UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Opportunity for Targeted Public Health Protection through the Underground Storage Tank and Source Water Protection Programs

FROM: Cynthia C. Dougherty, Director
Office of Ground Water and Drinking Water

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Office of Underground Storage Tanks

TO: Regional Water Division Directors, Regions I - X
Regional UST/LUST Directors, Regions I - X

Over 270 million people receive drinking water from approximately 161,000 public water systems. Most states have recently completed source water assessments for community public drinking water supplies, as required by the Safe Drinking Water Act. Preliminary information indicates that underground storage tanks (USTs) are identified as potential sources of contamination of source waters in at least some Regions. For example, in Region I, USTs are ranked in every state as one of the top threats to source water. In addition, state reporting under Section 305(b) of the Clean Water Act for 1996, 1998 and 2000 (the most recent report) indicated that over 35 states reported USTs as one of the top sources of potential ground water contamination in two out of the three reports.

Reducing the risk of USTs to drinking water sources presents an important opportunity to work together to coordinate the source water assessment results with UST programs, to make the best use of our resources and to increase public health protection. This cross-program coordination could also be an important component in meeting the Agency's source water protection strategic target that 50 percent of source water areas for community water systems achieve minimized risk to public health by the year 2008.

We have met several times this year to discuss options for coordinated actions that can be undertaken. We and our staff also had a conference call with Region I's Source Water Protection (SWP) program and UST program leadership to learn about the Region's recent initiatives to coordinate the two programs, briefly described below.

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Observations on Efforts To Coordinate in the New England Region

Although both Regional programs shoulder a large workload, Region I's experience demonstrates that targeting half of Regional UST inspections in source water areas is a feasible and beneficial first step, and that states can be encouraged to target their inspections. Indeed, in at least one state, regional and state data sharing and inspections have already found significant UST operational violations in source water areas, and addressing these violations could lead to decreased risks to public health. To generate this cooperation, numerous individual and group meetings between UST and SWP staff at the Regional and state level have occurred and have been helpful in facilitating coordination, identifying opportunities and breaking down barriers. One barrier, sharing source water assessment and UST location data, was remedied in one state through the development of maps overlaying source water areas with USTs. More information on Region I's coordination efforts is attached.

Requested Actions

We recommend the other Regions consider numerous actions to both determine the relative importance of further developing this inter-program coordination to achieve public health protection and to effectuate such coordination. Such actions could proceed in the following manner:

- Identify whether USTs are one of the risks to drinking water sources, both public and private. Information used to make this determination can come from many sources, e.g., state source water assessments, other state analyses, Clean Water Act 305(b) data and possibly other information.

If the analysis identifies USTs as a risk for drinking water supplies in a state, or for numerous states in the Region, there are a number of possible follow-up actions to coordinate work, such as:

- determining whether non-regulated USTs are as important as regulated USTs relative to drinking water supplies;

- initiating mutual education meetings between Regional UST and SWP staff, to ensure that program staff are aware of source water assessment results, and how USTs fit into those results;

- sharing locational data on source water areas and USTs/LUSTs;

- targeting Regional UST compliance inspections in source water areas, and working with states to target their inspections in source water areas;

- requiring that state UST programs notify owners/operators of public and private drinking water sources when a permitted tank is installed or replaced, or in the event of a release;

- assessing whether there are transient non-community water systems (TNCs) that provide food service at gas stations or adjacent to gas stations (that might be a source of drinking water contamination), and whether these water systems are, in fact, included in the state Safe Drinking Water Information System (SDWIS) database; and/or

- considering a memorandum of understanding (MOU) between the Regional SWP and UST programs to commit to key actions, and possibly analogous agreements in your states (possibly through Performance Partnership Agreements).

