

NEGATIVE DECLARATION

1. Project Description

**TITLE OF PROJECT: RCRA Authorization Regulation Package,
Control Number R-89-017**

This rulemaking will repeal all of the Department of Health Services' (Department's) existing hazardous waste control regulations and replace them with the new regulations of the RCRA Authorization Regulation Package. These proposed regulations are based on the language, format, and organization of federal hazardous waste regulations, Title 40 CFR Parts 124 and 260 through 270. Additional State regulations with no federal counterpart have been added and existing more stringent State provisions have been inserted. New law has been included only when melding the State and federal regulations produced problems with the clarity of the regulations and where provisions conflicted with other provisions.

The RCRA Authorization Regulation Package is being adopted as part of the Department's effort to obtain authorization from the United States Environmental Protection Agency (EPA) to administer the State's hazardous waste control program in lieu of the federal hazardous waste control program. Currently, hazardous waste in California is regulated by both the EPA and the Department. The implementation and enforcement of both the State and federal hazardous waste programs has been a source of confusion for the regulated community in determining how particular materials are regulated under particular circumstances. The regulated community has expressed frustration with the problem of locating and understanding specific requirements and applying them appropriately.

To obtain this authorization, State hazardous waste control requirements, both in regulation and statute, must be equivalent to or more stringent than corresponding federal law. The legislature passed bills in both the 1988 and 1990 legislative sessions which addressed areas of State statute that were less stringent than corresponding federal hazardous waste control law. This rulemaking will amend those provisions of the Department's hazardous waste regulations in order to make them as stringent as the federal regulations.

Specifically, in reviewing the Department's 1985 authorization application, the EPA determined that California hazardous waste regulations must conform more closely to federal hazardous waste law before the Department could be authorized to operate the RCRA program in California. Health and Safety Code Section 25159.5(a) directs the Department to adopt regulations conforming to the federal regulations for the purpose of obtaining authorization, but allows the Department to adopt regulations which are more stringent

or broader in regulating authority than the federal program. Currently, the Department's regulations are more stringent or broader in scope than the EPA's in many program areas, less stringent than the federal program in others, and in other program areas they mirror the federal program with little or no variation in language or format. The proposed regulatory package will repeal all of existing Chapter 30 in Division 4 of the California Code of Regulations (existing State hazardous waste control law) and the corresponding Title 26 (unified environmental regulations) provisions. The proposed body of regulations replacing Chapter 30 will conform State hazardous waste regulations with federal hazardous waste law except where the Department is carrying over the more stringent elements of California law, or where the regulations address subject matter which is not covered by the federal regulations. The proposed regulations reflect the most current and updated requirements from the EPA and existing State law. It is expected that the proposed regulations will reduce confusion among members of the regulated public by constituting a single body of standards melding the federal and state hazardous waste regulations into one comprehensive program.

2. Project Location and Name of Project Proponent

The project is proposed by the State Department of Health Services, Toxic Substances Control Program located at:

California Department of Health Services
Toxic Substances Control Program
714/744 P Street
P.O. Box 942732
Sacramento, CA 94234-7320

The regulations apply to all persons managing hazardous waste in the State including persons generating, transporting, treating, storing, or disposing that hazardous waste. Every city, town and county has numerous persons generating hazardous waste; all the major metropolitan and some rural areas have persons treating and storing hazardous waste. There are currently hazardous waste disposal sites in Santa Barbara, Imperial, Kings and Kern Counties.

The regulations are too voluminous to reprint and distribute with this notice. The proposed regulations and published revisions to those regulations are available for public inspection at locations around the State. See Appendix 2 for a listing of these locations.

3. Findings

The proposed regulations recodify existing State hazardous waste control law and combine it with any more stringent provisions of federal hazardous waste control law. New provisions have been added when existing law was unacceptably unclear regarding a

specific provision or when the combination of State and federal law created a need for an additional provision to bridge requirements, or where that combination created incompatible provisions. In the context of a recodification of existing regulations, a regulation can only be said to have an adverse environmental impact if it allows less stringent regulation of a hazardous waste than was allowed by the previously existing regulations. As discussed in the attached initial study, no provisions are being proposed which allow less stringent regulation of hazardous waste than is allowed by existing hazardous waste control law. In fact, those provisions which have been identified as being different in effect than existing law are universally more protective of the environment than existing law. Additionally, no regulations were identified as potentially changing the way hazardous wastes are treated or disposed of in the State. Adoption of these regulations will not cause a significant change in the need for treatment or disposal capacity in the State.

Based on the above findings, the Department has concluded that adoption of these regulations will not cause adverse environmental impacts.

4. Initial Study

The initial study leading to the findings of this negative declaration and the associated environmental checklist are attached as Appendix 1 to this document.

5. Mitigation Measures

Because no provisions of the proposed regulations were identified which would allow less stringent regulation of hazardous waste than existing regulations or which would result in changes in hazardous waste treatment or disposal practices within the State, no mitigation measures are required.

I find that the proposed project COULD NOT have a significant adverse effect on the environment.

4/5/90
DATE

Michael S. H
SIGNATURE

4/6/90
DATE

David D. Blair
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4/9/90
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ATTACHMENTS:

- APPENDIX 1: Initial study
- APPENDIX 2: Locations for inspecting the proposed regulations.

APPENDIX I

**INITIAL STUDY
RCRA AUTHORIZATION REGULATION PACKAGE
TSCP CONTROL NUMBER: R-89-017**

Proponent:

**California Department of Health Services
Toxic Substances Control Program
714/744 P St.
PO Box 942732
Sacramento, CA 94234-7320**

Contact:

**Michael S. Horner
(916) 323-3285**

April 2, 1990

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**INITIAL STUDY
RCRA AUTHORIZATION REGULATION PACKAGE
R-89-017**

1. GENERAL

1.1 INTRODUCTION

NAME OF PROPONENT:

Department of Health Services
Toxic Substances Control Program
714/744 P Street
P.O. Box 942732
Sacramento, CA 94234-7320

Attn: Michael S. Horner
(916)-323-3285

TITLE OF PROJECT: RCRA Authorization Regulation Package

The Department of Health Services is preparing this document to assess the possibility of adverse environmental impacts arising from the Department's planned adoption of Regulation Package R-89-017, herein referred to as the "authorization regulation package."

The authorization regulation package is being adopted as part of the Department's effort to obtain authorization from the United States Environmental Protection Agency (EPA) to run the State's hazardous waste control program in lieu of the federal hazardous waste control program (see Section 1.3). Currently, hazardous waste in California is regulated by both the EPA and the Department. The implementation and enforcement of both the state and federal hazardous waste programs has been a source of confusion for the regulated community in determining particular circumstance. The regulated community has expressed frustration with the problem of locating and understanding specific requirements and applying them appropriately. To obtain this authorization, State hazardous waste control requirements, both in regulation and statute, must be equivalent to or more stringent than corresponding federal law. The legislature passed bills in both the 1988 and 1990 legislative sessions¹ which addressed areas of State statute that were less stringent than corresponding federal hazardous waste control law. This rulemaking will amend those provisions of the Department's hazardous waste regulations in order to make them as stringent as the federal regulations.

Specifically, in reviewing the Department's 1985 authorization application, the EPA determined that California hazardous waste

¹ AB 3383 and AB 4636 (Quackenbush) of 1988, and AB 1847 (Quackenbush) of 1989

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regulations must conform more closely to federal hazardous waste law before the Department could be authorized to operate the RCRA program in California. Health and Safety Code Section 25159.5(a) directs the Department to adopt regulations conforming to the federal regulations for the purpose of obtaining authorization, but allows the Department to adopt regulations which are more stringent or broader in regulating authority than the federal program. Currently, the Department's regulations are more stringent or broader in scope² than the EPA's in many program areas while, in others, they mirror the federal program with little or no variation in language or format. The proposed regulatory package will repeal all of existing Chapter 30 in Division 4 of the California Code of Regulations (existing State hazardous waste control law) and the corresponding Title 26 (unified environmental regulations) provisions. The proposed body of regulations replacing Chapter 30 will conform State hazardous waste regulations with federal hazardous waste law except where the Department is carrying over the more stringent elements of California law, or where the regulations address subject matter which is not covered by the federal regulations. The proposed regulations reflect the most current and updated requirements from the EPA and existing State law. It is expected that the proposed regulations will reduce confusion among members of the regulated public by constituting a single body of standards melding the federal and state hazardous waste regulations into one comprehensive program.

Several important "groundrules" guided the creation of the authorization regulation package:

- 1) The regulations were to recreate the aggregate stringency and applicability of existing State and federal hazardous waste control law as much as possible. New provisions have been added only where existing law was unacceptably unclear on a provision or where provisions of existing law conflicted with other provisions or were obviously flawed. Many important proposed regulatory changes have not been included in these regulations to conform to this groundrule.

- 2) The regulations were to use the language and format of the federal hazardous waste control regulations (Title 40, Code of Federal Regulations, Parts 260 through 272, herein referred to as 40 CFR) as a base. More stringent elements of the existing Title 22 CCR regulations and a few new provisions have been amended into the base language. Language

²More stringent means that a provision applies to the same regulatory universe but establishes a stricter standard for compliance. Broader in scope means that a provision applies to a broader universe of regulated persons.

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new to both the federal and State hazardous waste control regulations has been added only when existing State language did not fit the federal base language or when bridging language was needed to fit State provisions into the federal base. As an exception, new language was inserted into the base language in several places to create new provisions. These provisions and their effect will be discussed in depth in the DETAILED ANALYSIS portion of this document (Section 2.). Regulations undergoing the regulatory promulgation process in parallel with this regulation package have been incorporated into it and renumbered as they became effective.

3) The numbering system for the regulations was to parallel the federal numbering system in order to simplify the relationship of the two sets of regulations. The user can simply add a "66" to the front of a federal regulation to find the corresponding provision in the proposed State hazardous waste control regulations. For example, 40 CFR Section 261.3(a) corresponds to proposed Section 66261.3(a). Federal "Parts" correspond to proposed "Chapters" and federal "Subparts" correspond to proposed "Articles". Exceptions to this numbering scheme occur when a State provision with no corresponding federal provision has been carried over into the proposed regulations or where a new section was created in order to facilitate melding of the two sets of regulations.

1.2 PROJECT DEFINITION

The specific project being examined in this initial study is the adoption of Regulation Package R-89-017 to conform the State's hazardous waste law to federal hazardous waste law.

1.3 USING THIS DOCUMENT

This document sets forth an analysis of the potential for adverse environmental impacts resulting from a Department decision to adopt these regulations. The promulgation of regulations is a discretionary act which can, however, cause environmental impacts and is thus subject to analysis under the California Environmental Quality Act. However, because adoption of this regulation package does not constitute the direct approval of a physical development project or the exercise of a discretionary decision authorizing a person to carry out a physical act, the normal environmental checklist is not useful for evaluating the impact of these regulations. Because impacts of the proposed regulations are not easily assessable in the same manner as land use decisions or new regulations addressing previously unregulated areas, the Department decided that, for the purposes of this analysis, an adverse environmental impact would be assumed to occur if the proposed

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regulations allow less stringent regulation of hazardous waste than current regulations. This document analyses the proposed regulations to determine which provisions will be different in their effect from the Department's existing regulations. Those provisions will be assumed to meet the standard of having a physical effect on the environment (irrespective of actual potential for physical impact). Next, these changed provisions will be examined to determine if they will lead to less stringent regulation of hazardous waste which might cause adverse impacts to any physical media such as air, water, etc. By assuming an adverse impact in all instances of reduced stringency, this document analyzes the proposed regulations using a stricter standard than would an investigation of the actual potential for impacts from "loosened" provisions. Any provision which is less stringent than existing control of hazardous waste in California will be considered a potential adverse environmental impact under this analysis. It is important to keep the scope and purpose of this rulemaking in mind when reading this document and analyzing potential impacts from the authorization regulation package.

This document begins with a short explanation of this rulemaking and the Department's reasons for its promulgation, including a capsule description of the RCRA authorization process. Next, the document sets forth a more detailed analysis of the potential for adverse effects on each potentially affected medium. Each provision which deviates from existing law is examined for the possibility of less stringent regulation. Lastly, the potential for adverse environmental impacts is summarized for each less stringent provisions identified.

1.4 RCRA AUTHORIZATION PROCESS

The Resource Conservation and Recovery Act (RCRA) was enacted by Congress in 1976 and established certain standards for the management of hazardous waste. RCRA was then modified in 1984 by the Hazardous and Solid Waste Amendments (HSWA). In adopting these statutes, congress intended to establish a national hazardous waste regulatory program which would progressively minimize the release of hazardous waste into the environment. The goal of Congress is to ultimately shift the primary responsibility for the RCRA hazardous waste program to the states through the guidance and assistance of the federal EPA. RCRA required the EPA to establish a model regulatory system for controlling hazardous waste from the point of generation to disposal, and gave EPA the authority to carry out the enforcement provisions of the Act.

The Department intends to apply to the EPA for authorization to operate the RCRA hazardous waste program in California in lieu of the EPA. RCRA provides that a hazardous waste program in a state

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must be equivalent to the federal hazardous waste program to be eligible for authorization to implement and enforce the federal EPA program in that state.

The RCRA authorization process is set forth in 40 CFR Part 271 and a codification of authorized State programs appears in 40 CFR Part 272. The authorization process proceeds as follows:

- 1) State reviews and alters State statutes and regulations as necessary to be equally stringent as or more stringent and potentially broader in scope than the federal program.
- 2) State applies for authorization. Application includes statutes and regulations, a document from the State Attorney General confirming the state's legal authorities, a memorandum of Agreement detailing the future relationship between EPA and the state, and a description of the State's program detailing how all federal mandates will be carried out by the state.
- 3) The appropriate EPA region submits an assessment of the state's capability to carry out the federal hazardous waste program in that state.
- 4) A joint public hearing is held in that state to solicit public comment on the proposed granting of authorization.
- 5) EPA approves/disapproves the state's authorization application.
- 6) If approved, EPA publishes an immediate final rule which codifies the state program³.
- 7) EPA assumes an oversight role for all facets of the hazardous waste control program other than certain HSWA rules⁴.

1.5 EXISTING LAW

³When EPA codifies a state's program, it adopts those parts of the State's program which are not broader in scope as its own regulations. At this time, the federal rules cease to be in effect in that state.

⁴EPA continues to enforce HSWA provisions for which the state has not yet been authorized. Non-HSWA provisions are not in effect in authorized states until adopted by that state.

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1.5.1 STATE LAW

Hazardous waste in the State of California is currently regulated by the Department of Health Services' Toxic Substances Control Program. The Department is responsible for enforcing and implementing Chapter 6.5 of Division 20 of the California Health and Safety Code (HSC). It has promulgated the regulations of Title 22 CCR, Division 4, Chapter 30 of the California Code of Regulations (Title 22 CCR) to implement these regulations. The hazardous waste regulations are then repeated in Title 26, CCR, the compendium of the State's environmental regulations.

1.5.2 FEDERAL LAW

Under federal law, hazardous waste is regulated under RCRA as modified by HSWA (42 U.S.C. Sec. 6901 et seq). The EPA has promulgated the regulations of 40 CFR Parts 260 through 270 to implement these statutes.

1.5.3 GENERAL COMPARISON

Existing State and federal hazardous waste control law both address most facets of hazardous waste control in similar fashion. State law is, however, both broader in scope and more stringent in certain provisions. A summary of areas of regulation and the corresponding State and federal citations follows:

<u>AREA OF REGULATION</u>	<u>STATE CITE⁵</u>	<u>FED. CITE⁶</u>
General - Scope, applicability, variances	Article 2	Part 260
Definitions	Article 2 HSC; Article 1	Sec. 260.10, 261.1, 270.2
Waste classification	Sec. 25117, 25124 HSC; Articles 9 & 11	Part 261

⁵State cite refers to Title 22, Division 4, Chapter 30 CCR unless specified as HSC

⁶Federal cite refers to Title 40, Code of Federal Regulations (40 CFR)

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<u>AREA OF REGULATION</u>	<u>STATE CITE</u> ⁷	<u>FED. CITE</u> ⁸
Generator requirements	Article 6	Part 262
Transportation requirements	Articles 6, 6.5, HSC; Article 5	Part 263
Interim status	Article 9 HSC; Articles 18-32	Part 265
Permit program	Article 9 HSC; Article 4	Part 270
Permitted facility standards	Article 5.5, 9.5, 9.6 HSC; Articles 18-32	Part 264
Recycling regulations	Sec. 25143.2 HSC; Article 12	Sec. 261.6, Part 266
Land disposal restrictions/treatment standards	Article 5, 7.7 HSC	Part 268
Used oil standards	Article 13 HSC	Part 266
Testing laboratory certification	Article 8.5 HSC; Article 33	NONE
Standards for chemical toilet additives	Article 14	NONE
Clean up criteria	Article 16	NONE
Hazardous waste property border zone property	Article 34	NONE

State law differs from federal in many of the areas listed above. Major differences are found in the following areas:

- Variances: State's narrow variance authority is administratively applied with no public involvement.
- Waste classification: The State identifies many more wastes

⁷State cite refers to Title 22, Division 4, Chapter 30 CCR unless specified as HSC

⁸Federal cite refers to Title 40, Code of Federal Regulations (40 CFR)

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as hazardous wastes by:

- * having less exemptions from classification as waste and as hazardous waste
 - * applying an expanded toxicity criterion (characteristic) including application of toxicological data, aquatic bioassays, a more stringent leaching test with an expanded list of regulated constituents, an infectious waste criterion, and a list of total threshold concentrations of regulated constituents
- Transportation: The State's registered hazardous waste hauler program has no federal counterpart.
 - Permit program: State law contains less exemptions from permit requirement, applies CEQA to permit applications
 - Recycling: State law contains a permit requirement for the recycling process, Resource Recovery Facility Permits, expanded exemptions for non-RCRA hazardous waste⁹, and special requirements for recycling lead-acid storage batteries, mercury, and used oil.
 - Land disposal restrictions/treatment standards: State recognizes federal provisions, establishes restrictions/standards for non-RCRA hazardous waste, contains a lab pack exemption for non-RCRA hazardous waste, contains a cleanup waste exemption for non-RCRA hazardous waste, and does not allow a "no migration petition".
 - Regulations with no federal counterpart: Testing laboratory certification program, standards for chemical toilet additives, selection and ranking criteria for uncontrolled hazardous waste sites, hazardous waste property and border zone requirements

1.6 PROPOSED REGULATIONS

The proposed regulations address all areas of regulation currently within the responsibility of TSCP. These regulations were crafted by modifying a computer tape of the July 7, 1987 version of 40 CFR Parts 260 - 272. Modifications were made for the following reasons:

⁹Non-RCRA hazardous waste is all hazardous waste regulated in California but not regulated under federal law (RCRA). See Sections 25117.9 & 25120.2 HSC

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- To eliminate less stringent federal provisions
- To incorporate more stringent State provisions
- To incorporate broader-in-scope State provisions
- To conform the regulations to the structure, grammar, and usage of the California Code of Regulations

Modifications found in the document include:

- Deleted federal language
- Title 22 CCR language with no federal counterpart transferred into the new regulations
- New language crafted to incorporate existing Title 22 CCR provisions, to join State and federal language, to conform the regulations to the structure, grammar, and usage of the California Code of Regulations, and to create several new provisions

Organization of Regulations

Chapter 10.....	General, definitions, variances
Chapter 11.....	Waste identification and classification
Chapter 12.....	Standards for generators of hazardous waste
Chapter 13.....	Standards for transporters of hazardous waste
Chapter 14.....	Standards for permitted facilities
Chapter 15.....	Standards for interim status facilities
Chapter 16.....	Standards for recycled hazardous waste
Chapter 18.....	Land disposal restrictions/treatment standards
Chapter 20.....	Hazardous waste permit program
Chapter 21.....	Procedures for permit decisions
Chapter 22.....	Enforcement
Chapter 39.....	Hazardous waste property and border zone property
Chapter 40.....	Selection and ranking criteria for cleanups
Chapter 41.....	Prohibited chemical toilet additives
Chapter 42.....	Infectious waste
Chapter 43.....	Standards for extremely hazardous waste
Chapter 44.....	Testing laboratory certification
Chapter 45.....	Permit by rule for transportable treatment units

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Thus, while the numbering, language, and format of the proposed regulations closely resemble their federal counterpart, the content reflects the broader scope and increased stringency of existing State law. The reader is directed to the table of contents of the proposed regulations for a complete listing of sections therein.

In the following portion of this document, each regulation is examined on a chapter by chapter basis to determine if any provisions of that regulation differ in effect from existing Title 22 CCR and 40 CFR requirements. Lastly, those provisions identified as different will be examined for possible adverse impacts on the various environmental media.

