | |
| 07/11/2002 | | | | | | | | | | | | | | |
| 07/12/2002 | | | | | | | | | | | | | | |
| 07/13/2002 | | | | | | | | | | | | | | |
| 07/14/2002 | | | | | | | | | | | | | | |
| 07/15/2002 | | | | | | | | | | | | | | |
| 07/16/2002 | | | | | | | | | | | | | | |
| 07/17/2002 | | | | | | | | | | | | | | |
| 07/18/2002 | | | | | | | | | | | | | | |
| 07/19/2002 | | | | | | | | | | | | | | |
| 07/20/2002 | | | | | | | | | | | | | | |
| 07/21/2002 | | | | | | | | | | | | | | |
| 07/22/2002 | | | | | | | | | | | | | | |
| 07/23/2002 | | | | | | | | | | | | | | |
| 07/24/2002 | | | | | | | | | | | | | | |
| 07/25/2002 | | | | | | | | | | | | | | |
| 07/26/2002 | | | | | | | | | | | | | | |
| 07/27/2002 | | | | | | | | | | | | | | |
| 07/28/2002 | | | | | | | | | | | | | | |
| 07/29/2002 | | | | | | | | | | | | | | |
| 07/30/2002 | | | | | | | | | | | | | | |
| 07/31/2002 | | | | | | | | | | | | | | |

Average =

| | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

(non-0)

Max Rated Capacity:

| | | |
|----|----|----|
| 53 | 62 | 74 |
|----|----|----|

Month's Total =

| | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

- Notes:
- (1) For sources out of service use prior 30 operating day average, per 9-10-301.2. For S/U or S/D use most recent District approved source test, per 9-10-301.1.
 - (2) The ERC requirement is calculated in accordance with 2-9-605 and includes the 10% environmental benefit surcharge.
 - (3) NOx concentration based on initial four point test results and may include a contingency increase. Emission levels will be confirmed by semiannual source tests.

Regulation 9-10 Compliance Tracking

Master@NOx 9-10 Records-1.xls sheet 1

One Month Record
7/1/02

| Timestamp | Fuel Gas HHV ⁽¹⁾ Btu/SCF | F-Factor | Fired Heat Duty - MBtu/hr ⁽²⁾ | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 S-220 | SG2301 S-40 | NOx Conc - ppm@3%O ₂ ^(3,4) | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 S-220 | SG2301 S-40 | Emission Rate - lb NOx/MBtu | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 S-220 | SG2301 S-40 | Mass Emissions - lb NOx/day | F-301 S-21 | F-351 S-22 | F-401 S-23 | F-4460 S-220 | SG2301 S-40 | Total Emissions Actual lb NOx | Total Emissions Allowable lb NOx | Req'd IERC's lb NOx | |
|-----------|-------------------------------------|----------|--|------------|------------|------------|--------------|-------------|--|------------|------------|------------|--------------|-------------|-----------------------------|------------|------------|------------|--------------|-------------|-----------------------------|------------|------------|------------|--------------|-------------|-------------------------------|----------------------------------|---------------------|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Average = (non-0)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

Max Rated Capacity:

| | | | | |
|-----|-----|-----|-----|-----|
| 614 | 614 | 200 | 351 | 218 |
|-----|-----|-----|-----|-----|

Month's Total =

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

- Notes:
- (1) Vaporized pentane may, on infrequent occasion, be blended into the fuel gas to F-4460. When it is, its HHV of 3976 Btu/SCF is ratio'd into the F-4460 calculation.
 - (2) The IERC requirement is calculated in accordance with 2.9-605 and includes the 10% environmental benefit surcharge.
 - (3) For sources out of service use prior 30 operating day average, per 9-10-301.2. For S/U or S/D use most recent District approved source test, per 9-10-301.1.
 - (4) NOx concentration based on CEMS data.

000000

Addendum to Alternate Compliance Plan dated February 14, 2000

The purpose of this addendum is to clarify specific elements of the Alternate Compliance Plan and how they respond to the requirements as listed in Regulation 2-9.

Per 2-9-302 and 303, an ACP must satisfy the following:

302 "An IERC may only be used at the same facility in which the IERC is generated."

The IERC's proposed for use meet this criteria, as will future additional IERC's to be utilized .

302 "An IERC may only be used to comply with a NOx standard in Regulation 9, or a corresponding permit condition."

The ACP is for Regulation 9-10, thus complying with this requirement.

