

December 1, 2003

Jerri Curry, Board Member  
**Sierra Club**  
P.O. Box 1304  
Benicia, CA 94510

Dear Mr. Curry:

Thank you for your comments dated August 6, 2003 on the Valero Asphalt Plant (Facility A0901, was B3193) initial Title V permit. This letter is the response to your comments.

**ALAMEDA COUNTY**

Roberta Cooper  
Scott Haggerty  
(Chairperson)  
Nate Miley  
Shelia Young

**CONTRA COSTA COUNTY**

Mark DeSaulnier  
Mark Ross  
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(Secretary)

**MARIN COUNTY**

Harold C. Brown, Jr.

**NAPA COUNTY**

Brad Wagenknecht

**SAN FRANCISCO COUNTY**

Willie Brown, Jr.  
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Jake McGoldrick

**SAN MATEO COUNTY**

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**SANTA CLARA COUNTY**

Liz Kniss  
Patrick Kwok  
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John F. Silva

**SONOMA COUNTY**

Tim Smith  
Pamela Torliatt

William C. Norton  
EXECUTIVE OFFICER/APCO

The letter contained many questions and a few comments. Most of the questions concerned issues that are beyond the jurisdiction of the District, much less the Title V permit. We cannot address these questions. This is not to say that the questions are not important or valid-only that the answers must be sought elsewhere. We will answer the questions that we can.

**Comment 1:**

The refinery should not be allowed to expand.

***Response to Comment 1:***

This proposal is for the initial Major Facility Review (Title V) issuance. It is not a proposal for an expansion. The proposed permit does incorporate some changes that were approved during the normal District pre-construction review process. These changes are shown in the draft because they are changes that occurred since the permit was originally drafted in June 2002. One of the changes that you correctly note is an increase of 7 MMbtu/hr at S19, Vacuum Heater.

**Comment 2:**

Sampling of the contents of Tanks S13, S59, and S63 should be more frequent than annually.

***Response to Comment 2:***

The materials stored in these tanks vary little. For tanks that may contain different products, we require sampling and vapor pressure measurements whenever the tank contents change. When the material does not vary, we have required annual sampling.

**Comment 3:**

The volume of slop oil recovered at S66 should be recorded weekly or daily, not monthly.

***Response to Comment 3:***

No argument in support of this suggestion was provided. No change has been made.

**Comment 4:**

Records of inspections and notifications concerning asphalt tank trucks should be transmitted directly to the State and District.

***Response to Comment 4:***

The inspection process ensures that a permit violation (loading into a leaking truck) does not occur. There is therefore no violation to report. The permit holder is required to retain the evidence showing that inspections occurred and that permit conditions were met. These documents are the basis for the operator's period compliance certification. Standard conditions in the permit require violations to be reported to the District within 10 days of discovery.

**Comment 5:**

Source tests at S20 and S21 should be performed more frequently than annually.

***Response to Comment 5:***

The comment did not provide an argument for imposing more frequent tests. No change has been made.

**Questions**

Many of your questions concerned current throughputs of various sources. A list of the sources and the most current throughputs is attached.

***Questions in Page 1, paragraph 2:***

Why will it be safe to expand the asphalt production procedures?

***Answer:***

The Title V permit does not authorize expanded asphalt production.

***Questions in Page 1, paragraph 2:***

What is the current S18 Crude Unit total throughput of feed oil as opposed to the 5,292,000 barrels total feed throughput proposed?

Why is there a time change from 365-consecutive day to 12-month period?

What is the current number of barrels produced in a day?

If there is a significant increase, what is the justification and how will be citizens of Benicia benefit?

***Answers:***

To answer the first and third questions, the *actual* recent throughput for the refinery is about 3.7 million barrels per year, or about 10,000 barrels per day. The 5,292,000 barrels per day and 18,000 barrels per year are *permitted* levels. The recordkeeping was changed from a 365-day basis to a 12-month basis because it is a more standard form of recordkeeping, and because summarizing records on a 365-day basis is onerous. There is no increase proposed in the crude oil throughput in this Title V permit.