2.0 DETAILED ANALYSIS

2.1 CHAPTER 10

Chapter 10 contains general administrative provisions of the hazardous waste control law.

2.1.1 Article 1 of Chapter 10 contains the introductory section to Chapter 10, establishes the purpose, scope, and applicability of the chapter 10 regulations, rules for release and protection of information, and grammatical rules. These provisions are based on the corresponding federal provisions (40 CFR Part 260, Subpart A) and conform to those provisions except for changes to conform these regulations to the format of the CCR. The effect of these sections is identical to the effect of the existing State and federal regulations on which they are based.

2.1.2 Article 2 of Chapter 10 contains definitions of terms used in the regulations and a list of acronyms and abbreviations used by the Department. Definitions are included from existing Title 22 CCR, Division 4, Chapter 30, Chapter 6.5 of Division 20 of the Health and Safety Code, and Title 40, Code of Federal Regulations (40 CFR) sections 260.10, 261.1, 264.141, and 270.2 along with several new definitions. Although some of these definition contain regulatory provisions (i.e. "scrap metal"), those provisions are identical to existing State and/or federal law. The newly created definitions define parameters to be used in those portions of the regulations which create ground water monitoring requirements. These new definitions will be examined for the possibility of adverse environmental impact in Section 3. of this document.

The list of acronyms is merely a dictionary of acronyms and abbreviations used by the Department and contains no regulatory provisions.

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2.1.3 Article 3 of Chapter 10 contains the State's variance authorities. The State's proposed authority to allow use of an alternate testing or analytical method for generating regulatory required data, proposed Section 66260.21, is based on and identical in effect to existing Title 22 CCR Section 66310 (e) through end. This section is identical in effect to the existing regulations.

The Department's proposed rules for gaining Departmental concurrence with a generator's waste classification decision and the Department's proposed rules for application to manage as nonhazardous a waste which would otherwise be classified as hazardous, found in proposed Section 66260.200, are identical in effect to existing Title 22 CCR Section 66305 except that a more complete schedule for Departmental actions has been included. These sections are identical in effect to the existing regulations.

The Department's proposed general variance authority, found in proposed Section 66260.210, is identical to the existing variance authority found in Health and Safety Code Section 25143 and has been included here for clarity. This section is identical in effect to existing State statute.

The federal delisting petition and the federal recycling variances found in 40 CFR part 260 Subpart C have not been included because any of these could lead to less stringent regulation of hazardous wastes than existing state law.

2.2 CHAPTER 11

This chapter sets forth criteria for identifying which materials are waste and which wastes are hazardous wastes and establishes categories of hazardous waste.

2.2.1 Article 1 contains criteria for determining which materials are defined as waste, which wastes are hazardous wastes, exemptions from classification as waste or hazardous waste, special requirements for hazardous waste which is recycled, and rules for contaminated containers. This article is based on 40 CFR Part 261 Subpart A. Sections 66261.2 and 66261.3, definition of waste and hazardous waste respectively, are based on 40 CFR Sections 261.2 and 261.3 respectively. These sections have been modified to remove less stringent provisions of federal law which conflict with provisions of State law. Exemptions in 66261.4 come from Section 25143.3 HSC, from existing Title 22 CCR Sections 66300 and 66824, and 40 CFR Section 261.4. Because the identification of which materials are hazardous wastes is so central to hazardous waste control, a section-by-section analysis follows:

Section 66261.1: This section serves as a roadmap to the

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regulations of Chapter 11, establishes the scope of application of Section 66261.2, and repeats the State's statutory authority to inspect persons potentially managing waste which could potentially be hazardous waste. The scope of application is limited by this section to wastes which are hazardous; this provision repeats the limitations of the Department's statutory authority. The inspection authority is a paraphrasing of the equivalent federal provision (40 CFR Section 261.1 (b)) and repeats the existing statutory authority of Health and Safety Code Sections 25185 and 25187.1. Thus, there are no new regulatory provisions in this section.

Section 66261.2: This section duplicates and expands upon the statutory definition of "waste" found in Health and Safety Code Section 25124. The provisions of the proposed section conform to federal law (40 CFR Section 261.2) except that the recycling exemptions of that federal regulation have been deleted in favor of the exemptions in Health and Safety Code Section 25143.2. This definition of waste identifies all materials identified under both existing federal law and existing State statute as waste, and thus as potential hazardous wastes. Proposed Section 261.2 identifies the same universe of materials as "waste" as does existing law.

Section 66261.3: This Section, based on 40 CFR Section 261.3, identifies those wastes which are hazardous wastes. This section contains the general rules for determining how to apply the more specific scientific standards and lists of Articles 3 and 4 of proposed Chapter 11. This section has been carefully crafted to identify the same universe of wastes as hazardous as does existing State law. Section 66261.3 contains the following provisions:

(a) Declares that wastes which exhibit a characteristic of a hazardous waste or are listed as hazardous wastes are hazardous wastes. Both criteria for classification as a hazardous waste are found in existing State (Title 22 CCR Section 66696) and federal law (40 CFR Section 261.3), thus this provision is identical in effect to existing law.

(a)(2)(B) Declares that wastes listed in appendix X to Chapter 11 are hazardous wastes unless determined not to be. This provision restates the provisions of existing Title 22 CCR, Division 4, Chapter 30, Article 9; thus, this provision is identical in effect to existing law.

(a)(2)(D) & (E) Establish mixture rules for determining when a mixture of any material with a hazardous waste is classified as a hazardous waste. The proposed section recognizes the federal mixture rules for both characteristic and listed hazardous wastes and duplicates their effect. The existing State mixture rule (66300(b)) is duplicated in Section

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66261.3(a)(2)(A) which states that any waste material (unless otherwise exempted) which exhibits a characteristic of a hazardous waste is a hazardous waste. Thus, the proposed mixture rules duplicate the effect of existing State and federal law.

(a)(2)(E)(1.) to (5.) Establish exemptions from classification as hazardous waste for certain materials produced by facilities with federal Clean Water Act permits. These exemptions are conditioned by application of the characteristics of a hazardous waste. Currently these wastes are exempted under provisions of federal law (40 CFR Section 261.3(a)(2)(iii)) identical in effect to the proposed regulations. Under existing State law these wastes are hazardous only if they meet the criteria of a hazardous waste. Thus, the proposed regulations duplicate the effect of existing State and federal law.

(a)(2)(F) Allows the Department to classify wastes as hazardous by the statutory definition of a hazardous wastes which would not otherwise be identified as hazardous wastes. This is merely a restatement of the existing authority of Section 66696(a)(6). Thus, the proposed regulation duplicates the effect of existing State and federal law.

(b), (c), and (d) Identify when a waste becomes a hazardous waste and when it ceases to be a hazardous waste. These provisions mimic the corresponding federal provisions (40 CFR Section 261.3(b), (c), and (d) except that certain exemptions from regulation are not repeated in the proposed regulations. Because State law has been silent on these questions, the Department has relied on the federal provisions to identify when a material becomes a hazardous waste and when it ceases to be a hazardous waste (as the Department is directed in Health and Safety Code Section 25159.5(b)). Thus, the proposed regulations duplicate the effect of existing State and federal law.

Proposed Section 66261.4 contains exemptions from regulation for certain hazardous wastes. All the exemptions found in this section are found in existing State regulations. The bulk of the exemptions found in 40 CFR Section 261.4 are not found in the proposed regulations because they are not recognized in existing State law; their inclusion would lead to less stringent regulation of those materials. Thus, the proposed regulations duplicate the aggregate effect of existing State and federal law.

Proposed Section 66261.6 is based on 40 CFR Section 261.6 but has been changed from the language and effect of that federal regulation. This section directs the regulated community to the

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special regulations for hazardous wastes which are recycled and reiterates two types of exemption from regulation for recycled hazardous wastes. In the first exemption, the user of the regulations is directed toward the exemptions from regulation for recycled hazardous waste found in Health and Safety Code Section 25143.2. The other exemption restates the existing Title 22 CCR (Sections 66189.5 and 66804(a)(2)) exemption for nonhazardous scrap metal. This section does not change the effect of existing State law.

Proposed Section 66261.7 establishes which contaminated containers are hazardous under State law and establishes requirements for their management. Existing State law addressing contaminated containers is sparse. Title 22 CCR Section 66796(b)(7) declares drum sized containers of iron and steel to be a "recyclable hazardous waste type". Other than this provision, existing State law is silent on the topic of emptied containers. Pursuant to Health and Safety Code Section 25159.5(b), the lack of specific State provisions addressing contaminated containers other than the drums addressed above implies that the federal regulations apply as California law. This interpretation is buttressed by the decision of the Third Court of Appeals in the decision "People vs. Martin" (211 Cal.App.3d 699(1989)). The Department accepts this analysis and used this understanding of existing law vis-a-vis contaminated containers as a basis for proposed Section 66261.7. This section differs from existing law in that it's provisions are now explicitly stated rather than inferred from analysis of existing State and federal law. It also differs in that it is more stringent than corresponding federal law. A provision by provision analysis of this section follows:

(a) This subsection declares all contaminated containers to be hazardous waste except as provided in the rest of the section.

(b) This provision is taken from Title 22 CCR Section 66300(g) and is identical in effect to that section.

(c) This subsection states that containers of less than 5 gallons can be disposed of as nonhazardous if they meet specified criteria. This provision applies the standards following this analysis of Section 66261.7 to small containers. Their antecedents are given following this analysis.

(d) Repeats the provisions in (c) for containers contaminated with acutely hazardous waste after they are triple rinsed. This provisions derives from the federal requirement for triple rinsing acute hazardous containers before nonhazardous disposal (40 CFR Section 261.7(b)(3)).

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(e) Repeats the compressed gas cylinder provisions of 40 CFR Section 261.7(b)(1).

(f) States that containers made of absorptive materials are not eligible for the exemption from regulation when rinsed. This provision is new in this regulation package.

(g) States that contaminated containers larger than 5 gallons shall be regulated as a hazardous waste. This provision is new in this regulation package.

(i) Allows a person to apply to the Department for permission to manage contaminated containers as nonhazardous waste. Applies the general waste classification process of Title 22 CCR Section 66305 to the specific instance of contaminated containers.

Provisions (c) and (d) apply specific criteria to:

Require that containers be emptied until less than one inch or less than 3% of the original contents remain. This provision applies to non-acutely hazardous waste containers and is derived from 40 CFR Section 261.7(b)(1)(ii).

Requires, in addition, that as much material be removed from containers of less than 5 gallons capacity as can be removed in the normal use of the material. This is a new provision.

Allows recycling for scrap value for all recyclable containers. This provision derives from Title 22 CCR Section 66796(b)(7).

Ensure that containers contaminated with an acutely hazardous waste will be triple rinsed before nonhazardous disposal. This provision is taken from 40 CFR Section 261.7.

Require that containers be rendered unusable as containers before nonhazardous disposal. This provision is new to this regulation package.

Allow containers to be returned to a manufacturer of the original contents for refilling without being regulated. This provision is a specific application of the general exemption from regulation found in Health and Safety Code Section 25143.2 (d)(6).

2.2.2 Article 2 of Chapter 11 is based on 40 CFR Part 261

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Subpart B. It establishes criteria for identifying the characteristics of a hazardous waste. A characteristic of a hazardous waste is a property which, when exhibited by a waste, identifies it as meeting the definition of a hazardous waste as set forth in Section 25117 HSC. Section 66261.10 conforms to federal law (40 CFR Section 261.10) and places the Department's procedure for defining characteristics into regulation. While this is new law for the CCR, it is the procedure used by the Department to identify the existing criteria of a hazardous waste as found in Article 11 of Title 22 CCR and by the EPA to identify the characteristics of a hazardous waste as found in 40 CFR Part 261 Subpart C. This section sets forth no regulatory criteria for management of hazardous waste and does not change the existing identification procedure for identifying which wastes are hazardous wastes. Thus, this proposed regulation does not change the aggregate effect of existing State and federal law.

Article 3 of Chapter 11 sets forth the characteristics of a hazardous waste. These characteristics are physical properties which identify a waste as meeting the definition of a hazardous waste found in Section 25117 HSC. This article is based on 40 CFR Part 261 Subpart C. Because these characteristics are central to identifying which wastes must be managed as hazardous wastes, a separate analysis of each section follows:

Section 66261.20 sets general rules for applying the characteristics, assigns EPA Hazardous Waste Code Numbers to wastes hazardous because they exhibit a RCRA characteristic, and directs the reader to "Test Methods for Evaluating Solid Waste, SW-846" for proper sampling methods. This section is based on 40 CFR Section 261.20 and duplicates the effect of that section except for a clarifying provision addressing sampling for the state-only variance, special waste classification, and waste classification determination. This section duplicates the effect of existing law.

Section 66261.21 establishes the characteristic of ignitability which identifies certain flammable materials as hazardous wastes. This section is identical to 40 CFR Section 261.21 except for changes to conform it to the structure and usage of the CCR and duplicates exactly the effect of the existing State criterion of ignitability found in Title 22 CCR Section 66702. Thus, this document duplicates the effect of current law.

Section 66261.22 establishes the characteristic of corrosivity which identifies wastes which are hazardous wastes because they are acids or alkalies or form acids or alkalies when exposed to water. This section is based on 40 CFR Section 261.22. It differs from that federal section by the

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incorporation of broader in scope provisions of existing State law which identify wastes as hazardous wastes which are solids or nonaqueous liquids because they form corrosive liquids when combined with water; these provisions were incorporated from existing Title 22 CCR Section 66708. This section duplicates the effect of existing State law.

Section 66261.23 establishes the characteristic of reactivity which identifies wastes which are hazardous wastes because they can explode, react rapidly with strong release of heat, or rapidly release toxic gases upon ignition, shock, or combination with water. This section is identical to 40 CFR Section 261.23 except for changes to conform it to the structure and usage of the CCR. It duplicates exactly the effect of the existing State criterion of reactivity found in Title 22 CCR Section 66705.

Section 66261.24 establishes the criterion of toxicity which identifies wastes which are hazardous wastes because they are toxic or contain certain toxic constituents. This section incorporates provisions of 40 CFR Section 261.24, but differs greatly from the corresponding federal characteristic (EP toxicity). This section incorporates all facets of the State's existing toxicity criterion which is both broader in scope and more stringent than the corresponding federal characteristic. In addition, this section preserves the federal list of EP toxic constituents but applies a more stringent leaching test (the California Waste Extraction Test (WET)) to the waste than the federal regulations (EP toxicity test). Thus, the Department has crafted this section to preserve the existing stringency and scope of both toxicity criteria found in existing State and federal law.

2.2.4 Article 4 of Chapter 11 contains lists of materials which are classified as hazardous wastes. These lists are taken directly from the lists of 40 CFR Part 261 Subpart D. The lists have been modified only to conform to the format and usage of the CCR and to eliminate references to recycling exemptions not recognized by State law (Section 25143.2 HSC). These lists are currently adopted by reference in Title 22 CCR Section 66696(a)(7). Thus, the proposed regulations cause no change in the effect of existing law.

2.2.5 Article 5 of Chapter 11 sets forth categories of hazardous waste and sets special management standards for some of these categories. An explanation of the effect and antecedents of each category follows:

Sections 66261.100 and 66261.101 establish standards for identifying which hazardous wastes are RCRA hazardous wastes as defined in Section 25120.2 HSC or non-RCRA hazardous wastes

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as defined in Section 25117.9 HSC. Non-RCRA hazardous wastes are eligible for several provisions of State law which are less stringent than corresponding federal law such as the State's administrative variance authority (Section 25143 HSC) or exemption from land disposal restrictions for cleanup wastes (Section 25179.7 HSC) and the less stringent recycling exemptions for non-RCRA hazardous waste found in Section 25143.2(d) HSC. These sections establish no regulatory requirements; they merely determine the applicability of other regulatory requirements. Thus, these sections will not change the effect of existing law.

Sections 66261.107, 66261.110, and 66261.113 establish the category and requirements for extremely hazardous waste. These sections have been incorporated from Title 22 CCR Sections 66717, 66720, and 66723; the effect of these sections has not been changed.

Sections 66261.120, 66261.122, 66261.124, and 66261.126 establish the category and requirements for special waste. These sections have been incorporated from Title 22 CCR Sections 66740, 66742, 66744, and 66746; the effect of these sections has not been changed.

2.2.6 The appendices to Chapter 11 consist of sampling and testing procedures, lists of hazardous constituents, a list of presumptive hazardous wastes, and a list of California waste codes. A brief discussion of the effects and antecedents of the appendices follows:

Appendix I lists representative sampling methods. This appendix is based on Appendix I to 40 CFR Part 261 and conforms to that appendix with the addition of State language currently found in Title 22 CCR Section 66694. Addition of that State language duplicates the effect of existing State and federal law.

Appendix II sets forth the procedure for carrying out the California Waste Extraction Test (WET). This test is replacing the less stringent EP Toxicity test found in corresponding federal law (Appendix II to 40 CFR Part 261). The WET has been judged to be equivalent to or more stringent than the EP Toxicity test by the EPA and will maintain the stringency of effect of current State law.

Appendix III sets forth chemical analysis testing methods for hazardous waste. It is based on Appendix III to 40 CFR Part 261 which is repeated almost verbatim. Table 4 (taken from Title 22 CCR Section 66700(b)(2) through (b)(5)) has been added to incorporate testing methods for constituents not

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federally regulated. This appendix duplicates the effect of those existing laws.

Appendix IV, V, and VI are reserved for future rulemakings and contain no regulations.

Appendix VII contains a listing of hazardous constituents for which the materials found in the lists of 40 CFR Part 261 Subpart D were listed. This list has been taken almost verbatim from Appendix VII to 40 CFR Part 261; the effect of this appendix is identical to that of the corresponding federal appendix.

Appendix VIII is a list of hazardous constituents derived from Appendix VIII to 40 CFR Part 261. This appendix was transferred with only format and usage changes; thus, the effect of this provisions duplicates existing law.

Appendix IX is reserved for a future rulemaking and contains no regulations.

Appendix X contains a list of presumptive hazardous wastes. Wastes on this list or containing materials on this list are hazardous wastes unless the generator determines, by testing or application of his knowledge of the waste, that the waste is nonhazardous. This list is identical to that in Title 22 CCR, Division 4, Chapter 30, Article 9 except that the introduction has been modified to clarify the presumptive nature of this listing. The changes make no change in the effect of this regulation.

Appendix XI contains an organic lead test method. This method was added to enable testing for organic as well as inorganic lead in wastes to determine if they are hazardous for their lead content. This method is new to the CCR although it has been used for several years by the Department's analytical laboratory. Its addition allows identification of wastes containing organic lead as hazardous which might be identified as nonhazardous without this method. This test detects lead bound up into organic compounds that would not be detected by other analytical methods. Addition of this method to State law will probably not change hazardous waste management practices because this test is already used informally by laboratories testing for organic lead. If addition to the regulations leads new people to use this method, it will increase the number of lead containing wastes identified as hazardous and ensure that those wastes will be managed in a manner which safeguards human health and safety and the environment. The additional degree of environmental protection would arise because the new method would ensure

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that organic lead from disposed wastes would not leach or volatilize from nonhazardous waste landfills. Thus, inclusion of this testing method which is new to California regulation will have a positive effect on the environment if any effect.

Appendix XII contains a list of California Hazardous Waste Codes used to complete the hazardous waste manifest and to complete reports required by the regulations. These waste codes currently appear on the reverse side of the manifest document. Addition of these codes to the regulations does not change the effect of existing State and federal law.

2.3 CHAPTER 12

This chapter sets forth requirements for generators of hazardous waste.

2.3.1 Article 1 sets forth the applicability of this chapter, the requirement that a generator of a waste determine if that waste is a hazardous waste, and the requirement that a generator of hazardous waste obtain an Identification Number. This article incorporates language and provisions from 40 CFR Part 262 Subpart A and from Title 22 CCR Sections 66470, 66471, and 66472. The federal regulations referred to above served as the basis for these regulations; they were then modified by adding more stringent or broader in scope State provisions and by making generic and numbering changes. Proposed Article 1 does not differ in effect from existing State and federal law.

2.3.2 Article 2 of Chapter 12 sets forth the requirements for generator use of the hazardous waste manifest. It is based on 40 CFR Part 262 Subpart B and Title 22 CCR Sections 66480 and 66484. The provisions of this article exactly duplicate the effect of existing manifest requirements.

