

**RELEASE RESPONSE AND INITIAL ABATEMENT  
REQUIREMENTS OUTLINE**



**KENTUCKY DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WASTE MANAGEMENT  
UNDERGROUND STORAGE TANK BRANCH  
200 FAIR OAKS LANE, SECOND FLOOR  
FRANKFORT, KENTUCKY 40601  
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# RELEASE RESPONSE AND INITIAL ABATEMENT REQUIREMENTS OUTLINE

## INTRODUCTION

Owners/operators of underground storage tank (UST) system(s) regulated by 401 KAR Chapter 42 shall, in response to a confirmed UST system release outside the excavation zone, comply with this outline in order to protect human health, safety and the environment, prior to the issuance of a written directive from the cabinet.

This outline is provided to assist owner/operators and contractor/consultants in complying with UST system release response requirements in 401 KAR 42:060.

This outline provides the minimum UST system release response and initial abatement requirements for responding to the confirmed presence of free product or fumes/vapors outside of the excavation zone, with the exception of free product or fumes/vapors discovered in borings, monitoring or recovery wells or during over-excavation activities. The cabinet reserves the right to require additional information if necessary. For terms not defined herein, the definitions in 401 KAR 42:005 shall apply.

If free product is encountered within the excavation zone of an active UST system, the owner/operator shall initiate free product recovery as necessary to prevent any further release of regulated substance into the environment. If free product is discovered within the excavation zone during permanent closure, or during excavation performed in accordance with Section 6 of the Closure Outline, the requirements of Section 4.0 in the Closure Outline shall apply.

For information regarding reimbursement, refer to Section 9 of 401 KAR 42:250, and the Contractor Cost Outline.

## 1.0 REPORTING REQUIREMENTS

Owners/operators shall report immediately, to the Environmental Response Team at (800) 928-2380, or (502) 564-2380 in Frankfort, and appropriate authorities at the local, state, or federal level, a release of the following:

- A suspected or confirmed UST system release into the subsurface of any amount;
- An aboveground release of petroleum products in excess of 25 gallons;
- An aboveground release of diesel in excess of 75 gallons;
- An aboveground release of hazardous substance in excess of the reportable quantity under CERCLA (40 CFR Part 302);
- Vapors in surrounding structures resulting from any of the above

The Incident Number assigned to the release report by the Environmental Response Team shall be included in the initial abatement report.

Owners/operators shall report an aboveground release, of less than the quantities listed above and not otherwise reportable, that cannot be cleaned up within 24 hours, to the Environmental Response Team and appropriate authorities at the local, state, or federal level.

## 2.0 INITIAL RESPONSE

### 2.1 Immediate Response

If a UST system release is confirmed, immediate response shall be performed as required by 401 KAR 42:060 to protect human health, safety and the environment. An attempt shall then be made to locate the

source and eliminate any life threatening conditions that may result from a UST system release. Attention shall then be focused on preventing further UST system releases into the environment, determining the media affected by the UST system release, and determining the need for and type of any response measures required to abate the UST system release as required by written directive from the cabinet.

A status letter shall be submitted (e.g., e-mail, fax, etc.) to the cabinet within 48 hours of the release report, briefly outlining actions taken and proposed future actions. The status letter shall also include a site sketch indicating the location of the UST system release, photo documentation of free product encountered and, if applicable, a map demonstrating the location of the release relative to nearby buildings that may be affected by vapor intrusion.

## **2.2 Mitigate Fire and Explosion Hazards**

If it is determined that regulated substance(s) have entered the environment and could result in a fire or explosion, the owner/operator shall identify and mitigate any and all fire and explosion hazards within buildings or utility conduits. If there is a danger of fire or explosion from a release of a regulated substance(s), contact the local fire department or disaster and emergency services as appropriate.

Vapor intrusion that does not pose fire or explosion hazards, except those addressed in response to actions directed by the Environmental Response Team under a declared emergency, shall be addressed as directed in writing by the cabinet, in accordance with Section 4.0 of this outline, in order to be reimbursable in accordance with 401 KAR 42:250.

