TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF UNDERGROUND STORAGE TANKS
OFFICE OF THE DIRECTOR

Revised Policy Memo

DATE: February 6, 2002

TO: All UST Division Staff

FROM: Wayne Gregory

SUBJECT: Modified Site Check Policy for Dispenser Leaks

REVISION OF EXISTING POLICY

This policy memo serves as a Notice of Revision of the policy memo entitled "Leaking Dispenser Policy" issued February 24, 1998, which included two versions of a Draft "Modified Site Check Policy", both dated June 23, 1997.

EFFECTIVE DATE

This revised policy shall take effect on February 6, 2002.

DISCUSSION

As a routine aspect of performing compliance inspections, an inspector will ask a tank owner/operator to remove dispenser covers to allow the inspector to examine the area beneath the dispensers. Sometimes the inspector discovers that the dispensers are leaking (i.e., drips occurring at unions or from filters). As a result of such discoveries, policy guidance is deemed necessary concerning the application of rule 1200-1-15-.05 to these situations. Taking both the environmental and the financial (fund reimbursement) responsibilities of the division into consideration, this policy gives guidance to division staff discovering leaking dispensers at a UST Facility.

Staff shall immediately direct the UST owner/operator to stop the leak and repair the leaking dispenser. Staff shall, at a minimum, evaluate the four factors listed below to determine if a modified site check is an appropriate requirement for the UST facility owner/operator:

1. **The severity of the leak at the dispenser, including, but not limited to: (a) the time period the leak/drip has been going on, if that information can be obtained; (b) the number of dispensers that are leaking; and (c) the rate of release at the dispenser;**
2. **The amount of free product and/or soil contamination below the dispenser;**
3. **A review of the release detection records for the facility; and**
4. **Any other relevant factors, such as the presence of a containment basin under the dispenser, and whether or not that containment basin is filled to capacity and has overfilled into the environment.**

After evaluating the information above, staff <u>may</u> direct the UST owner/operator to perform a modified site check as defined in this memo if it is suspected that the release from the leaking dispenser poses a significant threat to human health and/or the environment.

All situations are not the same. Requiring a modified site check for all leaking dispenser problems may be overly cautious, while never requiring a modified site check when leaking dispensers are discovered is environmentally irresponsible. Staff should use their best professional judgement to determine if a modified site check should be required when a leaking dispenser is discovered. I believe our staff have the training and experience to make wise decisions in these matters. Should a staff person need assistance in making this decision, then the UST Field Office Manager at the EAC should be presented with the facts and consulted for the appropriate action.

One final comment, if an environmental problem is discovered in the proximity of a UST facility, the division can require UST owner/operators in the area to conduct systems tests and site checks. The authority for this requirement is in Rule 1200-1-15-.05(2) and (3)(a) and (b). Obviously, we must use this authority wisely and direct only those UST owner/operators whose USTs are potential source(s) of contamination to conduct site checks. As a part of the continued evolution of the UST Program, we now have in place a mechanism to repay UST owner/operators, who are required to perform site checks under the rules cited above, should the UST owner/operator demonstrate that their USTs are not a source of the contamination. This repayment mechanism provides staff with the confidence that should a UST owner/operator who has been asked to conduct a modified site check determines that their facility has not had a release, the expenses incurred will be reimbursed from the TN Petroleum UST Fund.

MODIFIED SITE CHECK PROCEDURE

Site check activities and the evaluation of the subsurface investigation shall be directed by a registered professional geologist under the Tennessee Geologist Act (T.C.A. §62-36-101 et seq.),

or registered professional engineer under the Tennessee Architects, Engineers, Landscape Architects, and Interior Designers Law and Rules (T.C.A. §62-2-101 et seq.). The modified site check shall consist of the following steps:

1. One boring shall be placed no more than three feet from the dispenser and advanced to a depth of six feet below the ground surface in the apparent downgradient direction. If site-specific conditions will not allow the placement of the boring within three feet of the dispenser, prior approval of the boring location must be received from the Environmental Assistance Center case manager. The chemicals for analysis and the analysis methods shall be selected based on the chemicals of concern associated with the petroleum product observed leaking from the dispenser. Procedures for sample collection shall be:

Equipment and Collection

a. Samples from hand augers and power augers shall be allowed only if discrete samples can be obtained utilizing a properly decontaminated auger bucket, split spoon, or shelby tube. The sampling of auger cuttings is not acceptable.

b. Samples from borings advanced by a drill rig shall be collected utilizing properly decontaminated split spoon samplers. Soil samples shall be collected continuously for the depth of the boring.

c. When site conditions are suitable, the use of a direct push or hydraulic push sampling method (i.e., Geoprobe, Cone penetrometer, etc.) may be utilized. When using the direct push sampling method, all applicable sections of the Environmental Assessment Guidelines shall be followed.

Selection of Soil Samples

Upon opening the split spoon, the sample shall be split in half lengthwise. One side of the sample shall be immediately placed into a laboratory prepared jar in a manner that eliminates headspace. The jar shall be properly labeled and stored at 4°C or less. All samples shall be maintained at 4°C until they are delivered to the laboratory performing the analysis. Once the potential laboratory sample has been properly stored, the remainder of the soil in the split spoon shall be classified and placed in a sealing plastic bag, leaving some air space. The bag shall be properly labeled and the sample allowed to volatilize for a minimum of fifteen minutes at a minimum of 68°F. All samples shall be allowed to volatilize for an equal period of time prior to screening. Once the sample has been allowed to volatilize, the headspace shall be sampled with an Organic Vapor Detector (OVD).

The OVD shall be either a photoionization detector or a flame ionization detector. The use of vapor detection tubes or other methods of screening are not acceptable

unless approved in advance by the division. The following criteria shall be used when selecting soil samples for laboratory analyses:

a. If the OVD readings and other field screening techniques (visual or olfactory) indicate that contamination does not exist in the soil at a boring location, then the deepest sample shall be analyzed by the laboratory. The deepest sample shall be defined as that sample collected immediately above the soil/bedrock interface, the water table, or the bottom of the boring, whichever occurs first.

b. If visible or olfactory observations indicate that the soil is contaminated (e.g., heavy hydrocarbon staining) or OVD readings indicate that contamination exists in the soil at a boring location, then the following two samples shall be selected for laboratory analyses:

   i. The sample in which visible or olfactory observations or OVD screening indicated the highest level of contamination; and

   ii. The sample collected immediately above the soil/bedrock interface, the water table or the bottom of the boring, whichever occurs first.

   However, if one soil sample meets both of the above listed criteria, then only that sample shall be submitted for laboratory analyses.

2. If ground water or bedrock is encountered in the boring, one ground water monitoring well shall be installed and sampled in accordance with the Environmental Assessment Guidelines. If site-specific conditions will not allow the placement of the well in the location of the boring, prior approval of the well location must be received from the EAC case manager.

3. The results of the modified site check shall be reported in accordance with the Site Check Report Guidelines.

4. If the Site Check Report indicates the presence of petroleum contamination above the most stringent cleanup levels in the boring and neither ground water nor bedrock were encountered, Technical Guidance Document - 011 may be applied.