As we move forward from assessments to protection, and with the UST program having a strong field presence, the time is opportune to begin a collaborative effort to ensure both programs are working to protect the nation's sources of drinking water. We thank you in advance for considering these ideas to link the two programs. We look forward to your ideas and efforts in further developing these initiatives. Please contact us or have your staff e-mail Lauren Mical of the HQ Office of Underground Storage Tanks, or Sylvia Malm of the HQ Office of Ground Water and Drinking Water, with your ideas or other comments.

cc: Regional UST and SWP Branch Chiefs
Regional UST and SWP Contacts

Attachments:
New England Region UST/Source Water Project

Case Study of the UST/Source Water Project in New England
July 2004

Background

In the past year, Region 1 has taken action to integrate underground storage tanks (UST) inspections in priority source water protection areas. Prior to the source water assessments being completed by the states in 2003, the source water program was informally integrating with the UST program in Region 1 as a result of the Comprehensive State Groundwater Protection Programs Plan (CSGWPP) in the 1990s.

Beginning in 1996, a significant effort was made by the source water program to coordinate with the UST program. The regional Ground Water Program Coordinator at the time worked with Massachusetts communities to provide technical assistance to municipal officials. The goal was to encourage communities to provide outreach and education about the proper maintenance, removal, and upgrades of residential USTs. Communities were provided with model regulations requiring the upgrade or removal of existing USTS, as well as tips describing common strategies used to strengthen protection against leaking USTs through education and regulation.

In May 2003, a summary of the source water assessment data became available. As part of a strategic planning meeting for the drinking water program, the regional Source Water Team Leader made a presentation to Region 1 senior management. The presentation highlighted the top threats to drinking water in New England. In five New England states, USTs ranked as one of the top threats, creating a compelling argument for integrating the two programs. The Deputy Regional Administrator of Region 1strongly encouraged the two programs to continue to work closely together and to work with appropriate state programs.

UST Program Commitment

As a result of the May meeting, the Manager of the UST program in Region 1 asked his UST inspectors to make a formal commitment for 2004 to target inspections in source water protection areas. Specifically, UST staff were instructed as follows:

> "the UST/LUST team will target about half of the UST compliance inspections during FY04 in SWAP areas. We plan on using the Office of Ecosystem Protection SWAP leads in each state unit as a resource to target several towns or watersheds to focus our inspections, and bring lists of candidate UST facilities to the states as our priority work next year. We will also track completion of the inspection and return to compliance using the Office of Environmental Stewardship ISIS system, as is our current practice.
>
> As for the states (states conduct about 900 inspections to our 120 inspections /yr), the UST regional guidance last year asked about state inspection priorities, and requested that

they consider wellhead protection and sensitive groundwater in planning their work. Since many state PPAs/PPGs are now multi-year workplans, we don't plan on issuing new guidance this year, but we will continue to stress this point during midyear reviews coming up over the next few months. As you know, states also have their own priorities, including protecting groundwater used by private well/homeowners, so we need to consider those also."

Coordination Between Regional UST Inspectors and Source Water Coordinators

As a result of the preceding directive, the source water coordinators began to meet with their UST counterparts. In Region 1, there is a source water coordinator and a UST inspector assigned to each state in the region (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont). Historically, one challenge has been that the two programs are located in different divisions; the UST/LUST program is in the Office of Site Remediation and Restoration and the source water program is in the Office of Ecosystem Protection.

It was decided that the regional source water coordinators would work with their state source water counterparts in order to identify priority source water protection areas. As outlined above, the goal was to systematically target EPA UST inspections in specific towns and watersheds. The regional source water program believed that its state counterparts should identify those areas, rather than have the regional source water program make that determination. Throughout FY04, regional source water staff continued to work with its states to identify the priority source water protection areas in which to target inspections.

In February 2004, the regional source water coordinators met with the UST/LUST team in order to discuss this initiative as a group (previous coordination had occurred between the individual UST inspectors and their regional source water counterpart at EPA) to discuss the specific approach in their respective state. At that point, most of the states had provided their priority source water protection areas to EPA so that UST inspections could be targeted in that area. The purpose of the meeting was to assess the progress that had occurred to date and to determine what additional steps needed to be taken.