302 "IERC's must be in the operator's possession prior to exceeding the Regulation 9 standard."

The IERC's proposed for use meet this criteria, as will future additional IERC's to be utilized .

303.1 "Only IERC's that have been generated, approved, and banked in accordance with this rule may be used in an ACP."

The IERC's proposed for use meet this criteria, as will future additional IERC's to be utilized .

303.2 "NOx emissions from each source or group of sources (if grouping is allowed under the applicable emission standard) in the ACP, less IERC's applied, shall not exceed that amount or level of NOx emissions which would result if the affected source or sources complied with the applicable BARCT requirements of Regulation 9 on a daily basis."

The spread sheet included in the ACP illustrates that the total actual emissions from the group of sources covered by the standard in 9-10 will be calculated and the required IERC's will be listed for use to meet the standard. This will be done on a daily basis, as required.

303.3 "The ACP must be reviewed and approved by the APCO on an annual basis."

As noted in the ACP, an annual reconciliation report with IERC credits will be submitted within 30 days following the end of each ACP period to allow the APCO to perform the review and approval process. Additionally, as noted in the ACP, quarterly reports will be submitted.

303.4 "The ACP must include methods for demonstrating compliance on a daily basis, by listing:"

4.1 "All sources covered by the ACP;"

The ACP spreadsheet lists all sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet.

4.2 "Maximum firing rate (higher heating value) of each source;"

The ACP spreadsheet lists the maximum firing rate for the sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet.

4.3 "Type(s) of fuel and heat content (higher heating value) of each fuel combusted in each source;"

The ACP spreadsheet lists the fuel (Fuel Gas) and heat content for the sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet.

4.4 "NOx emission rate for each type of fuel combusted in each source;"

The ACP spreadsheet calculates and lists the emission rate for all sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet. This calculation will be based on the NOx concentration (also listed) as measured by a continuous emission monitor meeting the requirements of the District Manual of Procedures and will utilize the following equation:

$$\text{Lb NOx / MMBtu} = (\text{NOx conc @ 3\% O}_2) \times 1.197\text{E-}7 \times (\text{Fuel Gas F-Factor}) \times (20.9 / (20.9 - 3))$$

4.5 "A comparison of the actual nitrogen oxide emission rate and the nitrogen oxide emission rate that would be allowed under the applicable BARCT provision(s) of Regulation 9, in the absence of this rule, for each source, or group of sources (if grouping is allowed under the applicable emission standard),"

The ACP spreadsheet includes this comparison under the Total Emissions heading.

4.6 "Detailed calculation of the amount of IERC's required for BARCT compliance, in accordance with the procedure in Section 2-9-605;"

The ACP spreadsheet includes, in the last three columns, the calculation for determining the required IERC's. The actual calculation will be carried out on a daily basis in accordance with 2-9-605, including 10% additional IERC's and without providing "credits" for days when the standard is overachieved without IERC's.

ATTACHMENT II

Valero Proprietary
Trade Secret

Valero Benicia
NOx Compliance Plan for 2002+
Regulation 9 Rule 10

Projected NOx Credit Generation and Usage

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|------|------|------|------|------|------|
| Credits received from prior year's reduction | 340 | 600 | 600 | 400 | 200 | 200 |
| Credits consumed to meet 9-10 requirements | 40 | 50 | 350 | 500 | 500 | 200 |
| Balance at year end | 300 | 850 | 1100 | 1000 | 700 | 700 |

- Projected timing for retrofit project completion – YE2004. Schedule adjustment for a later completion may be incorporated if credit balance allows. Plans are also being considered to make some reductions as early as 2002.
- A sizable ongoing balance is projected to accommodate unplanned operations and turnaround impacts
- Alternative Compliance Plan will be submitted pursuant to Regulation 2-9.

Current Retrofit Implementation Schedule: To be reassessed in 2002

| | |
|---------------------------|-------------|
| A/C Application Submittal | 1Q03 (1) |
| Final Engineering | 4Q02 – 4Q03 |
| Contract Award | 4Q03 |
| Construction | 1Q04 – 4Q04 |
| Final Compliance | 4Q04 |

- (1) Per 9-10-401.2, submittal required at least 18 months prior to compliance requirement.
- (2) Balance does not include IERCs retired per the December 2000 agreement between the BAAQMD, Attorney General and Valero Refining Company

*7 pages constituting an ACP revision submitted by Valero in
November of 2001*

003915

ALTERNATE COMPLIANCE PLAN

REGULATION 2-9
REGULATION 9-10

Valero Benicia Refinery

November 2, 2001

Alternate Compliance Plan – Revised Phase II

In accordance with District Regulation 2-9, this revised Alternate Compliance Plan for Phase II is proposed for utilizing IERC credits, as generated and approved in accordance with Regulation 2-9, to assist in meeting compliance requirements of District Regulation 9-10 for the remaining affected units.

