Underground Storage Tank Regulations
Title 23, Waters
Division 3, Water Resources Control Board
Chapter 16, Underground Storage Tank Regulations

1985

I. Final regulations as adopted by the State Water Resources Control Board on June 6, 1985, adopting Sections 2610 through 2714 of Title 23

Index to Rulemaking File Underground Storage Tank Regulations Title 23, Waters Division 3, Water Resources Control Board Chapter 16, Underground Storage Tank Regulations 1985

A. Transmittal memo to Office of Administrative Law (OAL) including resubmission of corrected regulations and justification for immediate effective date

State of California

Memorandum

To : Linda Stockdale Brewer, Director
Office of Administrative Law
1414 K Street, Suite 600
Sacramento, Ca 95814

Date : JUL 11 1985

From : Michael A. Campos
Executive Director
STATE WATER RESOURCES CONTROL BOARD

Subject: RESUBMISSION OF REGULATIONS GOVERNING UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES TO BE CODIFIED IN SUBCHAPTER 16 of CHAPTER 3 of TITLE 23 OF THE CALIFORNIA ADMINISTRATIVE CODE

On January 18, 1985, the State Water Resources Control Board (State Board) adopted regulations governing underground storage of hazardous substances pursuant to a Notice of Proposed Rulemaking published in the California Administrative Notice Register (Register) on August 24, 1984. The proposed regulations, together with the rulemaking file, were submitted to OAL initially in March, 1985. The Office of Administrative Law (OAL) disapproved the rulemaking order due to procedural deficiences in the regulations and in the rulemaking file (OAL's reasons for disapproval were published in the Register on April 12, 1985).

In order to address OAL's concerns, revisions have been made to the regulations themselves, and to the final statement of reasons. Additionally, material that had been inadvertently omitted from the final statement of reasons submitted to OAL in March, 1985 has been added to the rulemaking file.

The State Board made the revised text of the regulations available to the public for review and comment on May 14, 1985. Responses to written comments received on the changes are included in the file. Most of the comments received simply reiterate commenters' previous positions and fail to address the proposed changes. Such comments were rejected because these underlying concerns were considered and addressed in the final statement of reasons.

On June 6, 1985, the State Board adopted Resolution No. 85-37 which amended the proposed regulations initially adopted by the State Board on January 18, 1985. Attached please find a copy of resolution, No.85-37, seven copies of the revised regulations, a revised version of the final statement of reasons, and corrections to the rulemaking file.

As you know, these regulations form a critical part of the State's program for the control of hazardous substances and protection of ground water quality. Section 25299.3 of the Health and Safety Code [formerly 25288.2] directs the State Board to develop regulations which implement, interpret, and make specific the standards applicable to underground storage of hazardous substances pursuant to Chapter 6.7 [Underground Storage of Hazardous Substances, commencing with Section 25280] of Division 20 of the Health and Safety Code. These regulations contain requirements for underground storage tank construction and closure, monitoring alternatives, performance standards for underground storage tanks repairs, and procedures for categorical and site-specific variances from the prescribed standards. These regulations will be implemented through permit programs administered by local agencies.

Cities and counties which, prior to January 1, 1984, had adopted ordinances implementing the statutory standards and were issuing permits for underground storage tanks are exempt from any obligation to implement the provisions of the regulations. However, a number of cities and counties did not adopt such ordinances and will be required to follow and use these regulations. The statutory deadline for local agencies and existing underground storage tank owners to implement either the specified provisions of the statute or these regulations was July 1, 1985. The local agencies need these regulations as soon as possible to implement a regulatory program. Therefore, the State Board asks that your staff accelerate its review of the regulations and that you grant the State Board's request for an immediate effective date on approval.

The State Board will notify local agencies implementing the underground tank program and affected underground storage tank owners that the regulations are in effect. The State Board can use its extensive mailing list of interested parties from the rulemaking process for notification. The State Board also has the statewide underground storage container inventory from which owners of existing underground storage tanks can be notified. Local agencies have the means to notify underground storage tank owners through their records of building permits and by contact with local trade associations.

In order to assist your staff's expedited review, the State Board is providing a summary of remedial actions taken to resolve each item of concern listed in OAL's Opinion letter disapproving the proposed regulations. It should be placed in the rulemaking file under the designation I.D.2. Also, attached to this memorandum are an updated index to the rulemaking file and the following items which should be added to your copy of the rulemaking file:

I.A. Cover letter replaces former I.A. which should be relocated to III.B.6.a.

JUL 11 1985

I.B.	Rulemaking File Index - replaces former I.B.
I.C.1.	SWRCB Resolution No.85-37 - replaces former I.C.1. which should be relocated to III.B.6.b.
I.C.2-3	Final regulations as adopted June 6 - replaces former I.C. 2-3 which should be removed to III.B.6.c.
I.D.1.- 4.b.	OAL Review - add to file
II.B. 1-11	Final Statement of Reasons/Response to Comments, as ammended to July 12, 1985 - replaces former
II.B. 1-11.	
II.C.	Final Fiscal Impact Statement as amended to July 12, 1985 - add pages to former II.c.
II.D.	Updated Chronological Index to Commenters - replaces former II.D.
III.C.4.	Errata Sheet, January 18, 1985 (Final Regulations as adopted) - add to file
IV.A.1.ee.	Notice, May 14, 1985 - add to file.
IV.B.2.r.	Letter to Gordon Duffy - add to file
IV.C. 17.	Agenda item 22. - add to file.
V.A.5	Transcript, June 6, 1985 Board Meeting
V.B.	Updated Alphabetical Index to Commenters - replaces former V.B.
V.C.	Written Comments received May 14 - to May 29, 1985. - add to the file in V.C. as indicated by number on letter.
V.D.	Late Comments - add to file.
V.G.	Technical Compliance Guidelines - add to file

Please review this rulemaking package as required by Government Code Section 11349.1. If you have any questions regarding this matter, do not hesitate to call me at 445-1553, or John Richards of the State Board's Office of the Chief Counsel at 322-7732.

Attachments

cc: Jan Sharpless, Interim Secretary
Environmental Affairs Agency

Assembly Member Byron Sher

bcc: Board Members
MAC WGP WRA

DHOLTRY/JWRICHARDS/bm

File Name: Oalltr.db

B. Rulemaking file index

Index to Rulemaking File Underground Storage Tank Regulations Title 23, Waters Division 3, Water Resources Control Board Chapter 16, Underground Storage Tank Regulations 1985

Index to Rulemaking File
Underground Storage Tank Regulations
Title 23, Waters
Division 3, Water Resources Control Board
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1985

I. Final regulations as adopted by the State Water Resources Control Board on June 6, 1985, adopting Sections 2610 through 2714 of Title 23
   A. Transmittal memo to Office of Administrative Law (OAL) including resubmission of corrected regulations and justification for immediate effective date
   B. Rulemaking file index
   C. Final Regulations
      1. State Water Resources Control Board Resolution No. 85-6 (January 18, 1985) adopting proposed regulations
      2. State Water Resources Control Board Resolution No. 85-37 (June 6, 1985) adopting proposed regulations as corrected and amended
   D. OAL Review: Notice of Disapproval of proposed regulations dated on April 1, 1985
      1. Transmittal letter to parties and local agencies regarding OAL approval of regulations

II. Final Statement of Reasons
   A. Informative Digest
   B. Statement of Reasons: Preamble
      1. Article 1, General
      2. Article 2, Definition of Technical Terms
      3. Article 3, New Underground Storage Tank Construction and Monitoring Standards
      4. Article 4, Existing Underground Storage Tanks Monitoring Criteria
      5. Article 5, Release Reporting Requirements
      6. Article 6, Allowable Repairs
      7. Article 7, Closure Requirements
      8. Article 8, Categorical and Site-Specific Site Variance Procedures
      9. Article 9, Local Additional Standards Request Procedures
      10. Article 10, Permit Application, Annual Report, and Trade Secret Requirements
   C. Fiscal Impact Statement as amended March 1, 1985
   D. Chronological List of Commenters
   E. Underground storage tanks statutes
      1. Chapter 6.7, Division 20, Health and Safety Code, effective September 23, 1983: Chapter 1046, Statutes of 1983 (AB 1362, Sher)
      2. Chapter 1038, Statutes of 1984 (AB 3565, Sher) (trailer bill)
      3. Chapter 1537, Statutes of 1984 (AB 3447, Sher) (trailer bill)
      4. Chapter 1584, Statutes of 1984 (AB 3781, Sher) (trailer bill)
      5. AB 1362 as amended by AB 3447, AB 3565, and AB 7381

III. Documentation
   A. Filing Notice of Proposed Regulatory Action
      1. Transmittal memorandum to OAL, August 14, 1984
      2. Face Sheet for Filing Administrative Regulations
      3. Notice of Proposed Rulemaking, Public Hearing scheduled for 10/8/1984, later changed to 10/23/84 (see III.A.9)
      4. Draft text of proposed regulations dated 10/23/1984
      5. Initial Statement of Reasons dated 10/23/1984
      6. Initial Fiscal Impact Statement dated 08/10/1984
      7. Affidavit of Mailing Notice
      8. Handwritten note referring to number-coded mailing lists
      9. Corrected Notice of Proposed Rulemaking, Public Hearing scheduled for 10/23/1984
   B. Other Draft Regulations

1. Partial draft of regulations including sections dated January 13, April 24, May 3, May 8, 1984
2. Draft regulations dated June 1, 1984
3. Draft regulations dated August 13, 1984
4. Draft dated November 9, 1984 - proposed regulations as modified
5. Draft dated December 28, 1984
6. Draft regulation package as adopted by the SWRCB and disapproved by OAL
   a. Transmittal memo to OAL and Face Sheet dated March 1, 1985
   b. SWRCB Resolution No. 85-6, dated January 18, 1984
   c. Text of draft regulations adopted by the SWRCB on January 18, 1985

C. Errata Sheets
1. Errata sheet draft dated November 9, 1984
2. Errata sheet draft dated December 28, 1984
3. Errata sheet draft dated January 18, 1985

IV. SWRCB Supporting Documents

A. Outgoing Correspondence

1. Informative Mailings
   a. May 11, 1984 invitation dated, to interested parties to attend informal working session to discuss regulations on May 22, 1984
   b. May 22, 1984 *Workshop Sign-in Sheet*
   c. May 21, 1984 memorandum, to local agencies transmitting Article 1, 3, 4 (partial), and 11 of the regulations (text of articles not included in binder)
   d. June 21, 1984 letter to interested parties, transmitting a list of hazardous substances (list not included in binder)
   e. June 22, 1984 transmittal memo to local agencies regarding administering the UST program-draft permit applications, list of city and county contacts, computer format for permit information, underground container bulletin #1
   f. July 24, 1984 letter to interested parties transmitting first draft of regulations (text not included in binder)
   g. August 20, 1984 invitation to petroleum retailer and wholesalers to attend informal workshop to discuss draft regulations on August 30, 1984
   h. Mailing List 005, 017 (petroleum parties)
   i. August 30, 1984 Workshop Sign-in Sheet
   j. August 20, 1984 invitation to local agencies to attend an informal workshop to discuss draft regulations on either August 31 or September 12, 1984
   k. Mailing List 013 (local agencies)
   l. August 31, 1984 Workshop Sign-in Sheet (local agencies)
   m. September 12, 1984 Workshop Sign-in Sheet (local agencies)
   n. September 6, 1984 invitation to contractors, consultants, and equipment suppliers to attend an informal workshop to discuss draft regulations on September 17, 1984
   o. Mailing Lists 008, 009 (contractors, consultants, equipment suppliers)
   p. September 17, 1984 *Workshop Sign-in Sheet (contractors, consultants, equipment* suppliers)
   q. Extraneous document deleted
   r. September 6, 1984 invitation to chemical and other industries to attend an informal workshop to discuss draft regulations on September 18, 1984
   s. Mailing List 006 (chemical and other industries)
   t. September 18, 1984 Workshop Sign-in Sheet (chemical and other industries)
   u. Extraneous document deleted

v. September 6, 1984 invitation to interested parties to attend an informal workshop to discuss draft regulation on September 24, 1984
w. Mailing List (interested parties)
x. September 24, 1984 Workshop Sign-in Sheet (interested parties)
y. Extraneous document deleted
z. October 22, 1984 Notice of Workshop and Board Meeting; Workshop to be held November 2, 1984; Board Meeting to be held November 27, 1984
aa. October 25, 1984 Revised Notice of Workshop and Board Meeting; Workshop to be held November 2, 1984; Board Meeting, November 27, 1984
bb. Mailing List (missing from binder)
cc. January 3, 1985 Notice of Special Board Meeting to be held January18, 1985
dd. Mailing List (missing from binder)
ee. May 14, 1985 Notice of Opportunity to Comment regarding regulations adopted by the SWRCB at the January 18,1985 Special Board Meeting
ff. March 12, 1985 Notice of Interested Parties regarding amendment to December 28, 1984, plus text of changes

2. Ancillary Outgoing Correspondence
   a. To Roger James, Executive Officer, San Francisco Regional Water Quality Control Board; From Water G. Pettit; January 11, 1984; Subject: Task Force Development of AB 1362 Regulations
   b. To Richard P. Wilcoxon, Chief of Toxic Substances Control Division, Department of Health Services; From Edward C. Anton; January 24, 1984; Subject: AB 1362 (UGT)
   c. To Bob Ghirelli, Executive Officer, Los Angeles Regional Water Quality Control Board; From Michael A. Campos; January 25. 1984; Subject: UGT Investigation Program Work Plan
   d. To Salle S. Jantz, Assistant to the Director, Department of Water Resources; From Kathy Harder; February 6, 1984; Subject: Information on UGT Regulations and Registration
   e. To Al Alm, U.S. Environmental Protection Agency; From Michael A. Campos; February 6, 1984; Subject: Background on the UGT Program
   f. To Regional Board Executive Officers; From Michael A. Campos, February 24, 1984; Subject: UGT Program
   g. To Richard Mueller; From Kathy Harder; March 7, 1984; Subject: Request for Information on UGT Program
   h. To County Board of Supervisors, City Managers, Local Environmental Health Officers, Fire Departments; From Michael A. Campos; March 15, 1984; Subject: UGT Registration and Regulation
   i. To Dan Bergman, Assistant Health Services Director; From Harold Singer; March 15, 1984; Subject: County Jurisdiction Over Incorporated Cities
   j. To Christine E. Reed, Chairwoman Los Angeles Regional Water Quality Control Board; From Ken Willis; April 5, 19824; Subject: UGT Program
   k. To Larry Torgersen, Larry Torgerson Ford; From Governor Deukmejian; April 30, 1984; Subject: Reply Regarding the need for Underground Storage Tank Legislation
   l. To William R. Stead, Western Regional Director, National Association of Corrosion Engineers; From Edward C. Anton; May 2, 1984; Subject: Reply on Interpretation of Section 25284(a) and AB 1362
   m. To all State Agencies; From Edward C. Anton; May 3, 1984; Subject: Underground Containers -enclosures: synopsis of AB 2013 and AB 1362, popular

questions and answers: Hazardous Substance Storage Statement; Underground Informational Flyer

n. To Darrell Heppner, Insurance Broker; From Roger Johnson; May 15, 1984; Subject: Response Regarding Insurance
o. To Thomas L. Robinson, V. P. Robinson Oil Company; From Edward C. Anton, May 16, 1984; Subject: Response to Offer of Assistance on UGT Regulations
p. To Richard Fahey, Diablo Petroleum; From Carole A. Onorato; May 31, 1984; Subject: Reply on losses of product from suction systems and policy decision o exemption
q. To Rex H. Black, Owner, Valley Leak Detection Service; From Roger Johnson; June 15, 1984, Subject: Reply on UGT Regulations
r. Jesse H. Huff, Director, Department of Finance; From Michael A. Campos; July 10, 1984, Subject: Review of Proposed UGT Regulations
s. Gail C. Brice, Environmental Awareness, Inc.; From Edward C. Anton; July 10, 1984; Subject: Containment of speakers at seminars
t. Linda Harmon, U.S. General Accounting Office; From Kathy Harder; July 20, 1984; Subject: UGT Program
u. SDL Haysom, Insidious Leakage Alert, Vestal Helix Company; From Harold Singer; July 24, 1984; Subject: Reply Tank Filling Operations and Applicability to Regulations
v. To Victoria Gallagher, Environmental Health Protection Division, County of San Diego; From Craig Wilson; July 25, 1984; Subject: Applicability of Health and Safety Code Section 25280 (Sher Bill) to federal facilities
w. To Les Turnbeaugh, Corps. of Engineers; From Edward C. Anton; August 22, 1984; -Subject: Double Walled Storage Tanks and Implementation of Regulations
x. To Assembly Member Dominic Cortese; From W. G. Pettit for Michael A. Campos; September 14, 1984; Subject: UGT Regulations and Hearings.
y. To Assembly Member Byron Sher; From W. G. Pettit for Michael A. Campos; Subject: UGT Regulations and Hearings
z. To Gordon Duffy, Secretary of Environmental Affairs; From W. G. Pettit for Michael A. Campos; September 14, 1984; Subject: UGT Regulations and Hearings
aa. To Assembly Member Byron Sher; From Michael A. Campos; no date; UGT Hearings
bb. To Assembly Member Dominic Cortese; From Michael Campos; no date
cc. To Gordon Duffy; From Michael Campos; no date; UGT Hearings
dd. To Regional Water Quality Control Board Executive Officers; From Edward C. Anton; September 18, 1984; Subject: Session to Discuss the Regulations
ee. To John R. McCullough Loss Control and Engineering Manager, Frank B. Hall Company; From Harold Singer; September 18, 1984; Subject: Answers Questions about UGT Program
ff. To Bill DeBord, J. E. DeWitt, Inc.; From Harold Singer; October 29, 1984; Subject: Discussion on Leak Tracer Dye
gg. To Diane Phillips, McCoy and Associates; From Harold Singer; October 29, 1984; Subject: Information on the UGT Regulations
hh. To Betty J. Seldner, Performance Improvement Programs, H. R. Texton; From Mike Falkenstein; November 14, 1984; Subject: Transmittal of draft regulations
ii. To Elmer Johnson, Executive Vice President, Building Owners and Managers Associates of San Francisco; From Walter G. Pettit; November 15, 19824; Subject: Denial of Request for 60-Day Extension of Deadline for Comments

jj. To Assembly Member Norman Waters; From Carole A. Onorato; no date; Subject: Applicability of AB 1362 to Cotton Ginning

B. State Board Internal Memorandum

1. Legal Memoranda
   a. Mini memo to Walter G. Pettit, Edward C. Anton, Jesse Diaz, et al.; From William Attwater; October 7, 1983; Subject: Clear and Convincing Evidence AB 1362; attachment of discussion by Chief Council William Attwater regarding clear and convincing evidence
   b. To Stephanie Bradfield; From Edward C. Anton; February 6, 1984; Subject: Technical Errors in AB 1362
   c. To Walter G. Pettit, Michael A. Campos, Board Members; From Edward C. Anton; March 30, 19824;Subject:Definition of Underground Containers
   d. Mini-memo to Kathy Keber; From Kathy Harder; March 13, 1984, Subject: Cities and Counties Adopting Ordinances Prior to January 1, 1984
   e. To Kathy Keber; From Harold Singer; April 10, 1984; Subject: Request for Legal Interpretation of AB 1362 and AB 2013 Issues
   f. Mini-memo to Kathy Keber; From Kathy Harder; May 8, 1984; Subject: Aviation Tank Exemptions
   g. To Roger Johnson; From Kathy Keber; May 9, 1984; Subject: Insurance Requirements in neither Sher nor Cortese Bill
   h. To Harold Singer; From Craig Wilson; June 7, 1984; Subject: AB 1362 and AB 2013 Issues
   i. To Harold Singer, Mike Falkenstein; From Craig Wilson; June 7, 1984; Subject: Definition of term, "Form"
   j. To Ed Anton; From Kathleen Keeber; July 19, 1984; Subject: Amendment to underground tank regulations to provide for state board review of local programs implementing Health and Safety Code section 25280 et seq. (Sher Bill)
   k. To Roger Johnson; From Craig Wilson; August 21, 1984; Subject: Legal issues and Responses UGT Program
   l. To Craig Wilson; From Randy Kanouse; September 17, 1984; Subject: UGT Legislation, Authority of State to Regulate Underground Tank on Federal Facilities
   m. Draft memo to Randy Kanouse; From Craig Wilson; October 9, 1984; Subject: Applicability of State Groundwater Protection Requirements to Federal Entities
   n. Draft memo to Carole Onorato; From William R. Attwater; December 20, 1984; Subject: Deadlines for Subchapter 16 Rulemaking Process
   o. To William Attwater; From John Richards; January 15, 1985; Subject: UGT Registration by Department of Interior Facilities
   p. To William Attwater, Harry Schueller; From Randy Kanouse; January 17, 1985; Subject: Response to Assembly Member Waters' October 22nd letter
   q. Mini Memo to Kathy Keber; From Kathy Harder; no date; Subject: AB 1362 Applicability to Federal Government
   r. To Edward C. Anton; From Kathleen A. Keber; July 19, 1984; Subject: Amendment to UGT Regulations to Provide for State Board Review of Local Programs (missing)
2. Technical Memoranda
   a. To F. K. Aljibury; From Michael A. Campos; January 26, 1984; Subject: Santa Clara County Hazardous Materials Storage Permit Ordinance and Groundwater Monitoring Guidelines

b. To Edward C. Anton et al., From Kathy Harder; January 27, 1984; Subject: Western Oil and Gas Association's request to meet with Underground Tank Task Force
c. To Board Members, Michael A. Campos, et al., From Ken Willis; March 20, 1984; Subject: Brief Report on the Los Angeles Regional Board Meeting on March 19 and request for legislation updates
d. To Walter G. Pettit; From Edward C. Anton; March 30, 1984; Subject: Status of Development of Regulations Implementing UGT Legislation (AB 1362)
e. To David E. Cohen; From Edward C. Anton, April 20, 1984; Subject: Help with UGT information, Need Assistance in Responding to Questions, Phones, Mailing
f. Mini Memo to Michael A. Campos, Walter G. Pettit; From Edward C. Anton; April 20, 1984 Subject: Briefing Binder for Board Members
g. To Elaine Berghausen, Program Analysis Office; From Roger Johnson; June 1, 1984; Subject: Budget Change Proposal -attached Budget Change Proposal
h. Extraneous document deleted
i. To Board Members; From W. R. Attwater for Michael A. Campos; June 21, 1984; Subject: Transmittal of draft regulations
j. To All Persons Involved with UGT Program; From Kathy Harder; July 9, 1984, Subject: Underground Container Program Summary of Progress
k. To Corinne Marshall; From Walter G. Pettit for Michael A. Campos; July 25, 1984; Subject: Material for Environmental Policy Alert
l. To Walter G. Pettit; From Edward C. Anton; October 4, 1984; Subject: Result of Workshops on Subchapter 16
m. To Walter G. Pettit, Michael A. Campos, Board Members; From Edward C. Anton; November 25, 1984; Subject: WOGA's Comments on November 19, 1984 Draft of UGT Regulations
n. To Walter G. Pettit; From Edward C. Anton; November 30, 1984; Subject: Regulation of Underground Storage Tanks (RUST)
o. To Walter G. Pettit; Michael A. Campos, Board Members; From Edward C. Anton; December 2, 1984; Subject: Policy Issues-Subchapter 16 Regulations
p. To Roger Johnson, Edward C. Anton, Harold Singer; From Mike Falkenstein; December 5, 1984; Subject: Ground water Monitoring near Underground Tanks
q. To Walter G. Pettit, Michael A. Campos, Board Members; From Edward C. Anton; December 20, 1984; Subject: Subchapter 16 -Results of Board Members' Briefings
r. To Gordon Duffy; From Michael A. Campos; May 8, 1985; Subject: Office of Administrative Law (OAL) Denial of Underground Tank Regulations

