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**Important Information:  
Aboveground Gasoline Storage Tanks  
Upcoming Phase I EVR Requirements**

On April 30, 2010, the California Air Resources Board (CARB) issued an advisory titled, "Enhanced Vapor Recovery System for Aboveground Storage Tanks". On February 28, 2014, CARB issued a 2<sup>nd</sup> advisory titled "Flexibility Provided to Owners and Operators of Aboveground Gasoline Storage Tanks". These advisories outline required Phase I EVR equipment upgrades to existing aboveground gasoline storage tanks (AST's) at gasoline dispensing facilities (GDF's). A copy of each CARB advisory is attached for your convenience.

**PHI EVR equipment upgrades for existing AST's  
are due on or before July 1, 2014**

**PLEASE NOTE:** Owners/operators of AST-equipped GDF's with a permitted throughput **greater than 18,000 gallons per year** as listed on the Ventura County Air Pollution Control District (District) Permit to Operate will be required to upgrade the current Phase 1 system to an EVR Phase I system.

**CARB-certified Phase I System**

Phase I EVR equipment upgrades will require the installation of CARB-certified equipment on applicable AST's. Current CARB-certified Phase I EVR systems for AST's are listed on CARB's Vapor Recovery Program page at:

<http://www.arb.ca.gov/vapor/eo.htm>

**Notification & Testing**

The District **must** be notified within 14 days of completing the Phase I EVR equipment upgrades. In addition, testing required per the applicable CARB Executive Order is required within 45 days of upgrade completion. District Enforcement personnel must be notified prior to testing.

**Permitting Requirements**

A Permit to Operate application for Phase I EVR equipment upgrades will be required at any AST-equipped GDF that lists a permitted throughput of greater than 60,000 gallons per year on their applicable District Permit to Operate. Subject operators must apply for, **and obtain**, a District permit **prior** to the installation or upgrade to a Phase I EVR system. A **new** aboveground gasoline tank, regardless of the throughput, requires a District permit prior to installation. For questions related to permitting, or to obtain permit application forms, please contact the District's Engineering Division at 805/645-1401.

CARB will determine upcoming Phase II EVR equipment upgrade requirements for AST's at a later date.

**Questions?**

If you have any questions, please contact Eric Wetherbee, Supervising Air Quality Specialist at (805) 645-1496.



## Flexibility Provided to Owners and Operators of Aboveground Gasoline Storage Tanks (AST) Subject to 2008 AST Vapor Recovery Regulation

In November 2014, the California Air Resources Board (ARB or Board) will consider amendments to Enhanced Vapor Recovery (EVR) requirements for aboveground storage tanks (ASTs) storing gasoline, with the goal of improving cost effectiveness of the regulation while preserving its air quality benefits. This advisory describes circumstances in which AST owners and operators may be able to avoid unnecessary expenses when it is not cost-effective to upgrade vapor recovery equipment on existing ASTs. **Owners/operators are encouraged to contact their local air district to determine applicable requirements for their AST, as current district rules may require the use of SLC, Phase I, and/or Phase II systems on ASTs.**

