

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF FINANCIAL RESPONSIBILITY AND WASTE PROGRAMS

FACT SHEET

July 8, 2016

Draft Closure Plan for:

Closure of Area for the Tank Storage of Hazardous Waste

Chemsolv, Incorporated
Roanoke, VA

FACILITY LOCATION:

1140 Industry Road
Roanoke, VA 24013

EPA IDENTIFICATION NUMBER:

VAD980721088

FACILITY TYPE AND CURRENT FACILITY STATUS:

Chemsolv operates a chemical distribution business where chemicals are received, often repackaged, and distributed to customers. It is located at 1111 and 1140 Industry Avenue in Roanoke, Virginia in southwestern Virginia. The facility has been in operation at 1140 Industry Avenue under Chemsolv since 1980 and is composed of aboveground storage tanks, totes and drums of product, including a warehouse, flammable materials transfer pad and other support-related infrastructure. The main building was originally constructed in 1972. Operations at the 1111 Industry Avenue facility, directly across the street from the 1140 Industry Avenue facility, began in approximately 2005 and currently include rail car off-loading of product, warehousing operations and corporate offices. Chemsolv historically, and currently, receives and distributes various alcohols, acids, caustics, oils, surfactants, glycols, solvents and other chemicals, both liquid and anhydrous (NIACS Code 3259980).

The Chemsolv, Inc., Roanoke facility does not currently have a hazardous waste permit but does generate hazardous waste that is accumulated in less-than 90-day accumulation areas for shipment to an off-site permitted RCRA hazardous waste facility.

WASTE TYPES:

Historically, the tank was primarily used to receive rinsewater from containers with trace amounts of inorganic chemicals such as acids and caustics, in addition to the dust and dirt

that gathered on the outside of the containers while empty and in storage. During a May 2007 inspection by the U.S. Environmental Protection Agency (EPA), samples were collected from both the rinsewater as well as the settled sediment in the bottom of the tank. These analytical results form the basis for EPA's determination that the tank was a hazardous waste tank. Specifically, as detailed in the March 31, 2011 Administrative Complaint (EPA Docket No. RCRA-03-2011-0068), Paragraphs 14-18, the EPA concluded that chloroform in the water column and tetrachloroethene and trichloroethene in the sediment resulted in those respective matrices being considered hazardous wastes. Ultimately, this position was affirmed in the June 5, 2014 Initial Decision issued by Chief Administrative Law Judge Susan L. Biro.

To develop a final list of HCOCs in both soil and groundwater a comprehensive review of inventory records was conducted and compared to the list of hazardous constituents of Appendix VIII of 40 CFR § 261. In addition, nondetected chemicals that EPA analyzed for in 2007 that had quantitation limits exceeding the risk-based soil screening levels in EPA's June 2015, Regional Screening Level (RSL) Summary Table were included subject to the condition of the existence of applicable toxicity information in that Table. Also, chemicals that were in Chemsolv's inventory that were not in Appendix VIII, but had toxicity information in the RSL Table were included. Metals on the EPA's Target Analyte List (TAL) were added. Finally, daughter products associated with chlorinated organics detected by the EPA sampling or otherwise in inventory were included.

UNIT DESCRIPTION:

Tank Storage Hazardous Waste

The tank in question, formerly located on the 1140 Industry Avenue parcel, was the only underground tank reported on-site. It was reportedly installed in the period between November 1985 and summer 1986. It was initially connected to the sanitary sewer system, to which it discharged rinsewater until approximately 2000. Subsequent to that, the rinsewater was recycled to the degree possible and occasionally emptied for off-site disposal. While connected to the sanitary sewer system, the rinsewater was generated from washing both the interior and exterior of the drums used for chemical transport. Subsequent to 2000, the rinsewater was generated exclusively through the washing of the exterior of the drums.

The 1,800-gallon tank was of carbon steel design with a ceramic liner, designed to be resistant to corrosive liquids. It was approximately 6'9" in diameter and 7' in depth with a concave bottom. It was reportedly installed on an underlayer of sand and was open topped with a four foot high, eight inch wide concrete wall surrounding it. The area surrounding the tank has been paved since the tank was installed.

The process that generated the wastewater was comprised of a Hotsy® pressure washer installed in the shed that was fed by the potable water system. A flexible hose leading from the pressure washer was connected to a drum washing assembly located within an adjacent wash pad . Used

drums were placed in an inverted position over the automated drum washing assembly and potable water was sprayed into the interior of the drums with the wastewater running through an east-west epoxy-lined trough that angled to the north and into the tank.