C. Other State Board Documents
1. Staff Report – Discussion of Significant Issues Raised During Subchapter 16 Public Comment Period
2. Proposed Modifications to the Statute-Underground Storage Tanks
3. Underground Tank Program
4. Underground Tank Program -Status Report-April 19, 1984
5. Questions-Informal Survey of Counties, February 21, 1984
6. To Santa Clara County Intergovernmental Council and Management Association; From Thomas F. Lewcock Sunnyvale City Manager; October 18, 1984; Subject: Status Report Hazardous Material Storage Ordinance
7. Agenda Item 8 and Draft Resolution No. 84- for November 27, 1984 Public Hearing

8. Estimate of Number of Tanks in California Subject to Assembly Bill 1362, January 1985
9. Summary of Existing Underground Storage Tanks at State Owned Facilities, August 1984
10. Summary of Existing Underground Storage Tanks at Selected Local Government Facilities in California, August 1984
11. Summary of Existing Underground Storage Tanks at Selected School District Facilities in California, August 1984
12. Summary of Fee Structure for Permitting and Annual Inspection of Underground Storage Tanks by Selected Local Agencies
13. Underground Tank Project, Percentage Breakdown of Tanks (computer printout)
14. Underground Tank Program Administrating Public Agency List
15. Major Issues and Changes from November 9, 1984 Proposed Regulations to December 29, 1984 Proposed Regulations
16. State Water Resources Control Board Meeting Agenda Item 22 for Resolution No. 85-6, January 18, 1985 (missing)
17. State Water Resources Control Board Meeting Agenda Item 22 for Resolution No. 85-37, June 6, 1985 meeting
18. Senate Bill No. 150- Chapter III - Appropriation
19. Budget Change Proposal, Fiscal Year 85-86

V. Comments and Technical Documents Submitted

A. Transcripts
   1. October 23, 1984 Public Hearing
   2. November 2, 1984 Workshop Session
   3. November 27, 1984 Public Meeting in the matter of adoption of regulations governing underground storage of hazardous substances
   4. January 18, 1984 Special Board Meeting in the matter of adoption of regulations governing underground storage of hazardous substances
   5. June 6, 1985 Board Meeting regarding amending regulations adopted on 1/18/1985

B. Alphabetical Lists of Commenters

C. Written Comments Received (#1-#211)

D. Late Commenter Index and Late Comments
   1. 1-10
   2. 11-20
   3. 21-30
   4. 31-43

E. Ancillary Incoming Correspondence
   1. To F. Aljibury, SWRCB; From Daniel F. Kriege; November 22, 1983; Subject: Transmittal of Santa Clara County Ordinance and Guidelines used to monitor hazardous material storage facilities
   2. To Edward C. Anton; From Richard B. Wilcoxon; Toxic Substances Control Division; February 16, 1984; Subject: AB 1362 and transmitting master list of hazardous substances
   3. To Governor Deukemejian; From Larry Torgersen: February 24, 1984, Subject: AB 1362
   4. To Harold Singer; From Bob Cleveland, Northern California Fire Prevention Officer; March 8, 1984; Invitation to Fire Chief's Workshop in Palo Alto

5. To Harold Singer; From Frederick J. Taugher, Public Policy Advocates; March 26, 1984; Subject: Position Papers Sent to the Assembly Committee on Consumer Protection and Toxic Materials in Support of AB 3781 and AB 3901
6. To Ronald W. Bogardus, State Fire Marshal, forwarded to Harold Singer for response; From William B. Stead, Corrosion Engineer; April 5, 1984; Subject: Controversy Over Interpretation of Section 25284(a)
7. To Harold Singer; From Richard Casagrande, Co- Chairman Lo. G.H.M.A.; April 27, 1984; Subject: Invitation to Meeting to Discuss Underground Tank Regulations
8. To Carole Onorato; From Thomas L. Robinson, V. P., Robinson Oil Company; Subject: Possibility of CIOMA Member(s) Serving on an Industry Advisory Committee
9. To Carole A. Onorato; From Richard Fahey, Diablo Petroleum; April 25, 1984; Subject: Request for exemption from monitoring small tanks with suction pumps
10. To Manager Underground Container Program, SWRCB; From Darrell Heppner; April 25, 1984; Subject: Insurance for Owners of Underground Tank Containers
11. To Michael A. Campos; From SDL Hayson, Insidious Leakage Alert; April 26, 1984; Subject: The VESTAL HELIX SOLUTION to a Leak Detection Device) includes Diagram - Pollution Preventing Manhole
12. To Clint Whitney; From Richard Roberts, County of San Bernardino Environmental Health Services; May 20, 1984; Subject: Suggests Workshops throughout State
13. To Harold Singer; From Bryant C. Donner, Lathain and Watkins; May 21, 1984; Subject: Participation in May 15th Workshops includes List of Questions Submitted at Workshop
14. To SWRCB; From John McCullough, Frank B. Hall and Company; June 1, 1984; Subject: Questions Regarding insurance for Underground Tank Regulations
15. To Edward C. Anton, From Rex H. Black, Owner, Valley Leak Detection Service; June 8, 1984; Subject: Requests Opportunity to Provide Input into the UGT Regulations
16. To Carole A. Onorato; From Assembly Person Byron Sher; June 11, 1984; Subject: Questions about Monitoring Requirements
17. To Kathy Keber; From Lenny E. Walker; June 13, 1984; Subject: Definition of "Farm" as Contained in AB 1362
18. To SWRCB; From Bill DeBord, J.E. DeWitt, Inc.; August 10, 1984; Subject: Interest in Knowing if Leak Tracer Dye Meets Detection Requirements includes Article on Tracer Dye
19. To Mr. Armstrong, Fire Services Division, Sunnyvale, forwarded to SWRCB for response; From John T. O'Halloran, General Manager, Santa Clara Valley Water District; Subject: Concerns of the Sher Bill Preempting County's Hazardous Material Storage Ordinance
20. To Harold Singer; From James Hartley; August 24,1984; Subject: Presentation Given at Seminar
21. To California Department of Water Resources; From Barbara J. Peters; August 31, 1984; Subject: Inquiring about Investigation into the Problem of Gasoline Leakage from Underground Tanks
22. To Mitch Dion, President CIOMA; From Tom Robinson, Chairman, Ad Hoc Committee on Underground Tank Regulations; September 5, 1984; Subject:. Concerns Over Interpretations of Existing Tank Monitoring, Section 25284.1(a)

23. To Harold Singer; From Hank Martin, Manager Environmental Quality, California Manufacturers Association; September 12, 1984; Subject: Invitation to Discuss Regulations at Fall Meeting
24. To Harold Singer; From Michael J. Bouton, President Genelco Inc., September 20, 1984; Subject: Information on SOIL SENTRY
25. To Carole A. Onorato; From Duane Marshall, Regulatory Affairs Program Manager; September 20, 1984; Subject: Request for Draft Underground Tank Regulations
26. To Carole A. Onorato; From Les H. Cohen; September 24, 1984; Subject: CIOMA Retained Consulting Services for Board Hearing on Underground Tank Regulations
27. To Carole A. Onorato; From Bob Shuster; October 3, 1984; Subject: Requests Permission to Speak at the October 23, 1984 Hearing
28. To Carole A. Onorato; From Bert W. McCorinack, President, McCorinix Corps; October 24, 1984; Subject: Requests Permission to Speak at October 23, 1984 Hearing
29. To Carole A. Onorato; From J. W. Cohn, Ph.D., Avanti Management; October 8, 1984; Subject: Requests Permission to Speak at October 23, 1984 Hearing
30. To Carole A. Onorato; From Robert P. Short, Goodrich Oil Co.; October 8, 1984; Subject: Requests Permission to Speak at October 23, 1984 Hearing
31. To Edward C. Anton, From Diane Phillips, McCoy and Associates; October 8, 1984; Subject: Request for Technical Paper for McCoy and Associates publication, "Hazardous Waste Consultant"
32. To Kenneth Willis; From Donna Blair, ARCO; October 11, 1984; Subject: Enclosed with ARCO's Comments on Draft Underground Tank Regulations
33. To Harold Singer; From Michael J. Bouton, President, Genelco Inc.; October 17, 1984; Subject: SOIL SENTRY for Use as a Leak Detector
34. To Michael A. Campos; From Betty J. Seldner, Performance Improvement Programs, H. R. Textron, Inc.; October 22, 1984;. Subject: Discusses Different Rules Governing Different Areas Change in Deadline for Monitoring Devices, Request Information
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UNDERGROUND TANK REGULATIONS

CALIFORNIA ADMINISTRATIVE CODE
TITLE 23 WATERS
CHAPTER 3 WATER RESOUORCES CONTROL BOARD
SUBCHAPTER 16 UNDERGROUND TANK REGULATIONS

JUNE 6, 1985

UNDERGROUND TANK REGULATIONS

CALIFORNIA ADMINISTRATIVE CODE
TITLE 23 WATERS
SUBCHAPTER 16 UNDERGROUND TANK REGULATIONS

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DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Article 1. General

Adopt new section to read:

2610. Applicability

(a) The regulations in this subchapter are intended to protect waters of the State from discharges of hazardous substances from underground storage tanks. These regulations establish: construction standards for new underground storage tanks; establish separate monitoring standards for new and existing underground storage tanks; establish uniform standards for release reporting, repair, and closure requirements; and specify variance request procedures.

(b) Persons who own one or more underground storage tanks storing hazardous substances shall comply with these regulations except as provided in Section 2611 of this article. If the operator of the underground storage tank is not the owner, then the owner shall enter into a written contract with the operator requiring the operator to: monitor the underground storage tank; maintain appropriate records; implement reporting procedures as required by the permit; and properly close the underground storage tank as required by the permit.

(c) Counties shall implement the regulations in this subchapter within both the incorporated and unincorporated areas of the county through the issuance of permits to underground storage tank owners. A permit may be issued for each underground storage tank, several underground storage tanks, or for a facility. A city may, by ordinance, assume the responsibility for implementing the provisions of this subchapter within its boundaries.

(d) All owners of underground storage tanks subject to these regulations must comply with the construction and monitoring standards of Article 3 (new underground storage tanks) or the monitoring standards of Article 4 (existing underground storage tanks) of this subchapter. However, owners of existing underground storage tanks which meet the construction and monitoring standards of Article 3 of this subchapter may be issued permits pursuant to the standards of Article 3 in lieu of the standards of Article 4 of this subchapter. In addition, all owners and/or operators of underground storage tanks subject to this subchapter must comply with the release reporting requirements of Article 5 of this subchapter, the repair requirements of Article 6 of this subchapter, the closure requirements of Article 7 of this subchapter, and the permit application requirements of

Article 10 of this subchapter.

Authority: Health and Safety Code (H&SC) 25299.3

Reference: Health and Safety Code (H&SC) 25283, 25284, 25299.1, 25299.3

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Adopt new section to read:

2611. Exemptions

(a) The owners of underground storage tanks that meet any of the following conditions shall be exempt from the provisions of this subchapter:

(1) Underground storage tanks that are located within the jurisdictions of counties or cities where the county or city had, prior to January 1, 1984, adopted an ordinance which, at a minimum, implements the requirements of Subchapter 6.7 of Division 20 of the Health and Safety Code pertaining to construction and monitoring standards for new and existing underground storage tanks provided that:

(A) The ordinance, as it may be amended, continues to meet, at a minimum, the requirements of Chapter 6.7 of Division 20 of the Health and Safety Code; and

(B) The county or city issues permits for underground storage tanks pursuant to the ordinance.

(2) Underground storage tanks containing hazardous wastes as defined in Section 25316 of the Health and Safety Code if the person owning or operating the underground storage tank has been issued a hazardous waste facilities permit for the underground storage tank by the Department of Health Services pursuant to Section 25200 of the Health and Safety Code or granted interim status under Section 25200.5 of the Health and Safety Code.

(b) Sumps which are a part of a monitoring system as required under Article 3 of this subchapter are considered part of the secondary container or leak detection system of the primary container and are required to meet the appropriate construction criteria.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25299.1

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Article 2. Definition of Terms

Adopt new section to read:

2620. Applicability of Definitions

(a) Terms used in this subchapter shall have the definitions provided by the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code, or by Section 2621 of this article.

(b) The following terms are defined in the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code:

Board

Department

Facility

Hazardous substance

Local agency

Operator

Owner

Person

Pipe

Primary containment

Product-tight

Secondary containment

Single-walled

Special inspector

Storage/store

Unauthorized release

Underground storage tank

Authority: H&SC 25299.3

Reference: H&SC 25281, 25282, 25291

Adopt new section to read:

2621. Additional Definitions

The following definitions shall apply to terms used in this subchapter.

"Continuous monitoring" means a system using automatic equipment which routinely performs the required monitoring on a periodic or cyclic basis throughout each day.

"Double-walled tank" means a container with two complete shells which provide both primary and secondary containment. The outer shell must provide structural support and must be constructed primarily of non-earthen materials including, but not limited to, concrete, steel, and plastic.

"Existing underground storage tank" means any underground storage tank that is not a new underground storage tank. The term includes any underground storage tank which has contained a hazardous substance in the past and, as of January 1, 1984, had the physical capability of being used again (i.e., it had not been removed or completely filled with an inert solid.

"First ground water" means the uppermost saturated horizon

encountered in a bore hole.

"Ground Water" means subsurface water which will flow into a well.

"Membrane liner" means any membrane sheet material fabricated into a system for secondary containment.

"Membrane manufacturer" means the company which processes the constituent polymers into membrane sheeting from which the membrane liner is fabricated into a system for secondary containment.

"Membrane liner fabricator" means the company which converts the liner membrane sheeting into a system for secondary containment.

"Motor vehicle" means a self-propelled device by which any person or property may be propelled, moved, or drawn.

"Motor vehicle fuel tank" means an underground storage tank that contains a product which is intended to be used primarily to fuel motor vehicles or fuel an engine.

"Nationally recognized independent testing organization" means any one of the following organizations; or other organizations

approved by the Board:

American National Standards Institute (ANSI)

American Society of Mechanical Engineers (ASME)

American Society for Testing and Materials (ASTM)

National Association of Corrosion Engineers (NACE)

National Sanitation Foundation (NSF)

Underwriters Laboratories (UL)

Underwriters Laboratories of Canada, Inc. (ULC)

"New underground storage tank" means any underground storage tank subject to this subchapter which is installed after the effective date of this subchapter or complies with the requirements of Article 3 of this subchapter; or was installed after January 1, 1984, and before the effective date of this subchapter pursuant to a permit issued by the local agency implementing the provisions of Chapter 6.7 of Division 20 of the Health and Safety Code relating to new underground storage tanks.

"Perennial Ground water" means ground water that is present throughout the year.

"Substantially beneath the surface of the ground" means that at least 10 percent of the underground storage tank volume, including connected piping, is below the ground surface.

"Unauthorized release" as defined in Chapter 6.7 of Division 20 of the Health and Safety Code does not include intentional withdrawals of hazardous substances for the purpose of legitimate sale, use, or disposal.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25282, 25283

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Article 3. New Underground Storage Tank Construction and Monitoring Standards

Adopt new section to read:

2630. Applicability

(a) This article contains statewide minimum standards for the construction, installation, and monitoring of new underground storage tanks that contain hazardous substances.

(b) Sections 2631 and 2632 of this article specify construction and monitoring standards for all new underground storage tanks. New underground storage tanks that only store motor vehicle fuels may be constructed and monitored pursuant to the standards specified in Sections 2633 and 2634 of this article in lieu of those specified in Sections 2631 and 2632 of this article, respectively. However, if the construction standards in Section 2633 of this article are used, then the monitoring standards of Section 2634 of this article must also be used.

(c) All new underground storage tanks and secondary containers must comply with Section 2635 of this article.

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Authority: H&SC 25299.3

Reference: H&SC 25281, 25291

Adopt new section to read:

2631. Construction Standards for New Underground Storage Tanks

(a) Primary and secondary levels of containment shall be required for all new underground storage tanks used for the storage of hazardous substances as defined in Article 2 of this subchapter.

(b) All primary containers shall be product-tight.

(c) All secondary containers shall be constructed of materials of sufficient thickness, density, and composition to prevent structural weakening of the secondary container as a result of contact with any released hazardous substance 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.

(d) If a hazardous substance has come into contact with the secondary container and either additional primary containers exist within the secondary container or the leaking primary container is repaired as specified in Article 6 of this

subchapter or closed as specified in Article 7 of this subchapter and replaced by a new primary container, the owner shall demonstrate to the satisfaction of the local agency that the requirements of Subsection (c) of this section are still achievable or replace the secondary container.

(e) The secondary container shall have the ability to contain the following volumes:

(1) At least 100 percent of the volume of the primary container where only one primary container is within the secondary container.

(2) In the case of multiple primary containers within a single secondary container, the secondary container shall be large enough to contain 150 percent of the volume of the largest primary container placed in it, or 10 percent of the aggregate internal volume of all primary containers in the secondary container, whichever is greater.

(f) If the secondary container is open to rainfall, then it shall be able to accommodate the volume of precipitation which could enter the secondary container during a 24-hour,

100-year storm in addition to the volume of hazardous substance storage required in Subsection (e) of this section.

(g) The volumetric requirements for the 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 Subsection 2631(e) of this section. 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.

(h) 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.

(i) The floor of the secondary container shall be constructed on a firm base and, if necessary for monitoring, shall be sloped to a collection sump. One or more access casings shall be installed in the sump and sized to allow removal of

collected liquid. The access casing shall extend to the ground surface, be perforated in the region of the sump, and covered with a locked waterproof cap. If this access casing is within a secured facility, the requirements for a locked cap may be waived by the local agency. The casing shall be thick enough to withstand all anticipated stresses with appropriate engineering safety factors and constructed of materials that will not be structurally weakened by the stored hazardous substance and will not donate, capture, or mask constituents for which analyses will be made.

(j) Systems for secondary containment utilizing membrane liners shall meet the following requirements:

(1) The membrane liner shall have a permeability factor of 0.25 ounces per square foot per 24 hours or less. Such permeability shall constitute the maximum rate of transport over time of the hazardous substance proposed for storage. Permeability shall be evaluated according to accepted engineering practices for materials testing. Some acceptable methods for determining the permeability are provided in Appendix I of this subchapter.

(2) The membrane liner shall be considered to have

satisfied the requirements of Subsection 2631(c) of this section only if the liner material meets the following standards. The material properties specified in these standards shall be determined using accepted engineering practices for materials testing. Some acceptable methods for determining these properties are provided in Appendix I of this subchapter.