### Background:

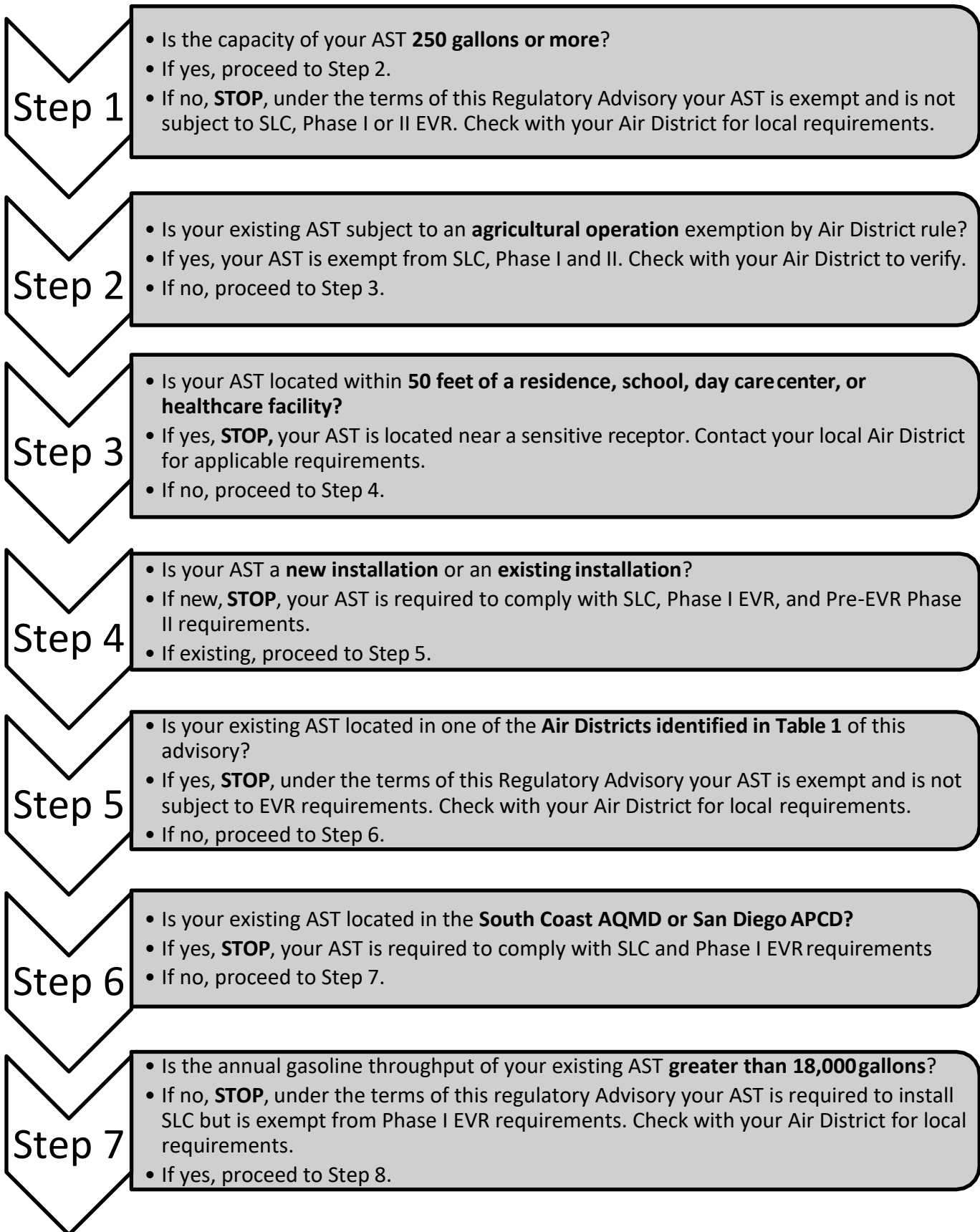
In 2008, the Board adopted statewide Enhanced Vapor Recovery (EVR) standards<sup>1</sup> to reduce air pollution from AST. Pursuant to provisions in Health and Safety Code section 41956.1 owners and operators of AST are required to install EVR equipment to reduce the emission of gasoline vapors caused by daily changes in ambient temperature and exposure to sunlight (Standing Loss Control, or SLC) as well as vapors that are emitted during the transfer of gasoline from the cargo tanker to the AST (Phase I) and then from the AST to the motor vehicle (Phase II). Under the statewide regulation, **new** AST have been required to have SLC equipment since April 1, 2009 and Phase I equipment since July 1, 2010. For **existing** AST located in state ozone non-attainment areas, SLC has been required since April 1, 2013 and Phase I equipment is required by July 1, 2014. Installation deadlines for Phase II equipment have not yet been established due to a lack of certified equipment.

Based on recent analysis, ARB has determined that in some situations the costs associated with implementation of Phase I equipment are higher than originally anticipated, particularly for AST with low gasoline throughput which are in many cases located in rural areas. To allow for more cost-effective implementation of AST EVR requirements, ARB staff will ask the Board at a public hearing scheduled for November 2014 to consider regulatory amendments that would exempt certain ASTs from compliance with SLC and Phase I requirements. In the interim, to ensure that owners/operators do not unnecessarily expend funds to upgrade ASTs that could ultimately be exempt under the amendments that ARB staff will be proposing, ARB will request the air districts to not enforce the July 1, 2014 compliance deadline for those AST owners/operators who may not be required to comply under the **9 STEP PROCESS** laid out in this Regulatory Advisory.