**Questions in Page 2, paragraph 1:**

What is the purpose of the facility-wide combustion increase from 86.6 MMbtu/hr to 93.6 MMbtu/hr?

How will the citizens of Benicia benefit from the increase?

Does the City of Benicia have access to the PG&E natural gas flow meter readings?  
If not, why not?

**Answers:**

The facility has a limit on total combustion at the facility. In Application 7123, the facility requested an increase of 7 MMbtu/hr at S19, Vacuum Heater to improve asphalt processing. Since the increase at S19 was granted, the facility limit has been increased. The City of Benicia does not have access to the natural gas flow meter readings. The District has no information regarding benefits to Benicia.

**Questions in Page 2, paragraph 2:**

Why was the source test permit condition on page 135 changed from 33 MMbtu/hr to 40 MMbtu/hr?

**Answer:**

The condition was changed because the throughput for S19 was changed. See the previous answer for more information.

**Questions in Page 2, paragraph 3:**

On page 139, the word "flare" was changed to "thermal oxidizer."

**Answer:**

The thermal oxidizer is not new. The facility had mistakenly named the oxidizer a flare. The new name is merely a correction. Temperature monitoring to assure compliance with the limits is documented in Section VII of the permit.

**Questions in Page 2, paragraph 4:**

What safety protocols, procedures and measures are in place in these particularly vulnerable areas of the facility, and what strategic interventions are documented by the refinery for emergency situations, such as the several incidents that recently occurred on the refinery management's watch?

**Answer:**

This question is beyond the scope of the Title V permit.

**Questions in Page 2, paragraph 5:**

Why aren't the contents of Tanks S13, S59, and S63 sampled more frequently than annually?

**Answer:**

See response to Comment 2.

**Questions in Page 2, paragraph 6:**

What is the current output of tanks S13, S59, and S63?  
Is the refinery requesting an increase?

**Answer:**

The permitted throughput of these tanks is not being changed. If the throughput had changed, the permit condition would have shown the change in strikeout/underline format.

**Questions in Page 3, paragraph 1:**

What is the current throughput for sources S5-S8, S37, S38, S51-S53, S60-S62, and S65?  
What is the justification for any increase or decrease?

**Answer:** The permitted throughput of these tanks is not being changed. If the throughput had changed, the permit condition would have shown the change in strikeout/underline format.

**Questions in Page 3, paragraph 2:**

On Page 148, the Valero Refinery proposal places specific emphasis on "SHALL NOT BE stored in or transferred to any of the above tanks. (toxics)" needs further explanation. What is the background and basis for this emphasis?

**Answer:** This is a mistake. The lettering shall be changed to lower case.

**Questions in Page 3, paragraph 3:**

On page 153, in the Valero Refinery proposal, it appears the Mist Eliminator has been eliminated? Why and is it necessary to have a comparable replacement? If not, why?

**Answer:**

The mist eliminators have not been eliminated. The wording has been changed slightly to allow the sources to be abated by one mist eliminator or another.

**Questions in Page 3, paragraph 4:**

On page 155, the Valero Refinery proposal, VI. Permit Conditions, #87, why is the permittee allowed to record the volume of oil product and wastewater product to be measured and recorded on a monthly basis rather than on a daily or weekly basis?

**Answer:**

See Response to Comment 3.

**Questions in Page 3, paragraph 5:**

Number 89 on Page 155 refers to S22 Oil Water Separator Box 22 is "never operated again and is permanently retired from operation/service or is permanently dismantled...: Why is this language deleted from the proposal.

**Answer:**

The language was deleted because the source has been dismantled and the condition is now obsolete.

**Questions in Page 3, paragraph 6:**

On page 156, the Valero Refinery proposal, VI. Permit Conditions, III. Marine Operations conditions-S30, refers to a total of 12 ships per year at the wharf". In this an increase or decrease in number of ships.

**Answer:**

The number of ships has not changed. If it had, the permit condition would have shown the change in strikeout/underline format.