(A) The volume swell after a 24-hour period of immersion in the stored hazardous substance shall not exceed 3 percent of the original liner membrane material thickness.

(B) The maximum change in elongation of the liner membrane material at break after 24 hours of immersion in the stored hazardous substance shall not exceed 2 percent of the original elongation.

(C) The liner membrane material Shore A hardness (brittleness) after 24 hours of immersion in the hazardous substance shall be within 5 percent of the original hardness.

(D) For a containment test, the rate of transport through the liner membrane material of the

hazardous substance after a period of 24 hours shall not exceed 6 percent by weight of the hazardous substance being tested. The liquid height for the test shall be no greater than that expected in actual site conditions.

(E) The rate of solubility of the liner membrane material in the hazardous substance for a period of 24 hours shall not exceed 0.1 percent by weight of the section of liner being tested.

(3) The liner seam strength shall be equal to the tensile strength of the parent material when tested in accordance with accepted engineering practices for materials testing. Some acceptable methods for determining the liner seam strength are provided in Appendix I of this subchapter.

(k) The liner shall be installed under the supervision of a representative of the membrane liner fabricator or a contractor certified by such fabricator.

(l) The excavation base and walls for the synthetic liner shall be prepared to the liner fabricator's specifications and shall be firm, smooth, and free of any sharp objects or

protrusions.

(m) Laminated, coated, or clad materials shall be considered single walled and shall not be construed to fulfill the requirements of both primary and secondary containment.

(n) Double-walled underground storage tanks which satisfy the construction standards of Sections 2631(b) and (c) of this article shall be considered to fulfill the volumetric requirements for secondary containment specified in Section 2631(e)(1) of this article.

(o) The design of double-walled underground storage tanks shall allow for monitoring of the annular space.

(p) "Sticking" the annular space of a double-walled underground storage tank as a monitoring method shall not be allowed unless a strike plate or other approved devices used to protect the underground storage tank are located directly under the monitoring opening.

(q) The double-walled underground storage tank shall be so designed and installed that any loss of hazardous substance from the primary container will drain to a specific location within the annular space, as required, to be detected by a

monitoring device or method.

(r) Any special accessories, fitting, coating, or lining not inherent within the initial design of the primary container or double-walled underground storage tank shall be approved by a nationally recognized, independent testing organization or a demonstration of integrity with the primary container or double-walled underground storage tank shall be required by the local agency.

(s) All primary containers and double-walled underground storage tanks subject to floatation shall be weighted or anchored using methods specified by the manufacturer or, if none exist, best engineering judgment.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25291

Adopt new section to read:

2632. Monitoring Standards for New Underground Storage Tanks

(a) This section is applicable only to those underground storage tanks constructed pursuant to the standards of Section 2631 of this article.

(b) The owners or operators of underground storage tanks subject to this section shall implement a monitoring program that is approved by the local agency and required in the permit. The program shall utilize one or more of the methods described in Subsection (c) of this section and shall address the items listed in Subsection (d) of this section.

(c) Monitoring of the space between the primary and secondary container shall utilize either visual monitoring of the primary container as described in Subsection (1) of this subsection or one or more of the methods listed in Subsection (2) of this subsection.

(1) A program which relies on the visual monitoring of the primary container shall incorporate all of the following:

(A) Provisions that all exterior surfaces of the underground storage tank and the surface of the floor directly beneath the underground storage tank shall be monitored by direct viewing.

(B) Visual inspections shall be performed daily, except on weekends and recognized state and/or federal holidays, and may be more frequent if required by the local agency. The local agency may reduce the frequency of visual monitoring at facilities where personnel are not normally present and inputs to and withdrawals from the underground storage tank are very infrequent. In these instances, the minimum frequency shall be no less than once per week and shall take into account the minimum anticipated time which the secondary container is capable of containing any unauthorized release and the maximum length of time any hazardous substance released from the primary container will remain observable on the surface of the secondary container. The inspection schedule shall be established such that inspections occur on a routine basis when the liquid level in the underground storage tank is at its highest. The inspection frequency shall be

selected such that any unauthorized release will remain observable on the exterior of or the surface immediately beneath the underground storage tank between visual inspections. The evaluation of how long the hazardous substance remains observable shall consider the volatility of the hazardous substance and the porosity and slope of the surface immediately beneath the underground storage tank.

(C) The recordation of the liquid level in the underground storage tank at the time of inspection.

(D) The observation of any liquid on the exterior of or the surface immediately beneath the underground storage tank being visually monitored shall cause the owner or operator to implement all or a portion of the following actions. The applicable actions and their timing shall be based on the site-specific situation, be intended to determine if the observed liquid constitutes an unauthorized release, and shall be included in the permit.

(i) Laboratory or field analysis of the observed liquid.

(ii) Testing of the underground storage tank utilizing the procedures described in Section 2643 of Article 4 of this subchapter.

(iii) Removal of all hazardous substances from the underground storage tank and the secondary container (as specified in Subsection [d] of this section).

(2) A program which relies on detecting the hazardous substance in the space between the primary and secondary container shall utilize one or more of the methods provided in Table 3.1 of this article. The following requirements shall apply when appropriate.

Table 3.1

Methods of Monitoring for Hazardous Substances in the Secondary Container

Condition of the Secondary System [1]	Type of Substance Stored	Methods of Monitoring			
		Liquid Level Indicator [2]	Hazardous Substance Sensor [3]	Vapor Monitor	Pressure or Vacuum Loss Detector [4]
Dry	Volatile	X	X	X	X
Dry	Nonvolatile	X	X		X
Wet	Volatile	X	X	X	X
Wet	Nonvolatile	X	X		X

[1] A "dry" system does not contain liquid within the secondary container during normal operating conditions while a "wet" system does.

[2] Includes: continuously operated mechanical or electronic devices; manual determinations using mechanical, electronic, or "stick" readings;or visual determinations to detect the presence of any liquid in "dry" systems or a change in liquid levels in "wet" systems.

[3] Includes either qualitative or quantitative determinations of the presence of the hazardous substance.

[4] Primarily used for double-walled underground storage tanks to detect changes in pressure or vacuum between primary and secondary container. The use of pressure or vacuum must be approved as part of the primary and secondary container approval by a nationally recognized, independent testing organization.

(A) Continuous monitoring devices shall be connected to an audible/visual alarm system.

(B) Manual monitoring shall be performed daily except on weekends and recognized state and/or federal holidays. Manual monitoring may be required on a more frequent basis as specified by the local agency.

(C) For methods of monitoring where the presence of the hazardous substance is not determined directly (i.e., liquid level measurements), the monitoring program shall specify the proposed method(s) for determining the presence of the hazardous substance if the indirect methods indicate a possible unauthorized release.

(d) All monitoring programs shall include the following:

(1) A written routine monitoring procedure which includes, when applicable: the frequency of performing the monitoring method, the methods and equipment to be used for performing the monitoring, the location(s) from which the monitoring will be performed, the name(s) or title(s) of the person(s) responsible for performing the monitoring and/or maintaining the equipment, and

the reporting format.

(2) A response plan developed by the permit applicant which demonstrates, to the satisfaction of the local agency, that any unauthorized release will be removed from the secondary container within the shortest possible time and no longer than the time consistent with the ability of the secondary container to contain the hazardous substance. The response plan shall include, but is not limited to, the following:

(A) A description of the proposed methods and equipment to be used for removing the hazardous substance, including the location and availability of the required equipment, if not permanently on-site, and an equipment maintenance schedule for the equipment located on-site.

(B) The name(s) or title(s) of the person(s) responsible for authorizing the work to be performed.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25291

Adopt new section to read:

2633. Construction Standards for New Motor Vehicle Fuel Underground Storage Tanks

(a) This section specifies alternate construction standards for new underground storage tanks which only contain motor vehicle fuels. This section may be utilized by permit applicants in lieu of Section 2631 of this article. If this section is used in lieu of Section 2631 of this article, then the monitoring standards specified in Section 2634 shall be used in lieu of those specified in Section 2632 of this article.

(b) Primary containers used for the underground storage of motor vehicle fuel and constructed under this section shall be composed of glass-fiber reinforced plastic, cathodically protected steel, or steel clad with glass fiber reinforced plastic and be installed in conjunction with the leak interception and detection system decribed in Subsections (d) through (f) of this section.

(c) Primary containers used for the underground storage of motor vehicle fuel and constructed of materials other than those specified in Subsection 2633(b) of this article shall be

subject to the requirements of Sections 2631 and 2632 of this article.

(d) The permit applicant shall demonstrate to the satisfaction of the local agency that the leak interception and detection system achieves the criteria of Section 2631(c) of this article.

(e) Methods of construction for the leak interception and detection system for utilizing membrane liners shall be considered to have satisfied the requirements of 2631(c) if, and only if, the liner material meets the following standards:

(1) The membrane liner material shall have the permeability factor specified in Subsection 2631(j)(1) of this article as tested against ASTM Reference Fuel B.

(2) The membrane liner material shall be suitable for containment of the motor vehicle fuel in that such material shall meet the criteria set forth in Subsections 2631(j)(2)(A) through (E) of this article as tested against the motor vehicle fuel to be stored considering its variability or against ASTM Reference Fuel B.

(3) The membrane liner shall meet the requirements set forth in Subsection 2631(j)(3) of this article.

(4) The liner has been installed under the supervision of a representative of the membrane liner fabricator or a contractor certified by such fabricator.

(5) The excavation base and walls which will come into contact with the synthetic liner shall be prepared to the liner fabricator's specifications and shall be *firm, smooth, and free of any sharp objects and* protrusions.

(f) The leak interception and detection system and the response plan shall preclude the contact of any leaked hazardous substance with ground water. At a minimum, the leak interception and detection system shall be above the highest anticipated ground water elevation. Proof that the leak interception and detection system and response plan will protect ground water must be demonstrated by the permit applicant to the satisfaction of the local agency. The requirement for this demonstration may be waived by the local agency for underground storage tanks that comply with the requirements of Subsections (e), (f), and (g) of Section

2631 of this article. The demonstration shall, at a minimum, consider the following:

(1) The containment volume of the leak interception and detection system;

(2) The maximum leak which could go undetected under the monitoring method required in Section 2634 of this article and the maximum period during which the leak will occur;

(3) The frequency and accuracy of the proposed method of monitoring the leak interception and detection system;

(4) The depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water;

(5) The nature of the unsaturated soils under the leak interception and detection system and their ability to adsorb contaminants or allow vertical movement of contaminants;

(6) The effect of any precipitation or subsurface infiltration on the movement of any leak of hazardous

substance and the available volume of the leak interception and detection system; and

(7) The nature and timing of the response plan to cleanup the hazardous substances which have been discharged from the primary container.

(g) Pressurized piping systems that are connected to an underground storage tank that is constructed pursuant to the requirements of this section and monitored pursuant to the requirements of Section 2634 of this article are exempt from the leak interception and detection system requirements of this section, provided that the pressurized piping system is monitored according to the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25291

Adopt new section to read:

2634. Monitoring Standards for New Motor Vehicle Fuel Underground Storage Tanks

(a) Underground storage tanks used for the storage of motor vehicle fuel and constructed pursuant to the standards of Section 2633 of this article shall be monitored according to the requirements of the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code. In addition, monitoring of the leak interception and detection system shall be pursuant to Subsections (b), (c), and (d) of this section.

(b) The floor of the leak interception and detection system shall be constructed on a firm base and sloped to a collection sump.

(c) Access casing(s) shall be installed in the collection sump. The access casing shall be:

(1) Capable of allowing any liquid that may be moving along the upper surface of the leak interception and detection system to enter the casing;

(2) Sized to allow efficient removal of collected liquid and to withstand all anticipated applied stresses using appropriate engineering safety factors;

(3) Constructed of materials that will not be structurally weakened by the stored hazardous substances nor donate, capture, nor mask constituents for which analyses will be made;

(4) Screened along the entire vertical zone of permeable material which may be installed between the primary container and the leak interception and detection system;

(5) Capable of precluding leakage of any hazardous substance from the casing to areas outside of the leak interception and detection system; and

(6) Extended to the ground surface and covered with a locked waterproof cap or enclosed in a surface security structure that will protect the access casing(s) from entry of surface water, accidental damage, unauthorized access, and vandalism. A secure facility will satisfy the requirements for protection against unauthorized access and vandalism.

(d) Monitoring of the leak interception and detection system shall incorporate all of the following:

(1) The use of a continuous monitoring device connected to an audible/visual alarm system or manual monitoring performed daily, except on weekends and recognized state and/or federal holidays. Monitoring may be required more frequently by the local agency based on an assessment of the available volume of the leak interception and detection system and the accuracy of the proposed monitoring method. Approved methods of monitoring the leak interception and detection system include liquid level indicators, hazardous substance sensors, and vapor monitors as specified for volatile hazardous substances in Table 3.1 of this article.

(2) A written routine monitoring procedure which includes: the frequency of performing the monitoring method, the methods and equipment to be used for performing the monitoring, the location(s) from which the monitoring will be performed, the name(s) or title(s) of the person(s) responsible for performing the monitoring and/or maintaining the equipment, and the reporting format.

(3) For methods of monitoring where the presence of the hazardous substance is not determined directly (i.e., liquid level measurements), the monitoring program shall specify the proposed method(s) for determining the presence of the hazardous substance if the indirect method indicates the possible presence of the motor vehicle fuel.

(e) A response plan for an unauthorized release shall be developed prior to installation for any leak interception and detection system which does not meet the volumetric requirements of Subsections 2631(e), (f), and (g) of this article. For those underground storage tanks that meet the volumetric requirement of Subsections 2631(e), (f), and(g) of this article, the local agency shall require the owner to develop a plan pursuant to the reqirements of Subsection 2632(d)(2) of this article. The response plan shall consider the following:

(1) The volume of the leak interception and detection system in relation to the volume of the primary container;

(2) The amount of time the leak interception and detection

systen must provide containment in relation to the period of time between detection of an unauthorized release and cleanup of the leaked materials;

(3) The depth from the bottom of the leak interception and detection system to the highest anticipated level of ground water;

(4) The nature of the unsaturated soils under the leak interception and detection system and their ability to absorb contaminants or allow vertical movement of contaminants; and

(5) The methods and scheduling for removing all of the hazardous substances which have been discharged from the primary container and are located in the unsaturated soils between the primary container and ground water, including the leak interception and detection system sump.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25299.1

Adopt new section to read:

2635. General Construction Standards.

(a) The following subsections shall apply to all primary and secondary containers including leak interception and detection systems.

(b) Primary containers and double-walled underground storage tanks shall be designed and constructed to comply with all of the following:

(1) Cathodically protected steel underground storage tanks, steel underground storage tanks clad with glass fibre-reinforced plastic, and glass fibre plastic underground storage tanks shall be fabricated and designed to standards developed by a nationally recognized independent testing organization or be listed by the testing organization. Applicable design standards shall include, but are not limited to, those provided in Appendix I of this subchapter.

(2) Underground storage tanks shall be tested by the manufacturer or an independent testing organization for durability and chemical compatibility with the

hazardous substances to be stored using recognized engineering practices for materials testing. Some acceptable methods for determining durability and chemical compatibility with the hazardous substances are provided in Appendix I of this subchapter.

(3) Except for steel underground storage tanks, a wear plate (striker plate) shall be centered under all accessible openings of the underground storage tank. The plate shall be constructed of steel or, if the steel is not compatible with the hazardous substance stored, a material resistant to the stored hazardous substance. The width of the plate shall be at least 9 inches wide and have an area of 1 square-foot or be equal to the area of the accessible opening or guide tube, whichever is larger. The thickness of the steel plate shall be at least 0.053 inch (1.35 mm), and those constructed of other materials (as required) shall be of sufficient thickness to provide equivalent protection. The plate shall be rolled to the contours of underground storage tank and bonded or seam welded in place.

(4) Single-walled primary containers of steel and the outer surface of double-walled underground storage tanks

constructed of steel which are not clad with glass fiber reinforced plastic, shall be protected by a properly installed, maintained, and monitored cathodic protection system. Selection of the type of protection to be employed shall be based on a certification listing by a nationally recognized independent testing organization or the judgment of a registered corrosion engineer or a National Association of Corrosion Engineers (NACE) accredited corrosion specialist taking into account the corrosion history of the area. Underground storage tanks with listed corrosion resistant materials, non-metalic glass fiber reinforced plastic coatings, composites, or equivalent systems shall be holiday tested immediately prior to installation.

The protection system shall be inspected under the direction of a registered corrosion engineer or NACE corrosion specialist at the frequency specified in the certification or in accordance with the schedule prescribed by the system designer, but no less than semi-annually.

Underground storage tanks in a vault and not backfilled are exempted from the requirements of this subsection.

(5) All primary containers and double-walled underground storage tanks shall be installed according to the manufacturer's written recommendations or, if no written recommendations exist, best engineering practice.

(6) All underground storage tanks shall be tested before being put into service in accordance with the applicable sections of the Code under which they were built. The ASME code stamp or Listing Mark of Underwriters Laboratories, Incorporated, (UL) or any other nationally recognized independent testing organization shall be evidence of compliance with this requirement.

(7) Before being covered, enclosed, or placed in use, all underground storage tanks and piping shall be tested for tightness hydrostatically or with air pressure at not less than 3 pounds per square-inch (20.68 k Pa) and not more than 5 pounds per square-inch (34.48 k Pa). Pressure piping shall be hydrostatically tested to 150 percent of the maximum anticipated pressure of the system, or pneumatically tested to 110 percent of the maximum anticipated pressure of the system, but not

less than 5 pounds per square inch (34.48 kPa) gauge at the highest point of the system. This test shall be maintained for a sufficient time to complete visual inspection of all joints and connections, but for at least 10 minutes. In lieu of the above, a test using accepted engineering practices shall be used. Some acceptable test methods for testing pipelines are provided in Appendix I of this subchapter. Double-walled underground storage tanks are exempt from the requirements of this section provided that the annular space is monitored using either pressure or vacuum testing.

(8) When required by the local agency, all underground storage tanks shall be equipped with an overflow protection system which includes the following elements:

(A) A spill catchment basin which surrounds the fill pipe and prevents the inflow of the hazardous substance into the subsurface environment. A level sensing device that continuously monitors and indicates the liquid level in the underground storage tank and either (B) or (C) of this subsection or both;

(B) An audible/visual alarm system triggered by a liquid level sensor to alert the operator of an impending overfill condition; or

(C) An automatic shut-off device that stops the flow of product being delivered to the underground storage tank when the underground storage tank is full.

(9) The overflow protection system required in Subsection (b)(8) of this section shall be waived for underground storage tanks containing motor vehicle fuels in which a spill catchment basin surrounds the fill pipe and prevents the inflow of the motor vehicle fuel into the subsurface environment and:

(A) Both the fluid level is visually monitored and the filling operation is controlled by the facility operator during filling of the underground storage tank;

(B) The available capacity of the underground storage tank to be filled is determined immediately prior to filling to be at least 103 percent of the

volume of the entire tank compartment to be delivered or the volume of the entire tank compartment to be delivered plus 200 gallons, whichever is less, as determined by underground storage tank guaging; or

(C) The hazardous substance being delivered can be metered into the underground storage tank and the available underground storage tank capacity is determined immediately prior to filling.

(c) Secondary containers including leak interception and detection systems installed pursuant to Section 2633 of this article shall comply with all of the following:

(1) The secondary container shall, at a minimum, encompass the area within the system of vertical planes surrounding the exterior of the primary containment unit. If backfill is placed between the primary and secondary containment, then an evaluation shall be made of the maximum lateral spread of a point leak from the primary containment over the vertical distance between the primary and secondary containment. The secondary containment shall extend an additional distance beyond the vertical planes described above equal to the radius

of lateral spread plus 1 foot.

(2) The secondary container must be capable of precluding the inflow of the highest ground water anticipated during the life of the underground storage tank into the space between the primary and secondary containers.

(3) If the space between the primary and secondary containers is backfilled, the backfill material shall not preclude the vertical movement of leakage from any part of the primary container.

(4) The secondary container and any backfill material between the primary and secondary containers shall be designed and constructed to promote gravity drainage of a leak of hazardous substances from any part of the primary container to the monitoring locations(s).

(5) Two or more primary containers shall not utilize the same secondary container if the primary containers store materials that in combination may cause a fire or explosion; or the production of a flammable, toxic, or poisonous gas; or the deterioration of a primary or secondary container.

(6) Drainage of liquid from within a secondary container shall be controlled in a manner approved by the local agency so as to prevent hazardous materials from being discharged. The liquid shall be analyzed to determine the presence of any of the hazardous substance(s) stored in the primary container prior to initial removal and monthly thereafter for any continuous discharge (removal) to determine the appropriate method for final disposal. The liquid shall be sampled and analyzed immediately upon an indication of an unauthorized release from the primary container.

(7) For primary containers installed completely beneath the ground surface, the original excavation for the secondary container shall have a water-tight cover which extends at least 1 foot beyond each boundary of the original excavation. This cover shall be asphalt, reinforced concrete, or equivalent material which is sloped to drainways leading away from the excavation. Access openings shall be constructed as water-tight as practical. Double-walled underground storage tanks and open vaults are exempt from the requirements of this subsection.