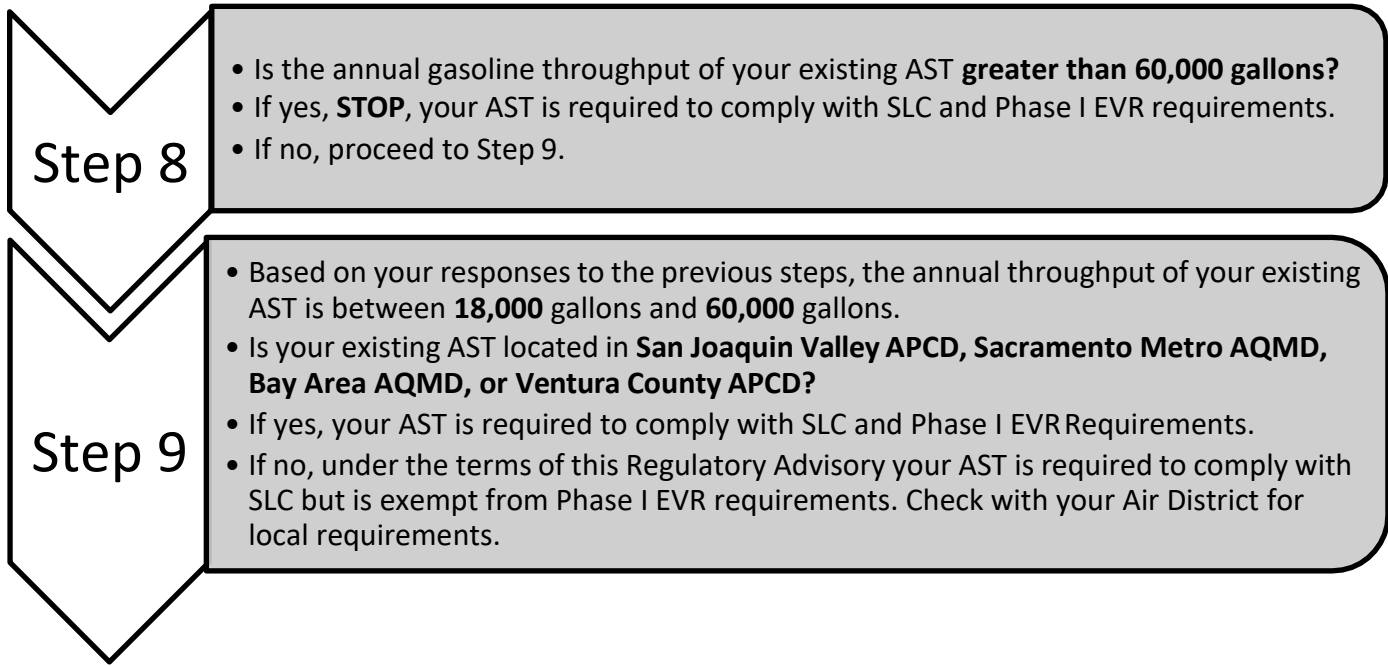
### Anticipated Regulatory Changes:

Please be advised that while ARB staff anticipates proposing amendments similar to this Regulatory Advisory at the Board's regularly scheduled November 2014 meeting, the changes will not be finalized until adopted by the Board. As such, the final scope and applicability of the amendments may change as ARB staff assesses the emission, risk, and economic impacts and conducts public workshops at various locations throughout the State. In the event that the final adopted amendments differ from those identified above, AST owners/operators will be provided additional time to come into compliance with the regulation. The compliance timeline will be specified in the adopted amendments.

<sup>1</sup> Title 17, California Code of Regulations, Section 94016



(9 STEP PROCESS Continued on Next Page)



**Table 1: Air Districts Which Are Exempted from EVR Requirements for AST:**

Air District <sup>2</sup>		
Amador County APCD	Colusa County APCD	Glenn County APCD
Great Basin Unified APCD	Lake County AQMD	Lassen County APCD
Mendocino County AQMD	Modoc County APCD	Monterey Bay Unified APCD
North Coast Unified AQMD	Northern Sierra AQMD	Northern Sonoma County APCD
Shasta County APCD	Siskiyou County APCD	
Tehama County APCD	Tuolumne County APCD	

**Contact Information:**

For further information about AST vapor recovery requirements, sensitive receptors, exemptions for agricultural operations, and how to calculate annual throughput, please contact your local Air District. Air District contact information is available at <http://www.arb.ca.gov/vapor/EVR%20District%20Contacts%202012.pdf>.

