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DEPARTMENT OF
FIRE

CITY OF SACRAMENTO
CALIFORNIA

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SACRAMENTO, CA
95814-2979

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RAY CHARLES
FIRE CHIEF

February 10, 1988

Law and Legislative Committee
Sacramento, California

Honorable Members in Session:

**SUBJECT: Ordinance Amending Chapter 16 of the
City Code Relating to Underground Storage
of Hazardous Substances**

As requested, the Sacramento Fire Department has conducted research to determine what fire agencies in California are accepting the interior lining process for underground tanks. We have made contact with all 32 fire jurisdictions in California which had an underground tank ordinance before 1984. The purpose for surveying jurisdictions that had ordinances before 1984 is that state law does not pre-empt their ordinance. Also we are similarly situated.

Of the 32 jurisdictions contacted we received 27 responses i.e., we actually spoke with someone within the department knowledgeable on the subject. Of the 27 responses, ten fire agencies allow the process to be done with varying levels of control. Nine stated that they would not allow the process to be done. Two fire agencies stated that they would discourage it. Three fire agencies stated that they would allow the process, but would not allow the tank to be cut open in order to perform the procedure. Two fire agencies were unsure as to what policy they would adopt.

As with all statistical data the raw numbers do not show the complete picture. Many jurisdictions accept the process because they feel they are legally obligated to do so. The tank lining industry argues that California government code section 53075 requires the Sacramento Fire Department to issue a permit to do the lining process. The City Attorney's opinion is that this code section would prevent us from discriminating against the interior lining process ONLY if we allowed tanks to be repaired. Since the current fire code does not allow repairs, and the proposed ordinance would not allow repairs we are not affected by

this section. The Sacramento Fire Department interprets the cutting of a hole in the tank to gain access, and the patching of that hole as a repair.

Many fire agencies simply don't have the legal assistance readily available, or are reluctant to take on a possible legal battle; they are allowing the process with some reservations. For many jurisdictions that have allowed the process it was a first time experience or done on a trial basis only. Some agencies stated that after further consideration they would not allow it again.

We contacted two major oil companies, Shell & Chevron. In both cases we were told that the interior lining process is rarely if ever used. It was the opinion of representatives from both companies that they would never use an interior lining process as a long term solution to tank corrosion. The goal of both companies is to replace all of their single wall tanks with double walled.

The following is summary of reasons the Sacramento Fire Department is opposed to allowing underground tanks to be cut open to perform the interior lining process.

1. The Fire Code does not allow tanks to be repaired.

As stated above, we interpret the cutting and patching of a tank as a repair.

2. Concern about tanks being cut open in a populated area.

Throughout the state and the country numerous explosions have occurred as a result of tanks being cut. Many have caused serious injury or death.

3. The interior lining process is not U.L. approved. Everything associated with the tank is required to be U.L. approved. There is currently no U.L. listing for the product used to line the tank or the process itself.

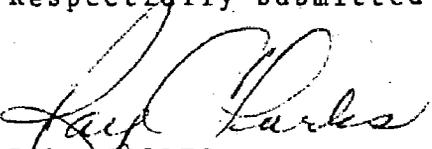
4. No independent standards for cutting into or applying an interior coating currently exist.

The Western Fire Chiefs Association (the organization

that promulgates our fire code) has heard the issue in its last three code committee meetings. The result has been that standards for the interior lining process have not been adopted; indicating that the fire service is not yet prepared to accept the process.

Even with all the above factors considered, the Sacramento Fire Department is not completely against the interior lining process. Although we express no opinion as to how successful it may be, we are willing to accept it in circumstances where it is done for preventative maintenance only, and the tank has an entry port. The Sacramento Fire Department views this simply as a public safety issue. We recommend adoption of the ordinance in its present state.

Respectfully Submitted,



RAY CHARLES
FIRE CHIEF

RC/kmn

**DATA MATRIX ON THE POLICIES OF CALIFORNIA FIRE AGENCIES
REGARDING THE INTERIOR LINING PROCESS**

	<u>ALLOW</u>	<u>DISALLOW</u>	<u>ALLOW / NO CUTTING</u>	<u>DISCOURAGE</u>	<u>NO POLICY</u>
Belmont / San Carlos F.D.		X			
Campbell F.D.					X
Chico F.D.	X				
Fremont F.D.	X				
Hayward F.D.	X				
L.A. City F.D.		X			
L.A. County F.D.				X	
Long Beach F.D.	X				
Los Gatos F.D.		X			
Milpitas F.D.		X			
Monterey F.D.		X			
Morgan Hill F.D.	X				
Mountain View F.D.			X		
Oakland F.D.					X
Palo Alto F.D.			X		
Sacramento		X			
San Diego F.D.	X				
San Jose F.D.	X				
San Leandro F.D.		X			
San Luis Obispo F.D.		X			
Santa Ana F.D.		X			

	<u>ALLOW</u>	<u>DISALLOW</u>	<u>ALLOW / NO CUTTING</u>	<u>DISCOURAGE</u>	<u>NO POLICY</u>
Santa Clara F.D.	X				
Scotts Valley F.D.				X	
Seaside F.D.			X		
Sunnyvale F.D.		X			
Union City F.D.	X				
Watsonville F.D.	X				



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CITY OF SACRAMENTO
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February 4, 1988

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916-449-5266

RAY CHARLES
FIRE CHIEF

Law and Legislative Committee
Sacramento, California

Honorable Members in Session:

**SUBJECT; Ordinance Amending Chapter 16 of the
City Code Relating to Underground Storage
of Hazardous Substances**

SUMMARY

This report concerns:

1. The history of the Underground Storage of Hazardous Substances Ordinance;
2. The proposed amendments to the Ordinance; and
3. The recommendations of City staff.

