

**San Joaquin Valley  
Unified Air Pollution Control District**

**Guidelines for Expedited Application Reviews (GEAR)  
Motor Vehicle Refueling Permit Processing Guidelines**

Approved by: _____ David Warner Director of Permit Services	Date : _____
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**Purpose:** To outline the procedures for expedited processing of Authority to Construct (ATC) applications for service stations and other motor vehicle refueling facilities. These procedures will apply to processing of applications over the counter or through the mail.

**I. Applicability**

- Gasoline dispensing for motor vehicles only;
- Facilities equipped with Phase I and Phase II vapor control systems;
- Underground tank systems.
- Aboveground tank systems.

**II. Permit Application and Supplemental Forms**

The applicant must complete a regular ATC application form and the Gasoline Dispensing Supplemental Form (Attachment I).

**III. Priority Processing**

The applications will be processed on an expedited basis if a complete application, a complete supplementary form, and an application filing fee for each facility are submitted.

In order to meet the expedited time frame, the engineer assigned for preliminary review will deem the application complete (if appropriate) and write the application review. The application review and Draft ATC will be submitted to the senior engineer or supervisor for review. Once the senior engineer or supervisor approves the application review and Draft ATC, the project will be finalized and the final ATC will be submitted to the senior engineer or supervisor for signature.

Final action on over-the-counter projects will occur within one hour after the submittal of the complete application. If all necessary items are provided through the mail, the application will be prioritized for issuance within one week.

The priority processing will be preempted if:

- The application is subject to any public noticing requirements, including school notice per CH&SC 42301.6 (within 1000 feet of a K-12 school), or
- The application is part of a stationary source project where issuance of the permit will affect the outcome of the stationary source project.

#### **IV. Application Review**

The following pages are a hard-copy version of this standard review. This hard-copy version for the GEAR Policy Manual includes a copy of the required supplemental application form (Attachment I), the up-to-date BACT analysis (Attachment II), the standard ATC conditions (Attachment III), and a simplified checklist (Attachment IV). These attachments will be referred to, but will not be included in the actual application review done for a specific application. The actual application review will only include the draft ATC conditions as attachment to the review. This will minimize the number of pages for the expedited application review.

To ensure 1-hour turnaround time for over-the-counter processing, the simplified checklist will be used. Once the completeness and accuracy of the application has been established with the checklist, the standard application review can be performed.

The use of this Application Review will ensure:

- A. That the proposed project complies with the Best Available Control Technology (BACT) requirement as specified in the District's current BACT Clearinghouse.
- B. That the proposed project will not trigger emission offset requirements.
- C. That the PTO has enforceable daily emission limitations (DELs).
- D. That the proposed vapor recovery systems comply with the applicable certification requirements and other applicable prohibitory rules.

The standard application review should be used at all times for applicable projects.

#### **V. Equipment Description**

The equipment description shall be no more than 250 characters long and shall specify the following:

- A. The quantity and the size of the tank(s).
- B. The number of dispensing nozzles and the number of fueling points.
- C. The type and the certification numbers (including alpha version) of the Phase I & Phase II vapor recovery systems. Do not list the manufacturer (OPW, Emco Wheaton, etc.) of the balance Phase II system if the generic certification is used (G-70-52-AM) for underground tanks or (G-70-102-E) for aboveground tanks. Other systems should list the specific executive order on the ATC.

D. For modifications, list the equipment in the final configuration as proposed for the modification preceded by the words “Modification of a gasoline dispensing operation with”. This will allow for easy implementation of the ATC.

To ensure uniformity, the following examples of a standard descriptions will be used in the database:

For Underground Storage Tanks:

MODIFICATION OF A GASOLINE DISPENSING OPERATION WITH TWO 10,000 GALLON AND ONE 12,000 GALLON SPLIT (6,000 GALLON GASOLINE/6,000 GALLON DIESEL) UNDERGROUND STORAGE TANK(S) SERVED BY CURRENT SYSTEM PHASE I VAPOR RECOVERY SYSTEM, (CURRENT EO), AND XX FUELING POINTS WITH XX GASOLINE DISPENSING NOZZLES SERVED BY CURRENT SYSTEM PHASE II VAPOR RECOVERY SYSTEM (CURRENT EO): UPGRADE PHASE II VAPOR RECOVERY SYSTEM FROM CURRENT SYSTEM (CURRENT EO) TO HEALY EVR INCLUDING VEEDER-ROOT ISD (VR-202-E)

