

**SAN JOAQUIN VALLEY UNIFIED  
AIR POLLUTION CONTROL DISTRICT  
COMPLIANCE DEPARTMENT**

**COM 2230**

**APPROVED:** \_\_\_\_\_ **SIGNED** \_\_\_\_\_ **DATE:** February 8, 2007  
**Jon Adams**  
**Director of Compliance**

**TITLE:** **RULE 4624 - ORGANIC LIQUID LOADING**

**SUBJECT:** **GUIDELINES FOR INSPECTING FACILITIES THAT LOAD ORGANIC LIQUIDS**

**OBJECTIVE:**

Establish a policy on the procedures for inspecting and determining compliance at an organic liquid loading facility.

**PURPOSE:**

Rule 4624 applies to facilities that load 4000 gallons, or more, of organic liquid per day. Organic liquid is defined as any liquid that contains volatile organic compounds (VOC)s and has a true vapor pressure (TVP) greater than 1.5 psia at actual loading conditions. This Rule does not apply to gasoline bulk plants subject to the requirements of Rule 4621 or Gasoline Dispensing Facilities subject to the requirements of Rule 4622.

**POLICY STATEMENT:**

The District will enforce the applicable standards pertaining to the loading of organic liquids and Rule 4624. The failure to comply with these standards is a violation subject to enforcement action.

## **DEFINITIONS:**

**PRODUCT:** Including, but not limited to propane, butane, iso-butane, natural gasoline liquids

**ISLAND:** Within the loading facility, a station, dispensing unit, or place where the truck pulls up to attach the hose and load product.

**BULLET TANK:** Common name for a storage tank that holds the product under pressure.

## **PRE INSPECTION PREPARATION:**

1. **SAFETY GEAR:** Nomex suit, safety goggles, sturdy leather shoes, gloves, hard hat. Additional gear can include ear plugs, monitoring devices such as H<sub>2</sub>S monitors, and any other gear the facility requires.
2. **EQUIPMENT:** Hydrocarbon detector that meets the requirements of Method 21, funnel, graduated cylinder, stopwatch, sample container (if samples are to be sent to the lab), Please be aware that the liquid will expand with force in the sample container and any container must be able to withstand the pressure.
3. **PERMIT REVIEW:** Most organic liquid loading facilities are permitted by the District, read and familiarize yourself with the permit conditions.
4. **PAST COMPLIANCE REVIEW:** Review past District inspection reports. Review any past Notice of Violation reports. This will acquaint you with any past problems that need to be checked in the subsequent inspection.
5. **RULE REVIEW:** Review and familiarize yourself with Rule 4624.

## **INSPECTION GUIDELINES:**

Inspectors shall enter the office and introduce themselves and give the reason for their visit.

Note: Due to safety concerns, inspectors shall not enter the loading facility area until they are given clearance from the facility representatives. At some locations, inspectors and visitors will be required to go through safety training before entering the facility.

Once entering the facility, inspectors have three goals.

1. To utilize the hydrocarbon analyzer to detect hydrocarbon emissions from the various pipes, pumps, hoses, valves, and other components associated with the loading rack and the liquid loading process.
2. To observe truck disconnects and quantify any liquid spillage using the funnel and graduated cylinder. Also look for liquid leaks from the various pipes, pumps, hoses, valves, and other components associated with the loading rack and the liquid loading process.
3. To check for applicable permits that may be required for the loading-rack, and storage tanks.

## **VIOLATIONS:**

1. Any leak in excess of 10,000ppm above background of methane when measured at a distance of one centimeter of the potential source.
2. Any liquid leak at a rate of more than three (3) drops per minute.
3. More than 10 milliliters liquid drainage at truck disconnect. Such liquid drainage for disconnect operation shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit.
4. Installing and/or operating any equipment, that requires a permit, without a permit to operate.
5. For **gasoline loading**, per ARB TP-204, Testing Procedure for Vapor Recovery Systems of Cargo Tanks, a cargo tank shall not be required to comply with any leak criteria or performance standards except those that relate directly to the cargo tank. Therefore, a leak discovered on a cargo truck, and any coupling that was brought into the facility, is subject to the leak criteria of TP-204 and will result in a violation for the trucking company and not the facility. The NOV will be issued citing a violation of CH&S Code 41962. However, the testing procedures for TP-204 need to be followed. TP-204 should be read prior to inspecting a gasoline loading rack or terminal.

## **INSPECTION PROCEDURES:**

Before entering into the loading area, the inspector shall converse with the facility representative and ascertain if the facility is a Class 1 or Class 2 Organic Liquid Loading Facility. A Class 1 facility loads 20,000 gallons or more organic liquid per day. A Class 2 facility loads 4,000 gallons or more per day, but not more than 20,000 gallons per day. If the facility has never loaded more than 4,000 gallons per day, then it is exempt from the requirements of the Rule. Class 1 facilities shall be equipped with bottom loading and a vapor collection and control system such that the emissions of VOCs does not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded. Class 2 facilities shall be equipped with a system to prevent the release to the atmosphere of at least 95 % by weight of the VOCs displaced during the loading of tanks, trailers, or railroad cars.

The inspector shall also learn the different products handled at the facility and their respective TVPs.

As the inspector approaches the loading facility, he/she should look for any trucks in the process of loading. Sometimes trucks arrive infrequently, so any chance to witness and inspect the truck loading process should be taken promptly. The inspector shall introduce

himself/herself to the driver and explain the inspection process. Ask the driver if there are any safety concerns that he/she needs to be aware of. At this point, inspector judgment shall be used. If the inspector witnesses a lot of trucks entering the facility, he/she can check several different truck disconnects to get the three consecutive disconnects, or the inspector can have the same truck connect and disconnect three times. The truck shall have product flowing into it before each disconnect.

The inspector shall don gloves (other safety gear should already be on before entering the facility), and take position close to the hose connected to the truck. The funnel shall be ready to funnel any liquid into the graduated cylinder, or sampling container. Be aware that this liquid will evaporate very rapidly. Any measurements must be taken immediately, or the sample container must be sealed promptly. Inform the driver that you are ready and standby to capture any liquid that may spill upon disconnect.

If no trucks are present within the facility, or a truck has just begun to fill and will take considerable time to fill, then the inspector can begin the vapor leak inspection. Utilizing the hydrocarbon analyzer, the inspector shall check the hoses, valves, pipes, and other components associated with the loading process. The loading process starts at the pumps that bring the product from the storage tanks to the loading rack. Any pipes, or components upstream of the pump are not included in the loading process for purposes of inspections of Rule 4624. The loading process also includes any vapor return lines up to the point of contact with the storage tank, or other method of disposal or recycling. Remember that for a leak to be identified as a violation, the sampling must be conducted one centimeter away from the potential source. Some pipes may be buried, or at an elevation out of reach of the inspector. In these cases, the permit may establish an inspection guideline for these sources.

While performing the vapor leak inspection, the inspector shall visually check the process for liquid leaks. If a leak is detected, the inspector shall observe the leak for one minute, using the stopwatch. The inspector shall count the number of drops per each minute. This procedure can be repeated at the same potential leak site if need be.