BACKGROUND

In December, 1983, the City Council adopted the Underground Storage of Hazardous Substances Ordinance (Chapter 16). At the same time the Sacramento County Board of Supervisors adopted the identical ordinance for the County. The purpose for this ordinance was to establish standards for construction and monitoring of all new and existing facilities for underground storage of hazardous substances.

The City Council adopted this ordinance prior to January 1, 1984. This ordinance exempts owners of underground storage tanks within the City jurisdiction from meeting State Regulations. It allows the City Ordinance to set the minimum standards for underground storage of hazardous substances within the City's jurisdiction.

At the time this ordinance was adopted by Council, the Fire Department was directed to develop a joint permitting system for underground tanks with the County of Sacramento. A Memorandum of Understanding was developed between the Sacramento Fire Department and the County Health Department which went into effect on May 1, 1985.

The proposed amendments to the ordinance are as follows:

1. The definitions were reviewed and the changes were made to update the terminology by adding "Contractor", "Department", "Perennial Ground Water" and "Tank" to the Definitions Section.
2. The monitoring section is being amended to adopt parts of the State Underground Storage Tank Construction and Monitoring Standards.
3. The amended ordinance gives the City more stringent enforcement authority and makes contractors accountable, along with the tank owner. A contractor under our current ordinance has no responsibility to ascertain if the owner/operator has obtained a permit, nor to ascertain whether a permit has been obtained for removal of a tank. The amended ordinance imposes criminal penalties and civil penalties for such violations. If a contractor does not have in his possession a copy of the permit, he cannot work on, monitor, remove or transport a tank.
4. Section 16.150(d) has been added to allow the interior lining of underground hazardous substance storage tanks for preventive maintenance purposes only. This process will be permitted if the tank meets the criteria set forth in this section of the amended ordinance and the Uniform Fire Code. This section takes into consideration fire safety issues and the possible unauthorized release of a hazardous substance.
5. Repairs to underground storage tanks are not allowed under the amended ordinance.

The amended ordinance has been reviewed and approved by the City Attorney's Office, the Sacramento Fire Department, the Sacramento County Fire Marshals Association and the Sacramento County Health Department.

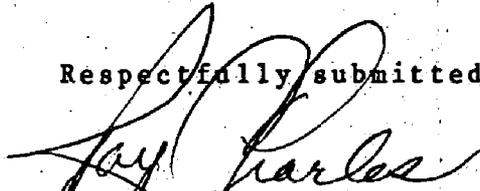
VOTE AND RECOMMENDATION OF THE COUNTY

On February 3, 1988 the Sacramento County Board of Supervisors approved the amended Underground Storage of Hazardous Substances Ordinance. The ordinance will go into effect on March 3, 1988.

RECOMMENDATION

It is recommended that the committee approve the attached Underground Storage of Hazardous Substances Amendments to Chapter 16.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Ray Charles".

RAY CHARLES
Fire Chief

ORDINANCE NO.

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF

AN ORDINANCE AMENDING CHAPTER 16 OF THE CITY CODE RELATING TO UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1

Chapter 16 of the City Code is hereby amended to read as follows:

SACRAMENTO CITY CODE

UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES

CHAPTER 16

§ 16.010 Purpose.

It is the purpose of this chapter to establish standards for construction and monitoring of facilities used for the underground storage of hazardous substances, and to establish a procedure for issuance of permits for the use of these facilities. (Ord. 83-152, §1)

§ 16.020 Definitions.

- (a) "Board" means the state water resources control board.
- (b) "Contractor" means a person who agrees to install, repair, remove or monitor underground storage tanks and underground storage tank pipelines.
- (c) "Department" means the state department of health services.
- (d) "Facility" means any one, or combination of, underground storage tanks used by a single business entity at a single location or site.
- (e) "Hazardous substance" means all of the following liquid and solid substances, unless the department, in consultation with the board, determines that the substance could not adversely affect the quality of the waters of the state:
 - (1) Substances on the list prepared by the director of the Department of Industrial Relations pursuant to section 6382 of the Labor Code of the State of California.

- (2) Hazardous substances, as defined in section 25316 of the Health and Safety Code of the State of California.
- (3) Any substance or material which is classified by the National Fire Protection Association (NFPA) as a flammable liquid, a class II combustible liquid, or a class III-A combustible liquid.
- (f) "Operator" means the operator of an underground storage tank.
- (g) "Owner" means the owner of an underground storage tank.
- (h) "Perennial Ground Water" means ground water that is present throughout the year.
- (i) "Permitting Authority" shall be city council or its designee.
- (j) "Person" means an individual, trust, firm, joint stock company, corporation, including a government corporation, partnership, and association. "Person" also includes any city, county, district, the state, the federal government, or any department or agency thereof.
- (k) "Pipe" means all parts of any pipeline or system of pipelines, used in connection with the storage of hazardous substances and which are not intended to transport hazardous substances in interstate or intrastate commerce, or to transfer hazardous materials in bulk to or from a marine vessel.
- (l) "Primary containment" means the first level of containment, such as the portion of a tank which comes into immediate contact on its inner surface with the hazardous substance being contained.
- (m) "Product-tight" means impervious to the substance which is contained, or is to be contained, so as to prevent the seepage of the substance from the primary containment. To be product-tight, the tank shall not be subject to physical or chemical deterioration by the substance which it contains over the useful life of the tank.
- (n) "Secondary containment" means the level of containment external to, and separate from, the primary containment.
- (o) "Single-walled" means construction with walls made of only one thickness of material. For the purpose of this chapter, laminated, coated, or clad materials shall be considered single-walled.
- (p) "Special inspectors" means a professional engineer, registered pursuant to chapter 7 (commencing with section 6700)

of division 3 of the Business and Professions Code of the State of California, who is qualified to attest, at a minimum, to structural soundness, seismic safety, the compatibility of construction materials with contents, cathodic protection, and the mechanical compatibility of the structural elements of underground storage tanks.