A three inch diameter corrosion-resistant high density polyethylene (HDPE) discharge pipe extended from the top of the concrete wall vertically approximately five feet into the tank along the wall. This HDPE pipe was joined with a horizontal pipe of similar composition that was joined to a pump of undetermined capacity mounted on the top of the concrete wall. The pump was activated when wastewater levels in the tank triggered the need for removal. The exit line from the pump was a three inch HDPE pipe that ran east, approximately four feet off the ground and was joined to a similar three inch HDPE line that ran parallel to the ground for approximately six feet in a southerly direction and through the northern wall of the adjacent shed for an additional five and a half feet where it was angled 90° down and was loose-fit into a four inch standpipe. This vertical standpipe drained into the sub-grade lateral sanitary sewer line of unknown composition and size which leads to the branch sanitary sewer line under Industry Avenue to the south. This discharge was pursuant to a Pre-Treatment Permit issued by the Western Virginia Water Authority. As stated above, this configuration existed from tank installation until approximately 2000.

According to the facility, subsequent to 2000, the configuration was changed to reflect a change in operations. Wastewater was no longer discharged to the sanitary sewer but was recycled with occasional disposal once the wastewater became unusable as a rinsewater. During this phase of operations, the interior of drums were no longer washed as Chemsolv only used new or reconditioned drums from an off-site vendor. The system was solely used to wash the exterior of drums. The piping was reconfigured for this mode of operation. A center drain was installed at the low point of the wash pad and connected to a four inch HDPE corrosion resistant pipe that was encased in the wash pad concrete (surrounded on all sides by concrete) which gravity drained through the northern curb of the wash pad. At this point the horizontal line surfaced as the surface grade of the concrete on the northern side of the northern curb was lower than the wash pad itself. The pipe ran along the top of the concrete, through the concrete wall surrounding the tank, and gravity discharged into the tank.

The three inch discharge line from the pump was rerouted through an intermediate HDPE tank and then to the pressure washer and the flexible hose from the pressure washer was attached to a wand-style spray apparatus that was used manually to rinse the outside of the drums. The rinsewater ran through the drain system via gravity into the tank.

Chemsolv stopped using this system in December 2007 and the tank and associated piping was removed in early 2008 and the hole backfilled with soil. It was eventually paved. According to the facility, at the time of the tank's removal, Chemsolv employees visually evaluated the integrity of the tank and determined that there were no visible penetrations or signs of degradation.

CLOSURE PLAN – TYPE OF CLOSURE:

The Closure Plan that is the subject of this Fact Sheet describes how Chemsolv, Inc. will close the underground storage tank formerly located at their facility at 1140 Industry Avenue in Roanoke, Virginia. Chemsolv will attempt clean closure of the former tank area to meet the closure performance standard by removing all soil with contaminant levels in excess of agreed upon risk thresholds assuming direct contact with the subject soil. Groundwater will be evaluated to ensure it does not pose unacceptable risk, as defined in this Plan. Closure requirements identified in 40 CFR 264, Subparts G, H and J are directly addressed in this Plan. Clean closure will be deemed to have been satisfied when all hazardous constituents of concern (HCOCs) have been removed to levels to ensure that direct contact with any remaining HCOCs will not pose an unacceptable threat to human health or the environment. In the event clean closure is not possible, additional Contingent Closure and Post-Closure Plan requirements identified in 40 CFR 264, Subpart N are also addressed.

Soil located in the vicinity of and potentially impacted during the operation of, and groundwater underlying, the former tank system will be assessed. Soil and groundwater samples will be collected from the location of the former tank system, as well as upgradient, cross-gradient and downgradient of this area. All soil and groundwater samples will be submitted for laboratory analysis. More detailed descriptions of the soil and groundwater sampling and laboratory analytical methods are provided in the Closure Plan, respectively. The resulting analytical data will be compared to the agreed upon risk thresholds via a quantitative risk assessment to determine if decontamination of the former tank system area is required. Additionally, if the soil were to be excavated, the soil data will be used to determine if the soil would be below hazardous waste levels. If necessary, TCLP samples will be collected from each roll-off container of excavated soil and concrete media to make a final hazardous waste determination.

Soils utilized as backfill to fill the tank excavation pit will be delineated. The differentiation determination of soils utilized as backfill and soils potentially impacted by the tank operation will be made and certified by a Virginia registered, independent soil scientist. The locations of the backfill intervals on the closure soil corings will be included in the drill logs and provided in the Closure Report.

At least one soil sample will be taken from below the former location of the discharge piping from the tank to the shed. It will be located at a point(s) determined to be most heavily impacted by a known or estimated most likely spill location or, if there is no historical evidence of spills, a random location based on a grid element determined by a random number generator.