(8) The actual location and orientation of the underground

storage tanks and appurtenant piping systems shall be indicated on as-built drawings of the facility. Copies of all drawings, photographs, and plans shall be submitted to the local agency.

Authority: H&SC 25299.3

Reference: H&SC 25281, 25299

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Article 4. Existing Underground Storage Tank Monitoring Standards

Adopt new section to read:

2640. Applicability

(a) All owners of existing underground storage tanks subject to this subchapter shall implement a visual monitoring or alternative monitoring system that complies with this article and is approved by the local agency by the compliance date in Chapter 6.7 of Division 20 of the Health and Safety Code. A local agency shall not issue a permit unless the monitoring system is capable of: determining the containment ability of the underground storage tank and detecting any active or future unauthorized releases. If the monitoring technique(s) selected is designed to detect the presence of the stored hazardous substance outside of the underground storage tank, then tests must be made to determine if the hazardous substance or any interfering constituents exist in the soil or backfill surrounding the underground storage tank. The failure to implement an approved monitoring system shall be cause for the local agency to require closure of the underground storage tank pursuant to Article 7 of this subchapter.

(b) The objectives of the monitoring program for existing underground storage tanks are: to detect unauthorized releases before ground water is affected. Ground water monitoring may be utilized as a primary means of monitoring when the ground water does not have actual or potential beneficial uses.

(c) All owners of existing underground storage tanks subject to this subchapter shall implement visual monitoring as described in Section 2642 of this article for all visible portions of the underground storage tank, ~~whenever feasible~~. If the entire underground storage tank is not susceptible to visual monitoring but a significant portion of the underground storage tank can be visually monitored, that portion of the underground storage tank shall be monitored visually. Visual monitoring that can only be implemented during a portion of the year shall be utilized during those portions of the year. If visual monitoring cannot be implemented for the entire underground storage tank throughout the entire year, then one of the monitoring alternatives specified in Section 2641 of this article shall also be implemented. The monitoring alternative shall be operative during those times when visual monitoring is not feasible or for those portions of the underground storage

tank which are not susceptible to visual monitoring.

(d) All owners of existing underground storage tanks subject to this subchapter who are not able to implement visual monitoring as specified in Section 2642 of this article shall implement one of the monitoring alternatives specified in Section 2641 of this article.

(e) The monitoring methods and frequencies specified in each monitoring alternative listed in Section 2641 of this article are minimums. Local agencies, as a condition of approval of a specific monitoring alternative, shall require additional or more frequent monitoring if necessary to comply with the objectives specified in Subsection (b) of this section and Subsection (d) of Section 2641 of this article.

(f) Local agencies shall reduce the monitoring frequency for visual monitoring or a monitoring alternative listed in Section 2642 of this article in situations where environmental conditions make it impracticable, physically impossible, or life threatening to complete the required monitoring.

Authority: H&SC 25299.3

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Reference: H&SC 25283, 25291, 25292

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Adopt new section to read:

2641. Monitoring Alternatives

(a) All owners of existing underground storage tanks subject to this subchapter who cannot implement visual monitoring for the entire underground storage tank during all periods of the year shall implement, by the statutory deadline, one of the monitoring alternatives specified in Subsection (c) of this section.

(b) The local agency shall base its review of the proposed monitoring alternative on the specification contained in Subsection (d) of this section and shall approve the monitoring alternative if it finds that all aspects of the monitoring alternative can be implemented and that the monitoring alternative will satisfy the objectives listed in Subsection (b) of Section 2640 of this article. If the proposed monitoring alternative cannot be approved, then the local agency may request the submittal of another proposed monitoring alternative or may specify the implementation of another monitoring alternative.

(c) The optional monitoring alternatives are as follows:

(1) Underground Storage Tank Testing: This monitoring alternative shall, at a minimum, utilize the procedures specified in Section 2643 of this article and shall be performed monthly at a minimum.

(2) Vapor or Other Vadose Zone Monitoring and Ground Water Monitoring with Soil Sampling:

(A) This monitoring alternative shall, at a minimum, include vadose zone monitoring, ground water monitoring, and soil sampling. Soil sampling is required only at the time the boring(s) and well(s) are installed.

(B) The vadose zone monitoring program shall be designed and installed pursuant to the procedures specified in Sections 2646 and 2648 of this article. Vadose zone vapor monitoring shall be performed either continuously or daily, at a minimum. Other vadose zone monitoring shall be performed weekly, at a minimum.

(C) Ground water monitoring wells shall be designed and installed according to the procedures specified in Sections 2647 and 2648 of this

article and monitored semi-annually, at a minimum. The minimum number of wells shall be as specified on Table 4.1 of this section for Alternative 2. Analysis of samples collected shall be by visual observation, or field or laboratory analysis as determined by the local agency depending on the constituents being evaluated. The local agency shall require laboratory verification at periodic intervals if visual or field analysis cannot achieve levels of detection equivalent to laboratory analysis.

(D) The soil sampling and analysis shall be performed as specified in Sections 2645 and 2648 of this article. Samples shall be taken from all boring(s) and well(s) installed.

(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 alternative shall not be approved if first ground

TABLE 4.1 MONITORING ALTERNATIVES*

ALTERNATIVE	METHOD	MINIMUM MONITORING FREQUENCY	REFERENCE SECTION	COMMENTS AND CONDITIONS PROHIBITING USE OF ALTERNATIVE*
1	Tank Testing	Monthly	Section 2643	None
2	Vapor or Other Vadose Zone Monitoring Method and Ground Water and Soils	Daily/Continuous Semi-annual One-Time	Section 2646 Section 2647 Section 2645	1. Must be able to do both vadose and ground water monitoring. 2. Ground water should normally be less than 100 feet deep to use this alternative. 3. Minimum number of ground water monitoring wells: a. Ground water equal to or less than 50 feet deep.. o Single or multiple tanks (all <1,000 gal, same or closely spaced excavations) - one downgradient well per tank minimum up to three wells. o Single tank (≥1,000 gal) - two wells minimum one of which shall be downgradient. o Two or three tanks (at least one ≥1,000 gal, same or closely spaced excavations) - three wells, minimum at least one of which shall be downgradient. o Four or more tanks (at least one ≥1,000 gal, same or closely spaced excavations) - four wells minimum, at least two of which shall be downgradient and the remainder equally spaced. Pipelines - additional wells, if needed, as determined by the local agency. b. Ground water greater than 50 feet deep. o Single tank -one downgradient well. o Multiple tanks or closely spaced tank excavations - three wells uniformly spaced. unless the ground water gradient can be accurately determined, in which case, one downgradient well. o Pipelines - additional wells, if needed, by the local agency.
3	Vadose and Soils and Tank Testing	Daily/Weekly One-Time Annual	Section 2646 Section 2645 Section 2643	This alternative shall not be used when first ground water is less than 100 feet deep and: 1. First ground water has actual or potential beneficial uses (municipal, domestic, industrial, or agricultural supply); or 2. First ground water is hydraulically connected to ground water which had or potentially has beneficial uses.

4	Ground Water and Soils	Monthly One-Time	Section 2647 Section 2645	1. Use of this alternative shall be limited to the following situations: a. Perennial ground water is normally less than 30 feet deep, and b. The ground water being monitored does not have any actual or potential beneficial uses (municipal, domestic, agricultural, or industrial supply), and c. The ground water being monitored is not hydraulically connected to ground water which has any actual or potential beneficial uses (municipal, domestic, agricultural, industrial supply), and d. The monitoring well can be screened in the area 10 feet above the highest perennial ground water level and 20 feet below the lowest ground water level. 2. Minimum number of ground water monitoring wells--See Section 3a. of Alternative No. 2.
5	Inventory Reconciliation and Tank Testing and Pipeline Leak Detectors	Daily Annual Continuous	Section 2644 Section 2643	1. Must use approved meters for tank inputs and and withdrawals. 2. Inventory reconciliation which exceeds an allowable measurement error plus 0.15 percent of throughput at any time during a 30-day period shall require further investigation: Tank Size — Allowable Measurement Error ≤4000 — 25 gallons 4000 to ≤ 8000 — 50 gallons 8000 to ≤12000 — 75 gallons ≥12000 — 100 gallons 3. Limited to motor vehicle fuels storage tanks.
6	Inventory Reconciliation and Tank Testing and Pipeline Leak Detectors and Soils and Vadose Monitoring or Ground Water Monitoring	Daily Annual Continuous Variable Variable	Section 2644 Section 2643 Section 2646 Section 2647	1. Must use approved meters for tank inputs and withdrawals. 2. Inventory reconciliation which exceeds any of the following shall require further investigation: a. Daily variation - ≥100 gallons b. Weekly variation - ≥5 percent of throughput but no greater than 350 gallons c. Monthly variation - ≥0.5 percent of throughput no less than 100 gallons 3. Minimum number of ground water wells--See Alternative No. 2. 4. Limited to motor vehicle fuels storage tanks.

7	Tank Gauging and Tank Testing	Weekly Annually	Section 2644 Section 2643	1. This alternative is limited to use on small tanks that do not have frequent input or withdrawals (e.g., standby generator fuel supply) and where the liquid level in the tank can be measured to the accuracy of + or -5 gallons. A liquid level difference of 1 percent of the tank volume or 5 gallons, whichever is less shall be cause for further investigation.
8	Tank Testing and Inventory Reconciliation or Tank Gauging	Annually Daily Daily or Weekly	Section 2643 Section 2644 Section 2644	1. This is an interim monitoring alternative that can be implemented for up to three years. 2. Inventory reconciliation shall utilize approved meters for inputs and withdrawals and shall maintain variations within the limits specified in Alternative No. 6. 3. Tank gauging is limited to use on tanks described in Alternative No. 7 and to those tanks that can eliminate inputs and withdrawals three times per week for 12 hours each. A liquid level difference of 1 percent of the tank volume but not greater than 50 gallons shall be cause for further investigation.

* This table is provided as a summary of the various monitoring alternatives.

Section 2641 shall be used to determine the actual requirements for each monitoring alternative.

water, including intermittent, perched ground water, is less than 100 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 has actual or potential beneficial uses.

(B) The determination that first ground water is significantly deeper than 100 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.

(C) Vadose zone monitoring shall be designed and installed pursuant to the procedures specified in Sections 2646 and 2648 of this article. Vadose zone vapor monitoring shall be performed either continuously or daily, at a minimum. Other vadose zone monitoring shall be performed weekly, at a minimum.

(D) The soil sampling and analysis shall be performed

as specified in Section 2645 and 2648 of this article. Samples shall be taken from all borings installed.

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

(4) Ground Water and Soil Testing:

(A) This monitoring alternative shall, at a minimum, utilize ground water sampling and analysis of soil samples taken at the time of well installation. This alternative shall not be approved if any of the following conditions exist:

(i) First ground water, including intermittent, perched ground water, is normally greater than 30 feet deep;

(ii) The ground water proposed for monitoring has actual or potential beneficial uses (domestic, municipal, industrial, or agricultural supply) or is hydraulically connected to ground or surface

water which has actual or potential beneficial uses; or

(iii) The ground water monitoring well cannot be perforated within the interval from 10 feet above the highest anticipated ground water level to 20 feet below the lowest perennial ground water level. The 10-foot requirement may be waived by the local agency if ground water is less than 10 feet deep. If the local agency waives this requirement, the well must still be capable of being perforated above the highest anticipated ground water level.

(B) Ground water monitoring wells shall be designed and installed according to the procedures specified in Sections 2647 and 2648 of this article and shall be monitored monthly, at a minimum. The minimum number of monitoring wells shall be as specified in Table 4.1 of this article for Alternative 4. Analysis of samples collected shall be by visual observation, or field or laboratory analysis as determined by the local agency depending on the constituents being evaluated. If visual observation or field

analysis is used, the local agency shall require periodic laboratory analysis if the visual observation or field analysis does not provide a degree of detection equal to that of laboratory analysis.

(C) The soils sampling and analysis shall be performed as specified in Sections 2645 and 2648 of this article. Samples shall be taken from all wells installed.

(5) Inventory Reconciliation, Underground Storage Tank Testing, and Pipeline Leak Detectors

(A) This monitoring alternative shall, at a minimum, utilize inventory reconciliation, underground storage tank testing, and pipeline leak detectors. The use of this alternative is limited to those underground storage tanks which contain motor vehicle fuels.

(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 a

inventory reconciliation in excess of allowable variation(s) shall implement the evaluation procedures specified in Subsection (f) of Section 2644 of this article within the times specified.

(i) The daily variation in inventory reconciliation shall be the difference between the calculated volume in storage and the actual volume in storage.

(ii) If the variation is based on the previous day's physically measured inventory, the daily variation shall not exceed the allowable variation described in Subsection (iv) of this subsection.

(iii) If the variation is based on the previous day's calculated inventory, then the daily variation shall not exceed the allowable variation described in Subsection (iv) of this subsection. The calculated inventory on any given day shall be based on continuous calculations from the day on which the physical inventory was used. The period

of continuous calculations shall be no greater than 1 month.

(iv) The allowable variation shall be the sum of the measurement error from Table 4.2 of this article and the throughput error calculated in accordance with Subsection (v) of this subsection.

Table 4.2

Tank Size*	Allowable Measurement Error*
less than 4,000	25
4,000 to less than 8,000	50
8,000 to less than 12,000	75
12,000 or greater	100

* all values in gallons

(v) The throughput error shall be 0.15 percent (0.0015) of the measured throughput during the period under consideration as described in either

Subsection (ii) or Subsection (iii) of this subsection.

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

(D) All pressurized pipelines shall be monitored using an automatic on-line pressure loss detector and flow restriction device. The detector shall be connected to an audible/visual alarm system unless it provides for at least a 50-percent reduction from the normal flow rates. Suction pipelines shall be monitored daily for indications of possible leaks.

(6) Inventory Reconciliation, Underground Storage Tank Testing, Pipeline Leak Detectors, Vadose Zone, or Ground Water Monitoring and Soil Testing:

(A) This monitoring alternative shall, at a minimum, utilize inventory reconciliation, underground storage tank testing, and pipeline leak detectors. In addition, either vadose zone or ground water

monitoring shall be included and analysis of soil samples taken at the time of boring or well installation. The use of this alternative is limited to those underground storage tanks which contain motor vehicle fuels.

(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 a variation in excess of any of the following shall implement the evaluation procedures specified in Subsection (f) of Section 2644 of this article within the times specified.

(i) daily variation: plus or minus 100 gallons

(ii) 7-day variation: plus or minus 5 percent of throughput or 100 gallons whichever is greater but, in no case, greater than 350 gallons

(iii) more than 30-day variation: plus or minus 0.5 percent of throughput or 100 gallons whichever is less

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

(D) All pressurized pipelines and suction pipelines shall be monitored as provided for in Subsection (5)(D) of this subsection.

(E) Vadose zone monitoring, if used, shall be designed and installed according to the procedures specified in Sections 2646 and 2648 of this article. The frequency of monitoring shall be no less frequent than semi-annually.

(F) Ground water monitoring, if used, shall be designed and installed according to the procedures specified in Sections 2647 and 2648 of this article. The minimum number of monitoring wells shall be as specified in Alternative 6 in Table 4.1 of this article. Analysis of samples collected can be by visual observation, or field or laboratory analysis as determined by the local agency depending on the constituents being evaluated. Ground water samples shall be

collected and analyzed at least semi-annually. If samples are analyzed by visual observation or field analysis, the local agency shall require laboratory analysis if the results of the visual or field analysis are less accurate than laboratory methods.

(G) The soil sampling and analysis shall be performed as specified in Sections 2645 and 2648 of this article. Samples shall be taken from all borings and wells installed.

(7) Underground Storage Tank Gauging and Testing:

(A) This monitoring alternative shall, at a minimum, utilize gauging and testing of the underground storage tank. This alternative shall only be utilized for underground storage tanks which do not have frequent inputs or withdrawals and where the liquid level in the underground storage tank can be measured to an accuracy of + 5 gallons or less when the liquid level in the underground storage tank is such that a unit change in underground storage tank contents causes the smallest liquid level variation.

(B) The underground storage tank gauging shall be performed according to the following specifications:

(i) The underground storage tank shall be capable of being secured to prevent unauthorized inputs or withdrawals;

(ii) Tank liquid level measurements shall be taken at the beginning and end of consecutive periods, each lasting up to 7 days. No input or withdrawals shall occur during these periods. The liquid level measurement at the beginning and end of each period shall, if possible, be performed by the same person;

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

(iv) If the liquid level varies by more than 1 percent of the underground storage tank's volume or 5 gallons, whichever is less, between measurements, an unauthorized release shall be

measurements, an unauthorized release shall be assumed to have occurred. The reporting requirements of Article 5 of this subchapter shall be followed and further evaluations shall be performed to verify or disprove the variations.

(8) Interim Monitoring

(A) This alternative monitoring method shall, at a minimum, utilize underground storage tank testing and either inventory reconciliation or tank gauging. This alternative shall be available only to any of the following catagories of owners for a period of up to 3 years after the effective date of these regulations.

(i) Small businesses as defined in Subsection 11342(e) of the Government Code and non-profit organizations which would meet the criteria for a small business, provided the owner demonstrates to the local agency that sufficient funds will be available to close the underground storage tank pursuant to Article 7 of this subchapter or to implement one of the first 7 monitoring alternatives of this subsection within the 3-year

period;

(ii) Any underground storage tank owner who provides a written, legally binding, commitment to the local agency that the underground storage tank will be closed according to the procedures specified in Article 7 of this subchapter within 3 years from the statutory compliance date or replaced with a new underground storage tank which complies with the provisions of Article 3 of this subchapter. The local agency shall not issue a permit pursuant to this subsection for longer than 3 years and shall not renew the permit; or

(iii) Any governmental agency that demonstrates to the local agency that, due to budgetary constraints the governmental agency needs additional time to close or replace the underground storage tank pursuant to Article 7 of this subchapter or to implement one of the first 7 monitoring alternatives of this subsection. The local agency shall not issue a permit pursuant to this subsection for longer than 3 years and shall not renew the permit.

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

(C) 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 a variation in excess of the levels specified in Subsection (c)(6)(B) of this section shall implement the evaluation procedures specified in Subsection (f) of Section 2634 of this article within the time specified.

(D) Underground storage tank gauging shall be performed according to the specifications of Subsection (c)(7)(B) of this section. Variations in excess of 1 percent of the underground storage tank volume or 50 gallons, whichever is less, shall be cause for further evaluation.

(d) The local agencies shall evaluate each monitoring alternative proposed to determine if it achieves the objectives specified in Subsection (b) of Section 2640 of

this article according to the following:

(1) Whenever possible, a primary method of monitoring other than ground water monitoring shall be performed, monthly at a minimum.

(2) Where the underground storage tank is in an area where precipitation or surface runoff provides direct recharge of the ground water and the ground water being recharged has an actual or potential use (domestic, municipal, agricultural, or industrial supply), a monitoring method other than ground water monitoring shall be utilized on a monthly or more frequent basis for leak detection monitoring.

(3) In addition, ground water monitoring may be required by the local agency in the areas described in Subsection (2) above. The local agency shall review and approve the number and location of the monitoring well(s). More than 1 underground storage tank or facility may be monitored using the same well provided the well is directly downgradient of all underground storage tanks or facilities being monitored and is within 1,000 feet of all underground storage tanks being monitored.

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Authority: H&SC 25299.3

Reference: H&SC 25292

adopt new section to read:

2642. Visual Monitoring

(a) Visual monitoring shall be utilized as the principal leak detection monitoring method, where feasible, for all visible exterior surfaces of an underground storage tank unless the owner demonstrates to the local agency that at least one of the exemption criteria of subsection (b) of this section is applicable. If visual monitoring is required, the provisions of Subsections (c) and (d) of this section shall be followed.

(b) The owner is exempt from visual monitoring for that portion of the underground storage tank to which the following conditions apply.

(1) Any portion of an underground storage tank that is in contact with the ground, a floor, or pad such that it cannot be seen. An underground storage tank in a saddle should not typically qualify for an exemption.

(2) Visual inspection of the underground storage tank would put a person in a physically unsafe environment.

(3) Visual inspection of the underground storage tank would require the use of extraordinary personal protection equipment (other than normal protective equipment, such as steel-toed shoes, hard hat, eye or ear protection, etc.).

(4) The underground storage tank is located at a facility which is not staffed on a daily basis.

(c) A visual monitoring program shall incorporate all of the following:

(1) Provisions for routine direct visual inspection of all accessible exterior surfaces of an underground storage tank and the horizontal surface directly beneath the underground storage tank shall be monitored by direct viewing.

(2) A written routine monitoring procedure shall be prepared and be available at the facility which includes: the frequency of visual inspections, the location(s) from which observerations will be made, the name(s) or title(s) of the person(s) responsible for performing the observations and the reporting format.

(3) Visual inspections shall be performed daily, at a minimum, and shall be more frequent if necessary. The inspection schedule shall be established such that some of the inspections occur when the liquid in the underground storage tank is at its highest level. The inspection frequency shall be determined such that any unauthorized release will remain observable on the exterior of or the horizontal surface immediately beneath the underground storage tank between visual inspections. The evaluation of how long the hazardous substance remains observable shall consider the volatility of the hazardous substance and the porosity and slope of the surface immediately beneath the underground storage tank or portion thereof being visually monitored.