- (q) "Storage" or "store" means the containment, handling or treatment of hazardous substances, either on a temporary basis or for a period of years. "Storage" or "store" does not mean the storage of hazardous wastes in an underground storage tank if the person operating the tank has been issued a hazardous waste facilities permit by the Department pursuant to section 25200 or granted interim status under section 25200.5 of the Health and Safety Code of the State of California.
- (r) "Tank" means a stationary device designed to contain an accumulation of hazardous substances which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provides structural support.
- (s) "Unauthorized release" means any release or emission of any hazardous substance which does not conform to the provisions of this chapter, unless this release is authorized by the State Water Resources Control Board pursuant to division 7 (commencing with section 13000) of the Water Code of the State of California.
- (t) "Underground storage tank" means any one or combination of tanks, including pipes connected thereto, which is used for the storage of hazardous substances and which is substantially or totally beneath the surface of the ground. "Underground storage tank" does not include any of the following:
 - (1) A tank used for the storage of hazardous substances used for the control of external parasites of cattle and subject to the supervision of the county agricultural commissioner if the county agricultural commissioner determines, by inspection prior to use, that the tank provides a level of protection equivalent to that required by section 16.030, if the tank was installed after June 30, 1984, or protection equivalent to that provided by section 16.040, if the tank was installed on or before June 30, 1984.
 - (2) A tank which is located on a farm, which stores motor vehicle fuel or heating fuel used primarily for agricultural purposes, and which holds 1,100 gallons or less.
 - (3) A tank which is used for aviation or motor vehicle fuel, which tank is located within one mile of a farm and is used by a licensed pest control operator, as

defined in section 11705 of the Food and Agricultural Code of the State of California, who is primarily involved in agricultural pest control activities.

- (4) Structures such as sumps, separators, storm drains, catch basins, oil field gathering lines, refinery pipelines, lagoons, evaporation ponds, well cellars, separation pumps, lined and unlined pits, sumps and lagoons. Sumps which are a part of a monitoring system required under section 16.030 or section 16.040 are not exempted by this section.

§ 16.025 Adoption, in Part, of Title 23, Subchapter 16, of the California Administrative Code.

Subchapter 16, Underground Tank Regulations, Title 23 of the California Administrative Code; Article 3, Section 2631, subsections (i) through (s) and Sections 2632 through and including 2635; Article 4, Sections 2641 through and including 2648; Article 5, Sections 2650 through and including 2652; and Article 7, Sections 2670 through and including 2672; is hereby adopted in part by reference and incorporated in this Code, except as expressly amended or superseded by the provisions of this Code.

§ 16.026 Amendments to Subchapter 16, Underground Tank Regulations, Title 23 of the California Administrative Code.

- (a) Section 2632(c)(1)(D)(i) is changed to read:

"Laboratory or field analysis of the liquid. If the observed liquid constitutes an unauthorized release the local agency shall be notified within 24 hours. The release shall be treated as a reportable release pursuant to Section 2652 of this article."

- (b) The following is added to Section 2635(b)(8):

"(D) A ball check valve which prevents the inflow of the hazardous substance into the primary vent pipe and the vapor recovery line on the underground storage tank."

- (c) Section 2641(c)(3)(A) is changed to read:

"(3) Vadose Zone Monitoring, Soil Sampling, and Underground Storage Tank Testing:

- (A) This monitoring alternative shall, at a minimum, include vadose zone monitoring and analysis of soil samples taken from the boring(s) made for vadose zone monitoring and tank testing. This al-

ternative shall not be approved if the highest anticipated ground water, including intermittent, perched ground water is less than 30 feet deep, and this ground water has actual or potential beneficial uses (domestic, municipal, agricultural, or industrial supply) or is hydraulically connected to ground and surface waters which have actual or potential beneficial uses."

(d) Section 2641(c)(3)(B) is changed to read:

"The determination that first ground water is significantly deeper than 30 feet shall be by an on-site boring(s) constructed according to the specifications in Subsection (p) of Section 2648 of this article or by evidence based on an evaluation pursuant to Subsection 2648(p) of this article."

(e) The following are added to Section 2641(c), as Subsections (9) and (10):

"(9) Inventory Reconciliation, Underground Storage Tank Testing, and Testing for Water in the Underground Storage Tank.

(A) This monitoring alternative shall, at a minimum, utilize inventory reconciliation, underground storage tank testing and testing for water in the underground storage tank. The use of this alternative is limited to those underground storage tanks where perennial ground water is at the top of the underground storage tank.

(B) Inventory reconciliation shall be performed according to the procedures specified in Section 2644 of this article. The owner or operator of an underground storage tank that experiences an inventory reconciliation in excess of allowable variations shall implement the evaluation procedures specified in subsection (f) of Section 2644 of this article within the times specified.

(C) Underground storage tank testing shall be performed yearly, at a minimum, according to the procedures specified in Section 2643 of this article.

(D) A test to determine if water is present in the underground storage tank shall be performed monthly. Upon detection of water in the underground storage tank the permitting authority shall be informed and a tank test per Section 2643 of this article may be required.

(10) Compare Yearly Usage.

