



# Maryland Department Of The Environment Voluntary Cleanup Program

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## Section Eight Oil Contaminated Sites

The Brownfields Redevelopment Reform Act of 2004 authorized the VCP to accept applications for properties with known or perceived oil contamination. Because the VCP will accept applications for properties with underground and aboveground petroleum storage systems, an applicant may work with staff from both the VCP and the OCP. Participation in the VCP does not exempt a tank owner or operator from the provisions of COMAR 26.10. Questions regarding regulations for aboveground or underground storage tank management should be directed to the OCP at 410-537-3442.

### 8.1 ELIGIBLE PROPERTIES

As authorized by the passage of House Bill 294 and Senate Bill 186, beginning October 1, 2004, sites contaminated by oil became eligible for participation in the VCP. Oil is defined as follows in Section 4-401 of the Environment Article, Annotated Code of Maryland:

- “Oil” means oil of any kind and in any liquid form including petroleum; petroleum by-products; fuel oil; sludge containing oil or oil residues; oil refuse; oil mixed with or added to or otherwise contaminating soil, waste, or any other liquid or solid media; crude oils; aviation fuel; gasoline; kerosene; light and heavy fuel oils; diesel motor fuels; asphalt; and regardless of specific gravity, every other nonedible, no substituted liquid petroleum fraction unless that fraction is specifically identified as a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 et seq.
- “Oil” does not include: liquefied propane; liquefied natural gas; or any edible oils.

Under the new law, an eligible property also includes a site under active enforcement if the following criteria are met:

- All applications filed in connection with the property are filed by inculpable persons; and
- Any RAP and cleanup criteria approved by the Department are at least as protective of public health and the environment as the requirements of any outstanding active enforcement action.

Properties with previously closed or currently open cases with the OCP may participate in the VCP, provided the applicant meets the eligibility requirements as described in Section 1.1.

### 8.2 INELIGIBLE PROPERTIES

Not all oil-contaminated properties are eligible for VCP participation. In addition to the types of sites listed in Section 1.2, Ineligible Properties, oil-contaminated sites with emergency conditions are not eligible to participate in the VCP until the emergency conditions have been abated.

### 8.3 EMERGENCY CONDITIONS

The VCP will not accept an application for a property that presents an imminent and substantial endangerment to the public health or the environment due to a release or threatened release of oil. If at any time during the VCP application review process, conditions are encountered at the property that constitute an immediate threat to human health or the environment, the VCP review process will be held in abeyance until the emergency condition has been abated. After the emergency condition has been addressed, the VCP application review process will resume. The application may also be withdrawn based on off-site impacts that require a referral to the OCP for appropriate enforcement action.

Examples of emergency conditions may include, but not limited to, the following:

- Petroleum vapors or free product inside a structure;
- Discovery of free product in tank field monitoring pipes;
- Inventory discrepancies on an active underground storage tank system greater than allowed under COMAR 26.10.04.01E-G;
- Unusual operating conditions, such as the erratic behavior of product-dispensing equipment, the sudden loss of product from the UST system, or unexplained presence of water in the tank;
- Monitoring results from a leak detection method, such as alarms from an interstitial monitoring device;
- Petroleum product or dissolved phase discharge to a surface water body;
- Petroleum products, vapor, or contaminated groundwater impacting an underground utility; or
- Indications of petroleum contamination, such as laboratory sampling results, in a water supply well.

Evidence of an oil discharge must be reported within two hours, as specified in COMAR 26.10.08.01, to the OCP at 410-537-3442 or, if after normal business hours, to the 24-hour Spill Reporting Hotline at 1-866-633-4686. If you have any question on whether a situation qualifies as an emergency condition, do not hesitate to call the above numbers.

The investigation and abatement of emergency conditions will be conducted under the direct supervision of the OCP, in accordance with the following requirements:

- Investigation of Off-Site Impacts, COMAR 26.10.08.02;
- Release Investigation and Confirmation Steps, COMAR 26.10.08.03;
- Reporting and Cleanup of Spills and Overfills of a Regulated Substance, COMAR 26.10.08.04;
- Release Response and Corrective Action for UST Systems Containing Petroleum or Hazardous Substances, COMAR 26.10.09.01-05

If you have any questions regarding the eligibility of a property for VCP participation, contact Jim Metz, Voluntary Cleanup/Brownfields Division, at 410-537-3493.

## 8.4 LIABILITY ISSUES

Under the VCP, the participation status of an applicant falls under two classifications, responsible and inculpable person, briefly described below and in more detail in Section 1.4 of this document. The liability of responsible or inculpable persons in the VCP is different than that of owners and operators of petroleum sites under OCP law. Potential applicants for petroleum sites are encouraged to schedule pre-application meeting to discuss VCP and OCP liability issues at their sites.