**Questions in Page 3, paragraph 7:**

On page 157, the Valero Refinery proposal, VI. Permit Conditions #7 refers to "the following organic liquids shall not be loaded onto vessels or barges at S30, Marine Loading Dock: gasoline, gasoline blending stocks, aviation gas, aviation fuel (JP-4 type), crude oil..." How are these products transported and what is the impact on the community, its citizens and the environment?

**Answer (in part):**

The facility ships such products through its truck and rail loading racks. The reason for the condition is that the facility does not have vapor recovery at the wharf. If the facility were to load the above organic liquids at the wharf, it would require vapor recovery pursuant to BAAAMD Regulation 8, Rule 44, Marine Vessel Loading Terminals. An assessment of the impacts of refinery activities is beyond the scope of Title V. You may wish to review the AB2588 risk assessment for this facility. Please contact the Toxics Section, Engineering Division, for information about reviewing this document.

**Questions in Page 3, paragraph 8:**

On page 157, #9, what are the protocols and procedures in how the Valero Refinery will safeguard the sulfur content of fuel oil used by vessels delivering raw material...types of liquids loaded into and out of any vessel? This information should be readily available to the public for review.

**Answer:**

The facility is responsible for supplying this information. One way is for the ship operator to provide documentation of the specifications of purchased fuel oil. If documentation is unavailable, the refinery can test a sample.

**Questions in Page 4, paragraph 1:**

Why are there no substantial concrete punitive restrictions by the permit holder for Asphalt Tank Truck Dome Inspection Program violations?

Are monetary fines, licenses revoked and or shutting down the trucking business by the BAAQMD in place?

Who enforces these requirements?

Why is document "available to the District by request" rather than the refinery being held responsible for transmitting these violations directly to the State?

What punitive measures are placed against the permit holder?

**Answers:**

See response to Comment 4.

**Questions in Page 4, paragraph 2:**

What are the current NOx emissions?  
What does cumulative increase mean?

**Answers:**

The refinery emits about 24 tons NOx per year. The definition of "cumulative increase" in the glossary of the permit is:

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

**Questions in Page 4, paragraph 3:**

On Page 159, VI. Permit Conditions, Condition #18786, For S68, Emergency Diesel-powered Firewater Pump, it appears that emergency conditions language has been eliminated? Why? What is the replacement language and procedures?

**Answer:** The conditions have been eliminated because they are equivalent to the citations of BAAQMD Regulation 9, Rule 8, in Section IV of the permit. The reason that these are standard conditions for non-Title V emergency engines is that non-Title V sources do not have permits with citations of all requirements so that lack is taken care of with permit conditions.

**Questions in Page 4, paragraph 4:**

On Page 160, Condition 20278, For Sources S69, Asphalt Additive Loading Bin and S70, Asphalt Additive Mixing Tank, #3, what happening to the term "monitoring."

**Answer:** The term was removed as a basis for the condition because the District has no general monitoring regulation to use as authority for that condition. BAAQMD 2-6-503, which is the monitoring provision in the Title V regulation, is sufficient basis for the condition.

**Questions in Page 4, paragraph 5:**

On page 164, VI. Permit Conditions. #6, what is the reason for the deviation from "...from the NOx Box up to a maximum of 20% from the established NOx Box..."  
Please explain fully.

**Answer:**

The refineries also commented on these conditions. The District has resolved that the conditions will not go into effect until they have been re-drafted. The commenter should comment on the new conditions, which will be proposed shortly and will be the subject of public comment.

**Questions in Page 4, paragraph 6:**

Why are source tests at S20 and S21, Steam Boilers, only required once per year?

**Answer:**

This testing is appropriate because the sources are extremely small.

In conclusion, the main concern in your letter seems to be that Valero Asphalt has embarked on a large expansion. Please be assured that this Title V permit is just the compilation of all of the applicable requirements that the facility has acquired to date. The District appreciates your comments and would be glad to answer additional questions. It may be more efficient for you to meet with the permit engineer to review the permit. If you would like to set up such a meeting, please call Brenda Cabral, Senior Air Quality Engineer, at (415) 749-4686.