(A) This monitoring alternative shall, at a minimum, keep inventory records of the yearly input and compare these records to the proceeding year(s). The use of this alternative is limited to those underground storage tanks which are personal residential underground storage tank(s).

(B) A variation of yearly usage of 10 percent or greater shall be reported to the local agency. Procedures in Section 2652 for an unauthorized release may be required by the local agency."

(f) Section 2646(a) is changed to read:

"All owners of existing underground storage tanks implementing one of the monitoring alternatives described in Section 2641 of this article which requires vapor or another form of vadose zone monitoring shall implement the vadose zone detection monitoring system pursuant to the manufacturer's and permitting authority's instruction or pursuant to Subsections (b) through (h) of this section."

(g) Section 2648(p)(3) is changed to read:

"The exploratory boring shall be drilled to first perennial ground water or to a minimum depth of 100 feet for Alternatives 2, 3, and 6, or to a minimum depth of 30 feet for Alternatives 3 and 4."

(h) Section 2648(q) is changed to read:

"All borings that are not used for ground water or vadose zone monitoring shall be sealed from the ground surface to the bottom of the boring with grout material consisting of neat cement or cement grout."

(i) Section 2648(r) is changed to read:

"All borings that are converted to vadose zone monitoring wells in which the monitored interval is shallower than the total depth of the boring shall have the portion of the boring which is below the monitored interval sealed with grout material consisting of neat cement or cement grout."

(j) Section 2648(v) is changed to read:

"If evidence of contamination is detected by sight, smell, or other field analytical methods, drilling shall be halted until the responsible professional determines if drilling deeper is advisable. The permitting authority shall be notified of the contamination within 24 hours."

(k) Section 2671(a) is changed to read:

"This section applies to those underground storage tanks in which storage has ceased but where the owner or operator proposes to retain the ability to use the underground storage tank within 1 year for the storage of hazardous substances."

§ 16.030 Design Standards and Monitoring Systems for New Facilities.

No underground storage tank or facility shall be installed after January 1, 1984, unless a permit to operate is first obtained from the permitting authority.

A permit to operate shall not be issued for any underground storage tank or facility installed after January 1, 1984, unless the underground storage tank or facility meets the following requirements:

- (a) Be designed and constructed to provide primary and secondary levels of containment of the hazardous substances stored in it in accordance with the following performance standards:
 - (1) Primary containment shall be product-tight.
 - (2) Secondary containment shall be constructed of materials of sufficient thickness, density and composition to prevent structural weakening as a result of contact with any released hazardous substances, and shall be capable of containing any unauthorized release of the hazardous substance stored within the primary container(s) for at least the maximum anticipated period sufficient to allow detection and removal of the unauthorized release.
 - (3) In the case of an installation with one primary container, the secondary containment shall be large enough

to contain at least 100 percent of the volume of the primary tank.

- (4) In the case of multiple primary tanks, the secondary container shall be large enough to contain 150 percent of the volume of the largest primary tank placed in it, or 10 percent of the aggregate internal volume of all primary tanks, whichever is greater.
- (5) If the secondary container is open to rainfall, then it shall be able to additionally accommodate the volume of precipitation which could enter the secondary container during a 24-hour 100-year storm.
- (6) The volumetric requirements for pore space of a granular material placed in the secondary container as backfill for the primary container shall be equal to or greater than that required in Section 16.030(a)(2). The available pore space in the secondary container backfill shall be determined using appropriate engineering methods and safety factors and shall consider the specific retention and specific yield of the backfill material, the location of the primary container within the secondary container, and the proposed method of operation for the secondary container.
- (7) The secondary container shall be equipped with a collection system to accumulate, temporarily store, and permit removal of any precipitation, subsurface infiltration, or hazardous substance released from the primary container.
- (8) Single-walled containers do not fulfill the requirement of an underground storage tank providing both a primary and a secondary containment. However, an underground storage tank with a primary container constructed with a double complete shell shall be deemed to have met the requirements for primary and secondary containment set forth in this section if the outer shell is constructed primarily of nonearthen materials, including, but not limited to, concrete, steel, and plastic, which provide structural support and a continuous leak detection system with alarm is located in the space between the shells; the system is capable of detecting the entry of hazardous substances from the inner container into the space; and the system is capable of detecting water intrusion into the space from the outer shell.
- (9) The design and construction of underground storage tanks for motor vehicle fuels storage need not meet the requirements of paragraphs (1) to (5), and (8), inclusive, if:
 - (A) The primary containment construction is of glass fibre reinforced plastic, cathodically protected, or steel clad with glass fibre reinforced plastic;

- (B) Any alternative primary containment is installed in conjunction with a system that will intercept and direct a leak from any part of the tank to a monitoring well to detect any release of motor vehicle fuels stored in the tank;
 - (C) The system is designed to provide early leak detection and response, and to protect the ground-water from releases;
 - (D) The monitoring is in accordance with the alternative method identified in paragraph (3) of subdivision (6) of section 16.040; and
 - (E) Pressurized piping systems connected to underground storage tanks used for the storage of motor vehicle fuels and monitored in accordance with paragraph (3) of subdivision (b) of section 16.040 shall also be deemed to meet the requirements of this subdivision.
- (b) Be designed and constructed with a monitoring system capable of detecting the entry of the hazardous material stored in the primary containment into the secondary containment. If water could intrude into the secondary containment, a means of monitoring for water intrusion and for safely removing the water shall also be provided.
- (c) When required by the permitting authority, the underground storage tank shall have a means of overflow protection for any primary tank, including an overflow prevention device or an attention-getting high level alarm, or both. Primary tank filling operations of underground storage tanks containing motor vehicle fuels which are visually monitored and controlled by a facility operator satisfy the requirements of this paragraph.
- (d) Different substances that in combination may cause a fire or explosion, or the production of flammable, toxic, or poisonous gas, or the deterioration of a primary or secondary container, shall be separated in both primary and secondary containment so as to avoid potential intermixing.
- (e) If water could enter into the secondary containment by precipitation or infiltration, the facility shall contain a means of removing the water by the owner or operator. This removal system shall also prevent uncontrolled removal of this water and provide for a means of analyzing the removed water for hazardous substance contamination and a means of disposing of the water, if so contaminated, at an authorized disposal facility.
- (f) Before the underground storage tank is covered, enclosed, or placed in use, the standard installation testing for