## **2.3 Prevention of Further UST System Releases**

Owners/operators shall take any immediate action to prevent any further UST system release into the environment. If a tank is determined to be leaking, the tank and piping shall be emptied, and product shall not be added, unless under professional guidance for overfill testing. If piping is determined to be leaking, the suspect dispenser shall be taken out of service. Owners/operators shall never wash spilled regulated substance(s) into the sewer, and shall try to keep the spill from spreading, possibly by constructing berms or using absorbent materials.

## **2.4 Cleanup of Spills and Overfills**

Owners/operators of UST systems shall immediately contain and initiate cleanup of a surface spill or overfill of a regulated substance in excess of the reportable quantity as listed in Section 1.0 of this outline. Construction of berms and/or the use of absorbent materials, pumping, or bailing, may reduce the amount of impact to the environment.

Refer to Section 2.14 of the Contractor Cost Outline regarding eligible reimbursement for initial response actions.

## **3.0 DIRECTED INITIAL ABATEMENT MEASURES**

Written directives from the cabinet (in accordance with 401 KAR 42:060 and 40 CFR 280 Subpart F) may require, but are not limited to, the following:

- Remove the Product from the UST System
- Visually Inspect for UST System Releases
- Continue Monitoring for Fire or Safety Hazards
- Remedy any Hazards from Excavated or Exposed Contamination
- Measure for the Presence of a UST System Release
- Investigate for the Possible Presence of Free Product
- Initial Abatement Report

- Free Product Recovery and Disposal, Recycling or Treatment at a permitted facility
- Abate Migration
- Free Product Recovery Report
- Vapor Intrusion Investigation – See Section 4.0 of this outline

NOTE: Tank owners/operators may proceed with additional initial abatement measures outlined in Section 3.0, prior to cabinet approval of costs, however costs incurred prior to cabinet approval shall not be reimbursable.

#### **4.0 DIRECTED VAPOR INTRUSION ASSESSMENT**

Written directives from the cabinet (in accordance with 401 KAR 42:060 and 40 CFR 280 Subpart F) may require, but are not limited to, the following:

- Obtaining access agreements necessary for a vapor intrusion investigation
- Sampling air (indoor air and soil vapor sampling, including sub-slab vapor sampling)

##### **4.1 Indoor Air and Soil Vapor Sampling Plan Approval**

All indoor air and soil vapor sampling plans shall be completed and signed by a Professional Engineer (P.E.) licensed with the Kentucky Board of Licensure for Professional Engineers and Land Surveyors, or a Professional Geologist (P.G.) registered with the Kentucky Board of Registration for Professional Geologists. Sampling plans shall be approved in advance by the cabinet, and shall include the submittal of a Vapor Intrusion Building Assessment Form (DEP0058), including external photographs of the building and any other notable features (i.e., cracking foundation, utility penetrations, etc.), when a sampling plan includes indoor air, sub-slab or near-slab sampling.

##### **4.2 Indoor Air and Soil Vapor Sampling Plans Required Information**

Indoor air and soil vapor sampling plans shall include:

- The name and contact information for the laboratory that will analyze the samples;
- The analytical method chosen based on the constituents of concern and sampling application;

NOTE: Sample results shall be reported in  $\mu\text{g}/\text{m}^3$  (micrograms per cubic meter).

- A detailed list of equipment to be used for the sampling event;

NOTE: Summa canisters used for indoor air sampling shall be individually certified by the laboratory and shall be equipped with pressure gauges and the appropriate flow controller. Individually certified Summa canisters may be required for soil vapor sampling when directed in writing by the cabinet.

- A detailed description of sampling protocols; and
- The sampling duration for indoor air sampling.

### 4.3 Sampling Duration

- Sampling duration shall be chosen based on the following criteria:

Sampling duration	Conditions
8 hour	- Occupational settings where employees work an 8 hour shift.
12 hour	- Occupational settings where employees work a 12 hour shift  OR  - Residential settings where all occupants routinely work outside the home, attend school or daycare or other activities.
24 hour	- Residential or occupational settings where occupants are typically in the building all day long. This may include disabled persons, children cared for within the home, adults that work within the home or are retired or residential care facilities (i.e. inpatient medical facilities, nursing homes).
Other	- As approved by the cabinet.