For further information about ARB’s Enhanced Vapor Recovery program for aboveground gasoline storage tanks, please visit <http://www.arb.ca.gov/vapor/vapor.htm> or call 916-327-0900.

<sup>2</sup> A map of California’s air districts is available at <http://www.arb.ca.gov/capcoa/dismap.htm>



Number 393

April 30, 2010

## **Enhanced Vapor Recovery System for Aboveground Storage Tanks**

The Air Resources Board (ARB), in 2008, adopted new enhanced vapor recovery (EVR) performance standards and specifications for aboveground storage tanks (AST). These new standards and specifications cover standing loss control, Phase I deliveries into ASTs and Phase II deliveries to motor vehicles. The purpose of this advisory is to explain the applications of these new AST performance standards and specifications.

### **What is an AST?**

An AST is a gasoline storage tank that is intended for fixed installations, without backfill, that is located above or below grade.

### **STANDING LOSS CONTROL**

#### **What is standing loss control?**

Standing loss control is the control of gasoline vapor emissions by reducing gasoline temperature which in turn reduces evaporation. Without standing loss controls, natural heating of the tanks by the sun causes the gasoline to volatilize and vent into the atmosphere. Application of certified paints or certified tank is a principal mechanism for standing loss control. A standing loss control system also includes a pressure/vacuum (P/V) vent valve.

#### **Who is subject to standing loss control?**

Air District rules determine which ASTs are subject to vapor recovery requirements such as standing loss control. Check with your air district to find out if your tank is affected. A list of district contacts can be found at: <http://www.arb.ca.gov/vapor/distcontapril09.pdf>. Note that ASTs storing diesel are not required to have vapor recovery systems.

#### **What is the compliance date for new installations?**

As of April 1, 2009, all new installations of ASTs are subject to standing loss control if vapor recovery control is required by district rule. Existing installations undergoing a major modification are considered new installations. For standing loss control only, a replacement of an existing tank with a tank of equal capacity is not considered a major modification.

### **What is compliance date for existing installations?**

All existing ASTs subject to vapor recovery must comply by April 1, 2013 by retrofitting with one of the systems listed in Executive Order (EO) VR-301.

### **What systems are certified for existing installations?**

For existing installations, application of any paint listed in VR-301 series and the installation of the Husky 5885 P/V valve will comply with the standing loss control requirement.

EO VR-301 series also lists a number of compliant tanks that do not need to be painted. As of April 1, 2010, EO VR-301 lists three tanks, ConVault's protected AST, Modern Custom Fabrication Inc's SuperVault MH series AST, and Steel Tank Institute's Fireguard protected AST, along with the Husky 5885 P/V valve. Existing ConVault, Fireguard and SuperVault MH will need to install the Husky 5885 P/V valve to comply (Note: SuperVault tanks manufactured by Trustco (EO G-70-132-B) are not included in EO VR-301 series). In the future, ARB staff expects to add other tank models, parts, and P/V valves that comply with the standing loss control.

### **What if my tank is not listed in EO VR-301?**

If the tank model is not listed in EO VR-301, compliance with the standing loss control can be achieved by application of any paint listed in EO VR-301 and installing a Husky 5885 P/V valve.

### **What systems are certified for new installations?**

As April 1, 2010, only the ConVault, SuperVault MH Series AST, or a Fireguard protected AST with the Husky 5885 P/V valve are certified for new installations. ARB staff expects to add other tanks and P/V valve in the future.

## **PHASE I VAPOR RECOVERY**

### **Who is subject to Phase I?**

See response to question on who is subject to standing loss control.

### **What are the Phase I requirements before July 1, 2010?**

Before July 1, 2010, the Phase I vapor recovery requirements for the three certified standing loss control tanks, ConVault, Supervault, and Fireguard are found in EOs G-70-116-F, G-70-132-B, and G-70-162-A, respectively. These EOs can be downloaded from the following websites:

1. ConVault <http://www.arb.ca.gov/vapor/above/g70116f.pdf>
2. SuperVault <http://www.arb.ca.gov/vapor/above/g70132b.pdf>
3. Fireguard <http://www.arb.ca.gov/vapor/above/g70162a.htm>

The ConVault, Fireguard, and Supervault tanks are certified (pre-July 1, 2010) with a Phase I two-point vapor recovery components. Until July 1, 2010, these tanks will be certified with the Phase I system specified under the pre-EVR EOs.