(4) Recordation of the observations made and the liquid level in the underground storage tank at the time of the inspection.

(d) The observation of any liquid on the exterior of or the horizontal surface immediately beneath the underground storage tank being visually monitored shall cause the owner or operator to implement all or a portion of the following actions. The applicable actions and their timing shall be

based on the site-specific situation, shall be intended to determine if the observed liquid constitutes an unauthorized release, and shall be included in the permit.

(1) Laboratory or field analysis of the observed liquid which shall include minimum levels of detection.

(2) Testing of the underground storage tank utilizing the procedures described in Section 2643 of this article.

(3) Removing all hazardous substances from the underground storage tank.

(e) Visual monitoring of the exposed portion of a partially concealed underground storage tank shall not relieve an owner from implementing monitoring for the concealed portion of the tank using a monitoring alternative specified in Section 2641 this article.

Authority: H&SC 25299.3

Reference: H&SC 25292, 25293

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Adopt new section to read

2643. Underground Storage Tank Testing

(a) All owners of existing underground storage tanks implementing a monitoring alternative in Section 2641 of this article which specifies underground storage tank testing shall implement a testing program pursuant to Subsections (b) through (g) of this section.

(b) Testing of underground storage tanks shall utilize a method capable of detecting a release of a hazardous substance at a rate of 0.05 gallons per hour ~~of less~~. These methods are limited to those tests that make adjustments for all of the following, if applicable:

(1) The presence of vapor pockets;

(2) Thermal expansion or contraction of the hazardous substance, which include any density considerations;

(3) Temperature stratification in the underground storage tank;

(4) Evaporation;

(5) Pressure variations in the underground storage tank; and

(6) Deflection of the underground storage tank ends.

(c) Testing of pipelines which have been isolated may utilize a hydrostatic pressure test in lieu of the test required in Subsection (b) of this section. This hydrostatic pressure test shall be conducted at a pressure of 50 psi (2600 mm Hg) or greater. The test shall be performed for at least 5 minutes. A pressure drop of more than 5 psi (260 mm Hg) per minute indicates the probability of a leaking pipeline. A pressure drop of less than 5 psi (260 mm Hg) but greater than zero is inconclusive, and a test pursuant to Subsection (b) of this section shall be performed.

(d) The tests required in this section shall be performed by personnel who have received training in appropriate test procedures. The person performing the test described in Sub- section (b) of this section shall certify that the test procedure utilized takes into account the variables specified and is capable of measuring leaks of 0.05 gallons per hour ~~or less~~. Additionally, ~~within~~ 1 year after the development of a listing or certification procedure by a

nationally recognized independent testing organization which evaluates the accuracy of the test for the type of test described in Subsection (b) of this section, only listed or certified tests shall be accepted.

(e) Within 30 days of completion of either of the leak detection test described in Subsection (b) or (c) of this section, the underground storage tank owner shall provide the local agency with a report which includes the following information, if applicable:

(1) The procedures used (including any deviations from those recommended by the developer of the underground storage tank test procedure) for the leak detection method;

(2) The test results used in determining the volumetric rate of product loss;

(3) The volumetric rate of product loss; and

(4) The information shall be presented in written and/or tabular format as appropriate and shall be at a level of detail appropriate for the test procedure used.

(f) Underground storage tanks which are found to lose product shall be repaired or replaced as specified in Articles 6 and 7 of this subchapter, respectively.

(g) The results of any tests, other than those required by this article, performed on the underground storage tank to determine if the underground storage tank is leaking shall be reported by the underground storage tank owner to the local agency within 30 days of completion of the test.

Authority: H&SC 25299.3

Reference: H&SC 25291, 25292, 25293

Adopt new section to read:

2644. Inventory Reconciliation

(a) All owners of existing underground storage tanks implementing a monitoring alternative in Section 2641 of this article which specifies inventory reconciliation shall implement an inventory reconciliation program as described in Subsections (b) through (f) of this section. This requirement may be transferred to the operator pursuant to the appropriate provisions of Chapter 6.7 of Division 20 of the Health and Safety Code.

(b) All underground storage tanks shall be individually monitored utilizing a daily inventory reconciliation system that takes into account: separate daily underground storage tank quantity measurements for both the stored hazardous substance and any water layer, and daily meter readings for underground storage tank input and withdrawals. Underground storage tanks that are connected by a manifold may be monitored as a unit instead of individually. Underground storage tank input and withdrawal meters shall comply with California Administrative Code, Title 4, Chapter 9, Subchapter 1, "Tolerances and specifications for commerical weighing and measuring devices". Meters shall be inspected

by the county department of weights and measures or a device repairman as defined in the California Business and Professions Code, Division 5, Chapter 5.5

(c) For the purpose of this section, "daily" shall be defined as at least 5 days per week. This minimum may be reduced during weeks that a public holiday occurs on Monday through Friday. Local agencies may reduce the frequency of monitoring to no less than once every 3 days at facilities that are not staffed on a regular basis provided that the monitoring is performed on every day the facility is staffed or that inputs or withdrawals are made from the underground storage tank.

(d) Underground storage tank quantity measurements shall be based on liquid elevation measurements which are:

(1) Performed during periods when no additions or withdrawals are being made to the underground storage tank;

(2) Performed by the underground storage tank owner, operator, or other designated personnel who have had appropriate training;

(3) Based on the average of two readings if stick or tape measurements are used;

(4) Capable of detecting a water layer at the bottom of the underground storage tank, if possible. If the underground storage tank is not level, then the measurement should occur at the lowest end of the underground storage tank;

(5) Measured at the center of the longitudinal axis of the underground storage tank if access is available or measured at the lowest end of the underground storage tank with a calibration measurement at both ends, if possible, to determine if any underground storage tank tilt exists and, if so, its magnitude; and

(6) Converted to volume measurements based on a calibration chart for the underground storage tank. This chart shall, if possible, take into account the actual tilt of the underground storage tank as determined initially as described in Subsection (5) above.

(e) The owner or operator shall, on a quarterly basis, submit a statement to the local agency, under penalty of perjury, that either: the data is within allowable variations or a

listing of the dates and variations that exceed the allowable variations.

(f) If inventory reconciliation indicates a loss of the hazardous substance greater than that specified, the operator or permittee shall implement the following. If inventory reconciliation indicates a gain of hazardous substances greater than that specified, the operator or permittee shall inplement Subsections (1), (2), (3), and (5) of this section. The steps may be implemented sequentially or concurrently; however, they must be completed within the specified time periods. Reporting as required in Article 5 of this subchapter shall be followed.

If completion of the steps described in Subsections (2), (3), or (5) of this subsection indicates inventory reconciliation error that, when corrected cause the levels specified, not to be exceeded, then the remainder of the steps need not be completed. If completion of the steps described in Subsections (4) or (6) through (8) of this subsection reveal the source of the loss, then the remainder of the steps need not be completed.

The transfer of hazardous substances into and out of the underground storage tank may continue during implementation

of the steps provided that the steps are completed within the specified periods and any loss or gain did not exceed two times the specified levels. Daily reconciliation shall continue during implementation of the steps.

(1) The operator shall notify the owner verbally or in writing of the fact that inventory reconciliation indicates a loss of hazardous substances or gain of water within 24 hours of the completion of the daily reconciliation which indicates the loss or gain.

(2) The operator shall review the inventory records within 2 hours to determine if an error exists which would cause the gain or loss to be less than that specified.

(3) The operator shall have performed, by a qualified person, a complete review of all inventory records from the last time a zero loss or gain condition existed. This shall include a new inventory reconciliation which was taken at least 8 hours after the inventory reconcilition which triggered this evaluation. This shall be completed within 24 hours of the conclusion of Subsection (f)(2) of this section.

(4) The readily accessible physical facilities shall be

carefully inspected for leakage. This shall be completed by trained personnel within 24 hours of completion of Subsection (f)(3) of this section.

(5) All dispenser meters associated with hazardous substance withdrawal shall be checked for calibration within 24 hours of completion of Subsection (f)(4) of this section.

(6) All piping shall be tested within 24 hours of completion of Subsection (f)(5) of this section. The piping shall be isolated and hydrostatically pressure tested at 50 psi (2600 hmm Hg) or greater. If the pressure drops more than 5 psi (260 mm Hg) per minute, it indicates the probability of a leak in the line. Repeat the test at least once to ensure against compression of entrained air. Any pressure drop less than 5 psi (260 mm Hg) per minute is inconclusive as it may be caused by cooling. This step may be completed after the step described in Subsection(f)(7) of this section if excavation is necessary to perform the tests and if the step described in Subsection (f)(7) of this section is completed within 48 hours of the completion of Subsection (f)(5) of this section. If this occurs, then this subsection shall be completed within 24 hours

of the completion of Subsection (f)(7) of this section.

(7) The underground storage tank shall be tested using the tests described in Section 2643 of this article within 48 hours of completion of Subsection (f)(6) of this section.

(8) Additional tests or investigations as required by the local agency.

Authority: H&SC 25299.3

Reference: H&SC 25291, 25292

Adopt new section to read:

2645. Soil Testing

(a) All owners of existing underground storage tanks implementing one of the monitoring alternatives described in Section 2641 of this article which requires borings for vadose zone or ground water monitoring shall implement soil testing pursuant to Subsections (b) through (n) of this section.

(b) Undisturbed (intact) soil samples shall be recovered from all borings used for the installation. This requirement may be waived by the local agency when borings cannot be drilled and sampled using accepted techniques that do not introduce liquids into the boring.

(c) Soil samples shall be taken at intervals of 5 feet or less beginning at the ground surface, but sampling shall not be required below the water table nor in unweathered bedrock which has little or no primary permeability.

(d) A soil sample shall also be obtained at the termination depth of a dry boring regardless of the spacing interval.

(e) Borings shall be drilled and sampled by techniques that do not introduce liquids into the boring and that allow the accurate detection of perched and saturated zone ground water. If this cannot be accomplished using accepted techniques, the requirement for soil sampling may be waived by the local agency; however, the vadose zone or ground water monitoring system shall still be installed. Furthermore, once below the water table, it is not required that the wells be advanced using the same method that was used in the vadose zone.

(f) Borings shall be described in accordance with the provisions of Subsections 2648(t) and (u) of this article.

(g) Soil samples shall be of sufficient volume to perform the designated analyses including soil vapor and soil extract analyses and to provide replicate analyses, if specified.

(h) If more than one boring is utilized, composite samples consisting of soil ~~material~~ from the same depth from each boring may be used for laboratory analysis if such samples can be made without loss of constituents prior to analysis and any pollutant in a sample will not be diluted below detection limits by mixing with uncontaminated samples or samples that contain low concentrations of the pollutant.

(i) Soil samples shall be acquired, prepared, preserved, stored, and transported, and analyzed by ~~appropriate~~ EPA methods ~~of~~ that are appropriate for the objectives of the investigation and that will safeguard sample integrity. Some acceptable methods may be found in the references listed in Appendix I, Table C of this subchapter. Other similar or superior methods may be approved by the local agency.

(j) Samples shall be analyzed by field or laboratory methods that provide quantitative or qualitative results. If qualitative methods are used, ~~then~~ their lower detection limits shall be verified by the developer, distributor or ~~test~~ manufacturer of the testing method or device, or by actual field tests in the case of ~~for~~ sensory-type tests. The analyses shall be by methods that are appropriate for the objectives of the investigation and that will safeguard sample integrity. Some acceptable methods may be found in the references listed in Appendix I, Table C of this subchapter. ~~EPA approved methods or~~ Other ~~method~~ of similar or superior ~~precision and accuracy that are~~ methods may be approved by the local agency ~~shall~~ be used. The analytical method ~~test~~ agency ~~shall~~ ~~approve the~~ ~~method if it provides a lower level of detection than is~~ ~~below~~ approved for soil testing shall have a detection limit

that is lower than the concentration that would interfere with any of the long-term monitoring methods that could be used at the site.

(k) Samples shall be analyzed for one or more of the most persistent constituents that have been stored in the underground storage tank. If the use of the underground storage tank has historically changed, then analysis shall be for at least one constituent from each period of use. If the hazardous substance is known to degrade or transform to other constituents in the soil environment, the analysis shall include these degradation and/or transformation constituents.

(l) Samples may be analyzed in any order of depth. If levels of hazardous substances known or suspected to have been contained in the underground storage tank are detected at concentrations in excess of background concentrations (background concentrations shall be applicable only if the constituent occurs naturally at the site), further soils analysis is not necessary pursuant to this subsection and the hazardous substance(s) shall be assumed to have originated from the underground storage tank. In this situation, the remainder of the soil samples need not be analyzed pursuant to these regulations. A permit shall not

be granted unless further detailed investigation clearly establishes that the underground storage tank is not the source of the hazardous substance or has been properly repaired since the unauthorized release and that any subsequent unauthorized release from the underground storage tank can be detected despite the presence of the hazardous substance already in the environment.

(m) If soil analysis indicates that an unauthorized release has occurred, the permittee shall report the release pursuant to Article 5 of this subchapter and shall repair or close the underground storage tank pursuant to Article 6 or 7 of this subchapter.

(n) If evidence of an unauthorized release is not detected, an alternative leak detection monitoring system shall be installed pursuant to Section 2641 of this article.

Authority: H&SC 25299.3

Reference: H&SC 25292

Adopt new section to read:

2646. Vadose Zone Monitoring

(a) 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 Subsections (b) through (h) of this section.

(b) Vadose zone monitoring shall consist of vapor monitoring, soil-pore liquid monitoring, or other forms of vadose zone monitoring. Combinations of these methods may be used.

(c) Wells for vapor monitoring shall be fully perforated except for that portion adjacent to a surface seal and that portion of the bottom of a well where a plugged, blank segment of casing is used as a free liquid trap.

(d) The number, location, and depths of vadose zone monitoring points shall be selected so as to give the earliest possible warning of any unauthorized release from the underground storage tank.

(e) Subsurface vadose zone monitoring systems shall, if possible, be located within the backfill surrounding the underground storage tank.

(f) Vapor monitoring for underground storage tanks shall be used in accordance with the following criteria if the vapor characteristics of the stored product are susceptible to detection:

(1) Before any method of vapor monitoring is approved for a specific site, it shall be demonstrated by an actual on-site demonstration, using an appropriate tracer substance, that vapor would actually be detected by the installed system. This requirement may be waived by the local agency based on a demonstration by the applicant that the proposed monitoring system has been proven to be effective in detecting unauthorized releases from underground storage tanks in equal or less favorable situations. The following factors shall be considered in comparing the demonstration to the actual on-site conditions:

(A) Backfill materials and grain size distribution.

(B) Type and homogenity of native soils.

(C) Range of moisture contents of the backfill and native soils that will be encountered and their effect on vapor migration and detection.

(2) The location and depth at which each sensor is placed relative to the underground storage tank shall be determined according to the most probable movement of vapor through the backfill or surrounding soil.

(3) Vapor monitoring wells placed in the backfill shall be constructed so that any unauthorized release that may pond at the horizontal interface between the backfill and natural soils can be detected in the vapor well.

(g) Soil-pore liquid monitoring and other forms of vadose zone monitoring may be approved if the discharger can clearly show that:

(1) The stored substance is susceptible to detection by the proposed technique.

(2) The stored substance will not attack the materials from which the detector system is constructed or otherwise render the detector system inoperable.

(3) The site and soil characteristics will not prevent detection of an unauthorized release by the monitoring system.

(4) The proposed technique will be effective in providing early detection of underground storage tank leakage.

(h) Borings shall be described in accordance with the provisions of the Subsections 2648(t) and (u) of this article.

Authority: H&SC 25299.3

Reference: H&SC 25292

Adopt new Section to read:

2647. Ground Water Monitoring

(a) All owners of existing underground storage tanks implementing one of the monitoring alternatives in Section 2641 of this article which requires ground water monitoring shall implement a ground water monitoring system pursuant to Subsections (b) through (j) of this section.

(b) All ground water monitoring wells shall be located as close as possible to the underground storage tank or the perimeter of the underground storage tank cluster.

(c) Ground water monitoring wells shall extend at least 20 feet below the lowest anticipated ground water level and at least 15 feet below the underground storage tank bottom. However, wells shall not extend through laterally extensive clay layers that are below the water table and are at least 5 feet thick. In these situations, the well shall be terminated 1 to 2 feet into this clay layer.

(d) Ground water monitoring well casings shall extend to the bottom of the boring and be factory perforated from a point 1 foot above the bottom of the casing to an elevation which

is either 10 feet above the highest anticipated ground water level or to the bottom of the surface seal or to the ground surface, whichever is the lowest point above the highest anticipated ground water level.

(e) Ground water monitoring wells shall be constructed as filter-packed wells that will prevent the migration of the natural soil into the well and with factory perforated casing that is sized to prevent migration of filter material into the well.

(f) All well casings shall have a bottom cap or plug.

(g) Filter packs shall extend at least 2 feet above the top of the perforated zone except where the ground surface is less than 10 feet above the highest ground water level, in which case this requirement may be waived by the local agency provided the filter pack extends to the top of the perforated zone.

(h) Ground water monitoring wells shall be constructed with casings having a minimum inside diameter of 2 inches which is installed in a boring whose diameter is at least 4 inches greater than the inside diameter of the casing.

(i) Ground water monitoring wells shall be sealed from the ground surface to the top of the filter pack.

(j) Borings shall be described in accordance with the provisions of Sections 2648(t) and (u) of this article.

Authority: H&SC 25299.3

Reference: H&SC 25292

Adopt new Section to read:

2648. General Construction and Sampling Methods

(a) Soil and water sampling equipment and materials used to construct a well shall be compatible with the stored hazardous substance and shall not donate, capture, mask, nor alter the constituents for which analyses will be made.

(b) Representative samples of all imported materials used for filter packs and to construct seals shall be evaluated to determine their acceptability with regard to Subsection (a) of this section.

(c) All drilling tools shall be thoroughly cleaned immediately before a boring is started.

(d) All well casings, casing fittings, screens, and all other components that are installed in the well shall be thoroughly cleaned before installation in the boring.

(e) All soil and water samplers shall be cleaned before each sample is taken.

(f) Drilling fluid additives shall be limited to inorganic, non-hazardous materials which conform to the provisions of Subsection (a) of this section. All additives used and the depth in which they were used shall be accurately recorded in the boring log.

(g) Representative samples of additives, cement, bentonite, and filter media shall be retained for 90 days for possible analysis for contaminating or interfering constituents.

(h) All ground water monitoring wells shall be appropriately developed until the discharge water contains less than 10 ppm settleable solids.

(i) Well heads shall be provided with a water-tight cap.

(j) Well heads shall be enclosed in a surface security structure that protects the well from the entry of surface water, accidental damage, unauthorized access, and vandalism. This may be accomplished by providing a locked well cap or by securing the facility within which a well is located.

(k) Pertinent well information including well identification, well type, well depth, well casing diameters if more than one size is used, and perforated intervals shall be

permanently afixed to the interior of the surface security structure and the well identification number and well type shall be affixed on the exterior of the surface security structure.

(l) Surface seals for vapor wells that are completed no more than 5 feet below the bottom of the underground storage tank and which are above any free water zones shall be required at the discretion of the local agency on a site-specific basis.

(m) If surface seals for vapor wells that are completed in or below a free water zone are required, the seal shall not extend below the top of the underground storage tank.

(n) Vapor wells constructed wholly within backfill that surrounds the underground storage tank and which extends to the ground surface need not be sealed against infiltration of surface water.

(o) The need for surface seals for other types of vadose zone installations shall be determined on a case-by-case basis.

(p) In order to implement monitoring Alternatives 2, 3, 4, and the ground water monitoring portion of 6, the highest

anticipated ground water level and existing ground water level shall be determined. Highest anticipated ground water levels shall be determined by a review of all available water level ~~measurements~~ records for wells within 1 mile of the site. Existing site ground water levels shall be established by either water level measurements taken within the last 2 years in all existing wells, for which records are available, ~~including at least 1 downgradient well~~ that are within 500 feet of the facility and which ~~is~~ are perforated in the zone of interest, or by drilling at least 1 exporatory boring constructed as follows:

(1) The exploratory boring shall be drilled downgradient if possible and as near as possible to the underground storage tank within the boundaries of the property encompassing the facility, but no further than 500 feet from the underground storage tank.

(2) The exploratory boring may be of any diameter capable of allowing the detection of first water.

(3) 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 Alternative 4.

(4) If ground water is encountered and ground water monitoring is part of the monitoring alternative, the boring shall be converted to a ground water monitoring well consistent with the provisions of this section and Section 2647 of this article.

(5) If ground water is encountered but monitoring is not required or if the exploratory boring does not encounter ground water, it shall be sealed in accordance with the provisions of Subsections 2648(q) and (s) of this article.

(q) All borings that are not used for ground water or vadose zone monitoirng shall be sealed from the ground surface to the bottom of the boring with bentonite grout.

(r) 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 bentonite grout.

(s) All slurry-type grouts used to abandon a boring or for

well seals shall be emplaced by the tremie method.

(t) All borings shall be described in detail using the Unified Soil Classification System and shall be logged by a professional geologist, civil engineer, or engineering geologist who is registered or certified by the State of California and who is experienced in the use of the Unified Soil Classification System. A technician trained and experienced in the use of the Unified Soil Classification System who is working under the direct supervision of one of the aforementioned professionals shall be deemed qualified to log borings, provided the aforementioned professional reviews the logs and assumes responsibility for the accuracy and completeness of the logs.