Sampling of the tank pad at the center drain to address concrete and soils is required to initially address the tank pad if there are no other contaminant pathways through the concrete pad as determined by a Virginia registered, independent, Professional Engineer and certified by him/her. The Engineer will perform a Certified mapped survey of the Tank pad and the Shed pad

to determine the presence or absence of contaminant pathways through the concrete pads to the underlying soil. Chipping of the concrete to determine if cracks perforate the entire depth of the concrete may be utilized. Cracks longer than 5 feet will be checked for a path to the underlying soil at least every 5 feet if a visual inspection is indeterminate.

At least one sample will be taken from the concrete shed floor at each potential contaminant pathway location from the floor surface and inclusive of the underlying soils. Concrete and soils must be addressed at each location. At a minimum, a sample will be taken at the point where the tank was pumped into the subgrade sanitary sewer (at the 4 inch standpipe location) and include the underlying soils.

A Certification of Closure will be submitted to the DEQ within 60 days of completion of closure. This certification, stating that the former underground hazardous waste tank site and associated structures and appurtenances have been closed in accordance with the requirements of the approved Closure Plan, will be made by both Chemsolv, Incorporated and by an independent Professional Engineer registered in the state of Virginia.

Closure of the former underground hazardous waste storage tank site will be in such a manner that it:

- ◆ Minimizes the need for further maintenance.
- ◆ Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or the atmosphere.
- ◆ Complies with the closure requirements of 40 CFR Part 264.

COMMENT PERIOD:

Begins: July 8, 2016
Ends: August 8, 2016

In accordance with 40 CFR § 265.112(d)(4), the public is given thirty (30) days to review and comment on the Draft Closure Plan. All persons, including the Owner/Operator, who believe the tentative decision to approve this Closure Plan is inappropriate must raise all ascertainable issues and submit all available arguments and factual grounds supporting their position by August 8, 2016. Copies of such comments should be sent to:

Virginia Department of Environmental Quality
Office of Financial Responsibility and Waste Programs
ATTN: Russell McAvoy, Environmental Engineer Senior
P.O. Box 1105
Richmond, Virginia 23218
Phone No. (804) 698-4194
Fax No. (804) 698-4234
e-mail russell.mcavoy@deq.virginia.gov

The DEQ will also accept comments from the public by e-mail. All comments received must include the full name, mailing address, and phone number of the person generating the comments.

PUBLIC INFORMATION:

The public may review the Draft Closure Plan and this Draft fact sheet at the following locations:

DEQ Blue Ridge Regional Office
Contact: Aziz Farahmand
3019 Peters Creek Road, Roanoke, Virginia, 24019
E-mail: Aziz.Farahmand@deq.virginia.gov
* Every work day by appointment

DEQ Office of Financial Responsibility and Waste Programs
Contact: Russell McAvoy
629 East Main Street
Richmond, VA 23219
Phone: (804) 698-4194
E-mail: russell.mcavoy@deq.virginia.gov
* Every work day by appointment

PROCEDURES FOR REACHING A FINAL DECISION:

When making the final determination to approve the Closure Plan for the facility, the DEQ will consider all written comments received during the comment period. Each person that has submitted comments in accordance with this public notice period will receive a written response from the DEQ. Thereafter, the final Closure Plan shall become effective immediately upon approval.

CLOSURE PLAN ORGANIZATION AND CONDITIONS:

Closure Plan for the Tank Storage of Hazardous Waste

The Closure Plan is divided into twenty (20) sections as outlined below.

<u>Section</u>	<u>Topic</u>
Section 1	Introduction
Section 2	Closure Performance Standards
Section 3	General Facility Description, Location and Background
Section 4	Tank Closure - Description, Location and Background
Section 5	Overview of Closure Procedures
Section 6	Hazardous Constituents of Concern (HCOCs) Analytical Test Methods
Section 7	Quality Assurance/Quality Control (QA/QC) Plan and Procedures
Section 8	Closure Sampling and Analysis Plan
Section 9	Health and Safety Plan for Closure Activities
Section 10	Clean Closure Decontamination Standards
Section 11	HWMU Waste Inventory Removal and Manifests to a Treatment, Storage and Disposal Facility
Section 12	Decontamination or Disposal of HWMUs – Equipment, Structures and Soils
Section 13	Temporary Decontamination Areas and Procedures
Section 14	Management, Characterization and Disposal of Closure Generated Wastes
Section 15	Closure Cost Estimate and Supporting Calculations
Section 16	Financial Assurance for Closure
Section 17	Schedule for Closure (40 CFR 264.113)
Section 18	Contingent Closure Plan
Section 19	Contingent Post-Closure Plan
Section 20	Closure Report