2.3.3 Article 3 of Chapter 12 sets forth pre-transportation requirements for shipment of hazardous waste including packaging, labeling, marking, placarding, and accumulation time. This article is based on 40 CFR Part 262 Subpart C, Title 22 CCR Section 66504, and Health and Safety Code Section 25123.3 (accumulation time limitations for non-permitted storage). All sections in this article are identical in effect to those existing laws cited above except for proposed Section 66262.34. In Section 66262.34(f) labeling requirements not found in existing law have been added which require labeling that unambiguously identifies the starting date for the 90 day accumulation period. This period may or may not correspond to the accumulation start date depending on the status of the generator (Health and Safety Code Section 25123.3(b)) and if the accumulation is covered by the "satellite accumulation"

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provisions (Health and Safety Code Section 25123.3(d)).

2.3.4 Article 4 of Chapter 12 establishes recordkeeping and reporting requirements for generators of hazardous waste. This article is based on 40 CFR Part 262 Subpart D and Title 22 CCR Sections 66492, 66493, and 66484. All sections of this article duplicate the effect of existing federal and State law except for proposed Section 66262.41(a)(5) which has a new provision establishing a new requirement for including a proper United States Department of Transportation (DOT) hazard code for non-RCRA hazardous waste in the generator report. This provision parallels the existing corresponding requirement for RCRA hazardous waste. This additional requirement for non-RCRA hazardous waste will improve the recordkeeping and tracking ability of the Department and will have a positive effect, if any, on the environment.

2.3.5 Article 5 of chapter 12 establishes rules governing the export of hazardous waste from the State to a destination outside the country. This article is based on 40 CFR Part 262 Subpart E, Title 22 CCR Section 66515, and Health and Safety Code Section 25150.2. This article duplicates the effect of existing State and federal law except that the export notification rules are being extended to cover non-RCRA hazardous waste. Extension of these rules to cover non-RCRA hazardous waste ensures that these wastes will be exported with the additional protections of the hazardous waste control law and will have a positive environmental effect, if any effect at all.

2.3.6 Article 6 of chapter 12 establishes requirements for the importation of hazardous waste into the State from outside the country. This article is based on 40 CFR Part 262 Subpart F and Title 22 CCR Section 66515. This article duplicates the effect of existing State and federal law.

2.3.7 Article 7 of Chapter 12 establishes special requirements for farmers disposing of waste pesticides. It is based on 40 CFR Part 262 Subpart G and Title 22 CCR Section 67160 and duplicates the effect of those existing regulations.

2.3.8 Appendix I to Chapter 12 establishes detailed instructions for completing the uniform hazardous waste manifest. It is based on Appendix I to 40 CFR Part 262 and the instructions on the back of the California hazardous waste manifest and duplicates the effect of those existing provisions.

2.4 CHAPTER 13

This chapter establishes requirements for transporters of hazardous waste.

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2.4.1 Article 1 of Chapter 13 establishes general requirements for transporters of hazardous waste operating in California. This article is based on 40 CFR Part 263 and Title 22 CCR Sections 66530, 66428, 66432, 66434, 66448, 66450, 66465, 66531, and 66532 and Health and Safety Code Section 25123.3. This article duplicates the effect of those existing laws.

2.4.2 Article 2 of Chapter 13 establishes requirements for compliance with the manifest system and recordkeeping and general operating standards for transporters of hazardous waste. This article is based on 40 CFR Part 263 Subpart B and Title 22 CCR Sections 66541, 66543, 66544, and 66545 and duplicates the effect of those existing laws.

2.4.3 Article 3 of Chapter 13 establishes requirements for immediate actions to be taken by a transporter of hazardous waste in the case of an accidental discharge of hazardous waste and requirements for the cleanup of accidental discharges of hazardous waste by a hazardous waste transporter. This article is based on 40 CFR Part 263 Subpart C, Title 22 CCR Sections 66563 and 66564 and Health and Safety Code Section 25180 and duplicates the effect of those existing laws.

2.5 CHAPTER 14

This chapter sets forth operational standards for owners and operators of hazardous waste treatment, storage, and disposal facilities which have been issued a hazardous waste facility permit. The standards in Chapter 14 are found in existing Title 22 regulations and are virtually identical to existing State and federal law.

2.5.1 Article 1 of Chapter 14 sets forth general information pertaining to standards for owners and operators of permitted hazardous waste management facilities including purpose, scope and applicability of the chapter, the relationship between the Chapter 14 permitted facility standards and the Chapter 15 interim status facility standards, and addresses the Department's ability to take enforcement actions against permitted facilities. This article is based on 40 CFR Part 264 Subpart A, Title 22 CCR Sections 66300, and 66532 and Health and Safety Code Sections 25159.15 and 25123.3. This article duplicates the effect those existing laws except for the addition of Section 66264.2. This section establishes a requirement that any previously permitted facilities request a permit modification to comply with any new provisions in the authorization regulation package with which they must comply. The new section also states that they must comply with these new requirements according to a schedule of compliance established by

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the Department in the approved permit modification. Addition of the requirements for obtaining a permit modification ensures that changes to facility operations or physical plant will be scrutinized by Department permitting staff thus ensuring that those modifications to operating procedures or physical plant will not cause environmental problems and will be implemented as intended by the regulations. The addition of the schedule of compliance applies only to changes, deriving from new regulations, which must be made to the physical plant of the facility and cannot be immediately complied with. This regulation acknowledges that physical modifications require planning and construction. The Department feels that, in the absence of a schedule of compliance, poorly designed and constructed modifications would be rapidly put into place to avoid long periods of noncompliance after promulgation of a new standard. Thus, addition of the Schedule of compliance for new standards requiring physical modifications at facilities will not adversely affect the environment.

2.5.2 Article 2 of Chapter 14 sets forth general facility standards for permitted hazardous waste facilities including use of identification numbers, required notices, general waste analysis requirements, site security requirements, personnel training requirements, special requirements for ignitable, reactive, or incompatible hazardous wastes, and location and design requirements. This article is based on 40 CFR Part 264 Subpart B and Title 22 CCR Sections 66391, 67102, 67103, 67105, 67108, and 67120. This article duplicates the effect of those existing regulations.

2.5.3 Article 3 of Chapter 14 sets forth requirements for owners and operators of permitted facilities pertaining to procedures and equipment intended to prevent and prepare the facility for emergencies. This article is based on 40 CFR Part 264 Subpart C and Title 22 CCR Sections 66300, 67120, 67121, 67122, 67123, 67124, and 67126. This article duplicates the effect of those existing regulations.

2.5.4 Article 4 of Chapter 14 sets forth requirements for owners and operators of permitted facilities to establish contingency plans and emergency procedures for the facility operation. This article is based on 40 CFR Part 264 Subpart D and Title 22 CCR Sections 67140, 67141, 67142, 67143, 67144, and 67145 and duplicates the effect of those existing regulations.

2.5.5 Article 5 of Chapter 14 sets forth requirements for use of the manifest system, recordkeeping, and reporting by permitted facilities. It is based on 40 CFR Part 264 Subpart E and Title 22 CCR Sections 67160, 67161, 67162, 67163, 67164, 67165, 67166, and 67167 and duplicates the effect of those regulations.

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2.5.6 Article 6 of Chapter 14 sets forth water quality monitoring and corrective action requirements for permitted facilities. This article is based on Title 40, Code of Regulations (40 CFR), Part 264 Subpart F and incorporate the more stringent provisions of state law. This article combines the requirements of existing federal and state regulations except as described in the following analysis.

Currently, the Department applies Title 22, Division 4, Article 22 CCR to determine water quality monitoring and corrective action requirements for permitted facilities. Where the Title 22 standards are incomplete, the Department relies on 40 CFR Part 264 Subpart F under the authority of Health and Safety Code section 25159.5. In addition, existing State law (Health and Safety Code sections 25204.5) requires the Department to incorporate Waste Discharge Requirements (WDR's) issued by the State or Regional Water Quality Control Boards into a permit to the extent that those WDR's are not less stringent than requirements derived from the Department's regulations.

Subpart F of 40 CFR Part 264 establishes the ground water monitoring and response programs required for permitted hazardous waste facilities. In addition to those federal requirements, existing California law requires the owner or operator of a hazardous waste facility to monitor and respond to releases to surface water and soil-pore liquid in the unsaturated zone. The unsaturated zone, as defined in section 66260.10 of chapter 10, is the zone between the land surface and the water table. Soil-pore liquid includes any liquid found in the pore spaces of soil in the unsaturated zone. A considerable amount of new language has been added to section 66264.97 in order to clarify the requirements by specifying details not currently in state or federal law. This new language describes the surface water and unsaturated zone monitoring systems. Where appropriate, references to releases "to the uppermost aquifer" or "to ground water" have been changed to include any release "from a regulated unit". (A regulated unit, as defined under section 66264.90 of this article, is any landfill, surface impoundment, waste pile, or land treatment unit that received hazardous waste after July 26, 1982 or that is required pursuant to Section 66264.90(a) to comply with the provisions of Article 6.) Where appropriate, references to "wells" or "upgradient wells" have been changed to include all monitoring and/or background monitoring points.

The proposed surface water and soil-pore liquid monitoring requirements state that monitoring points must be established that will enable the earliest possible detection of a release from a regulated unit, provide the data needed to evaluate changes in water quality due to a release, and/or provide the data necessary to evaluate the effectiveness of corrective action.

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Existing federal regulations require the owner or operator to select monitoring parameters that will provide a reliable indication of the presence of hazardous constituents in ground water. Criteria are specified for the selection of monitoring parameters, but there is no method for verifying that the parameters that are selected continue to be appropriate for the facility. In these proposed regulations the process for selecting monitoring parameters for a regulated unit has been redefined. The term "monitoring parameter" is used as a consolidated term for the physical parameters, waste constituents, reaction products and hazardous constituents that will provide a reliable indication of a release from the regulated unit. The goal is to allow the Department and the regulated community the freedom to select parameters that will provide a high degree of certainty that the data needs of the monitoring program will be met.

Under the proposed regulations, the first step is to identify a list of constituents of concern for each regulated unit. The list will include the hazardous constituents, waste constituents and reaction products that are reasonably expected to be in or derived from wastes placed in a regulated unit. This list will be specified in the facility permit as part of the water quality protection standard. Background values will be established for each constituent of concern. At a minimum, the determination of background values will be based on data collected during quarterly sampling at background monitoring points for a period of one year.

Next, the owner or operator will propose an appropriate list of monitoring parameters. These parameters will be selected based upon an expected or demonstrated correlation with the constituents of concern and upon the data needs of the monitoring program. The owner or operator must conduct sampling and analysis for all monitoring parameters at a frequency specified in the facility permit.

Finally, the owner or operator must periodically monitor for the entire list of constituents of concern and determine if the chosen list of monitoring parameters continues to be appropriate for site conditions. The frequency of testing for constituents of concern will vary for each regulated unit but will never be less frequent than once every five years. The frequency will be based upon conditions at the site, including unit age, the variety of wastes in the unit, the rate of ground water movement, and the data needs of the monitoring program.

Existing Subpart F required the owner or operator to monitor for and respond to releases of "hazardous constituents" from regulated units and SWMUs. In these proposed regulations this requirement has been expanded to require corrective action for any detected

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release from a regulated unit, whether or not the constituents are "hazardous constituents". Although existing Subpart F uses the terms "parameter" and "constituent" almost interchangeably, in the proposed regulations their use has been standardized so that a parameter always refers to a monitoring parameter, and a "constituent" is used to refer to a constituent of concern. Requirements which are currently based on the detection of "hazardous constituents" or on evidence of "contamination" will be based on the standard "statistically significant evidence of a release". The permit will contain detailed specifications for the statistical procedures to be used to determine if there is statistically significant evidence of a release for each monitoring parameter and for each constituent of concern.

Under current Subpart F the structure of the monitoring programs (detection, compliance and corrective action) is closely tied to the use of alternate concentration limits (ACLs) for hazardous constituents. When an owner or operator discovers statistically significant evidence of contamination, the owner or operator must institute a compliance monitoring program. The first step in compliance monitoring is the establishment of the ground water protection standard which can include ACLs that are above background values for hazardous constituents. Corrective action is not required unless the ground water protection standard is exceeded.

The Department's policy regarding the management of hazardous waste units is the total, permanent containment or treatment of all hazardous waste constituents. Therefore, for the purposes of detecting and evaluating a release from a regulated unit, the proposed regulations set concentration limits equal to background values. For a corrective action program, concentration limits will be established equal to background values wherever feasible. Whenever it is not feasible to achieve a background concentration for a constituent in a corrective action program, cleanup concentrations will be established based upon risk assessment, risk management, and best available technology.

In the proposed regulations the Department has established a procedure for establishing concentration limits that are greater than background values for a corrective action program. The procedure includes the requirements for establishing an ACL under existing Subpart F and provides further limitations which the Department feels are necessary to protect human health and the environment. The details of the procedure are described in the analysis of section 66264.94. In order to emphasize the difference between the application of these concentration limits and Subpart F's ACLs, they have been designated "concentration limits greater than background".

The elimination of ACLs established under existing Subpart F has

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had the following significant impacts on the structure of the monitoring programs in these proposed regulations:

- 1) Under 40 CFR section 264.99, a compliance monitoring program is used to establish and evaluate compliance with the ground water protection standard. If the ground water protection standard for a facility contains alternate concentration limits, the owner or operator is not required to establish a corrective action program for that facility until the alternate concentration limits are exceeded.

Under the proposed regulations, the compliance monitoring program has been replaced with the evaluation monitoring program which is used to characterize the nature and extent of the release from the regulated unit and to prepare for a corrective action program. During evaluation monitoring, sampling and analysis is used to evaluate changes in water quality that have occurred as a result of the release from the unit and to gather data needed to plan appropriate remedial actions.

The program structure under the proposed regulations is as follows:

Detection monitoring is required for the purpose of detecting a release from a regulated unit.

Evaluation monitoring is required for the purpose of characterizing the nature and extent of contamination due to a release from a regulated unit and to gather additional data as necessary to design an effective corrective action program.

The corrective action program must remove or treat in place any constituents released to the environment from a regulated unit and must include monitoring to determine the success of the corrective action.

- 2) Under 40 CFR, the ground water protection standard is only established in the facility permit for compliance monitoring and corrective action programs. Under the proposed regulations, the water quality protection standard is also established during the detection monitoring program. If the water quality protection standard has been exceeded during a detection monitoring program, the owner or operator must institute an evaluation monitoring program. During evaluation monitoring the standard is used to help evaluate the nature and extent of the release. During a corrective action program the standard is used to determine the success of the corrective action measures. Under current Subpart F, a

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regulated unit is expected to switch back and forth between compliance monitoring and corrective action as the concentrations of constituents in ground water fluctuates near the concentration limits established in the ground water protection standard. Under the proposed regulations, an owner or operator of a regulated unit is required to remain in a corrective action program until the water quality protection standard has not been exceeded for one year and the Department approves a permit modification to establish a detection monitoring program for that regulated unit (See the additional explanation below).

- 3) Existing Subpart F requires an owner or operator to perform either compliance monitoring or corrective action throughout the compliance period for a regulated unit. This requirement means that after a successful corrective action program an owner or operator is required to perform yearly sampling and analyses for constituents listed in Appendix IX of Chapter 14 throughout the compliance period.

Under the proposed regulations, after a corrective action program has been successfully completed, an owner or operator must institute a detection monitoring program for the purpose of detecting subsequent releases from the regulated unit. In this way the requirements in sections 66264.98 and 66264.99 for responding to statistically significant evidence of a release from a regulated unit are applied to each new release from the regulated unit. The Department has retained the requirement that yearly Appendix IX sampling and analyses must be performed during the compliance period. This requirement provides an important safeguard for the detection of any less mobile constituents which may not be detected during a corrective action program.

Existing Subpart F does not clearly differentiate between all of the responsibilities of the Department and the responsibilities of the owner or operator. Language has also been added throughout Article 6 to clarify the roles and responsibilities of the Department and the owner or operator. Specifically, the owner or operator is responsible for collecting and presenting to the Department all information necessary for designing an appropriate monitoring and/or corrective action program for each regulated unit at the facility. This includes all hydrogeologic data needed to design the required monitoring systems, chemical and geochemical data needed to select appropriate constituents of concern and monitoring parameters, and all background chemical data needed to select appropriate statistical methods and to establish concentration limits. The owner or operator must design and present to the Department detailed descriptions of all elements of the proposed water quality monitoring systems and programs. This

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includes proposed monitoring point and background monitoring point locations and construction specifications, proposed lists of constituents of concern and monitoring parameters, proposed sampling frequencies, proposed sampling and analytical methods, proposed statistical methods and proposed concentration limits for all constituents of concern and for all monitoring parameters. It is the responsibility of the Department to review the information presented and the proposed monitoring programs and reject, modify or approve each element. Detailed specifications of each element of the water quality monitoring and response programs are specified by the Department in the facility permit.

Because of the apparent differences between 40 CFR Part 264 Subpart F and Chapter 14 Article 6, a section-by-section analysis follows:

Section 66264.90 : This section is based on 40 CFR section 264.90. It establishes the applicability of the regulations contained in this article. This section substantively conforms to the corresponding federal regulation except as follows :

66264.90(a) : Existing 40 CFR only requires units that have received waste since July 26, 1982 to comply with the requirements for ground water monitoring and response programs. (Note units that stopped receiving hazardous waste by that date are solid waste management units and must comply with the corrective action and financial responsibility requirements for such units.) Language has been added to the proposed regulations to allow the Department to require the owner or operator of a unit that stopped receiving hazardous waste by July 26, 1982 to comply with the requirements of Article 6 if the Department determines that waste or waste constituents may pose a threat to human health or the environment.

The exemptions to ground water monitoring provided under 40 CFR 264.90(b) have been deleted.

Section 66264.90(e) : This subsection has been added to provide the owner or operator a specific schedule (180 days) for submitting program modifications necessary to comply with the provisions of this article. Since most of the provisions of these proposed regulations are simply reflections of existing state and federal requirements, it is anticipated that the majority of permitted facilities will require only minor modifications to their existing monitoring programs. Such facilities will be required to re-examine the statistical procedures in use for active monitoring programs and propose appropriate changes. All facilities will be required to clearly specify a list of constituents of concern for each regulated unit and establish background concentrations for all

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constituents in the water quality sampling and analysis plan. The list of monitoring parameters and the sampling methods and frequency for each regulated unit will be re-evaluated. These program modifications will result in more efficient use of monitoring resources and will provide a higher degree of protection to human health and the environment.

If compliance with the provisions of this article will require the installation of additional wells or other monitoring devices, the owner or operator shall implement the approved plans according to a schedule of compliance established by the Department.

Section 66264.91 : This section is based on 40 CFR section 264.91. It establishes the conditions under which the detection, evaluation, and corrective action programs will be required for a regulated unit. This section conforms to the corresponding federal regulation except as follows :

Section 66264.91(a) : This subsection, although based loosely on the language in 40 CFR section 264.91(a), has been completely rewritten to reflect California's more stringent approach to water quality monitoring. Specifically, for each regulated unit, the owner or operator will be required to:

- (1) institute a detection monitoring program unless the owner or operator is conducting either evaluation monitoring or corrective action under this article;
- (2) institute an evaluation monitoring program whenever the results of the detection monitoring program indicate that there is statistically significant evidence of a release from the regulated unit;
- (3) institute an evaluation monitoring program whenever there is significant physical evidence of a release from the regulated unit; and
- (4) institute a corrective action program upon approval by the Department of the application for a permit modification that is required in response to any release from the regulated unit.

Section 66264.91(c) : This subsection requires an owner or operator, who is conducting an evaluation monitoring or corrective action program for a regulated unit, to continue to monitor for and respond to additional releases from that unit. It has been added in order to provide the owner or operator and the permit writer the flexibility to design an integrated monitoring and response program, best suited to the

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data needs of the regulated unit. (Note: Existing state and federal regulations do not address the use of integrated monitoring and response programs at a facility.) This requirement will be most important when the size of a release from a regulated unit is small relative to the size of the unit.

Section 66264.92 : This section is based on 40 CFR section 264.92. It specifies the elements of the water quality protection standard which is used in the determination of statistically significant evidence of a release and in the determination of successful completion of a corrective action program. This section conforms to the corresponding federal regulation except as follows :

Section 66264.92(a): This section has been completely rewritten for the sake of clarity. As described earlier in this review, the references to "ground water", "the uppermost aquifer", and "the point of compliance" have been modified because, under existing California regulations the standard applies at all monitoring points in ground water, surface water and the unsaturated zone.

