State of Maine
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Safe Suction Piping Validation

Certified Tank Installers and Inspectors may use this form to validate that one or more piping runs (a piping run is defined as a single, unbranched pipe line between one tank and one suction pump) meets the requirements to be classified as safe suction piping. Each piping run must be evaluated separately. The requirements for safe suction piping are:

- Piping operates at less than atmospheric pressure
- Piping slopes towards the UST so product drains to the UST if suction is lost
- Piping has only one check valve
- The check valve is located directly below and as close as practical to the suction pump

Ways to determine proper slope for each piping run:

Cracking the fitting at the dispenser and hearing the hiss as the product flows back to the tank.

or

Determining the slope toward the tank is at least 1/8 inch per foot, over the piping length, calculated from:

a. Engineering as-built drawings showing elevation change at the piping ends, and piping length; or
b. Elevation change from the elbow under the dispenser to the elbow at tank top, and piping length; or
c. Elevation measurements from the pavement at the dispenser to the spill bucket, and piping length. If the calculated slope is close to 1/8 inch per foot, the Department may require additional investigations.

Calculating the slope (Refer to Figure 1). Slope [S] may be determined by taking the change in elevation [E] **([E] = ELEV A – ELEV B)** and dividing by the length of the piping run [L]. The result must be greater than or equal to 0.125 inches (⅛") per foot of piping length [S = E ÷ L ≥ 0.125 in/ft].

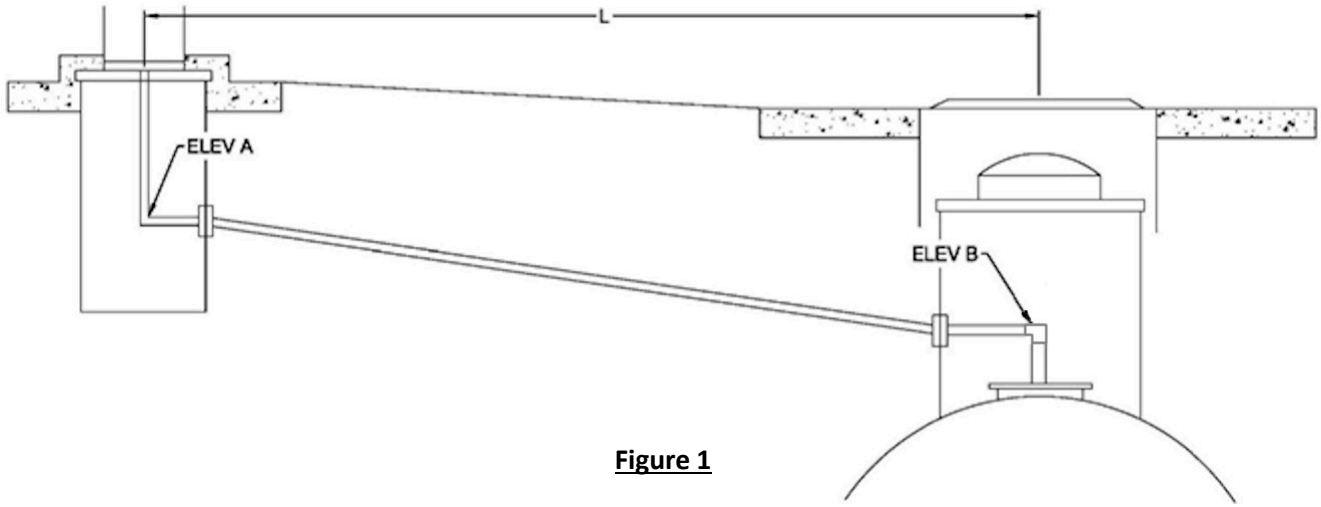

Figure 1

Example: A dispenser elbow (**ELEV A**) is surveyed at 6.280 ft. The tank top piping elbow (**ELEV B**) is surveyed at 5.238 ft. The piping length (**L**) is determined to be 86 ft. The elevation change **(E)** between the two elbows is 1.042 ft (or 12.5 inches), therefore the calculated slope **(S)** is 12.5 in ÷ 86 ft = 0.145 in/ft. In this example, the calculated slope of 0.145 in/ft is more than the minimum of 0.125 in/ft and the piping has proper slope.

Date:

FACILITY INFORMATION				
Facility Name:			Registration #:	
Facility Address:				
Address	*Town*		*State*	*Zip Code*

CERTIFICATION		
By signing this form, we the undersigned certify that all information is accurate and complete to the best of our knowledge. Number of piping runs evaluated: on pages (including this page).		
	ID #:	
Installer Name		
	Date:	
Installer Signature:		
Owner Name		
	Date:	
Owner or Authorized Employee Signature		

TANK AND PIPING IDENTIFICATION					
Tank & piping information must match registration					
Tank/Chamber:		Volume (gals):		Product Stored:	
Piping run #	(Manufacturer make/model/type, length, and dispenser number)				
PIPING VALIDATION					
Yes	No	Piping slopes toward the UST so oil drains to the UST if suction is lost			
How was slope determined?		(Provide any numbers used to calculate slope)			
Yes	No	Piping has only one check valve			
Yes	No	Check valve is located directly below and as close as practical to the suction pump			

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