(u) All wet zones above the free water zone shall be noted and accurately logged.

(v) 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.

Authority: H&SC 25299.3

DOUBLE UNDERLINING INDICATES
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Reference: H&SC 25292

DOUBLE UNDERLINING INDICATES
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Article 5. Release Reporting Requirements

Adopt new section to read:

2650 Applicability

(a) All unauthorized releases from the primary or secondary container shall be reported according to the requirements of the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code and this article.

(b) Certain unauthorized releases to secondary containers; as described in Section 25284.3 of the Health and Safety Code, shall be recorded on the operator's monitoring reports according to Section 2651 of this article. No other report shall be required if the leak detection monitoring system in the space between the primary and secondary containers can be reactivated within 8 hours. This provision shall be applicable only to new underground storage tanks as defined in Article 2 of this subchapter.

(c) All other unauthorized releases shall be reported within 24 hours after the release has been, or should have been, detected according to Section 2652 of this article.

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Authority: H&SC 25299.3

Reference: H&SC 25294, 25285

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Adopt new section to read:

2651. Unauthorized Releases Requiring Recording

(a) The report required by Subsection 2650(b) of this article shall include:

(1) List of type, quantities, and concentration of hazardous substances released.

(2) Method of cleanup.

(3) Method and location of disposal of the released hazardous substances (indicate whether a hazardous waste manifest[s] is utilized).

(4) Method of future leak prevention or repair. If this involves a change as defined in Article 10, Section 2712, Subsection (a), of this subchapter, then appropriate reports pursuant to that article shall also be filed.

(5) If the primary container is to continue to be used, then a description of how the monitoring system between the primary and secondary container has been re-

activated.

(6) Facility operator's name and telephone number.

(7) The approximate costs for cleanup to be submitted voluntarily.

(b) The local agency shall review the information submitted pursuant to Subsection (a) of this section and shall review the permit and may inspect the underground storage tank pursuant to the provisions of Article 10, Section 2712, Subsections (g) and (h), of this subchapter. The local agency shall find that the containment and monitoring standards of Article 3 of this subchapter can continue to be achieved or the local agency shall revoke the permit until appropriate modifications are made to allow compliance with the standards.

(c) Deterioration of the secondary container is likely when any of the following conditions exist:

(1) The secondary container will have some loss of integrity due to contact with the stored hazardous substances;

(2) The mechanical means used to cleanup the released hazardous substance could damage the secondary container; or

(3) Hazardous substances, other than those stored in the primary container, are added to the secondary container for treatment or neutralization of the released hazardous substance as part of the cleanup process.

(d) If a recordable unauthorized release becomes a reportable unauthorized release due to initially unanticipated facts, the release shall immediately be treated as a reportable release pursuant to Section 2652 of this article.

Authority: H&SC 25299.3

Reference: H&SC 25294

Adopt new section as follows:

2652. Unauthorized Releases Requiring Reporting

(a) All other unauthorized releases shall be reported as specified in this section.

(b) Within 24 hours after the release has been detected, or should have been detected, using required monitoring, the operator shall notify the local agency and the State Office of Emergency Services or the regional board.

(c) Within 5 working days of detecting the release, the operator or permittee shall submit to the local agency a full written report to include all of the following information which is known at the time of filing the report:

(1) List of type, quantity, and concentration of hazardous substances released.

(2) The results of all investigations completed at that time to determine the extent of soil or ground water or surface water contamination due to the release.

(3) Method of cleanup implemented to date, proposed cleanup

actions, and approximate cost of actions taken to date.

(4) Method and location of disposal of the released hazardous substance and any contaminated soils or ground water or surface water (indicate whether a hazardous waste manifest[s] is utilized).

(5) Proposed method of repair or replacement of the primary and secondary containers. If this involves a change as defined in Subsection 2712(a) of Article 10 of this subchapter, then appropriate reports pursuant to that article shall also be filed.

(6) Facility operator's name and telephone number.

(d) Until cleanup is complete, the operator or permittee shall submit reports to the local agency and the regional board every 3 months or at a more frequent interval specified by a responsible agency. The reports shall include the information requested in Subsections (c)(2), (c)(3), and (c)(4) of this section.

(e) The reporting requirements of this section are in addition to any reporting requirements specified by Section 13271 of Division 7 of the Water Code and other laws and regulations

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Authority: H&SC 25288.2

Reference: H&SC 25284.4

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Article 6. Allowable Repairs

Adopt new section to read:

2660. Applicability

(a) This article describes the conditions which must be met to allow primary container repairs of underground storage tanks containing motor vehicle fuel not under pressure utilizing the interior coating process, the required repair methodology, and the required underground storage tank testing following repair.

(b) Section 2661 of this article lists the required evaluations which must be completed in order to allow the repair of a primary container. A satisfactory demonstration of each part of Section 2661 of this article shall be made prior to approval by the local agency of the repair process.

(c) Section 2662 of this article describes the required methodology which must be utilized in the interior coating repair process.

(d) Section 2663 of this article lists the required primary container monitoring which shall be implemented by amendment

of the permit by the local agency following primary container repair. Subsections (a) and (b) of Section 2663 of this article describe the monitoring which shall be performed prior to placing the underground storage tank back in service.

Authority: H&SC 25299.3

Reference: H&SC 25295

Adopt new section to read:

2661. Repair Evaluation

(a) The evaluations described in Subsections (b) through (d) of this section must be completed before a primary container repair can be authorized by the local agency. Failure to adequately demonstrate that the repaired primary container will provide continued containment based on the evaluations described below shall be grounds for a local agency to deny the proposed repair.

(b) It shall be determined if the failure mechanism is isolated to the actual failure or is affecting other areas of the underground storage tank, or if any other failure mechanism is affecting the primary container.

(c) One of the following tests shall be conducted to determine the thickness of the underground storage tank:

(1) An ultrasonic test.

(2) 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 underground storage tank and shall base this certification upon the following procedures and criteria:

(A) If the underground storage tank is made of glass fiber, the underground storage tank shall be cleaned so that no residue remains on the underground storage 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 underground storage 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 fibre reinforcing is required for certification before the underground storage tank may be lined.

(B) If the underground storage tank is made of steel, the underground storage tank interior surface shall be abrasive blasted completely free of

scale, rust, and foreign matter. Acceptable procedures for metal thinning are provided in Appendix I of this subchapter. The special inspector shall sound any perforations or areas showing corrosion pitting with a brass ballpeen hammer to enlarge the perforation or break through a potentially thin steel area. Underground storage tanks that have any of the following defects shall not be certified or returned to service:

(i) An underground storage tank which has an open seam or a split longer than 3 inches.

(ii) An underground storage tank which has a perforation larger than 1-1/2 inches in diameter or below a gauging opening larger than 2-1/2 inches in diameter.

(iii) An underground storage tank with 5 or more perforations in any 1 square-foot area and any single perforation which is larger than 1/2 inch in diameter.

(iv) An underground storage tank with 20 or more

perforations in a 500 square-foot area and any single perforation which is larger than 1/2 inch in diameter.

(v) Any failure or opening within 6 inches of any seam or weld.

(3) A test approved by the board as comparable to the tests specified in subparagraph (A) or (B) of this subsection.

(d) It shall be demonstrated to the satisfaction of the local agency based on one of the tests in Subsection (c) of this section that a serious corrosion problem does not exist. If a serious corrosion problem exists, an interior lining repair may be allowed by the local agency if it can be demonstrated that new or additional corrosion protection will significantly minimize the corrosion and that the existing corrosion problem does not threaten the structural integrity or containment ability of the underground storage tank.

(e) If interior lining is the proposed repair method, then it shall be demonstrated that the primary container has never been repaired using an interior lining.

Authority: H&SC 25299.3

Reference: H&SC 25296

Adopt new section to read:

2662. Repair Methodology

(a) If an interior lining of an underground storage tank is approved by the local agency based on satisfactory demonstration of the issues raised in Section 2661 of this article, then the repair must be accomplished according to the applicable subsections of this section.

(b) If interior coating is the method of repair, the material used in the repair shall be applied in accordance with nationally recognized engineering practices.

(c) The repair material and any adhesives used shall be compatible with the existing tank materials and shall not be subject to deterioration due to contact with the hazardous substance being stored.

(d) The repair material and lining process shall be listed or certified by a nationally recognized independent testing organization. The requirement shall become effective 1 year after the effective date of these regulations or 1 year after a listing or certification procedure is available, whichever is later.

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Authority: H&SC 25299.3

Reference: H&SC 25296

Adopt new section to read:

2663. Primary Container Monitoring -

(a) After any repair, the primary container shall be demonstrated to be capable of containing the stored hazardous substance by satisfactorily passing the underground storage tank test as described in Section 2643 of Article 4 of this subchapter. The underground storage tank shall also be vacuum tested at a vacuum of 5.3 inches (135 mm) Hg for 1 minute. The vacuum test shall not be required if technology is not available for testing the underground storage tank on-site using accepted engineering practices.

(b) All pipelines shall be pressure tested following repair to assure the adequacy of the repair. The testing shall be accomplished using accepted procedures. Some acceptable procedures for pressure testing are provided in Appendix I of this subchapter.

Authority: H&SC 25299.3

Reference: H&SC 25296

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Article 7. Closure Requirements

Adopt new section to read:

2670. Applicability

(a) This article defines temporary and permanent closure and describes the nature of activities which must be accomplished in order to protect water quality in each of these situations.

(b) The temporary closure requirements of Section 2671 of this article shall apply to those underground storage tanks in which the storage of hazardous substances has ceased but where the underground storage tank owner or operator proposes to retain the ability to use the underground storage tank within 2 years for the storage of hazardous substances. Section 2671 of this article does not apply to underground storage tanks that are empty as a result of the withdrawal of all stored material during normal operating practice prior to the planned input of additional hazardous substances consistent with permit conditions.

(c) The permanent closure requirements of Section 2672 of this article shall apply to those underground storage tanks in which the storage of hazardous substances has ceased and where the owner or operator has no intent within the next 2

years to use the underground storage tank for storage of hazardous substances.

(d) The requirements of this article do not apply to those underground storage tanks in which hazardous substances are continued to be stored even though there is no use being made of the stored substance. In these cases, the applicable containment and monitoring requirements of Article 3 or 4 of this subchapter shall continue to apply.

(e) During the period of time between cessation of hazardous substance storage and actual completion of underground storage tank closure pursuant to Section 2671 or 2672 of this article, the applicable containment and monitoring requirements of Article 3 or 4 of this subchapter shall continue to apply.

(f) Prior to closure, the underground storage tank owner shall submit to the local agency a proposal describing how the owner intends to comply with Section 2671 or 2672 of this article, as appropriate. The requirement for prior submittal is waived if the storage of hazardous substances ceases as a result of an unauthorized release or to prevent or minimize the effects of an unauthorized release. In this situation, the underground storage tank owner shall submit the required proposal within 14 days of either the discovery of an unauthorized release or the implementation of actions

taken to prevent or minimize the effects of the unauthorized release.

(g) Underground storage tanks that have experienced an unauthorized release do not qualify for temporary closure pursuant to Section 2671 of this article until the underground storage tank owner demonstrates to the local agency's satisfaction that appropriate authorized repairs have been made which would allow the underground storage tank to be capable of storing hazardous substances pursuant to the permit issued by the local agency.

(h) Underground storage tanks that have experienced an unauthorized release and that cannot be repaired by authorized methods must be permanently closed pursuant to requirements of Section 2672 of this article.

Authority: H&SC 25299.3

Reference: H&SC 25298

Adopt new section to read:

2671. Temporary Closure

(a) 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 2 years for the storage of hazardous substances.

(b) The owner or operator shall comply with all of the following:

(1) All residual liquid, solids, or sludges shall be removed and handled pursuant to the applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code.

(2) If the underground storage tank contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the underground storage tank, either in part or as a whole, shall be purged of the flammable vapors to levels that would preclude an explosion or such lower levels as may be required by the local agency.

(3) The underground storage tank may be filled with a

noncorrosive liquid that is not a hazardous substance. This liquid must be tested and results submitted to the local agency prior to its being removed from the underground storage tank at the end of the temporary closure period.

(4) Except for required venting, all fill and access locations and piping shall be sealed utilizing locked caps or concrete plugs.

(5) Power service shall be disconnected from all pumps associated with the use of the underground storage tank except if the pump services some other equipment which is not being closed.

(c) The monitoring required pursuant to the permit may be modified or eliminated during the temporary closure period by the local agency. The local agency shall consider, in making the above decision, the need to maintain monitoring in order to detect unauthorized releases that may have occurred during the time the underground storage tank was used but that have not yet reached the monitoring locations and been detected.

(d) The underground storage tank shall be inspected by the owner or operator at least once every 3 months to assure that the temporary closure actions are still in place. This shall

include:

(1) Visual inspection of all locked caps and concrete plugs.

(2) If locked caps are utilized, then at least one shall be removed to determine if any liquids or other substances have been added to the underground storage tank or if there has been a change in the quantity or type of liquid added pursuant to Subsection (b)(3) of this section.

Authority: H&SC 25299.3

Reference: H&SC 25298

Adopt new section to read:

2672. Permanent Closure Requirements

(a) Owners of underground storage tanks subject to permanent closure shall comply with either Subsection (b) of this section for underground storage tank removal or Subsection (c) of this section for closure in place. It is not essential that all portions of an underground storage tank be permanently closed in the same manner; however, all actions shall comply with the appropriate subsection of this section. Subsections (d) and (e) of this section regarding no discharge demonstration applies to all underground storage tanks subject to permanent closure.

(b) Owners of underground storage tanks proposing to remove the underground storage tank shall comply with applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code, in addition to the following:

(1) All residual liquid, solids, or sludges shall be removed.

(2) If the underground storage tank contained a hazardous substance that could produce flammable vapors at standard temperature and pressure, then the underground storage tank, either in part or as a whole, shall be

purged of the flammable vapors to levels that would preclude explosion or such lower levels as may be required by the local agency.

(3) When an underground storage tank or any part of an underground storage tank is to be disposed of, the owner must document to the local agency that proper disposal has been completed.

(4) An owner of an underground storage tank or any part of an underground storage tank that is destined for a specific reuse shall identify to the local agency the future underground storage tank owner, operator, location of use, and nature of use.

(5) An owner of an underground storage tank or any part of an underground storage tank that is destined for reuse as scrap material shall identify this reuse to the local agency.

(c) Closure of underground storage tanks in place shall comply with the applicable provisions of Chapter 6.5 of Division 20 of the Health and Safety Code, in addition to all of the following:

(1) All residual liquid, solids, or sludges shall be removed.

(2) All piping associated with the underground storage tank shall be removed and disposed of unless removal might damage structures or other pipes that are being used and that are contained in a common trench, in which case the piping to be closed shall be emptied of all contents and capped.

(3) The underground storage tank, except for the piping that is closed pursuant to Subsection (2) of this subsection, shall be completely filled with an inert solid, unless the owner intends to use the underground storage tank for the storage of a nonhazardous substance which is compatible with the previous use of the underground storage tank.

(4) A notice shall be placed in the deed to the property. The notice shall describe the exact vertical and areal location of the closed underground storage tank, the hazardous substances it contained, and the closure method.

(d) The owner of an underground storage tank being closed pursuant to this section shall demonstrate to the satisfaction of the local agency that no unauthorized release has occurred. This demonstration can be based on the ongoing leak detection monitoring, ground water

monitoring, or soils sampling performed during or immediately after closure activities.

If feasible, soil samples shall be taken and analyzed according to the following:

(1) If the underground storage tank or any portion thereof is removed, then soil samples from the soils immediately beneath the removed portions shall be taken. A separate sample shall be taken for every 200 square-feet for underground storage tanks or every 20 lineal-feet of trench for piping, at a minimum.

(2) If the underground storage tank or any portion thereof is not removed, soils sampling pursuant to Section 2645 of Article 4 of this subchapter shall be implemented, if feasible.

(3) Soils shall be analyzed for all constituents of the previously stored hazardous substances and their breakdown or transformation products.

(e) The detection of any unauthorized release shall require compliance with the reporting requirements of Article 5 of this subchapter.

Authority: H&SC 25299.3

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Reference: H&SC 25298

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Article 8. Categorical and Site-Specific Variance Procedures

Adopt new section to read:

2680. Applicability

(a) This article sets up procedures for categorical and site-specific variances from the requirements for the construction and monitoring of new and existing underground storage tanks as described in Chapter 6.7 of Division 20 of the Health and Safety Code and Articles 3 and 4 of this subchapter. A site-specific variance, if approved, would apply only to the specific site(s) approved for a variance. A categorical variance, if approved, would apply to the region, area, or circumstances approved for a variance. A categorical variance application shall include more than one site or shall be non-site specific. These procedures are in addition to those established by the appropriate sections of Chapter 6.7 of Division 20 of the Health and Safety Code.

(b) Section 2681 of this article specifies the procedures that must be followed by the applicant and the State Board for categorical variance requests.

(c) Section 2682 of this article specifies the procedures that

must be followed by the applicant, local agency, and the regional board for site-specific variance requests.

Authority: H&SC 25299.3

Reference: H&SC 25299.4

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Adopt new section to read:

2681. Categorical Variances

(a) A categorical variance allows an alternative method of construction or monitoring which is applicable to more than one local agency jurisdiction. Application for a categorical variance shall be made by the permittee to the State Board on a form provided by the State Board.

(b) Application for a categorical variance shall include, but not be limited to:

(1) A description of the provision from which the variance is requested.

(2) A description of the proposed alternative program, method, device, or process.

(3) A description of the region, area, or circumstances under which the variance would apply.

(4) Clear and convincing evidence that the proposed alternative will adequately protect the soil and the beneficial uses of waters of the state from an

unauthorized release.

(5) A list including names and addresses of all persons known to the applicant who may be affected by or may be interested in the variance request.

(6) An initial payment of $11,000.

(c) The applicant will be required to pay a fee based on the actual costs of considering the application. The State Board will bill the applicant for additional costs or refund any remaining part of the initial fee, if necessary.

(d) The State Board shall review all applications submitted and shall notify the applicant in writing within 30 days of receipt of the application as to whether or not the application is complete.

(e) The State Board shall complete any documents necessary to satisfy the California Environmental Quality Act (Division 13, commencing with Section 21000, of the Public Resources Code).

(f) The State Board shall remand the application to the appropriate regional board if it determines that the

application falls within Section 2682 of this article.

(g) The State Board shall hold at least 2 public hearings in different areas of the state within 180 days of receipt of a complete variance application to consider the request for a categorical variance.

(h) Upon the close of a hearing, the presiding officer may keep the hearing record open for a definite time, not to exceed 30 days, to allow any interested person to file additional exhibits, reports, or affidavits.

(i) If the State Board grants the variance, it will prescribe the conditions the applicant must maintain and will describe the specific alternative for which the variance is being granted.

(j) All permit applicants who intend to utilize an approved categorical variance shall attach a copy of the approved variance to the permit application submitted to the local agency. The local agency shall review the application and categorical variance to determine if the variance applies to the specific site. If the variance applies, the local agency shall issue a permit to the applicant which includes the conditions prescribed by the State Board provided all

other permit conditions are met.

(k) The State Board shall modify or revoke a categorical variance upon a finding that the proposed alternative does not adequately protect the soil and the beneficial uses of the waters of the state from an unauthorized release. The State Board shall not modify or revoke a categorical variance until it has followed procedures comparable to those prescribed in this section and Subchapters 1.5 and 6 of this chapter. The State Board shall notify all affected local agencies of the modification or revocation. Local agencies shall modify or revoke all permits which were based on the categorical variance.

Authority: H&SC 25299.3

Reference: H&SC 25299.4

Adopt new section to read:

2682. Site-Specific Variances

(a) A site-specific variance allows an alternative method of construction or monitoring which would be applicable at one or more sites within one local agency's jurisdiction. Application for a site-specific variance shall be made by the permittee to the appropriate regional board on a form provided by the regional board.

(b) At least 60 days prior to applying to the regional board, the permittee shall submit a complete construction and monitoring plan to the local agency. The proposed alternative construction or monitoring methods which may require a variance shall be clearly identified. If the local agency decides that a variance would be necessary to approve the specific methods or if the local agency does not act within 60 days of its receipt of the permittee's complete construction and monitoring plan, the permittee may proceed with a variance application.

(c) Application for a site-specific variance shall include, but not be limited to:

(1) A description of the provision from which the variance is requested.

(2) A detailed description of the complete construction and monitoring methods to be used. The proposed alternative program, method, device, or process shall be clearly identified.

(3) Any special circumstances on which the applicant would rely to justify the findings necessary for the variance, as prescribed by the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code.

(4) That the proposed alternative will adequately protect the soil and the beneficial uses of waters of the state from an unauthorized release.

(5) Any documents necessary to satisfy the California Environmental Quality Act (Division 13, commencing with Section 21000, of the Public Resources Code).

(6) A fee of $2,750 for variance requests at one site. A fee of $5,500 for variance request at more than one site within one local agency's jurisdiction.

(d) The regional board shall review all applications submitted and shall notify the applicant in writing within 30 days of receipt of the application as to whether or not the application is complete.