Sincerely,

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Steve Hill,  
Acting Director, Engineering

BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
CRITERIA POLLUTANTS - ABATED  
CURRENT CALCULATION

Printed: DEC 4, 2003

Valero Benicia Asphalt Plant (P# 13193)

S#	SOURCE NAME	SOURCE CODE	DATE
1	Crude Storage Tank 1A		
	Crude oil	T54?2089	
	25400.0 thou gal/yr		12/31/99
2	Crude Tank 1B		
	Crude oil	T54?2089	
	45150.0 thou gal/yr		07/15/99
3	Gas Oil Storage Tank, TK-1C		
	Gas oil	T4432394	
	38950.0 thou gal/yr		12/01/97
4	Tank 10A		
	Crude oil	T54?2089	
	26027.7 thou gal/yr		09/23/99
5	Asphalt Storage Tank, TK-2A		
	Asphalt	T4412030	
	11060.0 thou gal/yr		12/31/99
6	Asphalt Storage Tank, TK-2B		
	Asphalt	T4412030	
	33240.0 thou gal/yr		12/31/99
7	Asphalt Storage Tank, TK-3		
	Asphalt	T4412030	
	4275.0 thou gal/yr		12/31/99
8	Asphalt Storage Tank, TK-4		
	Asphalt	T4412030	
	2570.0 thou gal/yr		12/31/99
9	Naphtha Storage Tank, TK-7		
	Naphtha	T64?2188	
	6380.0 thou gal/yr		12/31/99
12	Tank #6 - Wastewater Tank		
	Water/organics mixtu	T44??502	
	10000.0 thou gal/yr		06/01/97

13 Tank 8 - Kerosene Tank		
Kerosene	T44??159	
400.0 thou gal/yr		12/31/99
14 Loading Racks - Naphtha		
Naphtha	T9932188	
.0 thou gal/yr		12/31/02
15 Loading Racks - Gas Oil		
Kerosene	T9913159	
.0 thou gal/yr		12/31/02
Distillate oil	T9913315	
.0 thou gal/yr		12/31/02
Gas oil	T9913394	
3166.0 thou gal/yr		12/31/02
16 Loading Racks - Kerosene or Distillate Oil		
Kerosene	T9913159	
176.0 thou gal/yr		12/31/02
Distillate oil	T9913315	
.0 thou gal/yr		12/31/02
Gas oil	T9913394	
.0 thou gal/yr		12/31/02
17 Loading Racks - Asphalt		
Asphalt	T9913030	
45150.0 thou gal/yr		12/31/99
18 Crude Unit		
Crude oil	G5027089	
- 3685.0 thou barre/yr		12/31/01
19 Vacuum Heater		
Natural gas	C1540189	
2.47E+06 therms/yr		12/31/02
Refinery make gas (R)	C1540238	
26770.0 thou cu ft/yr		12/31/02
20 Steam Boiler		
Natural gas	C1140189	
703000.0 therms/yr		12/31/02
Distillate oil	C1140315	
.0 thou gal/yr		12/31/02
21 Steam Boiler H-2 B		
Natural gas	C1240189	
802000.0 therms/yr		12/31/02