### 8.4.1 Comparison with the Oil Control Program

Environment Article, Annotated Code of Maryland, Section 4-401(i) defines a person responsible for a petroleum discharge differently than a responsible person under Section 7 201(x) of the Environment Article, Annotated Code of Maryland. Specifically, Section 4-401(i) states that responsibility for the prompt control, containment, and removal of any released regulated substance shall be with the person responsible for the discharge, the owner and/or operator of the oil storage facility, the owner of the regulated substance, the owner and/or operator of the storage system, and the person-in-charge of the facility, vessel or vehicle involved in the release. For releases occurring from improperly abandoned storage systems, the current landowner, and any person who owned, leased, or was otherwise responsible for a system at the time it was abandoned shall also be responsible. This responsibility shall continue until removal of the released regulated substance has been accomplished to the satisfaction of the Department (COMAR 26.10.02.01).

A purchaser of oil-contaminated property does not become a person responsible for the discharge solely as a result of the purchase of the property, unless the purchaser is otherwise a person responsible for a discharge under Environment Article, 4-401(i), Annotated Code of Maryland (COMAR 26.10.01.05 G).

The OCP issues four types of site status letters as described in COMAR 26.10.01.05.

**Notice of Compliance Letter:** Issued upon request, to a person who has received a notice of violation from MDE stating the violation has been corrected to the satisfaction of MDE.

**Site Condition Letter:** States whether MDE requires remedial action or if the site is in compliance.

**Cleanup Suspension Letter:** Issued upon request, if MDE determines that no further treatment of soil or groundwater is required. This letter will state the requirements for monitoring the site after the remediation activities cease (i.e. monthly gauging, or quarterly monitoring following remediation system shut down). If issued, a cleanup suspension letter is applicable to any transferee of title, successor or assignee of the person responsible for the discharge of oil, or other person, who performed the cleanup.

**Final Closure Letter:** A letter shall be issued after MDE determines that a site at which a discharge of oil occurred is in compliance of the applicable oil regulations. A final closure letter is applicable to any transferee of title, successor or assignee of the person responsible for the discharge of oil, or person who performed the cleanup. MDE may require a person responsible for the discharge to take further remedial action at a site subject to a closure letter if it determines that:

- There is a threat to public health and welfare or the environment;
- The discharge recurs as free phase oil product;
- The letter was obtained through fraud or misrepresentation; or
- A new or previously undiscovered discharge of oil is found that would require a corrective action under the oil regulations.

## 8.5 UNDERGROUND STORAGE TANK REMOVALS

If an existing or previously abandoned underground storage tank will be removed from a property that has applied to the VCP, then the tank removal will occur under the oversight of the OCP pursuant to the provisions of COMAR 26.10.10.02. The following must occur when the tank system is closed:

- A certified remover must remove the tank;
- All liquid and sludge must be removed from the tank;
- All aboveground portions of vent lines shall be removed and the remaining lines capped at their bases;
- The tank shall be purged of all explosive vapors and monitored with an appropriate meter for vapors before and during removal;
- Tanks shall be disposed of at a location acceptable to MDE, and the disposal receipts submitted to the both VCP and OCP project managers; and
- An updated registration form must be submitted to the OCP.

To obtain a list of certified removers or copies of registration forms, contact the OCP at 410-537-3442.

After the tank removal operation has been completed, any additional site assessment and on-site remediation required can be completed within the auspices of the VCP.

## 8.6 REMEDIATION ISSUES

**Free Product Recovery:** When liquid phase or free product is found on site, the free product must be removed to the maximum extent practicable as determined by MDE. As stated in Section 8.3, the discovery of free phase petroleum product must be reported to OCP within two hours. If free phase product is discovered at a site under non-emergency conditions (see Section 8.3 for Emergency Conditions), a brief work plan for the initiation of a product recovery method such as hand bailing, sorbent wicking and enhanced fluid recovery (vacuum truck) should be submitted to the OCP with a copy to the VCP project manager. Free product recovery may proceed with approval from the OCP. Waste disposal receipts must be provided for all petroleum products removed from the property. For additional information on the reporting requirements for free phase petroleum product recovery please refer to the Maryland Environmental Assessment Technology for Leaking Underground Storage Tanks guidance document, which can be downloaded from the Maryland Department of the Environment website at [www.mde.state.md.us](http://www.mde.state.md.us).