For Aboveground Storage Tanks:

MODIFICATION OF A GASOLINE DISPENSING OPERATION WITH ONE 1,000 GALLON ENVIRO-VAULT ABOVEGROUND STORAGE TANK SERVED BY TWO-POINT PHASE I VAPOR RECOVERY SYSTEM, AND 1 FUELING POINT WITH 1 GASOLINE DISPENSING NOZZLE SERVED BY BALANCE PHASE II VAPOR RECOVERY SYSTEM (G-70-167): UPGRADE PHASE II VAPOR RECOVERY SYSTEM FROM BALANCE (G-70-167) TO HEALY MODEL 400 ORVR (G-70-187)

## **VI. Modification to Existing Permits**

An Authority to Construct is required prior to beginning a modification, when one of the following occurs:

- A. A component is being replaced with one that is not on the list of interchangeable parts pursuant to the CARB certification number cited on the permit. The use of interchangeable parts by different manufacturers, provided it is allowed by the certification, does not constitute a modification.
- B. Replacement of gasoline storage tanks.
- C. A different vapor recovery system (not covered under the current permit’s executive order) is being proposed; e.g., existing Balance Phase II System (G-70-52-AM) replaced by Healy Vacuum Assist Phase II System (VR-202-A) or existing Balance Phase II System (G-70-102-A) replaced by Healy Vacuum Assist Phase II System (G-70-187).
- D. Vapor return lines are modified (e.g., uncovered, extended, rerouted, moved).
- E. The number of dispensers or nozzles is modified (increased or decreased).
- F. The type (manufacturer or model) of dispenser is changed.

## VII. Offsets

Offsets are required when the VOC emissions from the stationary source operation exceed 20,000 pounds per year. The gasoline throughput which corresponds to that level of emissions is 19.36 million gallons per year, as shown by the calculation below:

The following emissions factors are derived from Appendix A - *Emission Factors For Gasoline Stations* of the Gasoline Service Station Industrywide Risk Assessment Guidelines dated December 1997, prepared by CAPCOA under the Air Toxic "Hot Spots" Program:

### For Underground Storage Tanks:

0.084	lb/1,000 gal	Tank filling loss (98%)
0.025	lb/1,000 gal	Breathing loss (U/G tank)
0.42	lb/1,000 gal	Vehicle fueling loss (95%)
<u>0.42</u>	<u>lb/1,000 gal</u>	<u>Spillage</u>
<b>0.949</b>	<b>lb/1,000 gal</b>	<b>Total VOC losses</b>

To operate without offsets, the maximum annual throughput is:

$$(20,000 \text{ lb/yr}) / (0.949 \text{ lb/1,000 gallons}) = 21.07 \text{ million gallons/yr}$$

### For Aboveground Storage Tanks:

0.42	lb/1,000 gal	Tank filling loss (95%)
0.053	lb/1,000 gal	Breathing loss (A/G tank)
0.42	lb/1,000 gal	Vehicle fueling loss (95%)
<u>0.42</u>	<u>lb/1,000 gal</u>	<u>Spillage</u>
<b>1.313</b>	<b>lb/1,000 gal</b>	<b>Total VOC losses</b>

To operate without offsets, the maximum annual throughput is:

$$(20,000 \text{ lb/yr}) / (1.313 \text{ lb/1,000 gallons}) = 15.23 \text{ million gallons/yr}$$

To determine if VOC offsets will be triggered for the facility, use the following calculation procedure:

### **Assumptions:**

1. Nozzles pump at 10 gal/min (from CARB executive orders).
2. Stations are designed to handle peak gasoline sales periods, so an estimated use factor of 50% is considered conservative.
3. If the time that a vehicle spends at a fueling station is 8 minutes, only about 2 minutes of that time is actually spent dispensing fuel (20 gallons @ 10 gal/min). Therefore, a utilization factor of 0.25 will be used for calculations.

4. Nozzle availability will vary according to dispenser configuration. However, only one nozzles may be used at any given time. Therefore, a more accurate way to estimate VOC emissions is to examine the number of fueling points available for each dispenser configuration. A fueling point is a discrete location near a fueling dispenser where the of fueling motor vehicles occurs. For modern fuel dispensers each side of the dispenser is a fueling point regardless of the number of gasoline dispensing nozzles on each side of the dispenser. A “six pack” dispenser has two fueling points and 6 nozzles and a “Unihose” dispenser and two fueling points and two nozzles.

