

WEST VIRGINIA DIVISION OF HIGHWAYS
ADMINISTRATIVE OPERATING PROCEDURES
SECTION IV, CHAPTER 7

SECTION TITLE: EQUIPMENT
CHAPTER TITLE: LEAK DETECTION FOR UNDERGROUND STORAGE TANK
 (UST) SYSTEM

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I. **INTRODUCION**

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The U.S. Environmental Protection Agency's (EPA) and the WV Division of Natural Resources' (DNR) underground storage tank (**UST**) **regulations** require that **all UST systems** operated by the Division of Highways **have leak detection**. All tanks and piping installed after December 22, 1988 are required to have leak detection upon installation; those installed before that date, depending upon the age of the tank, have a five (5) year phase-in period to meet the leak detection requirements; all tanks must meet the Federal leak detection requirements by 1993.

II. **EPA APPROVED LEAK DETECTION METHODS**

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Both the EPA and the DNR have identified several leak detection methods that the Division of Highways may use to meet the UST regulations. These methods include: Ground-water monitoring, Vapor monitoring, Secondary containment with interstitial monitoring, Automatic tank gauging and other approved methods. **All of these are monthly monitoring methods; DOH will use at least one of them at every UST site.**

III. DOH INVENTORY CONTROL SYSTEM

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The Division of Highways has been using a monthly inventory control system for a number of years. The DOH Pump Station Report (Form GL-2) has been used to record all gas and lube transactions during each shift. The Form GL-2 reflects the use of Forms DOT-5, "Receipt of Materials", the DOT-6, "Inventory Usage Or Transfer" and the DOT-7, "Gas & Lube Credit Card Issue". All of these forms will continued to be used in the same manner as in the past.

Up to this point in time, the monthly DOH Inventory Control System has been used to primarily reconcile physical inventory quantities with the inventory record (REMIS) quantities, but now they will be further utilized to detect leakage of UST and assist in preventing damage to our environment, as regulated by the EPA and DNR.

IV. UNDERGROUND STORAGE TANK LEAK MONITORING LOG (DOH FORM GL-1)

The DOH Form GL-1, "Underground Storage Tank Leak Monitoring Log" was developed to provide an **Inventory Control Record** to be utilized in conjunction with leak detection monitoring as required by the EPA and DNR.

The "Underground Storage Tank Leak Monitoring Log," Form GL-1, provides a record of information for each underground storage tank, for each day of operation for one entire month. The **Form GL-1** will be completed in an **original and two (2) copies**. The **original**, upon completion, will be **filed at the owning organization** with **copies** being forwarded to the **District/Division Headquarters (canary)** and to the **DOH Equipment Division (pink)**. These Leak Monitoring Logs will be maintained on file for a period as prescribed by the appropriate federal and state authorities.

A. **DAILY FORM GL-1 COMPLETION ENTRIES**

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The Month/Year of the "**Leak Monitoring Log**" appears at the top of the form along with other pertinent information needed for efficient record keeping. It is important to note that if more than one individual is making entries on the Log, that they be identified where indicated on the form.

The data required to complete the Leak Monitoring Log is taken directly from the "**Pump Station Report, Form DOH GL-2 and entered on the Log on a daily basis**". The appropriate Pump Station Report data line, for entries on the Leak Monitoring Log entries, is indicated at the **top of each column category on the Form GL-1, "Leak Monitoring Log"**.

B. **MONTHLY FORM GL-1 COMPLETION ENTRIES**

On the **last operation day of the month**, a **total** of Column (5), "**DAY'S**

STICK USAGE", Column (8) **"DAY'S METER USAGE"** and the Column (9) **"DAILY OVER (+) or SHORT (-)"** must be accomplished and entered for each column in the **"TOTAL MONTHLY ACCUMULATED"** Columns.

The **"TOTAL MONTHLY ACCUMULATED"** figure for Column (8) **"DAY'S METER USAGE"** (Total Monthly Pumped By Meter) is entered into the **LEAK CHECK** formula on the Form GL-1. The result of this calculation establishes the **amount of variance**, in gallons, **that is permitted by both the EPA and the DNR UST regulations**. If the **"TOTAL MONTHLY ACCUMULATED"** for the Column (9) **"DAILY (+) or SHORT (-)"** is **GREATER THAN** the **LEAK CHECK RESULT**, then **notify the proper authority immediately**.

The Monthly Testing results for Ground-Water Monitoring, Vapor Monitoring or Other Approved Methods will be entered on the Form GL-1 by the trained individual designated by the District/Division Headquarters.