Regulation 9-10 requires that NOx emissions not exceed certain limits. The rule has been phased in over a two year period requiring that affected units representing 50% of the total heat input capacity be subject to the regulation effective July 1, 2000. The remaining affected units are to be in compliance by July 1, 2002. This ACP – Revised Phase II proposes utilizing IERC credits on a daily basis, if required, to meet these limitations for the remaining affected units at the Valero Benicia Asphalt Plant. The asphalt plant was acquired by Valero in June 2000. The affected units are being incorporated into the Refinery Alternate Compliance Plan.

To comply with the requirements of 2-9-303.4, records will be kept reflecting daily emission calculations. Attached are examples of the spreadsheets to be used beginning in July 2002. The initial spreadsheet has been expanded to include the additional sources being regulated. The tank heater (H-5) is exempt from Rule 9-10 because the rated heat input is less than 10 Mbtu/hr and the heater is fired exclusively with natural gas (9-10-110.1). The hot oil heater (H-3) has limited exemption under 9-10-111 for small units. Thus, the NOx emissions from these units is not included in the total NOx emissions.

As required by 2-9-502.3, quarterly reports will be submitted as described.

As required by 2-9-303.6 and 2-9-502.4, the required annual reconciliation report with IERC credits will be submitted within 30 days following the end of each ACP.

The Valero Refinery currently holds three approved IERC Certificates (1-A, 1-B, and 5-C) for a total credit of 290.8 tons of NOx. Attachment II of the June 9, 2000 letter addressing the NOx control plan for refinery heaters and boilers forecasts credit generation and usage through 2005. The required credits will be furnished from these certificates.

Addendum to Alternate Compliance Plan dated February 14, 2000

The purpose of this addendum is to clarify specific elements of the Alternate Compliance Plan and how they respond to the requirements as listed in Regulation 2-9.

Per 2-9-302 and 303, an ACP must satisfy the following:

302 "An IERC may only be used at the same facility in which the IERC is generated."

The IERC's proposed for use meet this criteria, as will future additional IERC's to be utilized .

302 "An IERC may only be used to comply with a NOx standard in Regulation 9, or a corresponding permit condition."

The ACP is for Regulation 9-10, thus complying with this requirement.

302 "IERC's must be in the operator's possession prior to exceeding the Regulation 9 standard."

The IERC's proposed for use meet this criteria, as will future additional IERC's to be utilized .

303.1 "Only IERC's that have been generated, approved, and banked in accordance with this rule may be used in an ACP."

The IERC's proposed for use meet this criteria, as will future additional IERC's to be utilized .

303.2 "NOx emissions from each source or group of sources (if grouping is allowed under the applicable emission standard) in the ACP, less IERC's applied, shall not exceed that amount or level of NOx emissions which would result if the affected source or sources complied with the applicable BARCT requirements of Regulation 9 on a daily basis."

The spread sheet included in the ACP illustrates that the total actual emissions from the group of sources covered by the standard in 9-10 will be calculated and the required IERC's will be listed for use to meet the standard. This will be done on a daily basis, as required.

303.3 "The ACP must be reviewed and approved by the APCO on an annual basis."

As noted in the ACP, an annual reconciliation report with IERC credits will be submitted within 30 days following the end of each ACP period to allow the APCO to perform the review and approval process. Additionally, as noted in the ACP, quarterly reports will be submitted.

303.4 "The ACP must include methods for demonstrating compliance on a daily basis, by listing:"

4.1 "All sources covered by the ACP;"

The ACP spreadsheet lists all sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet.

4.2 "Maximum firing rate (higher heating value) of each source;"

The ACP spreadsheet lists the maximum firing rate for the sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet.

4.3 "Type(s) of fuel and heat content (higher heating value) of each fuel combusted in each source;"

The ACP spreadsheet lists the fuel (Fuel Gas) and heat content for the sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet.

