

# City Specification

# No. 434

Reference to HBFC Sections  
105.7.6 & 105.6.16

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## Huntington Beach Fire Department

### Soil Vapor and/or Water Remediation Equipment Requirements

This guideline is to provide the minimum requirements for soil vapor and/or water extraction remediation equipment utilized, or installed, at environmental clean-up sites (i.e., former gas stations). For detailed information regarding soil clean-up standards, please refer to the Huntington Beach Fire Department's *City Specification #431-92, Soil Clean-up Standard*.

#### DEFINITIONS

**Carbon Filters** – Equipment designed to receive Volatile Organic Compounds (VOC) laden vapors or liquids extracted from contaminated soil and industrial processes, and remove the VOC with a carbon filter or a series of carbon filters.

**Thermal Oxidizer Unit** – Equipment designed to receive VOC laden vapors extracted from contaminated soil and industrial processes, and convert VOC into carbon dioxide and water vapor by combustion. Combustion may be maintained from the extracted vapors or with the addition of domestic natural gas. Thermal oxidizers may be trailer mounted, skid-mounted or permanently installed on-site.

**Vapor and/or Water Extraction Equipment** – Equipment designed to extract VOC laden vapors or liquids from contaminated soil, groundwater or industrial processes.

#### REQUIREMENTS

##### 1. PLAN CHECK PROCESS

- 1.1 Contact the City of Huntington Beach Planning Department for a plan review.
- 1.2 Submit three (3) sets of plans to the City of Huntington Beach Building and Safety Department for the approval of electrical, mechanical, plumbing and foundation requirements.
- 1.3 Submit three (3) sets of plans to the Huntington Beach Fire Department for project review.
- 1.4 Submit to the Fire Department a copy of the Contingency/Emergency Response Plan for each installation. An approved copy shall be posted on site at all times.

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### 2. REQUIRED PERMITS

- 2.1 Fire Department Permit (105.6.16) – Flammable or Combustible Liquids
- 2.2 Fire Department Permit (105.6.27) – Liquefied Petroleum Gases (LPG), if applicable
- 2.3 Provide copies of all applicable permits and/or project approvals as follows:
  - California Regional Water Quality Control Board (CRWQCB) project approval
  - Orange County Health Care Agency (OCHCA) project approval
  - Orange County Sanitation District (OCSD) permit for groundwater discharge to sanitary sewer system to the City of Huntington Beach Public Works Department and Fire Department
  - Department of Toxic Substance Control (DTSC)
  - South Coast Air Quality Management District (SCAQMD) permits

### 3. BASIC SITE REQUIREMENTS

- 3.1 **Fencing** – All sites shall be enclosed by a minimum 6 foot high perimeter fence, topped with three (3) strands of barbed wire, spaced 4 inches apart. Fencing may be chain-link, masonry, or other Planning Department, Building and Safety Department, and Fire Department approved materials.
- 3.2 **Fire Department Access** – A site/equipment access gate shall be provided, which shall be located in a non-hazardous location. A minimum gate width of 3 feet shall be provided and the gate kept locked at all times while the site is unattended. A site access key shall be provided to the Fire Department's Oil Field Inspector for annual inspection access purposes prior to the approval of the site plan.
- 3.3 **Required Signage** to include:
  - Emergency contact information with 24-hour access phone number and address of the site. The contact phone number must be an attended phone number with a person answering the phone.
  - "No Smoking" signs shall be displayed on external sides of site
  - National Fire Protection Association (NFPA) 704 placard identifying appropriate hazard classification
  - Label all storage tanks with appropriate contents
  - Proposition 65 warning sign