### 4.4 Building Owner and Occupant Notification

- Building owners and occupants shall be provided with written notification of sampling 7 days in advance of the sampling event.
- The written notification shall be delivered by certified mail. (See Figure 1 for example language within a notification.)
- A waiver to this requirement may be requested in writing in the case of emergencies.
- As part of the notification, building occupants shall be asked to:
  - Operate furnaces and whole house air conditioners as appropriate for the current weather conditions;
  - Refrain from use of wood stoves, fireplaces or auxiliary heating equipment;
  - Refrain from keeping windows or doors open for extended periods of time;
  - Avoid using window air conditioners, fans or vents;
  - Refrain from smoking tobacco products inside of the building;
  - Refrain from using air fresheners or odor eliminators;
  - Refrain from using paints or varnishes (up to a week in advance, if possible);
  - Refrain from using cleaning products (e.g. bathroom cleaners, furniture polish, appliance cleaners, all purpose cleaners, floor cleaners);
  - Refrain from using cosmetics including hair spray, nail polish remover, or perfume;
  - Refrain from participating in hobbies that use solvents within the building;
  - Refrain from storing containers of gasoline, oil or petroleum based or other solvents within the building or attached garages (except for fuel oil tanks);
  - Refrain from operating or storing automobiles in an attached garage; and
  - Refrain from operating gasoline powered equipment within the building, attached garage or around the immediate perimeter of the building.

#### **4.5 Indoor Air and Soil Vapor Assessment Reports**

- The Vapor Intrusion Assessment, DEP 0057 shall be completed, and signed by the P.E. or P.G., for each day of sampling where vapor sampling takes place.
- Results for all volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) applicable to the selected analytical method shall be reported.

#### **4.6 Vapor Mitigation**

Vapor mitigation shall be performed as directed in writing by the cabinet.

**Figure 1**

**NOTICE OF VAPOR INTRUSION ASSESSMENT**

The Kentucky Division of Waste Management (KDWM) has requested a vapor intrusion assessment on your property. As requested by KDWM, \_\_\_\_\_ (company) is providing this notice at least seven (7) days in advance of the sampling event.

<b>Sample Date:</b>
<b>Arrival Time:</b>
<b>Duration of Sampling:</b>
<b>Contracting Company:</b>
<b>Contact Person:</b>
<b>Phone Number:</b>
<b>Sample Technician:</b>
<b>Type of samples to be collected</b> <input type="checkbox"/> <b>INDOOR AIR SAMPLES</b> <input type="checkbox"/> <b>SOIL VAPOR SAMPLES</b> <input type="checkbox"/> <b>SUB-SLAB SAMPLES</b> <input type="checkbox"/> <b>NEAR-SLAB SAMPLES</b>

You are being supplied with this notice because you are the owner or occupant of a property or building that will be assessed in a vapor intrusion investigation. Soil vapor samples, including sub-slab and near-slab samples, do not require any preparation by the owner or occupant, however, please note the scheduled sampling time if you wish to be present during the assessment.

Please be aware that sub-slab soil vapor sampling requires gaining access to the inside of the building for sample point installation and separate access in order to perform sampling.

If indoor air sampling is scheduled, your compliance with the following guidelines is requested. By following these guidelines, the best possible air sample data may be obtained. Please see the requests below.

48 hours prior to and during an indoor air sampling event, please:

- Operate your furnace and whole house air conditioner as appropriate for the current weather conditions.
- Do not use wood stoves, fireplaces or auxiliary heating equipment.
- Do not open windows or keep doors open.
- Avoid using window air conditioners, fans or vents.
- Do not smoke tobacco products in the building.
- Do not use air fresheners or odor eliminators.
- Do not use paints or varnishes (up to a week in advance, if possible).
- Do not use cleaning products (e.g. bathroom cleaners, furniture polish, appliance cleaners, all-purpose cleaners, floor cleaners).
- Do not use cosmetics including hair spray, nail polish remover, or perfume.
- Do not participate in hobbies indoors that use solvents.
- Do not store containers of gasoline, oil or petroleum based or other solvents within the building or attached garages (except for fuel oil tanks).
- Do not operate or store automobiles in an attached garage.

- Do not operate gasoline powered equipment within the building, attached garage or around the immediate perimeter of the building.

By following the suggestions above, air samples will be more likely to indicate a possible environmental impact on the air in your residence as opposed to the contribution of airborne chemicals from everyday household activities.

Sample results will be submitted by the contractor listed above to KDWM. KDWM personnel will evaluate the data and provide a copy of all data to you via U.S. Mail.