

Number 405-D

September 28, 2016

This Advisory has been jointly developed by the Air Resources Board (ARB) and the California Air Pollution Control Officers Association (CAPCOA). The primary objective of this advisory is to consolidate and specify the proper responses to In-Station Diagnostic (ISD) alarms. The secondary objective is to retain relief from wintertime overpressure alarms which was previously provided to operators of gasoline dispensing facilities (GDF) in Advisory 405 and subsequent updates to Advisory 405.¹ **The responses outlined in Section II and III below are required of GDF operators seeking to make use of the relief provided by this advisory.**

This Advisory supersedes all prior recommendations on responses to ISD alarms and will remain in effect until formally rescinded by ARB.

I. INTRODUCTION

Over the last decade, ARB and CAPCOA have jointly issued a series of documents that provide recommendations on how to respond to warning alarms and failure alarms triggered by ISD systems installed at gasoline dispensing facilities (GDF) equipped with underground storage tanks (UST) and Phase II Enhanced Vapor Recovery systems. In recent years, there have been occurrences of wintertime ISD overpressure alarms and transient collection alarms that may not be attributed to vapor recovery equipment problems and thus cannot be corrected by trouble shooting and repair. ARB issued, with input from CAPCOA, several "405 Advisories" to address how GDF operators should respond to these types of alarms. This Advisory describes the proper responses to ISD alarms in a clear and concise manner.

II. RESPONSES TO ISD ALARMS

ISD systems are designed to continuously monitor the performance of the vapor recovery system and to alert the GDF operator when equipment problems are detected so that corrective action can be taken in a timely fashion. When problems are detected, ISD systems record the event and issue a **warning alarm**. If corrective action is not taken and the problem is allowed to persist, ISD systems trigger a **failure alarm** and shut down² dispensing operations.

¹ This advisory has been developed to implement and effectuate the intent of the vapor recovery statutes, regulations, and certification procedures. This advisory also maintains consistency with the ISD enforcement policy developed by ARB and CAPCOA and ultimately memorialized in ARB's June 27, 2006 letter to the California Independent Oil Marketers Association (CIOMA) regarding the Recommended ISD Enforcement Policy During 18-Month Evaluation. Available at <http://www.arb.ca.gov/vapor/archive/2006/isdenforcementpolicy.pdf>.

² ARB's vapor recovery regulations (CP-201) require shut down of gasoline dispensing operations if specific ISD failure alarm conditions are triggered. To accomplish this, the ISD system may be configured to control the gasoline UST submersible turbine pump or individual gasoline dispensers. For vapor collection failure alarms, ISD systems can be configured in a manner that shuts down an individual dispenser, rather than the submersible turbine pump (which effectively shuts down the entire fueling operation). Failure alarms associated with leak integrity, overpressure, and vapor processor require shut down of gasoline dispensing for the entire facility.

The following steps are to be followed when responding to an ISD warning alarm unless stated otherwise in Section III of this advisory or specifically required by local air district permit conditions:

- a. The facility attendant shall notify (e.g., direct contact, voicemail, text, e-mail, fax) the responsible company official or their designee within 2 hours of the posting of the ISD warning alarm.
- b. The responsible company official may decide whether or not to request service to investigate the problem, knowing the ISD system will shut down fueling operations if the problem persists. Only persons identified as authorized by the applicable ARB Executive Orders or air district permit shall be allowed to make vapor recovery or ISD system repairs.
- c. If the ISD **warning alarm** has self-cleared (transient alarm), the official or designee need not request for service or may cancel a service call.
- d. If service is requested in response to an alarm, the ISD **warning alarm** cannot be cleared unless one of the steps described in step f, g or h below has been completed. Warning alarms will be self-cleared by the ISD during the next ISD assessment if the condition causing the alarm no longer exists.
- e. All information relating to the alarm event and reporting shall be promptly recorded on an air district-approved form, maintained at the GDF, and made available to the Executive Officer/Air Pollution Control Officer or their designee upon request.