requirements for underground storage systems specified in Section 2-7 of the Flammable and Combustible Liquids Code, adopted by the National Fire Protection Association (NFPA 30), as amended and published in the Uniform Fire Code, as adopted by the appropriate authority, shall be followed.

- (g) If the underground storage tank is designed to maintain a water level in the secondary containment, the tank shall be equipped with a safe method of removing any excess water to a holding facility and the owner or operator shall inspect the holding facility monthly for the presence of excess water overflow. If excess water is present in the holding facility, the permit holder shall provide a means to analyze the water for hazardous substance contamination and a means to dispose of the water, if so contaminated, at an authorized disposal facility.

(Ord. 83-152, §1)

§ 16.040 Monitoring Systems for Existing Facilities.

No permit to operate shall be issued for any underground storage tank or facility installed on or before January 1, 1984, and used for the storage of hazardous substances unless the following actions are taken:

- (a) On or before July 1, 1985, the owner shall outfit the facility with a monitoring system capable of detecting unauthorized releases of any hazardous substances stored in the facility, and thereafter, the operator shall monitor each facility, based on material stored and the type of monitoring installed.
- (b) Provide a means for visual inspection of the tank, wherever practical, for the purpose of the monitoring required by subdivision (a). Alternative methods of monitoring the tank on a monthly, or more frequent basis, may be required by the permitting authority, consistent with regulations of the board.

The alternative monitoring methods include, but are not limited to, the following methods:

- (1) Precision testing as defined in National Fire Protection Association Pamphlet 329, "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids", as amended, for proving the integrity of an underground storage tank and piping system at time intervals specified by the board.
- (2) A groundwater monitoring well or wells which are down-gradient and adjacent to the underground storage tank, vapor analysis within a well where appropriate, and analysis of soil borings at the time of initial installation of the well. The permitting authority shall

develop regulations specifying monitoring alternatives and shall approve the location and number of wells, the depth of wells and the sampling frequency, pursuant to these regulations.

- (3) A continuous leak detection and alarm system which is located in monitoring wells adjacent to an underground storage tank and which is approved by the permitting authority.
- (4) For monitoring tanks containing motor vehicle fuels, daily gauging and inventory reconciliation by the operator, if all of the following requirements are met:
 - (i) Inventory records are kept on file for one year and are reviewed quarterly.
 - (ii) The tank is tested using the precision test as defined by the National Fire Protection Association Pamphlet 329, "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Solids", as amended, for proving the integrity of an underground storage tank at time intervals specified by the board and whenever there is a shortage greater than the amount which the board shall specify by regulation.
 - (iii) If a pressurized pump system is connected to the tank system, the system has a leak detection device to monitor for leaks in the piping. The leak detection device shall be installed in a manner designed to resist unauthorized tampering and to clearly show by visual inspection if tampering has occurred. The leak detection device shall be tested annually, at a minimum, and all devices found to be not performing in conformance with the manufacturer's leak detection specifications shall be promptly repaired or replaced.
- (5) For monitoring underground storage tanks which are located on farms and which store motor vehicle or heating fuels used primarily for agricultural purposes, alternative monitoring methods include the following:
 - (i) If the tank has a capacity of greater than 1,100 gallons but of 5,000 gallons or less, the tank shall be tested using the precision test, as defined by the National Fire Protection Association Pamphlet 329, at least once every three years, and the owner shall utilize tank gauging on a monthly or more frequent basis, as required by the local agency, subject to the specifications provided in paragraph (7) of subdivision (c) of Section 2641 of Title 23 of the California Administrative Code.

- (ii) If the tank has a capacity of more than 5,000 gallons, the tank shall be monitored pursuant to the methods for all of the tanks specified in Section 16.040.

§ 16.041 Exemptions from Monitoring

An underground storage tank which holds less than 1,100 gallons of home heating fuel, which tank's use is wholly and solely for residential heating, is exempt from the monitoring requirement for leakage. However, the owner of the underground storage tank must obtain a permit to operate the tank.

§ 16.045 Abandonment.

- (a) No person shall abandon an underground storage tank or close or temporarily cease operating an underground storage tank except as provided in this chapter.
- (b) An underground storage tank which is temporarily taken out of service, but which the operator intends to return to use, shall continue to be subject to all the permit, inspection, and monitoring requirements of this chapter, unless the operator complies with the provisions of subdivision (c) for the period of time the underground tank is not in use.
- (c) No person shall close an underground storage tank unless the person undertakes all of the following actions:
- (1) Demonstrates to the permitting authority that all residual amounts of the hazardous substance or hazardous substances which were stored in the tank prior to its closure have been removed, properly disposed of, and neutralized.
 - (2) Adequately seals the tank to minimize any threat to the public safety and the possibility of water intrusion into, or runoff from, the tank.
 - (3) Provides for, and carries out, the maintenance of the tank as permitting authority determines is necessary, for the period of time the permitting authority requires.
 - (4) Demonstrates to the permitting authority that there has been no significant soil contamination resulting from a discharge in the area surrounding the underground storage tank or facility.

