

COMMONWEALTH OF VIRGINIA
Department of Environmental Quality

Subject: Division of Land Protection and Revitalization Guidance Memo LPR-SRR-01-2012
RISK BASED INSPECTION STRATEGY (RBIS) FOR UNDERGROUND STORAGE TANKS (USTS)

To: Regional Petroleum Program Managers

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Summary:

This guidance explains the Risk Based Inspection Strategy (RBIS) for Underground Storage Tanks (USTs). This strategy is intended to evaluate alternative targeting methods for establishing annual inspection schedules.

Electronic Copy:

An electronic copy of this guidance is available on DEQ's website at <http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/PetroleumProgram/GuidanceRegulations.aspx>

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Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any alternative method. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Risk Based Inspection Strategy (RBIS) for USTs – A Pilot Project with EPA Region 3

VA-DEQ Risk Based Inspection Strategy – UST Inspection Program

Purpose and Background

This strategy is intended to evaluate alternative targeting methods for establishing annual inspection schedules in support of improved efficiency and effectiveness. It is critical to prioritize our activities to address times of dwindling resources at the federal, state, and local levels of government; address expanding regulatory responsibility (operator training, secondary containment, and delivery prohibition) demands on scarce staff time; evaluate those facilities with the greatest potential impact to human health and the environment; and, best serve the citizens of the Commonwealth.

Note: The DEQ-Regional Office tank staffs are most familiar with the many UST sites in their regions. This knowledge of the case-specifics of each UST site is important to incorporate into the risk ranking review process.

Elements of the RBIS - General

In general, there are several risk based factors to be considered in the order of most important to less important: Compliance History (CH) of the UST facility encompasses review of recent DEQ compliance/enforcement actions for the site; Environmental Sensitivity (ES) involves all potential environmental impacts the UST facility poses; Agency Exposure/Sectors (AES) relates to varying different environmental / ownership / media (air, water, land) issues; and, Environmental Excellence (EE) considers the UST facility status attained under the DEQ Environmental Excellence Program (if applicable.)

Compliance History (CH)

Compliance history is the cornerstone of the RBIS. Compliance history is a straight-forward way to prioritize compliance resources toward facilities with greatest potential for environmental impact. Using a 3-year look back for compliance trends at UST facilities can assist a DEQ-RO in developing a general priority order for inspection. Also, an option is to use the last two or three inspections to denote compliance trends based on number of RCAs (Request for Compliance Action), WLs (Warning Letter), and NOVs (Notice of Violation). For example, a high risk ranking would occur when either an active NOV exists or when a past NOV was not promptly resolved. Unresolved warning letters outstanding beyond the due dates and cases with multiple extensions may also be ranked as high risk. A satisfactory compliance history is defined as less than 2 deficiency letters or warning letters in the past and no notices of violation during the previous 3 years.

Environmental Sensitivity (ES)

Environmental sensitivity can include a wide range of considerations which change over time. Some examples of ES for USTs are: shallow and deep drinking water wells nearby; risk receptors (basements); wellhead protection areas; karst, fractured rock, or West Toe aquifer area (VRO, SWRO, BRRO); air non-attainment areas for VOCs; environmental justice (EJ); population density; proximity to national/state parks; flood plains; proximity to surface waters;

endangered/threatened species; etc.

Note: A facility with an excellent CH (lower priority) may be located in an ES area flagging it as a higher priority for UST inspection.

Agency Exposure/Sectors (AES)

The Agency Exposure/Sectors factor is intended to provide additional flexibility to the agency and ROs in the risk based decision making process. AES helps address unexpected or unique situations when compliance resources are mandated or warranted for a specific situation.

AES Sectors for the UST Program in 2013-2014:

Federal Facilities – EPA will be urged to inspect their own federal (~96) military and non-military UST facilities statewide;

State Facilities – VDOT is piloting an UST inspection program for (~73) of their (~258) UST facilities. Compliance History has been historically satisfactory at VDOT sites so these sites should be at a somewhat lower priority;

Newer UST facilities - Installations in the past 3 years typically yield better compliance and lower threat to the environment;

Major Multistate commercial facilities – These include large entity/branded fueling facilities with newer USTs; and,

General Small Business (1-3 UST facility locations) – These commonly will have higher inspection priority due to their limited resources and often aging life-cycle higher-maintenance equipment and often frequent owner/operator turnover.

Environmental Excellence (EE)

Another factor is for DEQ-ROs to recognize UST facilities that participate in the Virginia Environmental Excellence Program (VEEP). Those include facilities that: go beyond regulatory requirements; have good compliance records; and, have active environmental management system (EMS) programs. Those facilities receiving VEEP certification at the E3 or E4 levels are eligible for consideration for a reduced on-site inspection frequency. There are several UST facilities statewide that are in the VEEP program.

Evaluation of RBIS

The major goal of the pilot RBIS is to focus DEQ-RO efforts on areas that are of the highest risk to human health or the environment. In order to appraise the performance goals of the RBIS, various measures and documentation will be evaluated during the mid-year and end-of-year reviews of this strategy and will become the basis for a continuing/annual RBIS program going forward.

Evaluation of the effectiveness of this program will begin once we have inspected deferred facilities. Low priority facilities will be deferred up to a 5 year inspection cycle, and high priority sites will remain on the 3 year cycle. All facilities will be inspected within 5 years.

These RBIS performance measures are:

- For RBIS facilities, the DEQ will track resolution of any noncompliance found. This will include documentation of corrective actions. A future use of this measure will be to project the compliance outlook of RBIS facilities.

- For RBIS facilities that received a reduced inspection frequency, the DEQ will review the compliance status of the facility to ensure compliance was maintained. This will be a measure to check that the RBIS facilities under a lesser inspection frequency are in compliance and can maintain a reduced inspection frequency without adverse impacts.
- During the first 3-year cycle of the RBIS, the DEQ shall review the program and determine what, if any, additional information shall be provided for application of the risk based metrics.

Documentation for each facility will be included in the facility files for file review and record of decision made each year for inclusion in the RBIS.

UST Strategy

To help limit future UST releases, the state plans to inspect the 6,098 UST facilities every 3 years. To accomplish this, UST staff must perform approximately 2,033 inspections per year or 1,017 every six months.

Most DEQ Regional Offices currently achieve this inspection frequency. For these Regional Offices, prioritizing their inspections based on risk can give greater flexibility to provide time for AST inspections or to assist other Regional Offices via resource sharing. For those Regional Offices that cannot achieve the 3-year frequency, prioritizing inspections based on risk will ensure that inspection resources are targeted at areas of highest risk.

The annual UST prioritization process will work as follows:

- Each July, DEQ-OSRR will generate the list of inspections due.
- By August, DEQ-ROs will identify facilities on the list that are either:
 - already scheduled for inspection in the current FY (these will be deleted from the new FY list), or
 - low risk based on the general RBIS parameters consistent with other RBIS standards (these will stay on the new FY list as low priority inspections). Those facilities in a self-inspection status (federal, VDOT) should be identified as low-risk (only subject to spot checking).
- Once the low-priority facilities have been identified, the inspection plan for the upcoming federal fiscal year (October 1 – September 30) will be finalized by OSRR, preferably by September 1st.
- The agency recognizes that this pilot project requires additional documentation to verify the benefits of utilizing a RBIS. With continued success of this RBIS pilot project, the VADEQ believes that the long term reduction in tracking requirements balances efficient and effective operation of compliance programs along with EPA reporting needs.