The phrase "the compliance period" has been modified to read "the active life of the regulated unit, the post-closure care period under section 66264.117 of Article 7 of this chapter, and during any compliance period." This change was necessary to reflect the structural changes made to the water quality monitoring programs (See the article overview for a more detailed discussion of this subject) and to retain the stringency of existing California regulations. Under existing Subpart F, the ground water protection standard applies only during the compliance period which begins after hazardous constituents have been detected in ground water. The proposed regulation is more stringent than existing law because it does not limit the application of the water quality protection standard to the compliance period.

Section 66264.92(b) : This subsection has been added to allow the Department to establish separate water quality protection standards for each program that is active at a regulated unit. For example, if an owner or operator is conducting a detection monitoring program in conjunction with a corrective action program and the Department has established concentration limits greater than background for those monitoring points that are used to evaluate the effectiveness of corrective action, a different water quality protection standard with concentration limits equal to background values must also be established for those monitoring points that are used to detect additional releases from the unit.

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Section 66264.93 : This section is based on 40 CFR section 264.93. It establishes the criteria for specifying the constituents of concern for each regulated unit. This section conforms to the corresponding federal regulation except as follows :

The definition of a hazardous constituent has been modified and moved to section 66260.10.

Existing Aaa allows the exclusion of hazardous constituents from the ground water protection standard if certain criteria are satisfied. Under the proposed regulations the Department will not exempt a waste constituent or reaction product from the list of constituents of concern specified in the facility permit. The Department believes that periodic monitoring for all constituents of concern is necessary in order to verify the assumptions made when selecting appropriate monitoring parameters (See the article overview for this article for a more detailed discussion of this topic). Provisions are made in proposed section 66264.94 for establishing concentration limits above background for those constituents of concern that do not pose a threat to human health or the environment, but they will not be completely excluded from the water quality protection standard.

Section 66264.94 : This section is based on 40 CFR section 264.94. It establishes the criteria for establishing concentration limits for monitoring parameters. This section conforms to the corresponding federal regulation except as follows :

As discussed earlier, the use of "alternate concentration limits" (ACLs) has been significantly modified. Under RCRA a release from a regulated unit which does not cause an ACL to be exceeded does not require corrective action. An owner or operator can remain in compliance monitoring while a release from a regulated unit continues uncorrected. The proposed regulations require the concentration limits for all monitoring parameters to be equal to the background value for that parameter (in the medium of interest) during detection and evaluation monitoring. Concentration limits above background may only be established for a corrective action program and only if all of the requirements of this subsection are satisfied. The owner or operator must demonstrate (through an engineering feasibility study) that such a limit is justified. The owner or operator must propose a limit which is protective of human health and the environment, and must submit more necessary information to support the higher

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limit than is required by original Subpart F.

Section 66264.94(a) : Based loosely on existing section 264.94(a), this subsection has been completely rewritten to reflect California's approach to water quality monitoring as described earlier in the overview for this article.

Under existing Subpart F, the owner or operator of a hazardous waste management facility is allowed to use statistical procedures for updating background values during a detection monitoring program. During an evaluation monitoring or a corrective action program a single value is established as the concentration limit in the ground water protection standard. This means that, when a facility is located in an area where there is significant variation in the quality of background water, the concentration limit will have to be large enough to encompass the entire range of values, and may not be an accurate reflection of the actual quality of background water.

Concentration limits are intended to reflect water quality conditions unaffected by discharges of wastes (background concentrations) at each regulated unit in order to ensure that the quality of the environment is not degraded by discharges of waste to land. The Department recognizes that regulated units may be regulated over long periods of time and that background conditions may change for reasons unrelated to waste management. To ensure that more accurate data comparisons are made, concentration limits must be established to reflect seasonal fluctuations or other factors of natural variation (factors unrelated to waste discharges at the unit) in water quality. This is accomplished by continually updating the background water quality data for a constituent and establishing a limit based on the updated data.

Under the proposed regulations, for each constituent of concern, the owner or operator must propose either a concentration limit, a procedure for updating the concentration limit based on current background water quality data, or a concentration limit above background for a corrective action program.

By requiring that natural fluctuations in background concentrations be accounted for, the proposed regulations assure a more accurate assessment of the impact a facility has on the environment. Actual releases will be less likely to be missed, and natural variation in background values will be less likely to trigger unnecessary corrective action.

Section 66264.94(c) : This section has been added to specify

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that concentration limits greater than background may only be established for a corrective action program and that they may not be established at all unless it is infeasible to achieve background. Data requirements for making such a finding are established.

Sections 66264.94(d)(1)(A) through (I) and (d)(2)(A) through (J): These criteria are based on the criteria set forth under 40 CFR Subpart F section 264.94(b) regarding the establishment of alternate concentration limits for a compliance monitoring program. Under these proposed regulations, these criteria are used to establish concentration limits greater than background for a corrective action program rather than for a compliance monitoring program.

Section 66264.94(d)(1)(A) : The requirement in existing Subpart F to consider a constituent's "potential for migration" has been deleted because predictions of the migration potential for waste constituents have not proven reliable. Errors in the assumptions made when modeling contaminant transport often overwhelm the physical processes described. The Department believes that "the physical and chemical characteristics" of waste include the factors governing the potential for migration, but the Department does not wish to imply that concentration limits greater than background will be established based upon predictions of low mobility.

Section 66264.94(d)(2) : The federal requirement to consider potential adverse impacts on "hydraulically connected" surface water has been expanded because existing California regulation is protective of all surface water, whether or not it is "hydraulically connected" to the uppermost aquifer.

Section 66264.94(d)(2)(D) : The federal requirement to consider patterns of rainfall in the region has been modified to include all forms of precipitation (including rain, hail and snow).

Section 66264.94(e) : This subsection has been added to introduce three limitations on the upper value that can be established as a concentration limit greater than background for a constituent of concern.

Section 66264.94(e)(1) : The requirement from existing Subpart F section 264.94(a)(2) has been added to the requirements for establishing concentration limits greater than background. Table 1 has been deleted and replaced with a reference to the maximum contaminant levels established

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pursuant to the Safe Drinking Water Act. This was necessary so that additions and updates to the list of MCLs would be incorporated automatically into these regulations. This subsection also establishes the requirement that concentration limits greater than background may not exceed other health or environmentally based standards promulgated by the USEPA or the Department.

Section 66264.94(e)(2) : This section establishes the requirement that concentration limits greater than background may not exceed the lowest concentration that is achievable. This is necessary because, when it is not feasible to achieve the background concentration for a constituent, it is necessary to establish a concentration limit which provides the highest degree of protection to water quality that can be reasonably supported. This requirement is consistent with regulating the quality of the waters of the State to attain the highest water quality which is reasonable (WC Section 13000 of the Porter-Cologne Water Quality Control Act).

Section 66264.94(e)(3) : This subsection has been added to require that concentration limits greater than background values not exceed water quality objectives established by the Regional Water Quality Control Boards, and that they be protective of the beneficial uses established for the medium of concern by the Regional Boards.

Section 66264.94(f) : This subsection has been added to require that risk be evaluated as if exposure would occur at the point of compliance. The Department does not intend to use the criteria specified under proposed section 66264.94(c) for purposes of justifying greater concentration limits based on attenuation or dilution factors because predictions of the migration potential for waste constituents has not proven reliable. Errors in the assumptions made when modeling contaminant transport often overwhelm the physical processes described. The practice of evaluating risk as if exposure would occur at the point of compliance is consistent with procedures presented in EPA's guidance document for establishing ACLs.

Section 66264.94(g) : This subsection has been added to describe the standard procedure used to evaluate risk when multiple compounds with similar toxicologic effects are involved. The procedure is described in greater detail in the California Site Mitigation Decision Tree, published by the California State Department of Health Services, Toxic Substances Control Division, May 1986.

Section 66264.94(h) : This subsection has been added to

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emphasize the requirement that concentration limits which are above a background value may only be established for those monitoring points at which a statistically significant increase has occurred. This assures that an owner or operator will be required to characterize any "new" release from a regulated unit which is currently or has previously been involved in corrective action as soon as the release is detected.

Section 66264.94(i) : This subsection has been added to define procedures for re-establishing background values after a corrective action program has been successfully completed.

Section 66264.94(j) : This section is based on 40 CFR Section 264.94(c). The requirement to consider exempted aquifers has been deleted because there are no exempted aquifers in the state of California.

Section 66264.95 : This section is based on 40 CFR section 264.95. It establishes the criteria for specifying the point of compliance and the monitoring points for each regulated unit. This section conforms to the corresponding federal regulation except as follows:

Section 66264.95(a) : For clarity, the definition of the point of compliance has been modified to extend "through" the uppermost aquifer (rather than "down into" the uppermost aquifer). This change is consistent with the intention of EPA as expressed in the preamble to the regulations. The owner or operator must monitor any or all saturated zones within the uppermost aquifer as necessary to provide a reliable indication of a release from a regulated unit.

Section 66264.95(b)(2) : This subsection has been modified to require a separate point of compliance for each regulated unit at the facility unless two or more existing units are contiguous and monitoring along the shared boundary would impair the integrity of a containment or structural feature of any of the units. Under existing Subpart F, a facility having more than one regulated unit may designate a point of compliance that is common to all the units. It is the experience of the Department that this approach can lead to poor monitoring performance. The proposed regulation is consistent with existing state requirements and helps to assure that each regulated unit at the facility is equipped with monitoring systems that are capable of providing the earliest possible detection and measurement of a release from that unit.

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The definition of the term "waste management area" (used in the proposed regulations only to describe the location of the point of compliance) has been modified so that, for contiguous units, it is described by an imaginary line "along the outer boundary of" the contiguous units. Under existing Subpart F, for facilities with more than one unit, the waste management area is described by an imaginary line "circumscribing" the regulated units. This change was necessary in order to clarify the requirement that the point of compliance must be located as close as possible to the regulated unit.

Section 66264.96 : This section is based on 40 CFR section 264.96. It establishes the compliance period as the minimum period of time during which the owner or operator must conduct water quality monitoring subsequent to a release from a regulated unit. This section conforms to the corresponding federal regulation except as follows :

Existing Subpart F does not clearly distinguish between requirements that apply to a facility and requirements that apply to each regulated unit. The proposed regulations require that an appropriate monitoring and response program be designed and implemented for each regulated unit at the facility. This section has been modified to require that the Department specify a separate compliance period for each regulated unit, even if they are located within the same waste management area. This change was necessary because although multiple units may be located within the same waste management area, the units will usually have different active lives, may contain different types of waste and/or have other distinguishing characteristics.

Section 66264.97 : This section is based on 40 CFR section 264.97. It establishes the general components of the water quality monitoring systems which must be established, operated and maintained by the owner or operator.

As discussed earlier, structural changes to section 264.97 were made for the sake of clarity. These changes were necessary because of the added surface water and unsaturated zone monitoring requirements in this section. Each type of monitoring system is now described in a separate subsection (b, c, and d), and the general requirements that apply to all systems are specified in subsection (e) in the approximate order in which the requirements will be satisfied.

This section conforms to the corresponding federal regulation except as follows :

Section 66264.97(b)(1) : Based loosely on 40 CFR section

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264.97(a), this subsection has been almost totally rewritten to reflect California's three phased approach to water quality monitoring (See the article overview for this article for a more detailed discussion of this topic). Specifically this section now requires that an owner or operator establish a ground water monitoring system that includes:

- 1) background monitoring points in the uppermost aquifer (this is a minimum requirement in existing federal regulations);
- 2) monitoring points in the uppermost aquifer at the point of compliance (this is a minimum requirement in existing federal regulations); and
- 3) additional monitoring points and background monitoring points as necessary to assure that the objectives of the water quality monitoring program are satisfied.

For a detection monitoring program, the water quality monitoring system must be designed to assure the earliest possible detection of a release from a regulated unit. For an evaluation monitoring program, the water quality monitoring system must be designed to provide the data necessary to evaluate changes in water quality due to the release from the regulated unit. For a corrective action program, the water quality monitoring system must be designed to provide the data necessary to evaluate the effectiveness of the corrective action program.

Section 66264.97(b)(3) : This subsection has been added to require that all well logs be filed with the Department of Water Resources (DWR) or with agencies authorized by DWR to collect copies of well logs.

Section 66264.97(b)(7) : This subsection has been added to require that monitoring wells be properly developed.

Section 66264.97(c) : This subsection has been written to incorporate the existing California requirements for surface water monitoring. In order to fit these requirements into the existing RCRA structure a considerable amount of new language was necessary. Language from the RCRA ground water monitoring system description, existing Title 22, and existing Subchapter 15 was used wherever possible. This section requires the owner or operator to establish monitoring points at those locations most likely to satisfy the data needs of the monitoring program, and to establish appropriate background monitoring points for comparison purposes.

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The water quality in surface water bodies should show considerably more natural variation than the quality of ground water. For that reason, the establishment of appropriate background monitoring points is a critical requirement of this section.

Section 66264.97(d) : This subsection has been inserted in order to incorporate the existing California requirements for unsaturated zone monitoring. In order to fit these requirements into the existing RCRA structure a considerable amount of new language was necessary. Language from the RCRA ground water monitoring system description, existing Title 22, and existing Subchapter 15 was used wherever possible. It was the intention of the authors to require that the owner or operator monitor the unsaturated zone using the method or combination of methods which satisfy the data needs of the monitoring program. A variance for unsaturated zone monitoring can only be granted to an owner or operator if a successful demonstration is made that no method of unsaturated zone monitoring could provide useful information or that, for an existing regulated unit, installation of unsaturated zone monitoring devices is not feasible.

Section 66264.97(e)(1) : This section has been added to require that the monitoring systems be designed and certified by a registered geologist or a registered civil engineer.

Section 66264.97(e)(2) : This subsection has been added to require that all wells be logged under the supervision of a registered geologist, that soils be described using the Unified Soil Classification System, and that rock be described in an appropriate manner.

Section 66264.97(e)(2)(C) : This subsection has been added to require the depth and thickness of saturated zones to be marked on the geologic log. This is standard practice for logging borings as part of a hydrogeologic investigation, requires minimum effort on the part of the logger, and provides valuable information which is not available through other means.

Section 66264.97(e)(3) : The phrase "more than one" has been replaced with the term "contiguous". This change is necessary because original 40 CFR Part 264 Subpart F allows the owner or operator of a facility to monitor multiple units as if they were one "large unit" with a point of compliance that was described by the "large unit". The original language only restricts the application of this option by requiring that a release be detected at the point of compliance. It is the experience of the Department that this approach can lead to

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poor monitoring performance. In the proposed regulations a shared point of compliance is only allowed where existing regulated units are contiguous and where monitoring along the shared boundary would impair the integrity of a containment or structural feature of any of the units. This requirement helps to assure that each regulated unit at the facility is equipped with monitoring systems that are capable of providing the earliest possible detection and measurement of a release from that unit.

The phrase "a detailed description of the" has been added to emphasize the requirement that the owner or operator must supply all the information needed by the Department to review the proposed procedures.

Section 66264.97(e)(6) : This subsection has been added to emphasize the requirement that the selection of statistical methods must be based on a reasonable understanding of the natural data distribution at the site. This information is also required to establish background values for monitoring parameters and constituents of concern. This subsection also establishes the minimum data requirements for establishing background values and requires that background be established for new regulated units before wastes are discharged.

Language has been added to emphasize the requirement that the selection of statistical methods must be based on a reasonable understanding of the natural data distribution at the site.

Section 66264.97(e)(8)(A) : This section is based on 40 CFR section 264.97(h)(1). Language has been inserted to emphasize the requirement that, following the use of the parametric analysis of variance (ANOVA) to compare the data from all downgradient monitoring points against the data from all upgradient monitoring points, individual comparisons must always be made between each downgradient monitoring point and the background monitoring points. A statistically significant increase over the background data during any one of these comparisons constitutes statistically significant evidence of a release from the unit.

Section 66264.97(e)(8)(B) : This section is based on 40 CFR section 264.97(h)(2). Language has been inserted to emphasize the requirement that, following the use of the analysis of variance (ANOVA) based on ranks to compare the data from all downgradient monitoring points against the data from all upgradient monitoring points, individual comparisons must always be made between each downgradient monitoring point and the background monitoring points. A statistically significant increase over the background data during any one

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of these comparisons constitutes statistically significant evidence of a release from the unit.

Section 66264.97(e)(8)(E) : Existing Subpart F allows the use of an alternate statistical method. Under the proposed regulations, if the alternate statistical method includes a procedure to verify statistically significant evidence of a release, the procedure must comply with the additional performance standards specified in Sections 66264.97(e)(8)(E)1. through 6.

The requirements for a verification procedure are designed to reduce the negative effect a Type I error (false positive) has on the regulated community without increasing the Type II error (false negative) rate. These requirements have been developed with the assistance of EPA technical staff. They are expected to provide an accurate test of the statistically significant indication of a release within a relatively short period of time.

Section 66264.97(e)(8)(E)1. through 6. : These subsections contain specific requirements designed to permit an expedited-but-accurate check of the initial indication of a release :

Section 66264.97(e)(8)(E)1. : The verification procedure must include, as a first step, a Bonferroni adjusted t-test. This test is used to differentiate between a strong indication of a release and less definitive evidence. When the results of the initial sampling provide clear and convincing evidence of a release, resampling and reanalysis will not be permitted.

Section 66264.97(e)(8)(E)2. : The number of samples collected must be appropriate for the statistical method used.

Section 66264.97(e)(8)(E)3. : These samples must be collected over a period of no more than 30 days. This 30 day limit for the resampling effort may result in a sampling interval that is shorter than the interval specified in the facility permit. The Department believes that, when addressing a potential release from a regulated unit, it is important to respond as quickly as possible in order to minimize the risk to human health and the environment.

Section 66264.97(e)(8)(E)4. : The statistical test used to verify the indication of a release must use the data collected in the resampling effort combined with the original data that indicated a release from that monitoring point. (Note : This requirement does not apply to the use of control charts.)

Section 66264.97(e)(8)(E)5. : All statistical analyses done

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under this subsection will be individual monitoring point comparisons because only those individual monitoring points that indicate a release will be resampled and analyzed. The Type I error level during this verification monitoring must be no less than 0.05. For a one-sided statistical comparison control charts must use an upper limit of no more than 1.645 standard deviations of the statistic plotted when doing a re-analysis to achieve this same Type I error level (1.96 standard deviations for a two-sided statistical comparison). The use of this higher minimum Type I error level is necessary to control Type II errors under conditions where a release has already been indicated.

Section 66264.97(e)(8)(E)6. : The owner or operator must report the results of the statistical retest as well as the concentrations of each parameter involved in retesting within seven days of the last analysis.

Section 66264.97(e)(9)(A) : This section is based on 40 CFR Section 264.97(i)(1). This section has been modified in order to require that an appropriate statistical method must be selected for each constituent or parameter. If more than one statistical method is appropriate, the owner or operator should use the method that is least likely to fail to identify a release from the regulated unit.

Section 66264.97(e)(9)(C) : This section is based on 40 CFR section 264.97(i)(3). The performance standard in section 66264.97(e)(9)(B) does not apply to control charts because this type of statistical method requires a different approach to Type I error level. The Department is including a similar performance standard that has been adapted for use with control charts. Under these proposed regulations, an owner or operator wishing to use control charting is required to use a the false positive rate of no less than 1% per period. This means that for a one-sided statistical comparison the upper control limit for X-Bar and R-Charts can be set at no more than 2.576 standard deviations from the mean for the statistic plotted (2.327 standard deviations for a two-sided statistical comparison). These limits will provide the same sort of control over the Type I error rate for control charts as is provided under Subsection (e)(9)(B) for the ANOVA methods.

Section 66264.97(e)(9)(D) : This section is based on 40 CFR section 264.97(i)(4). The performance standard in section 66264.97(e)(9)(B) does not apply to tolerance intervals or prediction intervals because these types of statistical methods require a different approach to Type I error level. The Department is including a similar performance standard that has been adapted for use with these methods. Under these

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proposed regulations, an owner or operator wishing to use a tolerance interval or prediction interval must limit the coverage of any tolerance interval used to no more than 95 percent and the confidence coefficient must be no more than 95 percent. Prediction intervals must be constructed with an experimentwise error rate of no less than five percent and an individual error rate of no less than one percent. These limits will provide the same sort of control over the Type I error rate for control charts as is provided under Subsection (e)(9)(B) for the ANOVA methods.

Section 66264.97(e)(9)(E) : This section is based on 40 CFR section 264.97(i)(5). The phrase "limit of detection" has been modified to read "practical quantitation limit" because data with values between the limit of detection and the practical quantitation limit must also be accounted for. EPA technical staff has confirmed that this is consistent with the intention of EPA.