VOC emissions from each fueling point (FP) are:

For Underground Storage Tanks:

$$(0.949 \text{ lb}/1000 \text{ gal})(1440 \text{ min}/\text{day})(10 \text{ gal}/\text{min})(0.25)(0.5) = 1.71 \text{ lb VOC}/\text{FP-day}$$

Maximum number of fueling points allowed (not triggering offsets):

$$\text{FP} = (20,000 \text{ lb-VOC}/\text{yr}) (\text{yr}/365 \text{ day}) (\text{FP-day}/1.71 \text{ lb-VOC}) = 32.0$$

Therefore, based on the above estimates, all facilities with 32 or fewer fueling points will emit under 20,000 pounds of VOC emissions per year.

Facilities with greater than 32 fueling points will be required to accept a condition limiting the annual throughput to 21.07 million gallons, or supply offsets. The gasoline dispensing supplemental application form includes the maximum annual facility throughput data under ADDITIONAL INFORMATION. For large facilities or facilities known to have unusually high throughput, double check to make sure the proposed annual throughput is not greater than 21.07 million gallons per year.

For Aboveground Storage Tanks:

$$(1.313 \text{ lb}/1000 \text{ gal})(1440 \text{ min}/\text{day})(10 \text{ gal}/\text{min})(0.25)(0.5) = 2.36 \text{ lb VOC}/\text{FP-day}$$

Maximum number of fueling points allowed (not triggering offsets):

$$\text{FP} = (20,000 \text{ lb-VOC}/\text{yr}) (\text{yr}/365 \text{ day}) (\text{FP-day}/2.36 \text{ lb-VOC}) = 23.2$$

Therefore, based on the above estimates, all facilities with 23 or fewer fueling points will emit under 20,000 pounds of VOC emissions per year.

Facilities with greater than 23 fueling points will be required to accept a condition limiting the annual throughput to 15.23 million gallons, or supply offsets. The gasoline dispensing supplemental application form includes the maximum annual facility throughput data under ADDITIONAL INFORMATION. For large facilities or facilities known to have unusually high throughput, double check to make sure the proposed annual throughput is not greater than 15.23 million gallons per year.

If offsetting is required, this expedited procedure does not apply.

## VIII. Public Notice

Per Rule 2201, subsection 5.4.1, public notice is required for a new major source or major modification. In addition, public notice is also triggered for an SSIPE greater than 100 lb VOC/day. Because the VOC emissions from motor vehicle refueling facilities will be limited to no greater than 20,000 lb-VOC/yr, the source will not be a major source nor a Major modification.

Maximum number of fueling points (FP) allowed (not triggering public notice):

For Underground Storage Tanks:

$$FP = (100 \text{ lb-VOC/day}) (FP\text{-day}/1.71 \text{ lb-VOC}) = 58.5$$

Therefore, all facilities with 58 or fewer fueling points will emit less than 100 lb-VOC/day, and public notice requirement will not be triggered. No motor vehicle refueling facilities in the District have 58 fueling points.

Another way to evaluate the public notice requirement is to estimate the maximum allowable gasoline daily throughput at any given facility.

$$\text{Max. Throughput} = (100 \text{ lb-VOC/day}) (1000 \text{ gal}/0.949 \text{ lb-VOC}) = 105,374 \text{ gal/day}$$

Therefore, all facilities with throughput of no greater than 105,374 gal/day will be exempt from the public notice requirement. For a typical commercial gasoline station (with three 10,000 gallon tanks), this translates to more than three tank turnovers per day for each storage tank, which is not expected to happen.

Commercial gas service stations have fewer than 58 fueling points and the maximum throughput is expected to be much lower than 105,374 gal/day. Therefore, public notice will not be triggered for motor vehicle refueling projects.

For Aboveground Storage Tanks:

$$FP = (100 \text{ lb-VOC/day}) (FP\text{-day}/2.36 \text{ lb-VOC}) = 42.4$$

Therefore, all facilities with 42 or fewer fueling points will emit less than 100 lb-VOC/day, and public notice requirement will not be triggered. No motor vehicle refueling facilities in the District have 42 fueling points.

Another way to evaluate the public notice requirement is to estimate the maximum allowable gasoline daily throughput at any given facility.

$$\text{Max. Throughput} = (100 \text{ lb-VOC/day}) (1000 \text{ gal}/1.313 \text{ lb-VOC}) = 76,161 \text{ gal/day}$$