(Ord. 83-152, §1)

§ 16.050 Permit Required.

No person shall operate a facility for the underground storage of any hazardous substance within the City of Sacramento, unless by authority

of a valid, unexpired and unrevoked permit to operate an underground storage tank issued to the owner pursuant to the provisions of this chapter.

A person shall be deemed to operate a facility and violate this section if the person, without a required permit to operate in effect, supervises, inspects, directs, organizes, manages or controls or is in any way responsible for or in charge of the facility for which a permit is required.

This section does not obviate the requirement for a valid building permit pursuant to chapter 9 of this code, nor any other applicable codes and ordinances.

(Ord. 83-152, §1)

§ 16.055 Contractors.

- (a) No contractor shall remove, repair, install or monitor any underground storage tank, or underground storage tank pipelines, without first having obtained a copy of the Permit to Operate an Underground Storage Tank, or the Permit to Remove an Underground Storage Tank, or the Permit to Install an Underground Storage Tank.
- (b) Contractor shall have in his immediate possession a copy of the Permit to Operate an Underground Storage Tank, or the Permit to Remove an Underground Storage Tank, or the Permit to Install an Underground Storage Tank, any time contractor is in the process of removing, repairing, installing or monitoring any underground storage tank.
- (c) Contractor shall retain copies of any permit to operate, remove or install an underground storage tank for one (1) year from the date of completion of any work. If the work of contractor is solely the monitoring of an underground storage tank, contractor shall keep the copy of the permit for a period of three (3) years.
- (d) Contractor shall produce a copy of the permit to operate, remove or install an underground storage tank upon demand of the permitting authority or its designee, or of any law enforcement officer.

§ 16.060 Application Filing.

All applications for a permit to operate an underground storage tank shall be filed with the Sacramento City Fire Department or other agency(s) designated by the permitting authority.

(Ord. 83-152, §1)

§ 16.070 Application Contents.

The application for a permit to operate shall be filed on a form and contain such information as prescribed by the permitting authority, including the following:

- (a) A description of the construction of the underground storage tank or tanks.
- (b) A list of all the hazardous substances which are or will be stored in the underground storage tank or tanks, specifying the hazardous substances for each underground storage tank.
- (c) A description of the monitoring program for the underground storage tank or tanks.
- (d) The name and address of the person, firm, or corporation which owns the underground storage tank or tanks and, if different, the name and address of the person who operates the underground storage tank or tanks.
- (e) The address and parcel number(s) of the facility at which the underground storage tank or tanks are located.
- (f) The name of the person making the application.
- (g) The name and 24-hour phone number of the contact person in the event of an emergency involving the facility.
- (h) If the owner or operator of the underground storage tank is a public agency, the application shall include the name of the supervisor of the division, section, or office which operates the tank.
- (i) Such other further information as is deemed necessary to administer the provisions of this chapter.

(Ord. 83-152, §1)

§ 16.080 Issuance.

- (a) The permitting authority shall act upon the application not later than thirty days after the date it is accepted as complete unless the applicant has filed with the permitting authority written notice of a request and received written approval for extension of the time within which action is taken on the grounds that additional time is required to prepare or present plans or other information, obtain zoning variances or other permits, or make other corrections remedying inconsistencies with the provisions of this chapter. (Ord. 83-152, §1)
- (b) The applicant must complete all work within six months of the permitting authority's approval, unless an extension of time is granted in writing prior to expiration.

§ 16.090 Term.

A permit to operate an underground storage tank shall be effective for five years, at which time the permittee may apply for renewal pursuant to regulations to be promulgated under §16.220 of this chapter. A

permit will not issue or be renewed if the permitting authority, upon inspection of the tank, determines that the tank does not comply with this chapter. Permits to operate may not be issued if the permittee has not paid local fees and state surcharges.

§ 16.100 Contents of Permit.

- (a) The permit to operate shall contain a complete description of the enterprise for which it is issued, the date of issuance and date of expiration, and a description of any and all conditions upon which the permit has been issued. A copy of the permit shall be kept on the premises and shall be made available to the permitting authority upon demand.
- (b) As a condition of any permit to operate an underground storage tank, the permittee shall complete an annual report form prepared by the permitting authority, which will detail any changes in the usage of any underground storage tanks, including the storage of new hazardous substances, changes in monitoring procedure and unauthorized release occurrences.

(Ord. 83-152, §1)

§ 16.105 Monitoring.

The operator of the underground storage facility shall monitor the facility using the method specified on the permit for the facility. Records shall be kept in sufficient detail to enable the permitting authority to determine that the operator has undertaken all monitoring activities required by the permit to operate.

If the operator is not the owner, the owner shall provide a copy of the permit to operator, enter into a written contract with the operator which requires the operator to monitor the tank as set forth in the permit, and provide the operator with a copy of section 16.130 or a summary of this section, in the form which the permitting authority specifies by regulation. The owner shall notify the permitting authority of any change of operator.

(Ord. 83-152, 1)

§ 16.110 Fees.

The city council may, by resolution and from time to time, prescribe fees for the issuance and renewal of a permit to operate and fees for the filing of appeals relating to demand of such permits or the revocation thereof. (Ord. 83-152, §1)

§ 16.120 Transferability.

- (a) Except as provided in subdivision (b), no person shall operate an underground storage tank unless a permit for its operation has been issued. Any person who is to assume the ownership of an underground storage tank from the previous owner shall complete the form accepting the obligations of

the permit and submit the completed form to the permitting authority at least 30 days after the ownership of the underground storage tank is to be transferred. The permitting authority may review and modify, or terminate, the transfer of the permit to operate the underground storage tank upon receiving the completed form.