(e) The regional board shall hold a hearing on the proposed alternative within 60 days after receiving a complete variance application; however, the hearing shall be held after the 30-day period allowed by the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code for local agencies to join in the application.

(f) Any site-specific variance shall prescribe appropriate additional conditions and shall describe the specific alternative system for which the variance is being granted. The regional board shall notify the applicant and the local agency of its decision.

(g) The regional board shall consider the local agency's recommendations in rendering its decision. The regional board shall consider the completeness and accuracy of the information provided by the applicant in Subsection (e) of this section in rendering its decision.

(h) If the variance request is approved, the local agency shall issue a permit to the applicant which includes the conditions prescribed by the regional board. A local agency shall not modify the permit unless it determines that the modification is consistent with the variance that has been granted.

(i) The regional board shall modify or revoke a variance upon a finding that the proposed alternative does not adequately protect the soil and the beneficial uses of the waters of the state from an unauthorized release. The regional board shall not modify nor revoke the variance until it has followed procedures comparable to those prescribed in this section and Subchapters 1.5 and 6 of this chapter. The regional board shall notify the local agency of the modification or revocation. The local agency shall modify or revoke the permit for the site.

Authority: H&SC 25299.3

Reference: H&SC 25299.4

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Article 9. Local Agency Additional Standards Request Procedures

Adopt new section to read:

2690. Applicability

(a) This article sets up procedures for local agencies to request State Board authorization for more stringent standards than those set by Article 3 of this subchapter. These procedures are in addition to those established by Chapter 6.7 of Division 20 of the Health and Safety Code.

Authority: H&SC 25299.3

Reference: H&SC 25299.4

Adopt new section to read:

2691. Additional Standards Request Procedures

(a) Local agency application for additional standards shall include:

(1) Description of the proposed design and construction standards which are in addition to those described in Article 3 of this subchapter.

(2) Clear and convincing evidence that the additional standards are necessary. Clear and convincing evidence that the additional standards would adequately protect the soil and beneficial uses of the waters of the state from unauthorized releases.

(3) Any documents required by the California Environmental Quality Act (Division 13, commencing with Section 21000 of the Public Resources Code).

(4) An initial fee of $5,500.

(b) The applicant shall be required to pay a fee based on the actual costs of considering the application. The board will

bill the applicant for additional costs or refund any remaining part of the initial fee, if necessary.

(c) The board shall conduct an investigation and public hearing on the proposed standards and their need to protect the soil and beneficial uses of the water before determining whether to authorize the local agency to implement additional standards.

(d) The board may modify or revoke a previously issued authorization allowing the implementation of additional standards if it finds that, based on new evidence, the additional standards are not necessary to adequately protect the soil and beneficial uses of the waters of the state from unauthorized releases. The board shall not modify nor revoke the authorization until it has followed procedures comparable to those presented in Subchapters 1.5 and 6 of this chapter.

Authority: H&SC 25299.3

Reference: H&SC 25299.4

Article 10. Permit Application, Annual Report and Trade Secret Requirements

Adopt new section to read:

2710. Applicability

(a) This article describes specific administrative actions that must be accomplished by all underground storage tank owners, local agencies, and the State Board relative to issuing permits for underground storage tanks. These actions are in addition to those established by Chapter 6.7 of Division 20 of the Health and Safety Code.

(b) Section 2711 of this article lists the information that must be submitted by the underground storage tank owner to the local agency as part of the permit application.

(c) Section 2712 of this article describes the conditions that local agencies must include in all permits issued and conditions which local agencies must meet prior to permit issuance.

(d) Section 2713 of this article describes the annual report requirements for local agencies.

(e) Section 2714 of this article specifies conditions that must be met by an underground storage tank owner when requesting trade secret provisions for any information submitted to the local agency, State Board, or regional board. It also specifies how the local agency, the State Board, or regional board shall consider the request and how they shall maintain the information if the trade secret request is accepted.

Authority: H&SC 25299.3

Reference: H&SC 25284, 25285, 25286, 25288, 25289, 25290, 25293

Adopt new section to read:

2711. Permit Application and Information

(a) The permit application shall include, but not be limited to, the following information if it is accurately known to the permit applicant:

(1) The name and address of the person who owns the underground storage tank or tanks.

(2) The name, location, mailing address, and phone number where the underground storage tank is located and type of business.

(3) The name, address, and telephone numbers of the underground storage tank operator and 24-hour emergency contact person.

(4) The name and telephone number of the person making the application.

(5) Description of the underground storage tank including, but not limited to, underground storage tank and auxiliary equipment manufacturer, year of manufacture,

capacity, history of repairs, and operation methods schedule.

(6) In the case of new underground storage tanks installed with systems for secondary containment utilizing membrane liners, a certification by the membrane liner material manufacturer that the membrane liner meets the standards set forth in Subsection 2631(c) and (j)(1) and (2) of Article 3 of this subchapter, or, if applicable, Subsection 2633(e)(1) and (2) of Article 3 of this subchapter; and a certification by the membrane liner fabricator that the membrane liner meets the standards set forth in Subsection 2631(c) and (j)(3) of Article 3 of this subchapter.

(7) Construction details of the underground storage tank and any auxiliary equipment including, but not limited to, type and thickness of primary containment, type and thickness of secondary containment (if applicable), installation procedures, backfill, lining, wrapping, and cathodic protection methods (if applicable).

(8) A diagram or design or as-built drawing which indicates the location of the underground storage tank (underground storage tank, piping, auxiliary equipment)

with respect to buildings or other landmarks.

(9) The description of the proposed monitoring program including, but not limited to, the following where applicable:

(A) Visual;

(B) Underground storage tank testing or inspection procedures;

(C) Inventory reconciliation including gauging and reconciliation methods;

(D) Soils sampling locations and methods and analysis procedures;

(E) Vadose zone sampling locations and methods and analysis procedures;

(F) Ground water well(s) locations, construction and completion methods, sampling, and analysis procedures; and

(G) Frequency and sensitivity of any monitoring method

sensing instrument or analytical method.

(10) A list of all the substances which previously, currently, or are proposed to be stored in the underground storage tank or tanks.

(11) 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 underground storage tank.

(12) The permit application must be signed by:

(A) A principal executive officer at the level of vice-president or by an authorized representative. The representative must be responsible for the overall operation of the facility where the underground storage tank(s) is located;

(B) A general partner proprietor; or

(C) A principal executive officer, ranking elected official, or authorized representative of a public agency.

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

~~(b) The application shall be accompanied by the fee set by the~~ local agency.

Authority: H&SC 25299.3

Reference: H&SC 25286

Adopt new section to read:

2712. Permit Conditions

(a) As a condition of any permit to operate an underground storage tank, the permittee shall report to the local agency which has permitting authority within 30 days after any changes in the usage of any underground storage tank, including:

(1) The storage of new hazardous substances;

(2) Changes in monitoring procedure; or

(3) The replacement or repair of all or part of any underground storage tank.

(b) As a condition of any permit to operate an underground storage tank, the permittee shall report to the local agency any unauthorized release occurrences, as defined in Article 2 of this subchapter, within the time frame specified in Subsections 2652(b) and (c) of Article 5 of this subchapter.

(c) Written records of all monitoring performed shall be maintained on-site by the operator for a period of at least

3 years from the date the monitoring was performed. The local agency may require the submittal of the monitoring records or a summary at a frequency that they may establish. The written records of all monitoring performed in the past 3 years shall be shown to the local agency, regional board, State Board, or duly authorized representative upon demand during any site inspection. Monitoring records shall include:

(1) The date and time of all monitoring or sampling;

(2) Monitoring equipment calibration and maintenance records;

(3) The results of any visual observations;

(4) The results of all sample analysis performed in the laboratory or in the field, including laboratory data sheets;

(5) The logs of all readings of gauges or other monitoring equipment, ground water elevations, or other test results; and

(6) The results of inventory readings and reconciliations.

(d) A permit to operate issued by the local agency shall be effective for 5 years. A local agency shall not issue a permit to operate an underground storage tank until the local agency inspects the underground storage tank and determines that the underground storage tank complies with the provisions of these regulations. The underground storage tank owner shall apply to the local agency for permit renewal at least 180 days prior to the expiration of the permit.

(e) The local agency shall have 18 months after it establishes a program implementing this subchapter to issue permits for all existing underground storage tanks.

(f) Permits may be transferred to new underground storage tank owners if the new underground storage tank owner does not change any conditions of the permit, the transfer is registered with the local agency within 30 days of the change in ownership, and any necessary modifications are made to the information in the initial permit application due to the change in ownership. A local agency may review, modify, or terminate the permit to operate the underground storage tank upon receiving the ownership transfer request.

(g) The local agency shall not renew an underground storage tank permit unless the underground storage tank has been inspected within the prior 3 years and the inspection revealed that the underground storage tank complies with Article 3 or 4 of this subchapter, as applicable, and with all existing permit conditions. The inspection shall be conducted as specified in the appropriate subsection of Chapter 6.7 of Division 20 of the Health and Safety Code. If the inspection revealed noncompliance then the local agency must verify by a follow-up inspection that all required corrections have been implemented before renewing the permit.

(h) Within 30 days of receiving an inspection report from either the local agency or the special inspector, the permit holder shall file with the local agency a plan and time schedule to implement any required modifications to the underground storage tank or to the monitoring plan needed to achieve compliance with either Article 3 or Article 4 of this subchapter, as appropriate, or the permit conditions. This plan and time schedule shall also implement all of the recommendations of the special inspector. The local agency may exempt the implementation of any of the special inspector's recommendations based on a demonstration by the permit holder to the local agency's satisfaction that the

failure to implement the recommendation will not cause an unauthorized release.

Authority: H&SC 25299.3

Reference: H&SC 25284, 25285, 25288, 25289, 25293

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Adopt new section to read:

2713. Annual Report

(a) The local agency shall notify the State Board of any changes in permits as defined in Subsections (a) or (f) of Section 2712 of this article or any unauthorized releases as defined in Article 2 of this subchapter annually on the State Board's annual report forms or other methods determined by the State Board. This information shall be submitted to the State Board by March 1 of each year covering the prior calendar year.

Authority: H&SC 25299.3

Reference: H&SC 25286

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

Adopt new section to read:

2714. Trade Secret Provisions

(a) Any person providing information in an application for a permit to operate an underground storage tank or for renewal of the permit or application for a categorical or site-specific variance, shall, at the time of its submission, identify all information which the person believes is a trade secret and submit a legal justification for the request for confidentiality. The information which must be submitted includes:

(1) Which portions of the information submitted are believed to be trade secrets;

(2) How long this information should be treated as confidential;

(3) Measures that have been taken to protect this information as confidential; and

(4) A discussion of why this information is a trade secret, including references to statutory and case law as appropriate.

(b) If the local agency, the State Board, or the regional board determines that a request for confidentiality is clearly valid, the material shall be given trade secret protection as discussed in Subsection (f) of this section.

(c) If the local agency, State Board, or the regional board determines that the request for confidentiality is clearly frivilous, it will send a letter to the applicant stating that the information will not be treated as a trade secret unless the local agency, State Board, or the regional board is instructed otherwise by a court within 10 days of the date of the letter.

(d) If the validity of the request for confidentiality is unclear, the local agency, the State Board, or the regional board will inform the person claiming trade secrecy that the burden is on him to justify the claim. The applicant will be given a fixed period of time to submit such additional information as the local agency, the State Board, or the regional board may request. The local agency, the State Board, or the regional board shall then evaluate the request on the basis of the definition of "trade secrets" contained in the appropriate section of Chapter 6.7 of Division 20 of the Health and Safety Code and issue its decision. If the

local agency, the State Board, or the regional board determines that the information is not a trade secret, it shall act in accordance with Subsection (c) of this section.

(e) All information received for which trade secrecy status is requested shall be treated as confidential as discussed in Subsection (f) of this section until a final determination is made.

(f) Information which has been found to be confidential or regarding which a final determination has not been made shall be immediately filed in a separate "confidential" file. If a document or portion of a document is filed in a confidential file, a notation should be filed with the remainder of the document indicating that further information is in the confidential file.

(g) Information contained in confidential files shall only be disclosed to authorized representatives of the applicant or other governmental agencies only in connection with the State Board's, the regional board's, or the local agency's responsibilities pursuant to Chapter 6.7 of the Health and Safety Code or Division 7 of the Water Code.

(h) Nothing contained herein shall limit an applicant's right to

prevent disclosure of information pursuant to other provisions of law.

Authority: H&SC 25299.3

Reference: H&SC 25290

APPENDIX I, TABLE A

SUGGESTED SPECIFICATIONS APPLICABLE TO REGULATORY REQUIREMENTS

SECTION NUMBER		
2631(j)(1)	ASTM D-814,	"Rubber Property - Vapor Transmission of Volatile Liquids"
2631(j)(2)(A)	ASTM D-543,	"Resistance of Plastics to Chemical Reagents"
2631(j)(2)(B)	ASTM D-751,	"Coated Fabrics"
2631(j)(2)(C)	ASTM D-2240,	"Rubber Property--Durometer Hardness"
2631(j)(2)(D)	ASTM D-2684,	"Determining Permeability of Thermoplastic Containers"
2635(b)(1)	ASME,	"ASME Pressure Vessel Code, Section VIII, Division T, Boiler and Pressure Vessel Code"
	UL58,	"Steel Underground Tanks for Flammable and Compustible Liquids"
	UL1316,	"Glass Fiber Reinforced Plastic Underground Storage Tanks for Petroleum Products"
	ULC-3615-1977,	"Standard for Reinforced Plastic Underground Tanks for Petroleum Products"
2635(b)(2)	ASTM G-1-72,	"Standard Recommended Practice for Preparing, Cleaning, and Evaluating Test Specimens"
	ASTM G-31-72,	"Standard Recommended Practice for Laboratory Immersion Corrosion Testing of Metals"
	ASTM D-4021-81,	"Standard Specifications for

		Glass-Fiber- Reinforced Polyester Underground Petroleum Storage Tanks"
	NACE TM-10-69,	"Laboratory Corrosion Testing of Metals for the Processing Industry"
	NACE TM-02-70,	"Method for Conducting Controlled Velocity Laboratory Corrosion Tests"
2661(c)(2)(B)	API 1631,	"Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks"
2663(b)	NFPA 329-1983	"Recommended Practice for Handling Underground Leakage of Flammable and Combustable Liquid"

DOUBLE UNDERLINING INDICATES AMENDMENTS TO PROPOSED REGULATIONS

APPENDIX I, TABLE B

ORGANIZATIONS PROVIDING SPECIFICATIONS APPLICABLE TO REGULATORY REQUIREMENTS

ANSI	American National Standards Institute 1430 Broadway New York, NY 10018 (212) 354-3473
API	American Petroleum Institute 2101 L Street, N.W. Washington, D.C. 20037 (202) 457-7000
ASME	The American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017 (215) 299-5400
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103 (215) 299-5400
NACE	National Association of Corrosion Engineers P.O. Box 986 Katy, TX 77450 (713) 492-0535
NFPA	National Fire Protection Association Batterymarch Park Quincy, MA 02269 (617) 328-9290
UL	Underwriters Laboratories 333 Pfingsten Road Northbrook, IL 60062 (312) 272-8800
ULC	Underwriters Laboratories of Canada, Inc. 7 Crouse Road Scarborough, Ontario
STI	Steel Tank Institute 666 Dundee Road, Suite 705 Northbrook, IL 60062 (312) 498-1980

DOUBLE UNDERLINING INDICATES
AMENDMENTS TO PROPOSED REGULATIONS

APPENDIX I, Table C

"Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Final Rule and Interim Final Rule and Proposed Rule", EPA Fed. Reg. Vol. 49, No. 209, October 26, 1984.

"Manual of Methods for the Chemical Analysis of Water and Wastes", EPA 600/4-79-020, March 1979.

"Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities", EPA 530/SW-611, August 1977.

"Soil Sampling Quality Assurance User's Guide", EPA 600/4-84-043, May 1984.

"Hazardous Waste Land Treatment", EPA SW-874, April 1983.

"Hazardous Waste Land Treatment", EPA SW-874, April 1983.

"Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater", EPA 600/4-82-057, July 1982.

"Handbook for Sampling and Sample Preservation of Water and Wastewater", EPA 600/4-82-029, September 1982.

"Manual of Analytical Quality Control for Pesticides and Related Compounds in Human and Environmental Samples", EPA 600/2-81-059, April 1981.

"Manual of Analytical Methods for the Analysis of Pesticides in Human and Environmental Samples", EPA 600/8-80-038.

"Standard Methods for the Examination of Water and Wastewater", American Public Health Assoc., American Water Works Assoc., Water Pollution Control Federation, 15th Edition, 1981.

"Selected Analytical Methods Approved and Cited by the United States Environmental Protection Agency", Supplement to the Fifteenth Edition of Standard Methods for the Examination of Water and Wastewater, 1981.

"Guidelines on Sampling and Statistical Methodologies for Ambient Pesticide Monitoring", Federal Working Group on Pest Management, October 1974.

"American Society for Testing and Materials (ASTM) Annual Book of Standards, Part 31, Water".

"Methods for Determination of Inorganic Substances in Water and Fluvial Sediments of the U.S. Geological Survey".

"Methods for Analysis of Organic Substances in Water", U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 5, Chapter A3, 1972.

"American Society for Testing and Materials (ASTM) Annual Book of Standards, Parts 23-25, Petroleum Products and Lubricants, 1981".

"Official Methods of Analysis of the Association of Official Analytical Chemists (AOAC)".

1. State Water Resources Control Board Resolution No. 85-6 (January 18, 1985) adopting proposed regulations

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 85- 6

ADOPTION OF REGULATIONS GOVERNING STORAGE OF HAZARDOUS SUBSTANCES IN UNDERGROUND STORAGE TANKS TO BE CODIFIED IN SUBCHAPTER 16 OF CHAPTER 3 OF TITLE 23 OF THE CALIFORNIA ADMINISTRATIVE CODE (23 CAC SECTIONS 2610-2714)

WHEREAS:

1. Chapter 6.7 (commencing with Section 25280) was added to Division 20 of the Health and Safety Code by Chapter 1046 of the Statutes of 1983 (AB 1362, Sher).

2. Chapter 6.7 establishes standards for construction, repair, closure, and monitoring of underground storage tanks used for storage of hazardous substances and requires reporting of unauthorized releases. Chapter 6.7 was amended and reorganized by Chapters 1038, 1537, and 1584 of the Statutes of 1984 (AB 3563, 3447, and 3781, Sher).

3. Sections 25299.3 of the Health and Safety Code directs the State Board to "develop regulations implementing the standards of Sections 25291, 24292, 25294, 25295, 25296, 25298, and 25299.4" by January 1, 1985.

4. Section 25299.3 of the Health and Safety Code authorizes the State Board to develop regulations implementing Sections 25287, 25290, and 25293.

5. A Notice of Proposed Rulemaking describing proposed regulations governing underground storage tanks was published in the California Administrative Notice Register on August 24, 1984. Over 3,000 copies of the notice, and over 2,000 copies of the proposed regulations and Initial Statement of Reasons were distributed to interested persons and organizations.

6. Staff held a series of informal workshops in August and September 1984 to solicit input from the regulated community.

7. The State board held a public hearing on October 23, 1984 and a workshop on November 2, 1984 to hear testimony and discuss the comments of interested persons. Over 158 persons submitted written comments and 36 persons testified at the hearing.

8. The text of the proposed regulations, as modified to reflect many of the comments received, was made available to the public on November 9, 1984 and additional comments were solicited. The State Board held a second public hearing on November 27, 1984.

9. Staff has further modified the text of the proposed regulations in response to comments received. This text was made available to the public before the end of 1984, more than 15 days before date of this Board Meeting, for review and comments.

10. All modifications are sufficently related to the text made available to the public in the Notice published on August 24, 1984 that there was adequate notice to the public that the modifications could have resulted from the original proposed regulations through the rulemaking process.

11. Staff has proposed non-substantive editorial changes in the final text of the proposed regulations. A list of these changes was made available at the Board Meeting held on January 18, 1985.

THEREFORE BE IT RESOLVED:

1. That the proposed regulations governing storage of hazardous substances in underground storage tanks, as modified and attached to this resolution as Attachment 1, be adopted and codified as Subchapter 16 of Chapter 3 of Title 23 of the California Administrative Code (23 CAC Sections 2610-2714, together with Appendix I).

2. That the Executive Director transmit the proposed regulations as adopted to the Office of Administrative Law, together with the final Statement of Reasons and a copy of the State Board's rulemaking file.

CERTIFICATION

The undersigned, Executive Director of the State Water Resources Control Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on January 18, 1985.

Michael A. Campos
Executive Director

2. State Water Resources Control Board Resolution No. 85-37 (June 6, 1985) adopting proposed regulations as corrected and amended

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 85- 37

AMENDMENT OF REGULATIONS GOVERNING STORAGE OF HAZARDOUS SUBSTANCES IN UNDERGROUND STORAGE TANKS TO BE CODIFIED IN SUBCHAPTER 16 OF CHAPTER 3 OF TITLE 23 OF THE CALIFORNIA ADMINISTRATIVE CODE (23 CAC SECTIONS 2610-2714)

WHEREAS:

1. The State Board adopted proposed regulations governing underground storage of hazardous substances by Resolution No. 85-6 on January 18, 1985 and directed that such proposed regulations be transmitted to the Office of Administrative Law (OAL) for approval.

