

San Joaquin Valley Air Pollution Control District  
**Bulk Plant Leak Inspection Form**  
 Semi-Annual<sup>1</sup>      Quarterly<sup>2</sup>

Facility: \_\_\_\_\_ Address: \_\_\_\_\_ Inspection Date: \_\_\_\_\_

**Inspections on active loading racks must be done during product transfer. Inactive loading racks must be inspected as part of the tank/vapor containment system. Please make note of inactive/unused loading racks in the Comment section below.**

Directions: Tally each component inspected. Record any leaks in the right-hand portion of the table.

Liquid Leak is more than three (3) drops per minute

Vapor Leak is more than 10,000 parts per million by volume (ppmv) as methane

Pump	Loading Arm	Dry Break	Swing Joint	Pressure Relief Device	Hatch	Flange	Valve	Threaded Connection	Other	Leak #	Location	Concentration (drops/min or ppmv)	Repair Date
										1			
										2			
										3			
										4			
										5			
										6			

Check here if no leaks were detected  
 Excess liquid drainage<sup>3</sup>? Y / N

Analyzer Brand: \_\_\_\_\_ S/N: \_\_\_\_\_ Calibration Gas: \_\_\_\_\_  
 Model: \_\_\_\_\_ Cal. Date: \_\_\_\_\_ Cal.Gas. Concentration (ppmv): \_\_\_\_\_

Inspection Results and Comments– describe any problem found and the repairs made, including repair date(s):

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\_\_\_\_\_  
 Name of Person Performing Inspection

\_\_\_\_\_  
 Signature

<sup>1</sup> Leak self-inspections are required twice a year. One must be performed between January 1 and June 30 and the other between July 1 and December 31 and consecutive inspections must be conducted between 4 and 8 months apart, unless they are being done quarterly.

<sup>2</sup> Quarterly inspections are required any time a leak is found, after 5 consecutive quarterly inspections with no leaks, semi-annual inspections may be resumed

<sup>3</sup> Excess liquid drainage = more than 10 mL of drainage at disconnect of transfer hoses (as determined by the average of three disconnects)

## Instructions for Performing Bulk Plant Self-inspections

Leak detection shall be conducted according to EPA Method 21 using an appropriate portable hydrocarbon detection instrument calibrated with methane.

### EPA Method 21

#### Instrument Specifications:

The VOC monitoring device shall meet the following specifications:

- Shall respond to VOCs
- Capable of measuring in the units specified in the leak definition (10,000 ppmv)
- Scale shall be readable to  $\pm 250$  ppmv
- Equipped with an electrically driven pump to ensure a constant sample flow rate
- Intrinsically safe for Class 1, Division 1 conditions and/or Class 2, Division 1 conditions
- Response time of less than or equal to 30 sec

#### Calibration of Instrument:

- Performed in accordance with Method 21 or manufacturer's instruction **30 days** (or less) prior to its use.
- Operator shall record and maintain records of the calibration date of the hydrocarbon detector.

#### Inspection Procedure: (See Method 21, Sections 8.3.1 and 8.3.2 for details)

The probe inlet shall be placed **at the surface of the component interface** where a leakage could occur. If an increased meter reading is observed, slowly sample the interface until the maximum meter reading is obtained. Leave the probe at the maximum reading location for approximately two times the response time (60 sec or less).

For moving components, such as a rotating shaft, place the probe inlet within 1 cm of the interface. For pressure relief devices equipped with an enclosed extension, place the probe inlet at the center of the exhaust area.

Inspect all flanges, unions, threaded connections, access hatches, P/V vents, hose connections, dry break, swing joints, valves, or any other potential leak source.

#### Upon Detection of a Leak:

- Inspection frequency must be increased to quarterly. The frequency may return to semi-annual (one inspection per 6-month period) until 5 consecutive quarterly inspections are conducted without the detection of a leak.
- A weatherproof tag shall be affixed to the component stating the date and time of leak detection and leak concentration in ppmv
- The tag shall not be removed until the leak is repaired
- The leak shall be repaired within seven (7) *business* days. If a component cannot be repaired within 7 business days, it shall be removed from service.

Before returning a leaking component to service (and removing the tag) the component must be re-inspected using Method 21.