- (b) Any person assuming ownership of an underground storage tank used for the storage of hazardous substances for which a valid operating permit has been issued shall have 30 days after the date of assumption of ownership to apply for a permit to operate, or if accepting a transferred permit, shall submit to the permitting authority the completed form accepting the obligation of the transferred permit, as specified in subdivision (a). During the period from the date of application until the permit is issued or refused, the person shall not be held to be in violation of this section.

(Ord. 83-152, §1)

§ 16.130 Violations.

- (a) It shall be unlawful and an infraction for any operator of an underground storage tank to do any of the following:
- (1) Operate an underground storage tank which has not been issued a permit.
 - (2) Fail to monitor the underground storage tank, as required by the permit.
 - (3) Fail to maintain records, as required by this chapter.
 - (4) Fail to properly close an underground storage tank, as required by section 16.045.
- (b) It shall be unlawful and an infraction for any owner of an underground storage tank to do any of the following:
- (1) Fail to obtain a permit as specified by this chapter.
 - (2) Fail to repair an underground storage tank in accordance with the provisions of this chapter.
 - (3) Abandon or improperly close any underground storage tank subject to the provisions of this chapter.
 - (4) Knowingly fail to take reasonable and necessary steps to assure compliance with this chapter by the operator of an underground tank.
- (c) It shall be unlawful and a misdemeanor for any person to falsify any monitoring records required by this chapter, or knowingly fail to report an unauthorized release, and shall,

upon conviction, be punished by a fine of not less than five thousand dollars (\$5,000) or more than ten thousand dollars (\$10,000), or by imprisonment in the county jail for not to exceed one year, or by both that fine and imprisonment.

(d) It shall be unlawful and an infraction for any contractor who removes, repairs, installs or monitors any underground storage tank to do any of the following:

(1) Fail to produce a copy of the permit to operate, remove or install an underground storage tank, upon a demand for production by the permitting authority or its designee, or a law enforcement officer.

(2) Remove, repair, install or monitor an underground storage tank for which a permit to operate, remove or install has not been previously issued.

(e) In determining both the civil and criminal penalties imposed pursuant to this section, the court shall consider all relevant circumstances, including, but not limited to, the extent of harm or potential harm caused by the violation, the nature of the violation and the period of time over which it occurred, the frequency of past violations, and the corrective action, if any, taken by the person who holds the permit.

(f) Penalties under this section are in addition to, and do not supercede or limit, any and all other legal remedies and penalties, civil or criminal, which may be applicable under other laws.

(g) When any person has engaged in, is engaged in, or is about to engage in any acts or practices which violate this chapter, or any resolution, rule, or regulation adopted pursuant to this chapter, the city attorney of the city in which the acts or practices occur, occurred, or will occur, the district attorney of the county in which the acts or practices occur, occurred, or will occur, or the attorney general may apply to the superior court for any order enjoining these acts or practices, or for an order directing compliance. The court may grant a permanent or temporary injunction, restraining order, or other order.

(Ord. 83-152, §1)

§ 16.135 Penalties.

(a) Penalty for Infraction.

Unless otherwise specified by this chapter, an infraction is punishable by: (1) a fine not exceeding one hundred dollars (\$100) for a first violation; (2) a fine not exceeding two hundred dollars (\$200) for a second violation of the same chapter of this code within one year; and (3) a fine not

exceeding five hundred dollars (\$500) for each additional violation of the same chapter of this code within one year.

(b) **Elevation to Misdemeanor.**

Any offense which would otherwise be an infraction is a misdemeanor if the defendant has been convicted of the same offense three or more times within the twelve-month period immediately preceding the commission of the offense and such convictions are alleged in the accusatory pleadings. For this purpose, a bail forfeiture shall be deemed to be a conviction of the offense charged.

(c) **Civil Penalty.**

Any person who violates any provision of this chapter is liable for a civil penalty of not less than five hundred dollars (\$500) nor more than five thousand dollars (\$5,000) for each day, or part thereof, such violation occurs. The city attorney is authorized to bring a civil action in any court of competent jurisdiction to recover such civil penalties for the city.

(d) **Penalty for Misdemeanor.**

Unless otherwise specified by this chapter, a misdemeanor is punishable by a fine not exceeding one thousand dollars (\$1,000), imprisonment for a term not exceeding six (6) months, or by both such fine and imprisonment.

(e) **Continuing Violation.**

Each and every day a violation of this chapter continues shall constitute a separate offense. The person committing or permitting such offenses may be charged with a separate offense for each such violation and punished accordingly.

§ 16.140 Inspections.

(a) The permitting authority shall inspect every underground storage tank or facility at least once every three years. The purpose of the inspection is to determine whether the tank or facility complies with the design and construction standards of this chapter, whether the operator has monitored and tested the tank as required by the permit, and whether the tank is in a safe operating condition. After an inspection, the permitting authority shall prepare a compliance report detailing the inspection and shall send a copy of this report to the permitholder.

(b) In addition to, or instead of, the inspection specified in subdivision (a), the permitting authority may require the permitholder to employ, periodically, special inspectors to conduct an audit or assessment of the permitholder's facili-

ty to determine whether the facility complies with the factors specified in subdivision (a) and to prepare a special inspection report with recommendations concerning the safe storage of hazardous materials at the facility. The report shall contain recommendations consistent with the provisions of this chapter, where appropriate. A copy of the report shall be filed with the permitting authority at the same time the inspector submits the report to the permit holder. Within 30 days after receiving this report, the permit holder shall file with the permitting authority a plan to implement all recommendations contained in the report or shall demonstrate, to the satisfaction of the permitting authority, why these recommendations should not be implemented.