### **What are the Phase I requirements on or after July 1, 2010?**

On or after July 1, 2010, new installation must install Phase I equipment that complies with the new EVR performance standards or specifications AST. Existing installations that have undergone modifications on or after July 1, 2010, are considered new installations.

All existing installations will be required to install Phase I EVR equipment for AST by July 1, 2014.

### **What Phase I EVR systems are certified?**

As of April 1, 2010, only OPW has a Phase I system certified under EO VR-401-A for single-wall AST applications. New EOs detailing additional certified Phase I systems will be released in the future.

## **PHASE II VAPOR RECOVERY**

### **Who is subject to Phase II?**

See response to question on who is subject to standing loss control.

### **What are the Phase II requirements before January 1, 2012?**

Before January 1, 2012, the Phase II vapor recovery requirements for the three certified standing loss control tanks, ConVault, Supervault, and Fireguard are found in EOs G-70-116-F, G-70-162-A, and G-40-132-B. These EOs can be downloaded from the websites listed in the response to the previous question, "What are the Phase I requirements before July 1, 2010?"

The ConVault, Supervault, and Fireguard tanks are certified (pre-2012) with pre-EVR Phase II balance vapor recovery components. As additional tanks are certified for standing loss control, the EOs will be added to the ARB website. Until January 1, 2012, these tanks will be certified with the Phase II system specified under the pre-EVR EOs.

### **What are the Phase II requirements on or after January 1, 2012?**

On or after January 1, 2012, Phase II equipment meeting the new EVR performance standards or specifications must be installed on new installations. Existing installations that have undergone modifications on or after January 1, 2012 are considered as new systems.

All existing installations must install Phase II EVR equipment by January 1, 2016.

### **What Phase II systems are certified?**

As of April 1, 2010, there are no Phase II EVR systems certified.

### **What are the requirements for pre-EVR balance system?**

Operators of Phase II pre-EVR balance systems are required to install as replacement parts any hanging hardware components (nozzles, breakaways, hoses, and swivel) that are certified to EVR standards and are determined to be compatible with pre-EVR balance systems. ARB staff determined that Phase II balance EVR hanging hardware components are compatible with Phase II pre-EVR balance system. These determinations were made by issuance of the following approval letters:

1. Approval Letter 07-09 to Vapor System Technologies (VST) for VST hanging hardware
2. Approval Letter 07-03 to Goodyear for Goodyear hoses
3. Approval Letter 09-10 to Emco Wheaton Retail for EMCO hanging hardware

Advisory 408<sup>1</sup> explains the replacement part requirement in more detail and lists the Phase II EVR hanging hardware that are found to be compatible with Pre-EVR balance system. Advisory 408 can be found at <http://www.arb.ca.gov/vapor/advisories/adv408.pdf>.

### **E85 for ASTs**

#### **Does Executive Order VR-301 or VR-302 apply to storage and dispensing of E85?**

No

#### **What if I want to dispense E85?**

AST operators, subject to vapor recovery requirements, who wish to dispense E85 will need to submit a letter requesting approval as a research and development test site. The letter should include the address of the site and list of uncertified vapor recovery components that would be installed.

### **QUESTIONS**

#### **Who should I call for questions?**

1. Questions regarding this advisory, contact the following:
  - Lou Dinkler at (916) 324-9487 or [ldinkler@arb.ca.gov](mailto:ldinkler@arb.ca.gov)

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<sup>1</sup> Please note that the Phase I and II AST compliance deadlines listed in Advisory 408 are incorrect. The correct deadlines are stated in this Advisory



- Sam Vogt at (916) 322-8922 or [svogt@arb.ca.gov](mailto:svogt@arb.ca.gov)
- Donielle Jackson at (916) 445-9308 or [dliackso@arb.ca.gov](mailto:dliackso@arb.ca.gov)

2. Questions regarding E85, contact the following

- Lou Dinkler at (916) 324-9487 or [ldinkler@arb.ca.gov](mailto:ldinkler@arb.ca.gov)
- Mark Watkins at (916) 650-0594 or [mwatkins@arb.ca.gov](mailto:mwatkins@arb.ca.gov)

3. Questions about ARB's Vapor Recovery program, please visit our website at <http://www.arb.ca.gov/vapor/vapor.htm> or contact ARB's Engineering and Certification Branch at (916) 327-0900.