Section 66264.97(e)(10) : This subsection has been added to clarify the requirement that an owner or operator propose a method for determining background values for the constituents of concern and monitoring parameters listed in the facility permit. The establishment of a reliable background value is essential because the performance of the statistical test in discerning or delineating a release is dependent upon the use of representative data. The background value for a constituent consists of the mean or median of the data at the background monitoring points and a measure of its dispersion about that mean or median. As discussed earlier, two approaches to establishing a background value are permitted in these proposed regulations, because both produce reliable information under appropriate circumstances :

- 1) An owner or operator may propose to use existing background data to establish a background value which is then written into the permit and used in all statistical comparisons for that constituent or parameter. This approach is only viable where the background data does not exhibit appreciable seasonal or temporal variation and where the power of the statistical procedure for that constituent or parameter is not adversely affected by the use of historical background data; or
- 2) An owner or operator may propose a procedure to be used to establish and update the background value for a constituent or parameter to reflect seasonal or temporal variation in background water quality.

Section 66264.97(e)(11) : This subsection requires that the

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Department review the statistical procedures proposed by the owner or operator. Upon approval of those procedures, the Department must specify, in the facility permit, either a background value or the procedure for updating the background value for each constituent or parameter.

Section 66264.97(e)(12) : Based loosely on 40 CFR section 264.97(g), this subsection has been rewritten as part of the structural changes made to this subsection. A considerable amount of new language has been added to more clearly require an owner or operator to propose, for approval by the Department, the sampling methods to be used to establish background and for monitoring pursuant to Article 6. These methods must include a sufficient number of samples to assure that the data needs of the program are met. The owner or operator must also determine an appropriate sampling interval for each medium (ground water, surface water and the unsaturated zone).

Section 66264.97(e)(13) : This section is based on 40 CFR section 264.97(f). This section has been modified to require the owner or operator to measure field parameters each time a groundwater sample is collected.

Section 66264.97(e)(14) : This section has been added to require the owner or operator to maintain background water quality data in a form that will aid the recognition of trends in background water quality. Graphing or charting water quality data over time is standard practice for any water quality investigation. It requires a minimum amount of time to perform and yields valuable information of benefit to both the owner or operator and the regulatory agency

Section 66264.97(e)(15) : This section has been added to require that the owner or operator determine ground water flow rate and direction at least quarterly, including times of expected highest and lowest elevations of the ground water surface. Because contemporaneous water level measurements that are unaffected by sampling activity are required for the determination of ground water flow rate and direction this will require separate water level measurements from those collected at the time of sampling.

Section 66264.97(e)(16) : Based on 40 CFR section 264.97(j), this section has been modified slightly to clarify the requirement that all water quality data collected in accordance with Article 6 be maintained in the operating record and submitted to the Department as required in the facility permit. Note: Existing Title 22 requires that, within 30 days after sampling, an owner or operator must submit a report to the Department. The proposed regulations

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contain the more stringent requirement to notify the Department in writing within 7 days of discovering significant evidence of a release and to submit the results of routine sampling and analysis at a frequency specified in the facility permit.

Section 66264.98 : This section is based on 40 CFR section 264.98. It contains the detailed requirements for an owner or operator who is required to implement a detection monitoring program. Several structural changes have been made to this section in order to present the regulations in the approximate order in which the requirements will be satisfied. Although many changes have been made to the language in this section, most reflect the major changes described in the article overview. This section conforms to the corresponding federal regulation except as follows :

Section 66264.98(c) : This subsection has been added as part of the structural change to this section described in the section overview for this section. It has been added to clarify the requirement that background values be established for all constituents of concern and for all monitoring parameters. The procedures for establishing background values are described under the general monitoring requirements in section 66264.97(e)(11).

Section 66264.98(d) : This subsection has been added as part of the major structural changes to the monitoring programs due to the elimination of ACLs (See the overview for this article for a more detailed discussion of this topic). This subsection requires that the water quality protection standard be specified in the facility permit for a detection monitoring program.

The water quality protection standard will apply to all constituents of concern. Monitoring parameters are used for determining statistically significant evidence of a release but are not included in the water quality protection standard because, for a corrective action program, the owner or operator is not required to "remove or treat in place" a monitoring parameter unless it is also listed as a constituent of concern.

Section 66264.98(e) : Based loosely on 40 CFR section 264.98(a), this section has been modified to introduce the term "monitoring parameter" as a consolidated reference to the "physical parameters, hazardous constituents, waste constituents, and reaction products that provide a reliable indication of a release from the regulated unit". The references from existing Subpart F to "specific conductance, total organic carbon, and total organic halogen" has been

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deleted because, in the experience of the Department, these have not proven to be universally reliable indicators of contamination. Their use as indicator parameters was not required under 40 CFR, and is not precluded under these proposed regulations. The phrase "indicator parameter" is no longer used because the definition of monitoring parameter includes those parameters that are referred to in 40 CFR as indicator parameters.

Section 66264.98(e)(2) : This subsection has been added as part of the major change in California's approach to water quality monitoring. (See the article overview for this article for a more detailed discussion of the use of monitoring parameters and constituents of concern). The selection of monitoring parameters is to be based upon a projected correlation between the values for the monitoring parameters and the concentrations of constituents of concern.

Section 66264.98(f) : This section is based on 40 CFR section 264.98(d). Language has been added to require that sampling be scheduled to include "the times of the expected highest and lowest annual elevations of the ground water surface" has been added. A sentence has been added to emphasize the authority of the Department to require more frequent sampling when necessary to protect human health and the environment. Language has also been added to emphasize the need to consider ground water flow rate(s) when specifying the frequency for monitoring,

Section 66264.98(g) : This subsection has been added as part of the major change in California's approach to water quality monitoring. (See the article overview for this article for a more detailed discussion of the use of monitoring parameters and constituents of concern). The owner or operator is required to periodically monitor for all constituents of concern at those locations specified in the facility permit and determine if there is statistically significant evidence of a release. This monitoring must be done at a frequency specified in the permit based upon the confidence that the monitoring parameters have been chosen correctly. At a minimum, this monitoring shall be performed once every five years.

Section 66264.98(i)(3) : This section has been added to allow the Department to make an independent finding that there is statistically significant evidence of a release from a regulated unit.

Section 66264.98(j) : This subsection is based on 40 CFR Section 264.98(g). It has been extensively rewritten and

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split into two subsections in order to provide guidance for the use of a statistical verification procedure.

As discussed earlier, the requirements for a verification procedure are designed to reduce the negative effect a Type I error (false positive) has on the regulated community without increasing the Type II error (false negative) rate.

These requirements have been developed with the assistance of EPA technical staff. They are expected to provide an accurate test of the statistically significant indication of a release within a relatively short period of time.

Section 66264.98(j)(1) : Language has been added to require that notification of a significant evidence of a release must be sent by certified mail, and to require that the notification include an identification of the constituents or parameters that have indicated significant evidence of a release and the locations where that evidence was indicated.

Section 66264.98(j)(2) : This subsection has been added to require that if the owner or operator intends to use a verification procedure that has been specified in the facility permit, that procedure must be initiated immediately after determining statistically significant evidence of a release.

Section 66264.98(k)(1) : New language has been added that requires the discharger to determine the concentration of each constituent of concern at each monitoring point in the affected medium. This requirement was added as the first step the owner or operator must take to prepare for the evaluation monitoring program. For that program the owner or operator must propose a list of monitoring parameters based upon a demonstrated correlation between the constituents of concern and the proposed parameters.

Section 66264.98(k)(2) : This section is based on 40 CFR Section 264.98(g)(2). This section originally required the owner or operator who has found a statistically significant increase in a monitoring parameter to immediately sample all ground water monitoring wells for Appendix IX constituents. This requirement has been modified to include only those monitoring points in the affected media. This approach was used because : (1) existing California regulations do not clearly require that all monitoring points be sampled for Appendix IX constituents; (2) obtaining a sufficient volume of liquid from the unsaturated zone would often be extremely difficult; and (3) intensified sampling in all media for Appendix IX constituents may not always be justified; and (4) because other provisions (in section 66264.99) require the

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owner or operator to fully characterize any release from the regulated unit, the Department does not believe that a blanket requirement is needed here.

Section 66264.98(k)(3) : This section is based on 40 CFR Section 264.98(g)(3). Language has been added to clarify that the requirements of this subsection only apply to constituents that are not already identified as constituents of concern. This was necessary because of the major changes explained in the article overview. Existing Subpart F contains a requirement that hazardous constituents that are found in the ground water must "form the basis for compliance monitoring". For the purpose of clarity, that requirement has been modified in the proposed regulations to read "will be added to the list of constituents of concern specified in the water quality protection standard for evaluation monitoring". Under the proposed regulations, the owner or operator must determine the spatial distribution and concentration of each constituent of concern throughout the zone of contamination, must select monitoring parameters based upon a demonstrated correlation between the constituents of concern and the parameters, must remove or treat in place any constituents of concern released from the regulated unit, and must determine the success of corrective action based upon the concentrations of constituents of concern.

Section 66264.98(k)(5)(A) : This section has been modified to require the owner or operator to include the results of the most recent sampling events in the application for a permit modification required under subsection (k)(4) of this section.

Section 66264.98(k)(5)(D) : This subsection has been added to require the owner or operator to submit a detailed description of the measures to be taken in order to assess the nature and extent of the release. This submittal gives the Department an opportunity to review, modify, approve, and/or disapprove the proposal as part of the application for a permit modification. Timely submittals of high quality work plans will provide for more efficient site characterization and a high level of protection to human health and the environment.

Section 66264.98(k)(6) : This section is based loosely on 40 CFR Section 264.98(g)(5) but has been extensively modified to reflect the major structural differences described in the article overview. Original 40 CFR sections 264.98(g)(5)(i) and (g)(5)(ii)(A) and (B) have been deleted because, under the proposed regulations, alternate concentration limits (ACLs) are not allowed (See the overview for this article for a more detailed discussion of this topic).

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Language has also been added in response to a concern expressed by the EPA that initiation of corrective action could be delayed by repeated unsuccessful attempts to obtain concentration limits greater than background. In response to that concern, the proposed regulations have been modified to include a requirement that the engineering feasibility study must contain, at a minimum, detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern. Since this same information will be needed as part of the justification for a concentration limit greater than background, this new requirement satisfies EPA's concern about undue delays without adding an unreasonable burden to the owner or operator.

Section 66264.98(k)(7) : Language has been added to clarify that if the owner or operator makes a successful demonstration under this subsection, the owner or operator does not have to submit an engineering feasibility study to the Department. EPA technical staff agree that this is consistent with the intention of the federal regulations.

Section 66264.98(l) : Language has been added to require that the owner or operator respond to significant physical evidence of a release.

Section 66264.98(l)(1) : This subsection has been added to require that the Department be notified by certified mail within seven days of making the determination under subsection (l).

Section 66264.98(m) : This section has been added to require the owner or operator to respond appropriately anytime the Department determines that there is statistically significant evidence of a release.

Section 66264.98(n) : This section has been added as part of the major structural changes to the water quality monitoring programs required at permitted facilities. Existing Subpart F requires an owner or operator to perform either compliance monitoring or corrective action throughout the compliance period for a regulated unit. This requirement means that, after a corrective action program, an owner or operator is required to perform yearly sampling and analyses for constituents listed in Appendix IX of Chapter 14 throughout the compliance period and to include in the list of monitoring parameters all hazardous constituents that have been detected in ground water.

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Under these proposed regulations, after a corrective action program has been successfully completed, an owner or operator must institute a detection monitoring program for the purpose of detecting subsequent releases from the regulated unit. In this way the requirements in sections 66264.98 and 66264.99 for responding to statistically significant evidence of a release from a regulated unit are applied to each new release from the regulated unit. The Department has retained the requirement to perform yearly Appendix IX sampling and analyses during the compliance period. This requirement provides an important safeguard for the detection of any less mobile constituents which may not be detected during a corrective action program. Language has also been added to mimic the appropriate requirements for responding to elevated levels of hazardous constituents or to the appearance of new constituents.

Section 66264.99 : This section is based on 40 CFR section 264.99. It contains the detailed requirements for an owner or operator who is required to implement an evaluation monitoring program. Although many changes have been made to the language in this section, most reflect the major changes described in the article overview. This section conforms to the corresponding federal regulation except as follows:

A considerable amount of language from original 40 CFR section 264.99 has been replaced as part of the major structural changes in the water quality monitoring and response programs in the proposed regulations. Under original 40 CFR the compliance monitoring program requires an owner or operator to provide enhanced monitoring for a regulated unit that has demonstrated significant evidence of a release, but that is not in violation of the ground water protection standard. Under these proposed regulations, any statistically significant evidence of contamination constitutes a violation of the water quality protection standard because alternate concentration limits (ACLs) are not available under these regulations.

In the proposed regulations, the owner or operator of a regulated unit that has violated the water quality protection standard during a detection monitoring program must institute an evaluation monitoring program for the purpose of characterizing the release and preparing for a corrective action program.

Section 66264.99(b) : This section has been added to clearly specify that the owner or operator must determine the spatial distribution and concentration of each constituent of concern

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throughout the zone affected by the release, and to require that the assessment be completed and submitted to the Department within 90 days of establishing an evaluation monitoring program. The 90 day limit was included because, under existing federal regulations, if a facility does not request ACLs or if requested ACLs are not granted, the owner or operator is required to submit an application for a permit modification within 90 days of exceeding the ground water protection standard. Since the proposed regulation do not include provisions for ACLs, and since the information required by this subsection is needed as part of the application for a permit modification, the 90 day limit was included in order to maintain the existing stringency of the federal requirement.

Section 66264.99(c) : This section has been added to require the owner or operator to use the data collected pursuant to (b) to update the engineering feasibility study prepared for the corrective action program. In order to retain the stringency of existing regulations, the owner or operator is required to submit an engineering feasibility study within 180 days of determining that there is statistically significant evidence of contamination (section 66264.98(k)(5)(A)). If an update to this feasibility study is necessary based on data collected pursuant to this section, the update shall be submitted within 90 days of establishing an evaluation monitoring program.

Section 66264.99(d) : This section is based on 40 CFR section 264.99(h)(2). It has been modified to require the application for a permit modification to establish a corrective action program to be based on the results of the investigation of the release and on the engineering feasibility study. Language has also been added that requires the owner or operator to submit the application to the Department within 90 days of establishing an evaluation monitoring program. The 90 day limit was included because, under existing federal regulations, if a facility does not request ACLs or if requested ACLs are not granted, the owner or operator is required to submit an application for a permit modification within 90 days of exceeding the ground water protection standard. Since the proposed regulation do not include provisions for ACLs the 90 day limit was included in order to maintain the existing stringency of the federal requirement.

Section 66264.99(d)(1) : This subsection contains new language requiring the owner or operator to include a detailed description of the nature and extent of contamination in the application for a permit modification.

Section 66264.99(d)(2) : This section has been added as part of the major revisions to the proposed regulations discussed

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in the article overview. If the owner or operator can demonstrate that it will be infeasible to obtain the background level of a constituent during a corrective action program, the owner or operator may propose that a concentration limit greater than background be established in the water quality protection standard for a corrective action program. The owner or operator is required to submit all data necessary to justify the proposed limit to the Department as part of the application for a permit modification to establish a corrective action program.

Section 66264.99(d)(4) : This section is based on 40 CFR section 264.99(h)(2)(ii). The provision from existing Subpart F that the plan for a corrective action program may be based upon the compliance monitoring program has been deleted from the proposed regulation. This change was necessary because, as discussed earlier, each monitoring program has a different purpose and the design of the program must suit the purpose of the program. While all or part of an existing monitoring system may be incorporated into another program (see subsection (e)(1) of this section) the primary goal in system design must be to fulfill the specific objectives of the monitoring program.

Section 66264.99(e) : This section has been added to describe the minimum monitoring requirements for an evaluation monitoring program. Based loosely on the requirements for detection and compliance monitoring in original 40 CFR, this section has been rewritten to reflect the goals of the evaluation monitoring program under these proposed regulations. (i.e., to provide data necessary to evaluate changes in water quality due to the release from the regulated unit.) The introductory paragraph states that the monitoring requirements of this section are "in addition to" the requirements for assessing the nature and extent of contamination.

The purpose of restructuring the monitoring programs is to provide a high level of protection to human health and the environment by requiring rapid response to any release from a regulated unit. The evaluation program has been designed to provide a smooth transition from detection monitoring to corrective action. The Department expects that the time spent in evaluation monitoring will be relatively short because of the preliminary work done characterizing the site geology and hydrogeology for Part B of the permit application. In order to maintain the existing stringency of RCRA, and to provide for those case where the evaluation program lasts for an extended period of time, minimum monitoring requirements have been included in these proposed regulations.

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Section 66264.99(e)(2) : This section has been added as part of the change made in the selection of monitoring parameters as described in the article overview. Under the proposed regulations, monitoring parameters will be selected based upon the original criteria specified in 40 CFR Section 264.98(a) and upon a demonstrated correlation with the constituents of concern (See the article overview for this article for a more detailed discussion of this topic). In order to retain the stringency of existing federal regulations, the list of monitoring parameters for each medium must include the hazardous constituents that have been detected in that medium.

Section 66264.99(e)(3) : This section is based on 40 CFR section 264.99(f).

New language has been added to require that ground water monitoring be scheduled to include the times of expected highest and lowest annual elevations of the ground water surface, and to emphasize the authority of the Department to require more frequent sampling as necessary to protect human health and the environment.

Section 66264.99(e)(4) : This subsection has been added as part of the major change in California's approach to water quality monitoring. (See the overview for this article for a more detailed discussion of the use of monitoring parameters and constituents of concern). The owner or operator is required to periodically monitor for all constituents of concern and evaluate changes in water quality due to the release from the regulated unit. This monitoring must be done at a frequency specified in the permit based upon the confidence that the monitoring parameters have been chosen correctly.

Note : Original 40 CFR section 264.99(e) has been deleted because it has been replaced by a more stringent requirement in section 66264.97(e)(15).

Section 66264.99(e)(6) : This section is based on 40 CFR section 264.99(g). Original Subpart F required an owner or operator who has found a statistically significant increase in a monitoring parameter to sample all ground water monitoring wells for Appendix IX constituents at least annually. This requirement has been modified to include only those monitoring points in the affected media. This approach was used because: (1) existing California regulations do not clearly require that all monitoring points be sampled for Appendix IX constituents; (2) obtaining a sufficient volume of liquid from the unsaturated zone would often be extremely difficult; and (3) intensified sampling in all media for

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Appendix IX constituents may not always be justified; and (4) because other provisions (in section 66264.99) require the owner or operator to fully characterize any release from the regulated unit, the Department does not believe that a blanket requirement is needed here.

Note : Original sections 264.99(h) and (h)(1) have been deleted because, under these proposed regulations the primary purpose of evaluation monitoring is not to determine statistically significant increases of contamination for the purpose of requiring corrective action. Sampling pursuant to this section is required to evaluate changes in water quality due to the release. Original 40 CFR section 264.99(h)(2) has been modified, moved, and renumbered as 66264.99(d).

Section 66264.99(e)(7) : This section has been added to clearly establish the requirement that the owner or operator use the information collected pursuant to subsection (e) to evaluate the adequacy of the design criteria for corrective action. If the owner or operator determines that the plan for corrective action is insufficient, the owner or operator must notify the Department by certified mail with 7 days, and submit any appropriate changes to the plan within 90 days.

Section 66264.99(f) : This section is based on 40 CFR section 264.99(i). It has been modified to reflect the modified structure of the evaluation monitoring program and to allow the Department to specify that the owner or operator may reinstitute a detection monitoring program for the regulated unit. EPA technical staff agrees that this is consistent with the intention of the regulation.

Section 66264.99(g) : This section has been added to emphasize the Department's authority to require interim corrective action measures where necessary to protect human health or the environment.

Section 66264.99(i) : This section has been added to require the owner or operator to respond appropriately whenever the Department determines that the evaluation monitoring program does not satisfy the requirements of this article.

Section 66264.100 : This section is based on 40 CFR section 264.100. It contains the detailed requirements for an owner or operator who is required to implement a corrective action program. Although many changes have been made to the language in this section, most are reflections of the major changes described in the article overview. This section conforms to the corresponding federal regulation except as follows :

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Language has been added to this subsection to retain a provision from existing Title 22 that the owner or operator must take actions to prevent future noncompliance with the water quality protection standard due to a continued or subsequent release.

Note: Original 40 CFR Section 66264.100(e)(1) and (2) have been deleted because proposed subsection 66264.100(c) requires that the owner or operator perform corrective action throughout the zone affected by the release. The Department does not wish to adopt a standard which could give rise to arguments by an owner or operator that they are relieved of corrective action responsibilities because the release has migrated off-site. Instead of establishing a standard which would relieve an owner or operator of corrective action responsibilities, the Department will work with individuals on a case-by-case basis to obtain permission to undertake remedial actions or to join uncooperative land owners in the cleanup utilizing additional authorities.