4.4 "NOx emission rate for each type of fuel combusted in each source;"

The ACP spreadsheet calculates and lists the emission rate for all sources covered by the ACP for the first two years. As noted, as additional sources are covered by Reg 9-10, they will be added to the spreadsheet. This calculation will be based on the NOx concentration (also listed) as measured by a continuous emission monitor meeting the requirements of the District Manual of Procedures and will utilize the following equation:

$$\text{Lb NOx / MMBtu} = (\text{NOx conc @ 3\% O}_2) \times 1.197\text{E-7} \times (\text{Fuel Gas F-Factor}) \times (20.9 / (20.9 - 3))$$

4.5 "A comparison of the actual nitrogen oxide emission rate and the nitrogen oxide emission rate that would be allowed under the applicable BARCT provision(s) of Regulation 9, in the absence of this rule, for each source, or group of sources (if grouping is allowed under the applicable emission standard),"

The ACP spreadsheet includes this comparison under the Total Emissions heading.

4.6 "Detailed calculation of the amount of IERC's required for BARCT compliance, in accordance with the procedure in Section 2-9-605;"

The ACP spreadsheet includes, in the last three columns, the calculation for determining the required IERC's. The actual calculation will be carried out on a daily basis in accordance with 2-9-605, including 10% additional IERC's and without providing "credits" for days when the standard is overachieved without IERC's.

ATTACHMENT II

Valero Benicia
NOx Compliance Plan for 2002+
Regulation 9 Rule 10

Projected NOx Credit Generation and Usage

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|--|------|------|------|------|------|------|
| Credits received from prior year's reduction | 340 | 600 | 600 | 400 | 200 | 200 |
| Credits consumed to meet 9-10 requirements | 40 | 50 | 350 | 500 | 500 | 200 |
| Balance at year end | 300 | 850 | 1100 | 1000 | 700 | 700 |

- Projected timing for retrofit project completion – YE2004. Schedule adjustment for a later completion may be incorporated if credit balance allows. Plans are also being considered to make some reductions as early as 2002.
- A sizable ongoing balance is projected to accommodate unplanned operations and turnaround impacts
- Alternative Compliance Plan will be submitted pursuant to Regulation 2-9.

Current Retrofit Implementation Schedule: To be reassessed in 2002

| | |
|---------------------------|-------------|
| A/C Application Submittal | 1Q03 (1) |
| Final Engineering | 4Q02 – 4Q03 |
| Contract Award | 4Q03 |
| Construction | 1Q04 – 4Q04 |
| Final Compliance | 4Q04 |

- (1) Per 9-10-401.2, submittal required at least 18 months prior to compliance requirement.
- (2) Balance does not include IERCs retired per the December 2000 agreement between the BAAQMD, Attorney General and Valero Refining Company

1 page submitted by Valero to the District, date unknown

ATTACHMENT II

Valero Benicia NOx Compliance Plan for 2002 + Regulation 9 Rule 10

Projected NOx Credit Generation and Usage

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 + |
|--|------|------|------|------|------|--------|
| Credits received from prior year's reduction | 340 | 570 | 1330 | 800 | 300 | 300 |
| Credits consumed to meet 9-10 requirements | 51 | 50 | 600 | 500 | 600 | 350 |
| Balance at year end | 289 | 809 | 1539 | 1839 | 1539 | 1489 |

- Projected timing for retrofit project completion - YE 2004. Schedule adjustment for later completion may be incorporated if credit balance allows. Plans are also being considered to make some reductions as early as 2002
- A sizable ongoing balance is projected to accommodate unplanned operations and Turnaround impacts.
- Alternative Compliance Plan submitted February 14, 2000. Alternative Compliance Plan - Phase II submitted August 21, 2001 with a revision to Phase II to incorporate the Benicia Asphalt Plant submitted on November 14, 2001.
- Banked NOx IERCs relinquished per the agreement between Valero and the Attorney General's office in the following amounts and by the following days: 100 ton, by July 1, 2002, 100 ton by July 1, 2004 and 50 ton by July 1, 2005.

Current Retrofit Implementation Schedule: To be reassessed in 2002

| | |
|---------------------------|---------------------|
| A/C Application Submittal | 1Q03 ⁽¹⁾ |
| Final Engineering | 4Q02 - 4Q03 |
| Contract Award | 4Q03 |
| Construction | 1Q01 - 4Q04 |
| Final Compliance | 4Q04 |