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ENVIRONMENTAL MANAGEMENT

Practical considerations for UST closures

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With the recent promulgation of the U.S. Environmental Protection Agency (EPA) underground storage tank (UST) rules as well as state and local regulations and guidelines, the implementation of a UST closure program has become more complicated.

Federal rules place the burden of responsibility on the state and local regulatory agencies and the UST owners, resulting in variable UST closure requirements across the nation.

Since unknown facility factors can lead to exorbitant cost add-ons, planning for a proper closure is paramount for a UST owner. Without a specific scope of work, the owner must rely on a contractor to develop an adequate closure plan.

The following is a brief listing of step-by-step considerations for implementing a UST closure program:

PROGRAM IDENTIFICATION

1. Define which UST systems require closure based on local regulatory requirements, company production needs and system inefficiencies, a risk assessment of environmental liabilities and receptors, the age of the systems, the material of construction, the product stored and the operating and maintenance history of the facility.

2. Collect *all* information pertinent to each UST site including UST notification forms, installation documents and details and general facility conditions.

3. Establish a schedule for the UST closure program to comply with state and local agency notifications and permit application requirements.

CONTRACTOR SPECIFICATIONS

1. Develop a comprehensive contractors' bid package in accordance with state and local requirements, as well as API bulletin 1604. Include all the information derived from the program identification process.

2. Specify who will be responsible for the transportation and disposal of any remaining liquids or sludge. If the contractor is to be responsible, have the disposal firm identified and verify the method of disposal (incineration, solidification, re-refining).

3. Define the specific backfill requirements (backfill type, compaction, etc.) after excavation procedures have been completed contingent on the future site usage.

4. Require that the contractor notify all appropriate agencies and acquire any necessary permits for UST closures.

FIELD CLOSURE PROCEDURES

1. During excavation and removal activities, a qualified environmental field inspector should be on site to monitor general site closure conditions, fully document with photographs and field notes all removal activities, and determine whether any remedial activities are required.

2. The field inspector shall also be responsible for site safety including tank degassing, purging and cutting.

3. The closure site should be barricaded to the public and sufficiently identified to prevent accidental entry.

ENVIRONMENTAL ASSESSMENT

1. Prior to initiating a UST closure program, specific environmental assessment procedures must be determined based on state and local closure requirements. Specific target compounds will be tested in the excavation soils and/or groundwater to determine if the environment has been affected.

2. Soil and/or groundwater sampling procedures should be performed by the site inspector with sample frequency and location as outlined by the state or local regulatory agency. All sampling and analysis must be conducted in accordance with EPA guidelines.

3. If contamination becomes evident, an assessment of its severity and extent should be made immediately. The inspector should contact the UST owner and provide guidance for remedial efforts and act as a liaison between the UST owner and regulatory officials.

4. If contaminated soils are excavated and stored on site during closure activities, arrangements must be made by the contractor to treat or dispose of the soils.

5. Should contamination be so extensive as to prohibit remedial excavation, or should groundwater contamination exist, further investigation will be required to determine the severity of contamination and clean-up options and objectives.

CLOSURE DOCUMENTATION

1. Following the completion of a UST closure, the contractor should submit a report thoroughly documenting all activities. The report should contain a brief description of the project site, the scope of work developed for the UST closure, documentation of all field activities, soil and groundwater sampling procedures and results, photographic documentation of each UST removal, and all important receipts, manifests or documents concerning tank, sludge, contaminated soil, or liquid waste disposal, soil compaction reports, notification forms, construction permits and any other information relevant to the closure.

With all the unknown factors that can affect a UST closure program, it is impossible to outline an all-encompassing closure procedure. However, with careful planning and data collection, the UST owner may eliminate a large number of unknowns allowing for a more controllable and cost-effective program.•

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