If necessary, free product recovery may proceed while a RAP is prepared and the public participation requirements fulfilled; however, the final RAP approval may not be issued until the

free phase recovery has been completed to the satisfaction of the OCP. Post recovery monitoring activities such as periodic gauging and sampling may be included as part of the RAP.

**Petroleum Contaminated Soil:** As defined in COMAR 26.10.13.11, soil showing a contaminant level over 10 mg/kg of total petroleum hydrocarbons is considered “oil contaminated” if removed from a site or otherwise handled on site. In certain circumstances, OCP guidance allows soils contaminated by oil to remain in place so long as the soils are undisturbed. The OCP guidance specifies that only soils with TPH levels below 230 mg/kg as determined by EPA method 8015B gasoline range organics/diesel range organics can remain in place so long as it “does not pose a risk or threat of adverse effects if left in place.” Soil that is treated at a permitted oil-contaminated soil facility must be treated to a level of 10 mg/kg TPH or as established by the facility’s permit, such as incorporating a soil solidification process.

If petroleum-contaminated soil is disturbed by site activities such as the installation of utility lines or site grade changes, the soil must be handled in a manner that would comply with State and local regulations regarding sediment control and disposal. This also applies to properties that have received a NFRD or COC and are owned by an inculpable person. A work plan as described in the IRM or RAP process must be approved prior to the removal of petroleum-contaminated soil.

#### **8.6.1 Remediation System Discharge Permit Requirements**

In order to operate a remediation system, permits must be obtained from MDE for the discharge of vapors or treated groundwater. The applicant must also comply with all applicable State and local requirements for the construction and operation of a remediation system. For example, discharges into the sanitary system will require approval from the operator of the utility and the installation of sheds or fences require local permits.

**Air Permit Requirements:** A remediation system that will discharge contaminated vapors produced as a result of soil vapor extraction or use of air stripping equipment for water treatment may require a permit under COMAR 26.11.02.09, unless it meets all of the following conditions:

- The uncontrolled VOC emissions are less than one (1) ton per calendar year;
- The uncontrolled emissions of Class II toxic air pollutants are less than one (1) ton per calendar year; and
- The emission of Class I toxic air pollutants are no more than one (1) pound per day.

Because benzene is a common component of many petroleum products and a Class I toxic air pollutant, the concentrations of benzene and any other Class I TAP must be measured to ensure the remediation system qualifies for a permit exemption.

As outlined in COMAR 26.11.06.06, remediation equipment emitting more than 20 pounds per day of VOCs located in Baltimore City and Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, and Prince George’s counties is required to reduce emissions by 85 percent or more overall.

**Treated Groundwater Discharge Permits:** If petroleum is the sole contaminant in the groundwater, the OCP will issue a general discharge permit. For information on discharge permits for sites solely contaminated with petroleum products contact the OCP at 410-537-3442.

For information on discharge permits for sites contaminated with petroleum and other substances, such as chlorinated solvents, contact the MDE Water Management Administration at 410-537-3323.

**Groundwater Reinjection Permits:** If the treated water will be reinjected in an infiltration gallery or well please contact the MDE Water Management Administration at 410-537-3778 for more information on permit requirements.

### **8.6.2 Reporting Requirements for Active Remediation**

As discussed in Section 7, a RAP must include a work plan that outlines notification and reporting time frames for sampling and report submittal. If an active remediation system is installed at a site the reporting requirements should include at a minimum, a concise summary of activities at the site on a quarterly basis, or other specified period, which may include the following:

- System configuration;
- Work authorized during the period of report;
- Work performed;
- Portion of the period the system was operational (e.g. system was pumping 28 out of 31 days);
- Problems or routine maintenance to the system;
- Amount of water pumped through the recovery system, including flow meter readings,
- Pounds of vapors recovered, with the flow rate in cubic feet per meter;
- Volume of free product recovered this period and cumulative total volume;
- Status of outstanding permits, including permit numbers that affect installation or operation of the system; and
- Analysis of influent and effluent samples to demonstrate the treatment system is functioning properly.

Please note that MDE must be contacted if the system is inactive for more than 48 hours.

Water Quality Tables must include the following:

- Well or sample point identification;
- Date sampled;
- Constituent name; and
- Units for each constituent.

Gauging and Liquid Level Data must include the following:

- Well identification;
- Date gauged;
- Top of casing elevation;
- Liquid phase hydrocarbon depth in feet from top of casing;
- Water depth in feet from top of casing;
- LPH thickness in feet;
- Groundwater elevation in feet;

- Corrected groundwater elevation in feet (include product density value used); and.
- Amount of product removed during the gauging event.

Other reporting requirements as necessary may be required by VCP, based on the specific site conditions and the remediation technology chosen.