2. OAL disapproved the proposed regulations on April 1, 1985 citing procedural deficiencies in the proposed regulations and the rulemaking file.

3. Staff has prepared modifications to the text of the proposed regulations and has updated the rulemaking file to correct the deficiencies identified by OAL.

4. The text of the modified portions of the proposed regulations was made available to the public for review and comment on May 14, 1985 pursuant to a notice which was sent to all interested persons.

5. The modifications do not alter the substantive impact of the proposed regulations adopted on January 18, 1985 on the regulated community.

THEREFORE BE IT RESOLVED:

1. That the text of the proposed regulations governing storage of hazardous substances in underground tanks adopted by the State Board on January 18, 1985 by Resolution No. 85-6 (Attachment 2) be amended to conform to the text attached to this resolution (Attachment 1).

2. That the proposed regulations as modified by this resolution be resubmitted to OAL together with the updated rulemaking file with a request for expedited review and for an immediate effective date on approval.

CERTIFICATION

The undersigned, Executive Director of the State Water Resources Control Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 6, 1985.

Michael A. Campos
Executive Director

D. OAL Review: Notice of Disapproval of proposed regulations dated on April 1, 1985

APR 3 1985 Orig - DWR

STATE OF CALIFORNIA — GEORGE DEUKMEJIAN, *Governor*

OFFICE OF ADMINISTRATIVE LAW
1414 K Street, Suite 600
Sacramento, CA 95814
(916) 323-6225

Copies -
Board
mac
WGP
WRA
~~1. ECA~~
~~2. RF~~
~~3-MF~~
4. OH

NOTICE OF DISAPPROVAL
Government Code sections 2610-2714

April 1, 1985

In Reply Refer to:
File No. 85-0301-7

Mr. Michael A. Campos
Executive Director
State Water Resources
Control Board
901 P Street
Sacramento, CA 95814

Re: Adoption of sections 2610-2714 of Title 23 of the California Administrative Code

Dear Mr. Campos:

On March 1, 1985, the State Water Resources Control Board (Board) submitted to the Office of Administrative Law (OAL) the adoption of sections 2610 through 2714 of Title 23 of the California Administrative Code. The proposed regulations implement construction and monitoring standards for new and existing underground storage tanks in California that store hazardous substances.

In compliance with Government Code section 11349.3, the Board is hereby given notice that OAL has disapproved the adoption of sections 2610 through 2714. These regulations have been disapproved for the following reasons:

1. The Board failed to summarize and respond to approximately 300 comments, as required by Government Code section 11346.7(b)(3).

2. Sections 2631(j)(1), 2631(j)(2), 2631(j)(3), 2631(r), 2632(c)(2), 2635(b)(1), 2635(b)(2), 2635(b)(4), 2635(b)(6), 2635(b)(7), 2645(i), 2645(j), 2661(c)(2)(B), 2662(d) and 2663(b) fail to comply with the clarity standard of Government Code section 11349.1(a)(3).

Received DWR
APR 3 1985

3. The rulemaking file does not demonstrate by substantial evidence the necessity for sections 2641(c)(4), 2641(c)(5), 2641(c)(6), 2641(c)(7), 2641(c)(8), 2642(b)(4), 2642(c)(4), 2647(c), 2647(g), 2648(q), 2648(r), 2648(s) and 2714, as required by Government Code section 11349.1(a)(1).

4. The document entitled "Verification of Rulemaking File" that was submitted to OAL is not signed and dated, as required by Government Code 11347.3(b).

5. The final statement of reasons submitted to OAL does not include a determination of whether the proposed regulations impose a mandate on local agencies or school districts, as required by Government Code section 11346.7(b)(2).

6. The final statement of reasons that was submitted to OAL does not include an explanation for rejection of proposed alternatives that would lessen the adverse economic impact on small businesses, as required by Government Code section 11346.7(b)(4).

A detailed explanation of the reasons for the disapproval of the adoption of sections 2610 through 2714 will follow.

If you have any questions concerning this matter, please contact Paul H. Dobson, Deputy Director, at 323-6789.

Sincerely,

LINDA STOCKDALE BREWER
Director

Enclosures

SJH:sh

1414 K Street, Suite 600
Sacramento, California 95814
(916) 323-6225

I : D, 1, b.

April 2, 1985

In Reply Refer to:
File No 85-0301-7

Mr. Michael A. Campos
Executive Director
State Water Resources
Control Board
901 "P" Street
Sacramento, CA 95814

Re: Adoption of Sections 2610-2714 of Title 23 of the California Administrative Code

Dear Mr. Campos:

On April 1, 1985, the Office of Administrative Law notified you of the disapproval of the above referenced regulations. Our April 1, 1985 letter indicated that an analysis of the reasons for the disapproval of these regulations would be forwarded under separate cover. An opinion memorandum explaining in detail the reasons for the disapproval is enclosed.

Sincerely,

PAUL E. DOBSON
Deputy Director

for: LINDA STOCKDALE BREWER
Director

SH:hk

OFFICE OF ADMINISTRATIVE LAW

OPINION

LINDA STOCKDALE BREWER
Director

ROSEANN C. STEVENSON
Chief Deputy Director
and General Counsel

MICHAEL McNAMER
Supervising Attorney

PAUL E. DOBSON
Deputy Director

SCOTT J. BALLABRIN
Counsel

DISAPPROVAL OF REGULATIONS

of the

State Water Resources Control Board

Title 23 Sections 2610 through 2714 April 2, 1985

ACTION

On April 1, 1985, the Office of Administrative Law (OAL) disapproved the adoption of sections 2610 through 2714 of Title 23 of the California Administrative Code. This regulatory adoption was submitted to OAL by the State Water Resources Control Board (Board) on March 1, 1985. The proposed regulations specify construction and monitoring standards for new and existing underground storage tanks in California that contain hazardous substances.

DECISION

OAL has disapproved the proposed regulations for the following reasons:

1. The Board failed to summarize and respond to approximately 300 comments, as required by Government Code section 11346.7(b)(3).

2. Sections 2631(j)(1), 2631(j)(2), 2631(j)(3), 2631(r), 2632(c)(2), 2635(b)(1), 2635(b)(2), 2635(b)(4), 2635(b)(6), 2635(b)(7), 2645(i), 2645(j), 2661(c)(2)(B), 2662(d) and 2663(b) fail to comply with the clarity standard of Government Code section 11349.1(a)(3).

3. The rulemaking file does not demonstrate by substantial evidence the necessity for sections 2641(c)(4), 2641(c)(5), 2641(c)(6), 2641(c)(7), 2641(c)(8), 2642(b)(4), 2642(c)(4), 2647(c), 2647(g), 2648(g), 2648(r), 2648(s) and 2714, as required by Government Code section 11349.1(a)(1).

4. The final statement of reasons that was submitted to OAL does not include an explanation for rejection of proposed alternatives that would lessen the adverse economic impact on small businesses, as required by Government Code section 11346.7(b)(4).

5. The final statement of reasons submitted to OAL does not include a determination of whether the proposed regulations impose a mandate on local agencies or school districts, as required by Government Code section 11346.7(b)(2).

6. The rulemaking file does not include the sworn statement required by Government Code section 11347.3(b).

BACKGROUND

The Board is specifically authorized under Health and Safety Code section 25299.3 to develop regulations that implement construction and monitoring standards for new and existing underground storage tanks which contain hazardous substances. Sections 2610 through 2621 set forth the general applicability of these regulations and define terms. Sections 2630 through 2635 set forth construction and monitoring standards for new underground storage tanks. Sections 2640 through 2648 set forth monitoring standards for existing underground storage tanks. Sections 2650 through 2652 state the reporting actions that must be taken after the unauthorized release of a hazardous substance from an underground storage tank. Sections 2660 through 2663 describe the repair standards for underground storage tanks from which an unauthorized release of a hazardous substance has occurred. Sections 2670 through 2672 set forth the requirements for temporary and permanent closure of underground storage tanks. Sections 2680 through 2682 describe the procedures for obtaining

a variance from the construction and monitoring standards of these regulations. Sections 2690 and 2691 describe the procedures that a local agency must follow to obtain construction or monitoring standards that are more stringent than those set forth in these regulations. Sections 2710 through 2714 set forth requirements regarding underground storage tank permit applications, annual reporting and requests for confidentiality of records on the basis of trade secret.

On March 1, 1985, the Board submitted the adoption of sections 2610 through 2714 to OAL for review.

THE BOARD HAS FAILED TO SUMMARIZE AND RESPOND TO COMMENTS, AS REQUIRED BY GOVERNMENT CODE SECITON 11347.3(b)(3).

Government Code section 11346.7(b)(3) requires every submittal of regulations to OAL to be accompanied by a final statement of reasons. The final statement of reasons must include a summary of each objection or comment made regarding the regulations, together with an explanation of how the regulations have been changed to accommodate each objection or comment, or the reasons for rejecting each objection or comment.

OAL has identified in the rulemaking file approximately 300 comments regarding these regulations that were neither summarized nor responded to in the final statement of reasons. Approximately ten comments were summarized but not adequately responded to in the final statement of reasons. Set forth below are examples of some of these comments:

1. Assemblyman Byron D. Sher submitted written comments dated November 26, 1984, in which he stated that section 2641(c)(8) was overbroad in its definition of "small business." This comment was neither summarized nor responded to in the final statement of reasons.

2. John T. O'Halloran of the Santa Clara Valley Water District submitted written comments dated December 18, 1984, in which he stated that the permitted leakage of .05 gallons per hour under many of the monitoring alternatives in section 2641 was excessive and could result in releases in excess of those intended by the Legislature. This comment was neither summarized nor responded to in the final statement of reasons.

3. Ed Hale of the Siskiyou County Department of Agriculture submitted written comments dated January 15, 1985, in which he

stated that these regulations impose a massive workload on local weights and measures departments. This comment was neither summarized nor responded to in the final statement of reasons.

4. Fazle Rab Quadri, Executive Analyst for the San Bernardino County Board of Supervisors, submitted written comments dated October 29, 1984, in which he stated that, under section 2633(f), specific leak threshhold limits must be added because some leak detection equipment allows a 1½ to 3 gallons per minute leak before flow restriction or shutdown occurs. This comment was neither summarized nor responded to in the final statement of reasons.

5. Hank Martin of the California Manufacturers Association submitted written comments dated October 23, 1984, in which he stated that, for purposes of notice under section 2681(b)(5), it is the Board's and not the variance applicant's responsibility to determine the persons who are affected by the application for the variance. This comment was neither summarized nor responded to in the final statement of reasons.

By reason of this failure to summarize and respond to comments, the Board has failed to comply with Government Code section 11346.7(b)(3). A listing of each comment that the Board failed to summarize or respond to will be provided to the Board.

SECTIONS 2631(j)(1), 2631(j)(2), 2631(j)(3), 2631(r), 2632(c)(2), 2635(b)(1), 2635(b)(2), 2635(b)(4), 2635(b)(6), 2635(b)(7), 2645(a), 2645(j), 2661(c)(2)(B), 2662(d) AND 2663(b) FAIL TO COMPLY WITH THE CLARITY STANDARD OF GOVERNMENT CODE SECTION 11349.1(a)(3).

Government Code section 11349.1(a)(3) requires that every regulation meet the clarity standard. Government Code section 11349(c) defines clarity to mean, "... written or displayed so that the meaning of regulations will be easily understood by those persons directly affected by them."

1. Sections 2631(j)(1), 2631(j)(2), 2631(j)(3), 2635(b)(2), 2635(b)(7), 2661(c)(2)(B) and 2663(b) each state certain construction or repair requirements for underground storage tanks. These sections require compliance with "acceptable procedures" for the evaluation of the construction or repair of underground hazardous waste storage tanks as listed in

Appendix I of the proposed regulations. Appendix I contains a list of various types of tank evaluation procedures. It is not clear from a reading of either these sections or Appendix I whether the procedures listed in Appendix I are the only methods that can be followed to satisfy the stated construction and repair standards or whether there are acceptable methods not listed in Appendix I. A person affected by these regulations would be uncertain as to which methods he could follow in order to satisfy these standards.

2. Sections 2631(r), 2632(c)(2), 2635(b)(1), 2635(b)(4), 2635(b)(6) and 2662(d) each state certain construction, monitoring or repair requirements for underground storage tanks. As part of these requirements, these sections each state that the applicable construction, monitoring or repair requirement is met if it is approved, recognized or certified by a "nationally recognized, independent testing organizaiton." These regulations do not define "nationally recognized, independent testing organization" and these sections are therefore unclear because a person affected by these regulations would never be certain as to what would constitute such an organization.

3. Sections 2645(i) and 2645(j) set forth standards for the preparation, storage, transportation and analysis of soil samples taken as part of underground storage tank leak monitoring. Section 2645(i) states that soil samples shall be prepared, stored, and transported according to "appropriate EPA methods." Section 2645(j) states that soil samples shall be analyzed according to "EPA-approved methods." These sections are unclear because they make no reference to the specific EPA methods that would apply and they do not identify the date on which these methods were approved by the EPA.

For these reasons, these sections have failed to meet the clarity standard of Government Code section 11349.1(a)(3).

THE RECORD OF THE RULEMAKING PROCEEDING DOES NOT DEMONSTRATE BY SUBSTANTIAL EVIDENCE THE NECESSITY FOR SECTIONS 2641(c)(4), 2641(c)(5), 2641(c)(6), 2641(c)(7), 2641(c)(8), 2642(b)(4), 2642(c)(4), 2647(c), 2647(c), 2648(b), 2648(c), 2648(s) AND 2714, AS REQUIRED BY GOVERNMENT CODE SECTION 11349.1(a)(5).

Government Code section 11349.1(a)(1) requires that every regulation meet the standard of necessity. Government Code section

11349(a) defines necessity to mean that the record of the rulemaking proceeding demonstrate by substantial evidence the need for a regulation.

1. Sections 2641(c)(4), 2641(c)(5), 2641(c)(6), 2641(c)(7) and 2641(c)(8) each describe underground storage tank monitoring alternatives. The rulemaking file contains no discussion or evidence whatsoever of the specific necessity for these sections.

2. Section 2642(c)(4) requires recordation of observations and liquid levels in an underground storage tank at the time of visual inspection. The final statement of reasons indicates that this section was to be deleted from the regulations, even though it was not. The rulemaking file contains no other discussion or evidence supporting the specific necessity for this subsection.

3. Section 2647(c) requires in its second and third sentences that ground water monitoring wells not extend through laterally extensive clay layers that are below the water table and at least five feet thick, but that the wells be terminated one to two feet into the clay layer. Section 2647(g) requires that filter packs used in ground water monitoring extend at least two feet above the top of the perforated zone except in certain situations in which case the local agency may waive this requirement. The rulemaking file contains no evidence supporting the necessity for either of these provisions.

4. Sections 2648(q), 2648(r) and 2648(s) each set forth certain requirements concerning borings made in conjunction with the various underground storage tank monitoring alternatives. Section 2714 states the procedures for asserting a claim of confidentiality on the basis of trade secret. The final statement of reasons contains a very general discussion of each of these sections. However, the rulemaking file contains no discussion or evidence of the specific necessity for the requirements of these sections.

For these reasons, these sections have failed to meet the necessity standard of Government Code section 11349.1(a)(1).

THE FINAL STATEMENT OF REASONS DOES NOT INCLUDE AN EXPLANATION FOR REJECTION OF PROPOSED ALTERNATIVES THAT WOULD LESSEN THE ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES, AS REQUIRED BY GOVERNMENT CODE SECTION 11346.7(b)(4).

Government Code section 11346.7(b)(4) requires every agency which submits proposed regulations to OAL to also submit a final statement of reasons that must include an explanation of reasons for rejecting any proposed alternatives that would lessen the adverse economic impact on small businesses.

The public comments made in regards to these regulations included several proposed alternatives that were intended to lessen the expected adverse economic impact to small businesses. For example, many commenters proposed an exemption for underground storage tanks that were below a specified size. Other commenters suggested longer lead-time before implementation of these regulations.

The final statement of reasons submitted to OAL did not include such an explanation of reasons. It appears from the rulemaking file that the Board may have inadvertently omitted the portion of the final statement of reasons containing this information from the documents submitted to OAL. Therefore, the Board has failed to comply with the requirements of Government Code section 11346.7(b)(4).

THE FINAL STATEMENT OF REASONS DOES NOT INCLUDE A DETERMINATION AS TO WHETHER THE PROPOSED REGULATIONS IMPOSE A MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS, AS REQUIRED BY GOVERNMENT CODE SECTION 11346.7(b)(2).

Government Code section 11346.7(b)(2) requires every agency which submits proposed regulations to OAL to also submit a final statement of reasons that must include a determination as to whether the proposed regulations impose a mandate on local agencies or school districts.

The final statement of reasons submitted to OAL did not include such a determination. It appears from the rulemaking file that the Board may have inadvertently omitted the portion of the final statement of reasons containing this information from the documents submitted to OAL. Therefore, the Board has failed to comply with the requirements of Government Code section 11346.7(b)(2).

THE FILE OF THE RULEMAKING PROCEEDING DOES NOT CONTAIN THE SWORN STATEMENT REQUIRED BY GOVERNMENT CODE SECTION 11347.3(b).

Government Code section 11347.3(b) requires the rulemaking file submitted to OAL to include a sworn statement by the agency official who compiled the rulemaking file which indicates that the file is complete and specifies the date upon which the rulemaking record closed.

Though the rulemaking file submitted to OAL contained such a statement, the document was unsigned and undated. Therefore, the Board has failed to comply with the requirements of Government Code section 11347.3(b).

CONCLUSION

For the reasons set forth above, the Office of Administrative Law disapproved the adoption of secitons 2610 through 2714 of Title 23 of the California Administrative Code

1. transmittal letter to interested

1. Transmittal letter to interested parties and local agencies regarding OAL approval of the regulations

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STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD
PAUL R. BONDERSON BUILDING
[illegible] P STREET
P.O. BOX 100
SACRAMENTO, CALIFORNIA 95801
(916) 324-0988

GEORGE DEUKMEJIAN, Governor

AUG 13 1985

To All Interested Parties (Sent to 68,000 tank owners)

OFFICE OF ADMINISTRATIVE LAW APPROVAL OF REGULATIONS GOVERNING UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES, SUBCHAPTER 16 OF CHAPTER 3 OF TITLE 23 OF THE CALIFORNIA ADMINISTRATIVE CODE

On January 18, 1985, the State Water Resources Control Board (State Board) adopted regulations governing underground storage of hazardous substances pursuant to a notice of proposed rulemaking published in the California Administrative Notice Register (Register) on August 24, 1984. The proposed regulations, together with the rulemaking file, were submitted to the Office of Administrative Law (OAL) in March of 1985. The OAL disapproved the rulemaking order due to procedural deficiencies in the regulations and in the rulemaking file. (OAL's reasons for disapproval were published in the Register on April 12, 1985.)

On June 6, 1985, the State Board adopted Resolution No. 85-37 which amended the proposed regulations initially adopted by the State Board on January 18, 1985. The amended regulations, together with a revised rulemaking file, were resubmitted to the OAL on July 11, 1985. OAL approved the regulations on August 12, 1985. These regulations form a critical part of the state's program for the control of hazardous substances and protection of ground water quality. They contain requirements for underground storage tank construction and closure, monitoring alternatives for existing tanks, performance standards for underground storage tank repairs, and procedures for categorical and site-specific variances from the prescribed standards. These regulations will be implemented through permit programs administered by local agencies.

Cities and counties which, prior to January 1, 1984, adopted ordinances implementing statutory standards for underground tanks, are exempt from the provisions of the regulations. However, a number of cities and counties did not adopt such ordinances and are required to implement these regulations.

If you have questions about these regulations you may call David Holtry at (916) 324-9088. Call the local agency about all other questions, such as the agency's tank permitting procedures. Enclosed for your information is a current list of designated local agencies which will be implementing the permit portion of the program.

Sincerely,

ORIGINAL SIGNED BY

Roger Johnson, Chief
Program Branch
Division of Water Quality

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GEORGE DEUKMEJIAN, *Governor*

AUG 13 1985

Local Implementing Agencies:

OFFICE OF ADMINISTRATIVE LAW APPROVAL OF REGULATIONS GOVERNING UNDERGROUND STORAGE OF HAZARDOUS SUBSTANCES, SUBCHAPTER 16 OF CHAPTER 3 OF TITLE 23 OF THE CALIFORNIA ADMINISTRATIVE CODE

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Cities and counties which, prior to January 1, 1984, adopted ordinances implementing statutory standards for underground tanks, are exempt from the provisions of the regulations. However, a number of cities and counties did not adopt such ordinances and are required to implement these regulations.

If you have questions about these regulations you may call David Holtry at (916) 324-9088.

Sincerely,

Roger Johnson, Chief
Program Branch
Division of Water Quality

II. Final Statement of Reasons

Index to Rulemaking File Underground Storage Tank Regulations Title 23, Waters Division 3, Water Resources Control Board Chapter 16, Underground Storage Tank Regulations 1985