When a warning alarm condition persists, the ISD system activates a **failure alarm** and gasoline dispensing is terminated. When an ISD warning or failure alarm occurs, the ISD system must NOT be reset to allow vehicle fueling to resume unless one of the following steps are completed:

- f. All required repairs and applicable tests and procedures have been successfully completed according to conditions imposed on the permit issued by the local air district. Information associated with the repairs including required tests or procedures must be recorded on an air district-approved form that must be maintained at the GDF and made available to the Executive Officer/Air Pollution Control Officer or their designee upon request; or
- g. The fueling point(s) associated with the problem that activated the failure alarm is/are isolated, removed from service and not operated until the required repairs and applicable tests and procedures have been successfully completed according to conditions imposed on the permit issued by the local air district. Information associated with the repairs including required tests or procedures must be recorded on an air district-approved form that must be maintained at the GDF and made available to the Executive Officer/Air Pollution Control Officer or their designee upon request; or
- h. A Conditional Order of Abatement or other administrative relief is obtained from the air district allowing gasoline dispensing to resume before the required repairs are completed.

III. EXCEPTION TO RESPONSES TO ISD ALARMS DUE TO WINTER OVERPRESSURE CONDITIONS

From November 1 to March 31 (winter fuel season), **overpressure warning or overpressure failure** alarms listed in the attached Table 1 may be cleared without any repair or tests so long as

doing so accords with local district policy. Clearing alarms not listed in Table 1 without required testing and/or repair is a violation of permit conditions and is subject to enforcement action.

IV. CONTACT INFORMATION

If you have questions regarding this advisory, please contact your local air district (list of air district contacts is available at: <https://ww2.arb.ca.gov/air-pollution-control-districts>) or ARB vapor recovery program staff at (916) 327-0900. Additional information is available at ARB's vapor recovery program webpage at: <https://ww2.arb.ca.gov/our-work/programs/vapor-recovery>.

Table 1: ISD Overpressure Alarms Which Do Not Require Service Provider Response, Troubleshooting, and Repair from November 1- March 31 (Winter Fuel)

Phase II EVR System Description	Vapor Processor Description	ISD System Description	Message Displayed via ISD Console or Manual Print Out
Assist System Per ARB <u>Executive Order VR-202</u>	Franklin Fueling System Clean Air Separator (CAS)	INCON	Weekly Ullage Pressure W Weekly Ullage Pressure F Monthly Ullage Pressure Monthly Ullage Pressure
		Veeder-Root	ISD GROSS PRESSURE WARN ISD GROSS PRESSURE FAIL ISD DEGRD PRESSURE WARN ISD DEGRD PRESSURE FAIL
Balance System Per ARB <u>Executive Order VR- 204</u>	VST ECS Veeder-Root Vapor Polisher	Veeder Root	ISD GROSS PRESSURE WARN ISD GROSS PRESSURE FAIL ISD DEGRD PRESSURE WARN ISD DEGRD PRESSURE FAIL ISD VP PRESSURE WARN ISD VP PRESSURE FAIL
	VST Green Machine Franklin Fueling System Clean Air Separator (CAS)		ISD GROSS PRESSURE WARN ISD GROSS PRESSURE FAIL ISD DEGRD PRESSURE WARN ISD DEGRD PRESSURE FAIL
	Franklin Fueling System Clean Air Separator (CAS)	INCON	Weekly Ullage Pressure W Weekly Ullage Pressure F Monthly Ullage Pressure Monthly Ullage Pressure
	Hirt VCS 100	INCON	Weekly Ullage Pressure W Weekly Ullage Pressure F Monthly Ullage Pressure Monthly Ullage Pressure

NOTE: The INCON ISD “**Weekly Ullage Pressure Leak Test Warning**” and the INCON ISD “**Weekly Ullage Pressure Leak Test Failure**” are not listed in Table 1. These alarms require a response by a certified contractor and should not be reset by the GDF operator.