23	Crude Tank 10B		
	Crude oil	T54?2089	
	45150.0 thou gal/yr	07/15/99	
24	Hot Oil Heater,H-3		
	Natural gas	C1550189	
	351000.0 therms/yr	12/31/02	
	Distillate oil	C1550315	
	.0 thou gal/yr	12/31/02	
25	Effluent Water Feed Tank, TK-11A		
	Oil/water mixture	T443?503	
	3800.0 thou gal/yr	12/31/99	
26	Skimmed Oil Tank, TK-13		
	Crude oil	T4H3?089	
	.0 thou gal/yr	12/31/02	
	Water/organics mixtu	T4H3?502	
	10420.0 thou gal/yr	12/31/02	
27	Recovered Oil Tank, TK-12		
	Crude oil	T421?089	
	116.0 thou gal/yr	12/31/99	
28	Effluent Water Feed Tank, TK-11B		
	Oil/water mixture	T443?503	
	853.0 thou gal/yr	12/31/00	
29	Naphtha Mercox Treater, 950 Bbls/Day, UOP		
	Naphtha	G5023188	
	-154285.0 barrels/yr	12/31/01	
30	Marine Loading Dock (Report ONLY loading ONTO vessels)		
	Fuel oil #2	TB911392	
	13515.0 thou gal/yr	12/31/99	
	Gas oil	TB911394	
	33340.0 thou gal/yr	12/31/99	
31	Car Asphalt Loading Rack, five Spots		
	Asphalt	TA911030	
	.0 thou gal/yr	12/31/02	
	Gas oil	TA911394	
	490.0 thou gal/yr	12/31/02	
34	Tank Heater,H-5		
	Natural gas	C4860189	
	169000.0 therms/yr	12/31/02	
37	Rubberized Asphalt Sales Tank,TK-54		
	Hydrocarbon - mixtur	T44??318	
	1705.0 thou gal/yr	12/31/99	

38 Rubberized Asphalt Sales Tank,TK-55  
Hydrocarbon - mixtur T44??318  
8840.0 thou gal/yr 12/31/99

39 Lube Oil Tank,Tk-503  
Hydrocarbon - mixtur T43??318  
180.0 thou gal/yr 12/31/95

40 Latex Storage Tank,Tk-504  
Hydrocarbon - mixtur T43??318  
13.0 thou gal/yr 12/31/95

41 Wemco Hydrocleaner  
Waste water - refin, G5017300  
- 271.0 thou barre/yr 12/31/01

51 Sales Tank - Asphalt Liquid, Tank 506  
Asphalt T44??030  
5880.0 thou gal/yr 12/31/99

52 Sales Tank - Asphalt Liquid  
Asphalt T44??030  
4130.0 thou gal/yr 12/31/99

53 Sales Tank - Asphalt Liquid  
Asphalt T44??030  
2550.0 thou gal/yr 12/31/99

54 Asphalt Loading Rack  
Asphalt T98?1030  
38700.0 thou gal/yr 12/31/00

59 Tank #5 - Gas oil Fixed Roof Storage Tank  
Gas oil T44??394  
10883.0 thou gal/yr 12/31/02

60 Asphalt Tank #505  
Asphalt T4H??030  
29820.0 thou gal/yr 12/31/99

61 Asphalt Tank 30A  
Organic liquid - oth T44??201  
1474.0 thou gal/yr 12/31/99

62 Asphalt Tank 30B  
Organic liquid - oth T44??201  
5600.0 thou gal/yr 12/31/99

## 63 Tank 31 KERO/LVGO/HVGO/Asphalt Tank

Asphalt	T44??030
.0 thou gal/yr	12/31/02
Kerosene	T44??159
.0 thou gal/yr	12/31/02
Distillate oil	T44??315
9130.0 thou gal/yr	12/31/02
Gas oil	T44??394
.0 thou gal/yr	12/31/02

## 65 Asphalt Tank, Tank 32

Asphalt	T64?2030
21000.0 thou gal/yr	01/01/00

## 66 Oil Water Separator

Water - process, oth	G5017427
- 11381.0 thou gallo/yr	12/31/01

## 67 Floc Tank 12B

Organic liquid - oth	T43??201
40.0 thou gal/yr	07/01/99

## 68 Diesel Engine, Cummins model N855F, emergency standby

Diesel fuel	C2350098
.0 thou gal/yr	03/15/02

## 69 Additive Loading Bin

Plastic - other/not	G7013224
2650.0 tons/yr	11/01/02

## 70 Asphalt Additive Mixing Tank

Asphalt	T43??030
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## -31 Fume Incinerator

Natural gas	C8350189
80000.0 therms/yr	12/31/02
Refinery make gas (R	C8350238
.0 thou cu ft/yr	12/31/02