Section 66264.100(e) : This section is based on 40 CFR Section 264.100(e)(3). This section has been modified to emphasize the authority of the Department to establish a schedule of compliance for corrective action in the facility permit.

Section 66264.100(f) : This section is based on 40 CFR Section 264.100(e)(4). This section has been modified to emphasize the requirement that before terminating corrective action measures the owner or operator must demonstrate the success of the corrective action program to the Department.

Note : Original 40 CFR section 264.100(f) has been deleted. The requirements of this section have been replaced with equivalent or more stringent requirements as follows:

- 1) Corrective action measures may only be terminated pursuant to section 264.100(f); and
- 2) If the owner or operator is conducting corrective action at the scheduled end of the compliance period, the compliance period is extended until the water quality protection standard has not been exceeded for three years pursuant to section 66264.96(c).

Section 66264.100(g) : This section has been added as part of the major structural changes described in the article overview for this article. The owner or operator is required to remain in a corrective action program until the water

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quality protection standard has not been exceeded for a period of one year after terminating the corrective action measures.

Section 66264.100(g)(2) : This section has been added because a mechanism for returning to a Detection monitoring program was missing from the existing regulations. This requirement is consistent with the intent of existing regulations. Note : During the compliance period, there are additional monitoring requirements for a regulated unit that returns to Detection monitoring after a corrective action program (See section 66264.98(n)).

Section 66264.100(h) : This subsection has been modified slightly to emphasize the authority of the Department to require more frequent reporting when necessary.

Section 66264.100(j) This section emphasizes the Department's authority to review the adequacy of and direct changes to the owner or operator's monitoring program.

2.5.7 Article 7 of Chapter 14 sets forth requirements for closure and post-closure care of permitted facilities. This article is based on 40 CFR Part 264 Subpart G, Title 22 CCR Division 4 Chapter 30 Article 23, Health and Safety Code Sections 25245 and 25246, and Business and Professions Code Sections 6704 and 6732. The proposed regulations duplicate the effect of those existing laws.

2.5.8 Article 8 of Chapter 14 sets forth financial responsibility requirements for permitted facilities. This article is based on 40 CFR Part 264 Subpart H and Title 22 CCR Division 4 Chapter 30 Article 17. This article conforms to the effect of those existing laws.

2.5.9 Article 9 of Chapter 14 sets forth requirements for the use and management of containers at permitted facilities. This article is based on 40 CFR Part 264 Subpart I and Title 22 CCR Division 4 Chapter 30 Article 24. This article conforms to the effect of those existing regulations.

2.5.10 Article 10 of Chapter 14 sets forth requirements for design, construction, use, monitoring, inspections, and closure for tank systems at permitted facilities. It is based on 40 CFR Part 264 Subpart J and Title 22 Division 4 Chapter 30 Article 25 and conforms to the effect of those regulations.

2.5.11 Article 11 of Chapter 14 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of surface impoundments at permitted

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facilities. It is based on 40 CFR Part 264 Subpart K and Title 22 CCR Division 4 Chapter 30 Article 26 and conforms to the effect of those regulations.

2.5.12 Article 12 of Chapter 14 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of waste piles at permitted facilities. It is based on 40 CFR Part 264 Subpart L and Title 22 CCR Division 4 Chapter 30 Article 27 and conforms to the effect of those regulations.

2.5.13 Article 13 of Chapter 14 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of land treatment units at permitted facilities. It is based on 40 CFR Part 264 Subpart M, Title 22 CCR Division 4 Chapter 30 Article 28, and Health and Safety Code Chapter 6.5 Article 9.6 and conforms to the effect of those laws.

2.5.14 Article 14 of Chapter 14 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of landfills at permitted facilities. It is based on 40 CFR Part 264 Subpart N, Title 22 CCR Division 4 Chapter 30 Article 29, and Health and Safety Code Section 25179.5 and conforms to the effect of those laws.

2.5.15 Article 15 of Chapter 14 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of incinerators at permitted facilities. It is based on 40 CFR Part 264 Subpart O and Title 22 CCR Division 4 Chapter 30 Article 30 and conforms to the effect of those regulations.

2.5.16 Article 16 of Chapter 14 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of miscellaneous units at permitted facilities. Miscellaneous units include types of treatment and storage units not covered by the specific standards of Articles 9 - 15 of Chapter 14. It is based on 40 CFR Part 264 Subpart X and the general permitted facility requirements of Title 22 CCR and the Health and Safety Code and conforms to the effect of those regulations.

2.5.17 Article 17 of Chapter 14 sets forth environmental monitoring and corrective action programs for permitted facilities. These programs cover monitoring of air, soil, and soil pore gas and corrective action to be taken in the event of a release (the regulations for monitoring of water quality are found in proposed Article 6 of Chapter 14). This article is based on Title 22 CCR division 4 Chapter 30 Article 22 and conforms to the effect of that regulation except for the excision of the water quality monitoring

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requirements of existing Article 22 which have been moved into proposed Article 6 of Chapter 14.

2.5.18 Article 18 of Chapter 14 is reserved for a future rulemaking.

2.5.19 Article 19 of Chapter 14 sets forth standards and financial responsibility requirements for corrective action for solid waste management units (SMU's) at permitted facilities. (Solid waste management units are any units which accept waste, hazardous or nonhazardous.) This article is based on 40 CFR Sections 264.90 and 264.101. This article conforms with the effect of those federal regulations except that a requirement has been added to require corrective action beyond the boundary of the hazardous waste facility. This requirement is found in Health and Safety Code Section 25187.

2.5.20 The Appendices to Chapter 14 are as follows:

Appendix I to Chapter 14 establishes additional recordkeeping instructions for portions of the operating record for a facility. It is based on Appendix I to 40 CFR Part 264 and conforms to that appendix except for incorporation of language requiring the use of California Hazardous Waste Codes for non-RCRA hazardous waste.

Appendix V to Chapter 14 sets forth examples of potentially incompatible waste streams. It is based on Appendix V to 40 CFR Part 264 and conforms to the effect of that appendix.

Appendix IX to Chapter 14 sets forth a list of ground water monitoring constituents. This Appendix is based on Appendix IX to 40 CFR Part 264 and conforms to the effect of that appendix.

2.6 CHAPTER 15

This chapter sets forth operational standards for owners and operators of hazardous waste treatment, storage, and disposal facilities operating under a grant of interim status. Interim status means that a facility has been given permission to operate as a hazardous waste facility until a final hazardous waste facility permit has been issued. Chapter 15 is based on 40 CFR Part 265.

2.6.1 Article 1 of Chapter 15 sets forth general information pertaining to standards for owners and operators of interim status hazardous waste management facilities including purpose, scope and applicability of the chapter and the relationship between the

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Chapter 15 interim status facility standards and the Department's ability to take enforcement actions against interim status facilities. This article is based on 40 CFR Part 265 Subpart A, Title 22 CCR Sections 66300, and 66532 and Health and Safety Code Sections 25159.15 and 25123.3. This article duplicates the effect those existing laws.

2.6.2 Article 2 of Chapter 15 sets forth general facility standards for interim status hazardous waste facilities including use of identification numbers, required notices, general waste analysis requirements, site security requirements, personnel training requirements, special requirements for ignitable, reactive, or incompatible hazardous wastes, and location and design requirements. This article is based on 40 CFR Part 265 Subpart B and Title 22 CCR Sections 66391, 67101, 67102, 67103, 67105, 67106, 67108, and 67120. This article duplicates the effect of those existing regulations.

2.6.3 Article 3 of Chapter 15 sets forth requirements for owners and operators of interim status facilities pertaining to procedures and equipment intended to prevent and prepare the facility for emergencies. This article is based on 40 CFR Part 265 Subpart C and Title 22 CCR Sections 66300, 67120, 67121, 67122, 67123, 67124, and 67126. This article duplicates the effect of those existing regulations.

2.6.4 Article 4 of Chapter 15 sets forth requirements for owners and operators of interim status facilities to establish contingency plans and emergency procedures for the facility operation. This article is based on 40 CFR Part 265 Subpart D and Title 22 CCR Sections 67140, 67141, 67142, 67143, 67144, and 67145 and duplicates the effect of those existing regulations.

2.6.5 Article 5 of Chapter 15 sets forth requirements for use of the manifest system, recordkeeping, and reporting by interim status facilities. It is based on 40 CFR Part 265 Subpart E and Title 22 CCR Sections 67160, 67161, 67162, 67163, 67164, 67165, 67166, and 67167 and duplicates the effect of those regulations.

2.6.6 Article 6 of Chapter 15 establishes water quality monitoring for interim status facilities. It is based on the proposed language for Chapter 14 Article 6 which is based on 40 CFR Part 264 Subpart F, Title 22 CCR Article 22, and Title 23 CCR Subchapter 15 Article 5. It sets forth the water quality monitoring and corrective action requirements for interim status facilities.

Existing Subpart F of Part 265 of 40 CFR establishes the ground water monitoring and response programs required for hazardous waste facilities with interim status. Some of the requirements are now

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considerably out-of-date but have not been revised by EPA because the applicability of the interim status regulations is rapidly diminishing as more facilities complete the permitting process. Under existing state regulations the ground water monitoring requirements for interim status facilities are equivalent to the more stringent ground water monitoring requirements at permitted facilities. In addition to those requirements, existing California regulations require the owner or operator of a hazardous waste facility to monitor, and respond to releases to surface water, and liquid in the unsaturated zone. Technical review staff from USEPA, Washington D.C., agreed with the members of the DHS workgroup that, the monitoring and response requirements for permitted facilities should be applied to interim status facilities.

The proposed language for Chapter 14 Article 6 was used as the base document and only those changes necessary to guarantee equivalency with federal regulations and to make the regulations self-implementing have been made. This method was selected because the resulting regulations are most similar to the requirements that will be included in the facility permit. This analysis presents the differences between the proposed regulations for interim status facilities and the proposed regulations for permitted facilities and highlights the additional provisions that have been added to retain the stringency of existing Federal law.

In order to make these proposed regulations self-implementing most references to Departmental approval have been deleted. Language which directs the Department to consider particular performance criteria when granting Departmental approval has been modified so that the owner or operator is required to consider the same performance criteria when designing the monitoring program. In cases where the owner or operator must choose between the use of alternate methods, language has been added to require that sufficient documentation be maintained in the facility operating record to support selection of the method.

Requirements from Part 265 Subpart F that do not appear in the requirements for permitted facilities have been added to these proposed regulations as necessary to make the proposed regulations equivalent to federal regulations. These requirements help to assure that facilities will meet certain minimum standards without Departmental oversight. In those cases where blanket requirements could be unnecessarily burdensome when universally applied to facilities without regard to site conditions, provisions have been made to allow the Department to approve the use of alternatives. For example, the specific list of monitoring parameters required under existing Part 265 Subpart F for a detection monitoring program may not provide useful information for some facilities. Proposed Section 66265.98(f) therefore allows the owner or operator

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to petition for Departmental approval of the use of alternate monitoring parameters if the substitute parameters are more likely to provide early detection of a release from the regulated unit.

Language has been added to maintain the RCRA requirement for a sampling and analysis plan, prepared by the owner or operator, and maintained at the facility. This document, the water quality sampling and analysis plan, is to be used in place of the facility permit during interim status for the purpose of providing a detailed description of the water quality monitoring program for each regulated unit at the facility, . References to the facility permit have been modified as appropriate throughout the proposed regulations to refer to the water quality sampling and analysis plan. This document must be prepared by the owner or operator and submitted to the Department for review. The Department may require the owner or operator to modify the plan as necessary to protect human health and the environment.

Requirements for monitoring during the post-closure maintenance period have been deleted because the regulated unit will be operating under Chapter 14 requirements, with a post-closure permit, during that time.

Requirements for performing corrective action have been deleted. It is the intention of the Department to require Departmental approval, through the permit process, before a corrective action program is implemented. This approach is consistent with original 40 CFR requirements. The proposed regulations do require evaluation of any release from the regulated unit and the preparation of an engineering feasibility study for corrective action during interim status.

Section 66265.90 : This section is based on proposed section 66264.90. It establishes the applicability of the regulations contained in this article. This section conforms to the corresponding regulation except as follows :

Requirements to maintain assurances of financial responsibility and to perform water quality monitoring for miscellaneous units have not been included because existing state and federal regulations do not contain similar requirements for interim status facilities.

Section 66264.90 (b) : This section has been modified to clearly require the owner or operator to fulfill the requirements of this article until a permit is issued by the Department.

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Section 66265.91 : This section is based on proposed section 66264.91. It establishes the conditions under which the detection and evaluation monitoring programs will be required for a regulated unit. This section conforms to the corresponding regulation except as follows :

Section 66265.91 (b) : This section has been added to require the owner or operator to develop, submit and follow a water quality sampling and analysis plan within 180 days of the effective date of the proposed regulations. This document must be updated as necessary, and a current version must be maintained in the facility operating record. This section also specifies that the Department has the authority to require the owner or operator to modify the plan as necessary to protect human health and the environment.

Section 66265.94 : This section is based on proposed section 66264.94. It establishes the criteria for establishing concentration limits for constituents of concern. This section conforms to the corresponding regulation except as follows :

The provisions for establishing concentration limits which are greater than background have been deleted because they are only established for corrective action programs at permitted facilities and serve no useful function as part of the water quality monitoring program at an interim status facility.

Section 66265.97 : This section is based on proposed section 66264.97. It establishes the general components of the water quality monitoring systems and which must be established, operated and maintained by the owner or operator. It also contains general requirements which apply to all of the monitoring programs. This section conforms to the corresponding federal regulation except as follows :

Section 66265.97 (b) (1) : Language has been added to emphasize the requirement that the design of the ground water monitoring systems must be based upon information obtained from the hydrogeologic investigation of the facility area. This investigation is required under section 66270.14 as part of the Part B requirements. The Department is concerned that, without this additional guidance, an owner or operator will design and establish monitoring systems which are inappropriate for conditions at the facility.

Language has also been added to incorporate the existing federal requirement that the ground water monitoring system must include, at a minimum, one upgradient and three down

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gradient monitoring points.

Section 66265.97(e)(15) : This section is based on proposed section 66264.97(e)(15). Language has been added to incorporate an existing federal requirement that the owner or operator determine at least annually whether or not the requirements for locating ground water monitoring points are satisfied. If the ground water monitoring system is found to be inadequate, the owner or operator must make appropriate changes to the system as soon as technically feasible.

Section 66265.97(e)(16) : This section has been added to incorporate an existing federal requirement to establish background values for a specific set of parameters by quarterly sampling for at least one year. It is expected that most facilities will have already satisfied this requirement pursuant to other state and federal regulations. Such facilities will not be required to repeat the determination.

Section 66265.97(e)(17) : Based on proposed section 66264.97(e)(16) this section has been modified to incorporate several specific reporting requirements for interim status facilities from existing federal requirements.

Section 66265.98 : This section is based on proposed section 66264.98. It contains the detailed requirements for an owner or operator who is required to implement a detection monitoring program. This section conforms to the corresponding regulation except as follows :

Section 66265.98 (e) (6) : This section has been added to require that the owner or operator consider the list of leak detection analytes presented in Appendix VI to Chapter 15 when specifying monitoring parameters for a detection monitoring program. Selection of a suitable list of monitoring parameters is a critically important step in the design of an effective water quality monitoring program. In order to provide the owner or operator with guidance in making the selection, Appendix VI has been added to this chapter with a list of suggested leak detection analytes. This list has been compiled by USEPA based on investigations by USEPA's Environmental Monitoring Systems Laboratory in Las Vegas, Nevada.

Section 66265.98(f) : This section has been added in order to incorporate existing federal requirements for the use of specific monitoring parameters during a detection monitoring program. Provisions have been added to allow the Department to approve the use of substitute parameters if the substitutes

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are more likely to provide early detection of a release from the regulated unit.

Section 66265.98(n)(5)(E) : This subsection has been added to incorporate an equivalent provision from federal regulations that the amended plan required under this subsection must include a schedule of implementation.

Section 66265.99 : This section is based on proposed section 66264.99. It contains the detailed requirements for an owner or operator who is required to implement an evaluation monitoring program. This section conforms to the corresponding regulation except as follows :

Section 66265.99(b) : The requirements from existing Title 22 section 67194(d)(5) that the owner or operator must complete the environmental "assessment as soon as possible and, within 15 days of completion, shall submit to the Department a written report containing an assessment of the environmental quality" has been added to this section in order to maintain the existing stringency of Title 22. Language has also been added to incorporate an equivalent provision from existing federal regulations that the assessment include a determination of the rate of migration of hazardous constituents.

Section 66265.99 (d) : This section is based on proposed Section 66264.99(d). The requirement to submit an application for a permit modification has been changed to reflect the condition of interim status. The owner or operator is required to use the information obtained during the evaluation monitoring program to prepare for a corrective action program under section 66264.100 of Article 6 to Chapter 14.

Section 66264.99 (e) (3) : This section is based on proposed section 66264.99(e)(3). This section has been modified to incorporate an existing federal requirement that groundwater sampling be conducted at least quarterly. A provision has been added to allow the Department to approve semi-annual sampling and analysis based on the rate of ground water flow beneath the facility.

Section 66265.99 (e) (4) : This section is based on proposed section 66264.99(e)(4). A requirement to monitor for constituents of concern at least every five years has been added to this section. This is a requirement for permitted facilities for both detection monitoring and for corrective action. For permitted facilities, the minimum five-year interval for sampling for constituents of concern was not

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included for evaluation monitoring because the initial site characterization needed to design the water quality monitoring system should allow the evaluation of a release and the preparation for corrective action to proceed quickly. This minimum requirement is needed for interim status facilities because it is possible that a regulated unit which is waiting to be permitted could remain in an evaluation monitoring program under this chapter for longer than five years.

Section 66265.99(e)(8) : This section has been added to incorporate an equivalent provision from federal regulations that the owner or operator report to the Department by March 1 of each year on the results of the evaluation monitoring program. This report must include an annual determination of the rate of migration of hazardous constituents in ground water.

2.6.7 Article 7 of Chapter 15 sets forth general requirements for closure and post-closure care of interim status facilities. This article is based on 40 CFR Part 265 Subpart G, Title 22 CCR Division 4 Chapter 30 Article 23, Title 14 CCR Section 15063, Health and Safety Code Sections 25245 and 25246, and Business and Professions Code Sections 6704 and 6732. The proposed regulations duplicate the effect of those existing laws.

2.6.8 Article 8 of Chapter 15 sets forth financial responsibility requirements for interim status facilities. This article is based on 40 CFR Part 265 Subpart H and Title 22 CCR Division 4 Chapter 30 Article 17. This article conforms to the effect of those existing laws.

2.6.9 Article 9 of Chapter 15 sets forth requirements for the use and management of containers at interim status facilities. This article is based on 40 CFR Part 265 Subpart I and Title 22 CCR Division 4 Chapter 30 Article 24. This article conforms to the effect of those existing regulations.

2.6.10 Article 10 of Chapter 15 sets forth requirements for design, construction, use, monitoring, inspections, and closure for tank systems at interim status facilities. It is based on 40 CFR Part 265 Subpart J and Title 22 Division 4 Chapter 30 Article 25 and conforms to the effect of those regulations with the following exceptions:

Federal interim status rules for tanks at interim status facilities require a structural integrity assessment for tanks lacking secondary containment. The proposed rules extend this requirement to similar tanks used for storage or treatment of non-RCRA hazardous waste in proposed Section 66265.191. Application of the structural integrity assessment to non-RCRA

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facilities will decrease the chances of a catastrophic failure of an affected tank system. Thus, this change from existing law will have a positive environmental impact, if any impact at all.

Federal interim status rules for tanks at interim status facilities establish a phased-in schedule for construction of secondary containment of tanks at RCRA hazardous waste facilities. The proposed rules extend this phased-in schedule to tanks at non-RCRA hazardous waste facilities in proposed Section 66265.193. Addition of this requirement to non-RCRA facilities ensures that all tanks at hazardous waste facilities will have secondary containment; thus, this addition will have a positive environmental impact.

Federal regulations require that a tank system contain runoff or infiltration from a specified storm. Proposed Section 66265.193(g) specifies that the tank system must contain runoff and infiltration from the specified storm. By requiring capacity in the secondary containment system for both runoff and infiltration during a large storm, containment capacity will be increased and escape of hazardous constituents from the secondary containment will be smaller and later than under current regulations. Thus, this addition will have a positive effect on the environment.