At that meeting, it was decided that it would be beneficial for the EPA and state UST inspectors and source water coordinators to meet together to discuss these issues. The state and EPA UST inspectors have quarterly meetings at the New England Interstate Water Pollution Control Commission (NEIWPCC) office to discuss UST issues in Region 1 and New York. The source water coordinators from Region 1 and New York also meet quarterly at NEIWPPC as part of a Northeast Groundwater Managers Workgroup. It was decided that NEIWPCC would host a joint meeting of the two workgroups to facilitate discussion of integrating the work of the two programs.

A meeting between the UST and source water programs was facilitated by NEIWPCC staff in May 2004 at EPA Region 1's laboratory. Detailed notes from that meeting are available. One

important aspect of the meeting was that there were breakouts into state groups which included all four representatives from the programs, the EPA and state UST inspectors and the EPA and state source water coordinators. It was the first time that they had all met together to discuss these issues and to brainstorm ways to improve coordination between the two programs at the state and federal level.

Success in Connecticut

As a specific example of how this has been accomplished in one state, the regional UST team has been working with the Connecticut Department of Environmental Protection (CTDEP) on coordinating source water protection with the UST program.

- Maps have been developed that overlay drinking water source areas and the 4000+ USTs in Connecticut. EPA has focused on where the priority UST inspections should occur.

- In addition, EPA has a list of every UST in Connecticut, and several have already been identified as priority locations by the CTDEP.

- For FY2004, EPA has already conducted 20 joint UST inspections in source water protection areas, finding several significant operational compliance violations.

- There will be an additional 5 to 10 joint inspections in the priority source water protection areas in the summer of 2004.

Next Steps

Region 1 plans to continue working closely with its state UST and source water counterparts to ensure that inspections are targeted in priority source water protection areas. EPA and the states will also implement some of the ideas identified at the joint UST/source water meeting in May 2004.

Next steps identified at the joint meeting include:

- Continue communication between the two programs at the EPA national level, and encourage a national initiative to hold a similar joint meeting in each region.

- Coordinate data management exchange between UST/LUST and the source water programs so that data can be shared more easily. NEIWPCC could identify if there is overlapping data that should be shared or data that another program could collect while onsite at a facility. Shared data could be updated on source protection maps that UST inspectors view on a regular basis.

- Create a source protection toolbox for UST inspectors- which would include fact sheets,

guidance materials, etc. The materials can also be handed out to the UST owners.

- Create a guidance/toolbox for businesses in source protection areas. Many do not know the significance of being located in a source protection area, so it is important to do outreach so that they may be more conscious of their actions. [Note: In large part, this recommendation is addressed by the Region's Businesses for Source Water Protection Initiative].

- Hold more frequent joint meetings of the UST/LUST and GW/SWP programs.

- Collect and summarize information on how states are effectively coordinating between the GW/SWP and UST/LUST programs.

- Consider a Memorandum of Understanding (MOU) between the two programs. Maine has operated on this basis for several years.

- Consider amending UST permits to require that if a spill or leak occurs, the owner/operator must notify nearest downstream water supplier.

- Establish database communication between the two programs, especially in interstate source protection areas. For instance, it would be useful to know what Massachusetts tanks are located in Rhode Island source protection areas and whether they have compliance problems. If a problem occurs in one state, a communication network should be established with the downstream state.

- Create regional standards for source protection and tanks. For instance, create a regional setback level that would require a standard distance between a new tank and a drinking water supply.

- Require VOC testing at gas stations that provide public water to determine if there is contamination at gas stations which are transient non-community water systems (TNCs).

- Encourage UST inspectors to help the UIC program by looking for floor drains during an inspection and inquiring about the discharge location of the floor drains . The UST program should then provide this data to the UIC program.

For more information, contact Kira Jacobs, Region 1 Source Water Program, 617-918-1817.