- (c) In order to carry out the purposes of this chapter, any duly authorized representative of the permitting authority has the authority to inspect any place where underground storage tanks are located and to inspect real property which is within 2,000 feet of any place where underground storage tanks and pipelines are located.

(Ord. 83-152, §1)

§ 16.150 Unauthorized Release.

- (a) Any unauthorized release from the primary containment which the operator is able to clean up within eight hours after the release was detected or should reasonably have been detected, and which does not escape from the secondary containment, does not increase the hazard of fire or explosion, and does not cause any deterioration of the secondary containment of the underground storage tank, shall be recorded on the operator's monitoring reports.
- (b) Any unauthorized release which escapes from the secondary containment, increases the hazard of fire or explosion, or causes any deterioration of the secondary containment of the underground tank shall be reported by the operator to the permitting authority within 24 hours after the release has been detected or should have been detected. A full written report shall be transmitted by the owner or operator of the underground storage tanks within five working days of the occurrence of the release.
- (c) The permitting authority shall review the permit whenever there has been an unauthorized release or when it determines that the underground storage tank is unsafe. In determining whether to modify or terminate the permit, the permitting authority shall consider the age of the tank, the methods of containment, the methods of monitoring, the concentration of the hazardous substances stored in the tank, the severity of potential unauthorized releases, and the suitability of any other long-term preventive measures which would meet the requirements of this chapter.

- (d) If there has not been any unauthorized release from the primary containment, from an underground storage tank containing motor vehicle fuel not under pressure, the permit holder may line the interior of the tank as a preventative measure by an interior-coating process if the tank meets all of the following requirements, and the tank has a manway (manway is defined as a portal allowing a person to enter into the tank); if the tank does not have a manway, cutting into the tank to make entry shall be prohibited:
- (1) The tank has not previously been repaired or relined.
 - (2) An ultrasonic test has been conducted to determine the thickness of the storage tank.
 - (3) Certification by a special inspector that the shell will provide structural support for the interior lining. The special inspector shall make this certification by entering and inspecting the entire interior surface of the tank and shall base this certification upon the following procedures and criteria:
 - (A) If the tank is made of fiberglass, the tank is cleaned so that no residue remains on the tank wall surface. The special inspector shall take interior diameter measurements and, if the cross-section has compressed more than 1 percent of the original diameter, the tank shall not be certified and shall also not be returned to service. The special inspector shall also conduct an interior inspection to identify any area where compression or tension cracking is occurring and shall determine whether additional glass fiber reinforcing is required for certification before the tank may be lined.
 - (B) If the tank is made of steel, the tank interior surface shall be abrasive blasted completely free of scale, rust, and foreign matter, as specified in the American Petroleum Institute's recommended practice 16-31, relating solely to white metal blasting. The special inspector shall sound any areas showing corrosion pitting with a brass ballpeen hammer to attempt to break through a potentially thin steel area. Tanks that have any perforations, open seams, or splits shall not be returned to service.
 - (C) If the person conducting the test determines that the test results indicate that the tank has a serious corrosion problem, the permitting authority may require additional corrosion protection for the tank or may prohibit the permit holder from lining the tank.

- (4) The material used to line the tank by an interior-coating process is compatible with the motor vehicle fuel that is stored, as approved by the board by regulation.
- (5) The material used to line the tank by an interior-coating process is applied in accordance with the materials manufacturer's specifications and by the procedures approved by the Underwriter's Laboratory.
- (6) All steel tanks with corrosion that are subsequently lined must be retrofitted with a Cathodic Protection System that is designed by an independent corrosion expert and operated in accordance with Nationally Recognized Standards.
- (7) Before the tank is placed back into service following the interior coating process, the tank is tested in the operating condition using the precision test defined by the National Fire Protection Association Pamphlet 329, "Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids," as amended, for proving the integrity of an underground storage tank.

(Ord. 83-152, §1)

§ 16.179 Appeals.

Any decision of the permitting authority may be appealed pursuant to City Code Chapter 2, Article XIX. (Ord. 83-152, §1)

§ 16.190 Finality of Determination.

The decision by the hearing authority shall become final upon the date of filing and service. The time for judicial review is governed by California Code of Civil Procedure Section 1094.6. (Ord. 83-152, §1)

§ 16.200 Grounds for Revocation.

Any permit to operate issued pursuant to this chapter may be revoked during its term upon one or more of the following grounds:

- (a) That an unauthorized release has occurred pursuant to part (b) of section 16.150;
- (b) That modifications have been made to the underground storage tank or facility in violation of the permit to operate;
- (c) That the holder of the permit has violated one or more conditions upon which the permit has been issued.

(Ord. 83-152, §1)

16.210 Method of Revocation.

The permitting authority may revoke a permit to operate by issuing a written notice of revocation, stating the reasons therefore, and serving same, together with a copy of the provisions of this chapter, upon the holder of the permit. The revocation shall become effective fifteen days after the date of service, unless the holder of the permit files an appeal within the time and in accordance with the provisions of section 16.170. If such an appeal is filed, the revocation shall not become effective until a final decision on the appeal is issued. (Ord. 83-152, §1).

§ 16.220 Regulations.

The city council may adopt rules and regulations to implement this chapter as necessary. (Ord. 83-152, §1)

PASSED FOR PUBLICATION:

ENACTED:

EFFECTIVE:

MAYOR

ATTEST:

CITY CLERK