2.6.11 Article 11 of Chapter 15 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of surface impoundments at interim status facilities. It is based on 40 CFR Part 265 Subpart K, Title 22 CCR Division 4 Chapter 30 Article 26, and Health and Safety Code Chapter 6.5 Article 9.5 and conforms to the effect of those regulations except for the following:

In Section 66265.221, the federal requirement that interim status surface impoundments be equipped with double liners and leachate collections systems is being applied to surface impoundments managing only non-RCRA hazardous waste. The double liner and leachate collection system required by this regulation confines leaks and allow leaks to be pumped from between the liners and disposed of properly. Thus, this requirement adds significantly to the environmental protection of wastes stored in surface impoundments and will have a positive impact on the environment.

2.6.12 Article 12 of Chapter 15 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of waste piles at permitted facilities. It is based on 40 CFR Part 265 Subpart L and Title 22 CCR Division 4 Chapter 30 Article 27 and conforms to the effect of those

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regulations except as follows:

In Section 66265.254, the federal requirement that all waste piles receiving RCRA hazardous waste have two liners and leachate collection is extended to waste piles receiving only non-RCRA hazardous waste after the effective date of the proposed regulations. The double liner and leachate collection system required by this regulation confines leaks and allow leaks to be pumped from between the liners and disposed of properly. Thus, this requirement adds significantly to the environmental protection of wastes stored in waste piles and will have a positive impact on the environment.

2.6.13 Article 13 of Chapter 15 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of land treatment units at permitted facilities. It is based on 40 CFR Part 265 Subpart M, Title 22 CCR Division 4 Chapter 30 Article 28, and Health and Safety Code Chapter 6.5 Article 9.6 and conforms to the effect of those laws except as follows:

In Section 66265.276, the ban on growth of food chain crops applied by State regulations to permitted land treatment facilities has been extended to interim status land treatment facilities. This additional requirement increases the chances that humans will not be poisoned by constituents incorporated into food chain crops grown on land treatment units and will have a positive impact on the environment.

2.6.14 Article 14 of Chapter 15 sets forth requirements for design, construction, operation, monitoring, inspection, closure and post-closure care of landfills at interim status facilities. It is based on 40 CFR Part 265 Subpart N, Title 22 CCR Division 4 Chapter 30 Article 29, and Health and Safety Code Section 25179.5 and conforms to the effect of those laws except for the following:

In Section 66265.254, the federal requirement that all landfills receiving RCRA hazardous waste have two liners and leachate collection is being extended to landfills receiving only non-RCRA hazardous waste after the effective date of the proposed regulations. The double liner and leachate collection system required by this regulation confines leaks and allow leaks to be pumped from between the liners and disposed of properly. Thus, this requirement adds significantly to the environmental protection of wastes stored in waste piles and will have a positive impact on the environment.

2.6.15 Article 15 of Chapter 15 sets forth requirements for

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design, construction, operation, monitoring, inspection, closure and post-closure care of incinerators at permitted facilities. It is based on 40 CFR Part 265 Subpart O and Title 22 CCR Division 4 Chapter 30 Article 30 and conforms to the effect of those regulations.

2.6.16 Article 16 of Chapter 15 sets forth requirements for interim status facilities using thermal treatment other than incineration to destroy hazardous wastes. This article is based on 40 CFR Part 265 Subpart P and Title 22 Division 4 Chapter 30 Article 31 and conforms to the effect of these regulations.

2.6.17 Article 17 of Chapter 15 sets forth requirements for owners and operators of interim status facilities which use chemical, physical, or biological methods to treat hazardous waste. It is based on 40 CFR Part 265 Subpart Q and Title 22 Division 4 Chapter 30 Article 32 and conforms to the effect of these regulations.

2.6.18 Article 18 of Chapter 15 sets forth environmental monitoring and corrective action programs for interim status facilities. These programs cover monitoring of air, soil, and soil pore gas and corrective action to be taken in the event of a release (the regulations for monitoring of water quality are found in proposed Article 6 of Chapter 15). This article is based on Title 22 CCR division 4 Chapter 30 Article 22 and conforms to the effect of that regulation except for the excision of the water quality monitoring requirements of existing Article 22 which have been moved into proposed Article 6 of Chapter 15.

2.6.19 The Appendices to Chapter 15 are as follows:

Appendix I to Chapter 15 establishes additional recordkeeping instructions for portions of the operating record for a facility. It is based on Appendix I to 40 CFR Part 265 and conforms to that appendix except for incorporation of language requiring the use of California Hazardous Waste Codes for non-RCRA hazardous waste.

Appendix V to Chapter 15 sets forth examples of potentially incompatible waste streams. It is based on Appendix V to 40 CFR Part 265 and conforms to the effect of that appendix.

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2.7 CHAPTER 16

This chapter establishes requirements applicable to recyclable materials (i.e., recyclable hazardous wastes).

2.7.1 Article 1 of Chapter 16 establishes lists of potentially recyclable hazardous waste types and establishes the Department's authority to question the disposal of those wastes in lieu of recycling. This article is based on Title 22 CCR Sections 66763 and 66766 and conforms to the effect of those sections.

2.7.2 Article 2 of Chapter 16 establishes requirements for generators, transporters, and facilities managing hazardous waste which is recycled. This article is based on Title 22 CCR Sections 66798, 66800, 66802, 66804, 66806, 66808, 66810, 66812, and 66814. This article conforms with these existing regulations except as follows:

In Section 66266.5, wording on warning signs around the property perimeter has been qualified by a statement requiring it to be equivalent to the warning language required for hazardous waste facilities under federal law. This requirement assures that warning signs for non-federally regulated facilities will be as protective as signs for federally regulated facilities.

In Section 66266.6(a)(1), the existing exemption for agricultural products derived from hazardous waste is being limited to those products derived from non-RCRA hazardous waste. This limitation is necessary to conform that section to federal law.

2.7.3 Article 4 of Chapter 16 sets forth requirements for use of hazardous waste and certain used oils as fuels. It applies to some of the oils which are exempt oils pursuant to Health and Safety Code Section 25250.1 (and are thus not regulated under existing State law) and hazardous wastes whose burning is not regulated under State law. This article is based on 40 CFR Part 266 Subpart D and Health and Safety Code Section 25250.1 and duplicates the effect of that existing federal law for those oils meeting the recycled oil specification found in Health and Safety Code Section 25250.1 and those hazardous wastes exempt from regulation when burned under existing State law.

2.7.4 Article 5 of Chapter 16 is reserved for another rulemaking.

2.7.5 Article 6 of Chapter 16 sets forth requirements for management of used oil in addition to those found in Article 13 of

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Chapter 6.5 of the Health and Safety Code. This article is based on 40 CFR Part 266 Subparts C, D, and E, and Article 13 of Chapter 6.5 of Division 20 of the Health and Safety Code. It sets forth the few used oil management standards found in federal law which are more stringent than that Health and Safety Code article. This article duplicates the effect of those laws.

2.7.6 Article 7 of Chapter 16 sets forth requirements for management of spent lead-acid storage batteries. This article is based on existing Title 22 CCR Section 66822 and duplicates the effect of that regulation.

2.7.7 Article 8 of Chapter 16 sets forth requirements for recyclable materials (recyclable hazardous wastes) used in agriculture. This article is based on existing Title 22 CCR Sections 66816, 66818, and 66820 and duplicates the effect of those regulations.

2.7.8 Article 9 of Chapter 16 sets forth requirements for recycling of waste elemental mercury which does not exhibit the characteristic of EP toxicity. It is based on existing Title 22 CCR Section 66823 and duplicates the effect of that regulation.

2.8 CHAPTER 18

This chapter sets forth land disposal restrictions and treatment standards for disposal of hazardous waste to land. It is based on 40 CFR Part 268, Title 22 CCR Division 4 Chapter 30 Article 15, and Health and Safety Code Sections 25179 through 25179.12.

2.8.1 Article 1 of Chapter 18 establishes scope and applicability for Chapter 18, a ban on storage in lieu of treatment, and criteria and procedures for obtaining variance from the requirements of Chapter 18. It is based on 40 CFR Part 268 Subpart A and Article 7.7 of Chapter 6.5 of Division 20 of the Health and Safety Code and duplicates the effect of those laws.

2.8.2 Article 2 of Chapter 18 establishes the schedule EPA will follow in establishing land disposal restrictions and treatment standards for all federally regulated hazardous waste. This section is based on 40 CFR Part 268 Subpart B and duplicates the effect of that regulation.

2.8.3 Article 3 of Chapter 18 establishes prohibitions from land disposal for specific untreated hazardous wastes. This Article is based on 40 CFR Part 268 Subpart C and Article 7.7 of Chapter 6.5 of Division 20 of the Health and Safety Code and duplicates the effect of those laws.

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2.8.4 Article 4 of Chapter 18 establishes treatment standards for RCRA hazardous wastes and procedures for variance from those treatment standards. This article is based on 40 CFR Part 268 Subpart D and Health and Safety Code Section 25179.6

2.8.5 Article 5 of Chapter 18 establishes a ban on storage of land disposal restricted hazardous wastes in lieu of treatment. It is based on 40 CFR Section 268.50 and duplicates the effect of that regulation.

2.8.6 The appendices to Chapter 18 are as follows:

Appendix I to Chapter 18 contains the Toxicity Characteristics Leaching Procedure (TCLP), a laboratory test used to determine conformance with certain treatment standards. This appendix is based on Appendix I to 40 CFR Part 268 and duplicates the effect of that appendix.

Appendix II to Chapter 18 contains treatment standards for specified solvent wastes expressed as concentrations in the waste extract. It is based on Appendix II to 40 CFR Part 268 and duplicates the effect of that appendix.

Appendix III to Chapter 18 contains a table listing halogenated organic compounds regulated under proposed Section 66268.32. It is based on Appendix III to 40 CFR Part 268 and existing Title 22 CCR Articles 9 and 15 of Chapter 30 of Division 4 and duplicates the effect of those regulations.

2.9 CHAPTER 20

This chapter establishes the general procedural requirements for hazardous waste permits. It establishes who must obtain a permit, what information is required in the Part A, Part B and other submittals, requirements for permit transfer, modification, reissuance, revocations, and terminations, and special forms of permits.

2.9.1 Article 1 of Chapter 20 establishes purpose, scope, and applicability for Chapter 20, lists other federal acts which bear on hazardous waste facility permits for facilities managing RCRA hazardous waste, discusses the effect of a permit, and establishes requirements for reporting and noncompliance. This article is based on 40 CFR Part 270 Subpart A, Articles 5, 9, and 12 of Chapter 6.5 of Division 20 of the Health and Safety Code, and Article 4 of Division 4 of Chapter 30 of Title 22 CCR. This article conforms to the effect of those existing laws.

2.9.2 Article 2 of Chapter 20 establishes general requirements

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pertinent to permit applications and the specific contents of Part A and Part B of the permit application. This article is based on 40 CFR Part 270 Subpart B, Article 9 of Chapter 6.5 of Division 20 of the Health and Safety Code, and Title 22 CCR Sections 66372, 66373, 66390, and 66391 and conforms to the effect of those existing laws.

2.9.3 Article 3 of Chapter 20 sets forth conditions applicable to all hazardous waste facility permits and requirements for recording and reporting monitoring results, establishing specific permit conditions, and specifying schedules of compliance. This article is based on 40 CFR Part 270 Subpart C, Article 9 of Chapter 6.5 of Division 20 of the Health and Safety Code, and Title 22 CCR Sections 66374, 66376, 66378, and 66379 and conforms to the effect of those existing laws.

2.9.4 Article 4 of Chapter 20 sets forth the requirements for the transfer, major modification, revocation and reissuance, minor modification, denial, and termination of hazardous waste facility permits. This article is based on 40 CFR Part 270 Subpart D, Article 9 of Chapter 6.5 of Division 20 of the Health and Safety Code, and Title 22 CCR Sections 66381, 66382, 66383, 66384, and 66385 and conforms to the effect of those laws.

2.9.5 Article 5 of Chapter 20 sets forth the requirements concerning the duration and continuation of hazardous waste facility permits. It is based on 40 CFR Part 270 Subpart E, Article 9 of Chapter 6.5 of Division 20 of the Health and Safety Code, and Title 22 CCR Section 66377 and conforms to the effect of those laws.

2.9.6 Article 6 of Chapter 20 sets forth conditions necessary for permits by rule, issuance of emergency permits, incinerator trial burn permits, permits for land treatment demonstrations, and research, development, and demonstration permits. This article is based on 40 CFR Part 270 Subpart F, Title 22 CCR Section 66393, and Health and Safety Code Section 25159.15.

2.9.7 Article 7 of Chapter 20 sets forth conditions necessary for qualifying for interim status, operation and changes during interim status, and termination of interim status. It is based on 40 CFR Part 270 Subpart F, Article 9 of Chapter 6.5 of Division 20 of the Health and Safety Code, and Title 22 CCR Section 66389 and conforms to the effect of those laws.

2.9.8 Appendix I to Chapter 20 lists types of permit modification and indicates a classification for each type of modification. This appendix is based on Appendix I to 40 CFR Part 270 and conforms to the effect of that regulation.

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2.10 CHAPTER 21

This chapter sets procedures for issuing, modifying, denying, reissuing, revoking, and terminating permits other than emergency permits and permits-by-rule. This chapter is based on 40 CFR Part 124 Subpart A, the EPA's general procedures for making permit decisions, Title 22 CCR Chapter 30 Division 4 Articles 2 and 4, Chapter 6.5 of Division 20 of the Health and Safety Code, and Chapter 4.5 of Division 1 of the Government Code. This chapter conforms to the effect of those articles.

2.11 CHAPTER 22

This chapter specifies the inspection authority for Department representatives, the delegation of the Department's enforcement authority, payment of rewards to informants, and limitations on enforcement authority of local agencies. This article is based on Title 22 CCR Section 66315 and Article 3 of Chapter 30 of Division 4, and Health and Safety Code Sections 25185 and 25191.7 and conforms to the effect of those laws.

2.12 CHAPTER 39

This chapter sets forth standards for applying for designation, variance from designation, and removal of designation of real property as hazardous waste property or border zone property. This chapter is taken directly from Title 22 CCR Sections 67650 and 67651.

2.13 CHAPTER 40

This chapter sets forth selection and ranking criteria for hazardous waste sites requiring remedial action (cleanup). This chapter is taken directly from Title 22 CCR Sections 66951 and 66953. Because this chapter is identical to those existing Title 22 CCR sections with the exception of numbering, they are identical in effect to those existing Title 22 CCR sections.

2.14 CHAPTER 41

This chapter sets forth a program for regulation of toxic chemical toilet additives with prohibitions on sale and use, criteria for their identification, and enforcement provisions. This chapter was incorporated from Title 22 CCR Sections 66880, 66883, 66886, 66889, 66892, 66895, and 66898. Because this chapter is identical to those existing Title 22 CCR sections with the exception of

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numbering and generic changes, they are identical in effect to those existing Title 22 CCR sections.

2.15 CHAPTER 42

This sections sets forth standards for managing infectious waste. This chapter was incorporated from Title 22 CCR Sections 66835, 66840, 66845, 66850, 66855, 66860, and 66865. This chapter is identical to those existing Title 22 CCR sections with the exception of numbering and generic changes and the addition of the term "transfer" to those infectious waste management activities which are regulated. Transfer includes activities such as pumping, repackaging, and consolidation of infectious waste off the generator's site. These activities are regulated currently as "treatment" of the infectious waste; however, the addition of this specific term clarifies that transfer of infectious waste is a regulated activity. This clarification lessens the probability of persons not realizing that transferring infectious waste requires a permit and mistakenly transferring infectious waste without the environmental protections resulting from the permitting process. Because these sections are identical in effect to those existing Title 22 CCR sections with the addition of the requirement that transfer be regulated, the result of the changes to these regulations will be regulation of previously unregulated activities resulting in reduced chance of adverse environmental impact due to mismanaging the transfer of infectious waste.

2.16 CHAPTER 43

This chapter establishes additional requirements for managing extremely hazardous waste including an extremely hazardous waste disposal permit requirement and special emergency response requirements for spills of extremely hazardous waste. This chapter was incorporated from Title 22 CCR Sections 66570, 66595, 66620, and 66645. The proposed regulations are identical to those existing Title 22 CCR sections with the exception of numbering changes; thus, these regulations are identical in effect to those existing Title 22 CCR sections.

2.17 CHAPTER 44

This chapter sets forth the State's hazardous waste testing laboratory certification program including the certification requirement, lists of test categories, standards for quality assurance programs, laboratory equipment, personnel testing, and periodic proficiency testing. These regulations were incorporated from Title 22 CCR Sections 67600, 67601, 67602, 67603, 67604,

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67605, and 67606. The proposed regulations are identical to those existing Title 22 CCR sections except for the addition of two tests (Toxicity Characteristics Leaching Procedure (TCLP) and EP Toxicity Test) to the list of tests for which laboratories must be certified. Addition of these tests to the list of those for which laboratories must obtain certification increases the probability that results of these tests, when used in hazardous waste management decisions, will be correct and lead to the correct decision. Thus, the result of the changes to the laboratory certification regulations will be enhanced environmental protection.

2.18 CHAPTER 45

This chapter sets forth requirements for obtaining a permit-by-rule for transportable treatment units treating only non-RCRA hazardous waste. This chapter incorporates Title 22 CCR Sections 66371(b)(4), 66392(d), 66747, 67034, and 67035. The proposed regulation is identical to the above Title 22 CCR sections except for generic and numbering changes and for the addition of four additional financial instruments which can be used to guarantee financial assurance. These additional financial instruments merely add new ways that financial assurance can be demonstrated; they do not lower the amount or availability of the money set aside for financial assurance. Thus, adoption of Chapter 45 cannot cause adverse environmental impacts.

3. ANALYSIS FOR ADVERSE ENVIRONMENTAL IMPACTS

3.1 ENVIRONMENTAL CHECKLIST

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
1. Earth. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	___	___	<u>X</u>
b. Disruptions, displacements, compaction or overcovering of the soil?	___	___	<u>X</u>
c. Change in topography or ground surface relief features?	___	___	<u>X</u>
d. The destruction, covering or modification of any unique geologic or physical features?	___	___	<u>X</u>
e. Any increase in wind or water erosion of soils, either on or off the site?	___	___	<u>X</u>
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	___	___	<u>X</u>
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	___	___	<u>X</u>
2. Air. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality?	___	___	<u>X</u>
b. The creation of objectionable odors?	___	___	<u>X</u>
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	___	___	<u>X</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
3. Water. Will the proposal result in:			
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	_____	_____	<u>X</u>
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	_____	_____	<u>X</u>
c. Alternations to the course	_____	_____	<u>X</u>
d. Change in the amount of surface water in any water body?	_____	_____	<u>X</u>
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	_____	_____	<u>X</u>
f. Alternation of the direction or rate of flow of ground waters?	_____	_____	<u>X</u>
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	_____	_____	<u>X</u>
h. Substantial reduction in the amount of water otherwise available for public water supplies?	_____	_____	<u>X</u>
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	_____	_____	<u>X</u>
4. Plant Life. Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	_____	_____	<u>X</u>
b. Reduction of the numbers of any unique, rare or endangered species of plants?	_____	_____	<u>X</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	_____	_____	<u>X</u>
d. Reduction in acreage of any agricultural crop?	_____	_____	<u>X</u>
5. Animal Life. Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	_____	_____	<u>X</u>
b. Reduction of the numbers of any unique, rare or endangered species of animals?	_____	_____	<u>X</u>
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	_____	_____	<u>X</u>
d. Deterioration to existing fish or wildlife habitat?	_____	_____	<u>X</u>
6. Land Use. Will the proposal result in a substantial alteration of the present or planned land use of an area?	_____	_____	<u>X</u>
7. Natural Resources. Will the proposal result in an increase in the rate of use of any natural resources?	_____	_____	<u>X</u>
8. Risk of Upset. Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	_____	_____	<u>X</u>
b. Possible interference with an emergency response plan or an emergency evacuation plan?	_____	_____	<u>X</u>

- | | <u>Yes</u> | <u>Maybe</u> | <u>No</u> |
|---|------------|--------------|-----------|
| 9. Transportation/Circulation. Will the proposal result in: | | | |
| a. Generation of substantial additional vehicular movement? | ___ | ___ | <u>X</u> |
| b. Effects on existing parking facilities, or demand for new parking? | ___ | ___ | <u>X</u> |
| c. Substantial impact upon existing transportation systems? | ___ | ___ | <u>X</u> |
| d. Alterations to present patterns of circulation or movement of people and/or goods? | ___ | ___ | <u>X</u> |
| e. Alterations to waterborne, rail or air traffic? | ___ | ___ | <u>X</u> |
| f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians? | ___ | ___ | <u>X</u> |
| 10. Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas: | | | |
| a. Fire protection? | ___ | ___ | <u>X</u> |
| b. Police protection? | ___ | ___ | <u>X</u> |
| c. Schools? | ___ | ___ | <u>X</u> |
| d. Parks or their recreational facilities? | ___ | ___ | <u>X</u> |
| e. Maintenance of public facilities, including roads? | ___ | ___ | <u>X</u> |
| f. Other governmental services? | ___ | ___ | <u>X</u> |
| 11. Energy. Will the proposal result in: | | | |
| a. Use of substantial amounts of fuel or energy? | ___ | ___ | <u>X</u> |
| b. Substantial increase in demand upon existing sources or energy, or require the development of new sources of energy? | ___ | ___ | <u>X</u> |

- | | <u>Yes</u> | <u>Maybe</u> | <u>No</u> |
|---|------------|--------------|-----------|
| 12. Utilities. Will the proposal result in a need for new systems, or substantial alterations to any utilities? | _____ | _____ | <u>X</u> |
| 13. Human Health. Will the proposal result in: | | | |
| a. Creation of any health hazard or potential health hazard (excluding mental health)? | _____ | _____ | <u>X</u> |
| b. Exposure of people to potential health hazards? | _____ | _____ | <u>X</u> |

A standard review of a location-specific project would typically include the following categories:

- o Noise
- o Light and Glare
- o Aesthetics
- o Housing
- o Recreation
- o Cultural Resources

However, the proposed regulations are not location-specific; they create Statewide hazardous waste management standards. Therefore, the categories listed above do not apply to the general standards such as these regulations and were omitted for the purposes of this CEQA review. Should a proposal be made in the future to site a specific hazardous waste treatment facility, an additional CEQA review, including the categories listed above, would be required (CEQA, Section 21001.1).