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- “Emergency Shut-Off” sign located near the shut-off switch on the outside of the site
  - Current Fire Department permits posted in a visible location
- 3.4 **Remediation Equipment** – Permanent equipment shall be properly installed to resist seismic and structural forces. Skid mounted or trailer mounted equipment brought on-site for limited duration or temporary use shall be restrained to prevent movement, shifting or rolling. All plumbing servicing skid mounted or trailer mounted equipment shall be designed to take into account minor movement without damage to the piping.
- 3.5 **Secondary Containment** – Secondary containment shall be provided to accommodate 100 percent of the largest storage tank on site. All sump pumps and electrical installations shall meet the requirements of the Building and Safety Department.
- 3.6 **Fire Extinguisher** – A minimum rating 2-A:40-B:C fire extinguisher shall be installed in an all-weather fire extinguisher cabinet. Extinguisher shall be tagged with a current State Fire Marshal tag.
- 3.7 **Equipment Protection** – Remediation equipment, piping, and gas meters subject to vehicle impact shall be protected by guard posts. Spacing between posts shall not exceed 4 feet per the Huntington Beach Fire Code (*HBFC Section 312, Vehicle Impact Protection*).

**4. SITE OR EQUIPMENT OPERATION**

- 4.1 **Noise Control** – Site sound levels shall conform to and be maintained at or below Huntington Beach Municipal Code Section 8.4 requirements. At the discretion of the Fire Code Official, soundproofing may be required.
- 4.2 **Operation of Equipment** – All equipment and plumbing shall reflect sound engineering, quality construction and proper installation. Equipment and plumbing shall be maintained in good working order, free from excessive wear, noise generation, corrosion, rust, weathering, leakage, odor or degradation.
- 4.3 **Distance to Combustibles** – Areas around and adjacent to equipment shall be maintained and kept free of all combustible materials, weeds and other debris for a minimum distance of 25 feet.
- 4.4 **Gas Emission or Burning Prohibited** – No person shall allow, cause, or permit gases from a remediation operation to be vented into the atmosphere, or to be burned by open flame, except as provided by law or the SCAQMD.
- 4.5 **Releasing of Fluids** – No person shall deposit, place or discharge any oil, solvent, hydrocarbon substance or waste water from any remediation operation upon a public right-of-way, storm drain, private property or any portion of the ocean.

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4.6 **Clean-Up after Spills, Leaks or Malfunctions** – The responsible party shall immediately notify the Fire Department of any spills or leaks, which shall be promptly removed or cleaned-up to the satisfaction of the Fire Code Official.

**5. PORTABLE EQUIPMENT OPERATED OUTSIDE OF THE SITE BOUNDARIES**

5.1 In addition to the requirements in Sections 1 - 4 of this City Specification, portable truck or trailer-mounted equipment such as thermal oxidizers, carbon filters, extraction pumps, vacuum trucks, or trailers and service trucks operated temporarily outside the confines of the site fencing shall conform to the following:

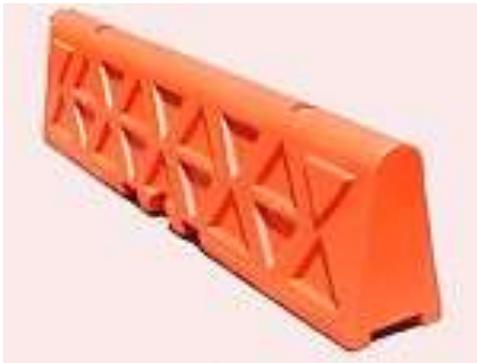
- A responsible person knowledgeable in the emergency shut-off procedures shall be present at all times.
- A minimum of 10 feet shall be maintained in all directions from parked vehicles.
- An approved method of crash protection must be provided (i.e., water filled barrels or barricade) when a significant potential for vehicle impact exists.
- Provide the method of spill control to be used in the Contingency/ Emergency Response Plan (i.e., booms or other approved method).
- A minimum rating 2-A:40-B:C fire extinguisher shall be readily accessible. Extinguisher shall be tagged with a current State Fire Marshal tag.

APPROVED: \_\_\_\_\_  
Patrick McIntosh, Fire Chief

DATE: \_\_\_\_\_

**Soil Vapor and/or Water Remediation Equipment Requirements**

**APPROVED CRASH PROTECTION BARRICADES AND SPILL BOOMS**



**NOTE:** The Huntington Beach Fire Department does not endorse any specific vendors. To locate a vendor, please refer to the Yellow Pages, the Internet or other advertising mediums.