14. Mandatory Findings of Significance.

- | | <u>Yes</u> | <u>Maybe</u> | <u>No</u> |
|--|------------|--------------|-----------|
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | _____ | _____ | <u>X</u> |

- b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future). ___ ___ X
- c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) ___ ___ X
- d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ___ ___ X

3.2 NARRATIVE DESCRIPTION OF ENVIRONMENTAL IMPACTS

The detailed analysis portion (2.) of this document identified those provisions of this regulation package with potential effects on the environment. These provisions have been identified as having potential impacts because they lead to regulation of hazardous waste which is different from the aggregate effect of existing State and federal law. Those provisions (the majority of this regulation package) which merely duplicate the aggregate effect of existing law will not cause any impact on the environment. Thus, they do not meet the definition of a "project" and are not subject to this CEQA analysis.

This portion of the document focuses on the major affected media and examines the effect of adoption of these regulations in light of the effects on those media.

3.2.1 EARTH

Several of the changed provisions may affect earth because of their effect on land disposal of hazardous waste. All hazardous waste is ultimately disposed of to land in untreated form or as treated residuals. Thus, standards affecting identification of hazardous

waste will affect earth.

The proposed contaminated container regulations, Section 66261.7, apply standards new to State law addressing contaminated containers. Existing State law addressing contaminated containers is duplicated in the incorporation of exemptions from regulation for contaminated pesticide containers managed by farmers and emptied household hazardous material and pesticide containers (Title 22 CCR Section 66300) and repeat of the statutory exemption (Health and Safety Code Section 25143.2(d)(6) for containers reused for the same hazardous material. The Third Appellate court states in their decision, "People vs. Martin", 211 Cal.App.3d 699(1989), that Health and Safety Code Section 25159.5 applies the federal rules to any area of hazardous waste management not specifically addressed in State regulation or statute. The Department agrees with this interpretation and has applied this standard informally. In this rulemaking, public comment addressing a perceived lack of clarity regarding classification of contaminated containers led to the addition of specific container rules. These rules incorporate portions of the federal empty container rules (40 CFR Section 261.7) but have been modified to satisfy Departmental concerns about the effect of certain federal provisions. For the purposes of this analysis, only those provisions of the proposed empty container regulations which differ from existing State law and from 40 CFR Section 261.7 will be considered to be a change in existing law and, thus, a potential impact on the environment. Federal regulations for containers which did not hold an acutely hazardous waste state that the container can be managed as nonhazardous when less than one inch or less than 3% of the original contents by weight remain inside the container. For contaminated drums, the Department feels that this provision, allowing as much as 14 pounds of hazardous material to be disposed with an empty drum, is not sufficiently protective of the environment. The Department is requiring disposal of contaminated drums as hazardous waste or recycling of the drum for its metal content unless the generator can show, through the normal waste classification procedure, that the drum and its remaining contents are not hazardous. This provision will have a beneficial impact on the environment by disallowing disposal of the federally acceptable residue and by encouraging reuse and recycling of the used drums. For contaminated containers other than drums, existing rules (vis-a-vis People vs. Martin) allow these containers to be disposed as nonhazardous when less than one inch or less than 3% of the original contents by weight remain inside the container. These regulations add two requirements which must be satisfied before nonhazardous disposal of the containers. They must be emptied per the federal standard of less than one inch or 3%, and they must be emptied of as much material as can be emptied in the normal use of the container. Then, the container must be punctured, shredded, crushed, or otherwise rendered unusable as a container. The proposed regulations ensure that less residue will be disposed of with the container and that there will be no incentive for reuse

of the container in a dangerous manner (ie: to hold food or incompatible materials). Thus, the provisions of this regulation have a potential positive effect on the earth medium by decreasing the amount of material disposed with empty containers and preventing dangerous reuse of those containers. Thus, the proposed contaminated container regulations, proposed Section 66261.7, will have only potential beneficial impacts on the environment.

Appendix XI to proposed Chapter 11 incorporates a test method for determining organic lead content of a waste. This method identifies materials as hazardous for exceeding the STLC or TTLC (proposed Section 66261.24) for lead which is attached to organic molecules such as tetraethyl lead, found in soils contaminated with leaded gasoline. Because these organic lead compounds can be highly volatile, they are difficult to characterize during normal analysis for lead causing some wastes to be identified incorrectly as nonhazardous. While this method is currently used in State testing laboratories, inclusion in this rulemaking will ensure that this method is used universally in California to identify wastes hazardous for organic lead content. Thus, inclusion of this test method will have a potential beneficial effect on the environment by curtailing nonhazardous disposal of wastes with organic lead contents above the regulatory limits.

Article 10 of Chapter 15 includes new provisions applying federal interim status regulations for tanks and tank systems at interim status facilities to non-RCRA facilities. These provisions require a structural assessment for certain tanks, construction of secondary confinement under a schedule of compliance, and require that the secondary containment be significantly greater in capacity than federal law. These new requirements decrease the chance of a catastrophic failure of a tank system and require sufficient containment to hold the contents of a failed tank plus storm precipitation and runoff. Thus, addition of these new requirements for tanks at non-RCRA interim status facilities will have a beneficial effect on earth by decreasing the chances of a failed tank contaminating soil.

Article 11 of Chapter 15 includes new provisions which apply the federal requirements that surface impoundments at interim status facilities have double liners and leachate collection systems to surface impoundments at non-RCRA interim status facilities. The double liner system confines leaks from the inner liner (only liner for non-RCRA interim status surface impoundments under existing law) to the space between the liners. The leak in this space can be detected before it enters the environment, the leaked material can be removed by the leachate collection system, and the inner liner repaired before any hazardous waste is released to the environment. Application of these provisions will have a beneficial effect on earth by decreasing the chances of a leak becoming a release of hazardous constituents into surrounding soil.

Article 12 of Chapter 15 includes new provisions which apply the federal requirements that waste piles at interim status facilities have double liners and leachate collection systems to waste piles at non-RCRA interim status facilities. The double liner system confines leachate leaking from the inner liner (only liner for non-RCRA interim status waste piles under existing law) to the space between the liners. The leak in this space can be detected before it enters the environment, the leaked material can be removed by the leachate collection system, and the inner liner repaired before any hazardous waste is released to the environment. Application of these provisions will have a beneficial effect on earth by decreasing the chances of leachate from waste piles escaping into surrounding soils.

Article 14 of Chapter 15 includes new provisions which apply the federal requirements that landfill units at interim status facilities have double liners and leachate collection systems to landfill units at non-RCRA interim status facilities. The double liner system confines leachate leaking from the inner liner (only liner for non-RCRA interim status landfill units under existing law) to the space between the liners. The leak in this space can be detected before it enters the environment, the leaked material can be removed by the leachate collection system, and the inner liner repaired before any hazardous waste is released to the environment. Application of these provisions will have a beneficial effect on earth by decreasing the chances of leachate from landfill units escaping into surrounding soils.

No other provisions have been changed which could potentially affect the earth.

3.2.2 AIR

The authorization regulation package proposes no changes in the Department's environmental monitoring regulations addressing air. These regulations are found in Article 19 of proposed Chapter 14 and Article 18 of proposed Chapter 15 and have been incorporated from existing Title 22 CCR with no change in effect. Other changes which could effect air are:

Section 66261.7, addressing regulation of contaminated containers, adds the requirement that as much material be emptied from small containers before nonhazardous disposal as can be in normal use in addition to applying the federal rules (less than 3% of the contents remaining or less than one inch remaining). Many of these liquids are solvents with high vapor pressures. Under the proposed regulations, much of the one inch or 3% of solvent allowed under existing law will be used in processes rather than discarded into a nonhazardous landfill where it could vaporize into the air.

Addition of the test method for organic lead as Appendix XI to

proposed Chapter 11 will identify wastes as hazardous wastes for their content of organic lead; organic lead may currently be under identified due to the inappropriateness of application of tests for inorganic lead to organic lead containing wastes. Because the major organic lead compounds of concern are highly volatile, proper identification of those wastes which are hazardous is important to ensure that wastes containing organic lead are disposed with the protections of the hazardous waste law. In lieu of disposal as hazardous, nonhazardous disposal may let the organic lead compounds vaporize into the air. Thus, this addition will have a potential positive affect on air.

Article 10 of Chapter 15 includes new provisions applying federal interim status regulations for tanks and tank systems at interim status facilities to tanks at non-RCRA interim status facilities. These provisions require a structural assessment for certain tanks, construction of secondary confinement under a schedule of compliance, and require that the secondary containment be significantly greater in capacity than federal law. These new requirements decrease the chance of a catastrophic failure of a tank system and require sufficient containment to hold the contents of the tank plus storm precipitation and runoff. Tanks at interim status hazardous waste facilities often hold volatile liquids such as solvents and contaminated petroleum products. The addition of structural integrity testing decreases the likelihood that a tank will fail catastrophically allowing its contents to vaporize. In addition, the secondary containment requirements being added will allow liquids released in a tank failure to be contained and pumped into secure storage much more quickly than would a spill covering a large area. The rapid response permitted by containment of spills will allow faster cleanup and less volatilization of released hazardous wastes. Thus, these additional requirements will have a potential positive effect on air.

No other provisions have been changed which could potentially affect the air.

3.2.3 WATER

Most of the changes that the Department is proposing in the effect of the regulations have a potential impact on water. Most hazardous waste is treated and ultimately disposed to land or disposed to land untreated. Disposal of waste as hazardous waste applies the groundwater and surface water protections of the hazardous waste control law to those disposals. These protections include the land disposal restrictions for certain untreated hazardous wastes, double liners and leachate collections systems for hazardous waste landfill units, and other special requirements of the hazards waste control law. These protections ensure that hazardous constituents from disposed hazardous waste will not migrate from the disposal unit into surface water or into

groundwater. In additions, unauthorized releases of hazardous waste usually affect water quality, either groundwater or surface water. Potential effects on water of specific changes to the effect of the regulations are discussed below:

The proposed contaminated container regulations, Section 66261.7, apply standards new to State law to contaminated containers. Management of contaminated containers can affect water because these containers will be ultimately disposed in some manner. Nonhazardous disposal facilities lack the protections built into the permit and interim status regulations for facilities disposing of hazardous waste and can release hazardous constituents into both groundwater and surface water and ultimately into marine and estuarine waters. Existing State law addressing contaminated containers is duplicated in the incorporation of exemptions from regulation for contaminated pesticide containers managed by farmers and emptied household hazardous material and pesticide containers (Title 22 CCR Section 66300) and repeat of the statutory exemption (Health and Safety Code Section 25143.2(d)(6) for containers reused for the same hazardous material. The Third Appellate court states in their decision, "People vs. Martin", 211 Cal.App.3d 699(1989), that Health and Safety Code Section 25159.5 applies the federal rules to any area of hazardous waste management not specifically addressed in the State regulation or statute. The Department agrees with this interpretation and has applied this standard informally. In this rulemaking, public comment about the lack of clarity regarding classification of contaminated containers led to the addition of specific container rules. These rules incorporate portions of the federal empty container rules (40 CFR Section 261.7) but have been modified to satisfy Departmental concerns about the effect of certain federal provisions. For the purposes of this analysis, only those provisions of the proposed empty container regulations which differ from existing State law and from 40 CFR Section 261.7 will be considered to be a change in existing law and, thus, a potential impact on the environment. Federal regulations for containers which did not hold an acutely hazardous waste state that the container can be managed as nonhazardous when less than one inch or less than 3% of the original contents by weight remain inside the container. For contaminated drums, the Department feels that this provision, allowing as much as 14 pounds of hazardous material to be disposed with an empty drum, is not sufficiently protective of the environment. The Department is requiring disposal of contaminated drums as hazardous waste or recycling of the drum for its metal content unless the generator can show, through the normal waste classification procedure, that the drum and its remaining contents are not hazardous. This provision will have a beneficial impact on the waters of the State by disallowing disposal of the federally acceptable residue and by encouraging reuse and recycling of the used drums. For contaminated containers other than drums, existing rules (vis-a-vis People vs. Martin) allow these containers to be disposed as nonhazardous when less than one inch or less than 3% of the

original contents by weight remain inside the container. These regulations add two requirements which must be satisfied before nonhazardous disposal of the containers. They must be emptied per the federal standard of less than one inch or 3%, and they must be emptied of as much material as would normally be emptied in the normal use of the container. Then, the container must be punctured, shredded, crushed, or otherwise rendered unusable as a container. The proposed regulations ensure that less residue will be disposed of with the container and that there will be no incentive for reuse of the container in a dangerous manner (ie: to hold food or incompatible materials). Thus, the provisions of this regulation have a potential positive effect on the waters of the State by decreasing the amount of material disposed with empty containers and preventing dangerous reuse of those containers. Thus, adoption of the contaminated container regulations, proposed Section 66261.7, will have only beneficial potential impacts on the environment.

Appendix XI to proposed Chapter 11 incorporates a test method for determination organic lead content of a waste. This method identifies materials as hazardous for exceeding the STLC or TTLC (proposed Section 66261.24) for lead which is attached to organic molecules such as tetraethyl lead, found in soils contaminated with leaded gasoline. Because these organic lead compounds can be highly volatile, they are often lost from the waste extract during normal analysis for lead causing some wastes to be identified incorrectly as nonhazardous. While this method is currently used in State testing laboratories, inclusion in this rulemaking will ensure that this method is used universally in California to identify wastes hazardous for organic lead content. Thus, inclusion of this test method will have a potential beneficial effect on water by applying the protections of the hazardous waste control law to disposal of wastes with organic lead contents above the regulatory limits.

Article 6 of proposed Chapter 14 sets forth standards for groundwater monitoring and for developing a groundwater protection standard for permitted facilities. Existing State hazardous waste control law requires the Department to incorporate any Waste Discharge Requirements (WDR's) developed by the State Water Quality Control Board (SWQCB) or one of the Regional Water Quality Control Boards for specific hazardous waste facilities into that facilities permit. If WDR's are not developed for a specific facility, the Department has relied on Title 22, Division 4, Chapter 30, Article 22 CCR and federal law, incorporated by Health and Safety Code Section 25159.5(b), to develop a groundwater protection standard for hazardous waste facilities. The Department has started with the language and format of the federal regulations. These regulations were then modified by addition of existing State requirements and then modified further by addition of new provisions. These new provisions were added to marry the State and federal water quality protection standards and to correct some of

the inconsistencies created by that marriage. As discussed in the detailed analysis portion of this document, the Department always chose more stringent alternatives when modifying existing requirements. No change in effect of the regulations identified in the detailed analysis section of this document can cause an adverse impact on water.

Article 6 of Chapter 15 establishes the water quality protection program for interim status facilities. Rather than use the 40 CFR Part 265 Subpart F requirements, the DHS chose to establish a more stringent program based on the proposed regulations for permitted facilities. These regulations, as discussed in the detailed analysis portion of this document, establish a water quality protection program more protective of the environment than the corresponding federal program which has been used as the basis for existing State water quality protection programs at interim status facilities. None of the changes to the effect of the regulations, as identified in the detailed analysis portion of the document for Article 6 of Chapter 15, can cause an adverse effect on water.

Article 10 of Chapter 15 includes new provisions applying federal interim status regulations for tanks and tank systems at interim status facilities to non-RCRA facilities. These provisions require a structural assessment for certain tanks, construction of secondary confinement under a schedule of compliance, and require that the secondary containment be significantly greater in capacity than federal law. These new requirements decrease the chance of a catastrophic failure of a tank system and require sufficient containment to hold the contents of the tank plus storm precipitation and runoff. Thus, addition of these new requirements for tanks at non-RCRA interim status facilities will have a beneficial effect on water by decreasing the chances of a failed tank releasing hazardous constituents which eventually migrate into groundwater or surface water.

Article 11 of Chapter 15 includes new provisions which apply the federal requirements that surface impoundments at interim status facilities have double liners and leachate collection systems to surface impoundments at non-RCRA interim status facilities. The double liner system confines leaks from the inner liner (only liner for non-RCRA interim status surface impoundments under existing law) to the space between the liners. The leak in this space can be detected before it enters the environment, the leaked material can be removed by the leachate collection system, and the inner liner repaired before any hazardous waste is released to the environment. Application of these provisions will have a beneficial effect on water by decreasing the chances of a leak becoming a release of hazardous constituents into groundwater or surface water.

Article 12 of Chapter 15 includes new provisions which apply the federal requirements that waste piles at interim status facilities

have double liners and leachate collection systems to waste piles at non-RCRA interim status facilities. The double liner system confines leachate leaking from the inner liner (only liner for non-RCRA interim status waste piles under existing law) to the space between the liners. The leak in this space can be detected before it enters the environment, the leaked material can be removed by the leachate collection system, and the inner liner repaired before any hazardous waste is released to the environment. Application of these provisions will have a beneficial effect on earth by decreasing the chances of leachate from waste piles escaping into groundwater or surface water.

Article 14 of Chapter 15 includes new provisions which apply the federal requirements that landfill units at interim status facilities have double liners and leachate collection systems to landfill units at non-RCRA interim status facilities. The double liner system confines leachate leaking from the inner liner (only liner for non-RCRA interim status landfill units under existing law) to the space between the liners. The leak in this space can be detected before it enters the environment, the leaked material can be removed by the leachate collection system, and the inner liner repaired before any hazardous waste is released to the environment. Application of these provisions will have a beneficial effect on water by decreasing the chances of leachate from landfill units escaping into groundwater or surface water.

3.2.4 PLANT LIFE

Those proposed regulations identified as causing a potential effect on the environment affect identification and disposal of hazardous waste. They will not cause new generators of hazardous waste to be identified or new facilities to be built. Modifications needed to comply with altered provisions (ie: installation of double liners and leachate collections systems at hazardous waste facilities) requires an application for permit modification be submitted to the Department; approval of such a permit modification or approval of an application for a permit for a new facility is subject separately to the CEQA review process. Any effect on plant life will derive from those applications to build or modify hazardous waste facilities and will be subject to that separate CEQA review. Thus, adoption of these regulations will not affect plant life.

3.2.5 ANIMAL LIFE

Those proposed regulations identified as causing a potential effect on the environment affect identification and disposal of hazardous waste. They will not cause new generators of hazardous waste to be identified or new facilities to be built. Modifications needed

to comply with altered provisions (ie: installation of double liners and leachate collections systems at hazardous waste facilities) requires an application for permit modification be submitted to the Department; approval of such a permit modification or approval of an application for a permit for a new facility is subject separately to the CEQA review process. Any effect on animal life will derive from those applications to build or modify hazardous waste facilities and will be subject to that separate CEQA review. Thus, adoption of these regulations will not affect animal life.

3.2.6 LAND USE

Those proposed regulations identified as causing a potential effect on the environment affect identification and disposal of hazardous waste. They will not cause new generators of hazardous waste to be identified or new facilities to be built. Modifications needed to comply with altered provisions (ie: installation of double liners and leachate collections systems at hazardous waste facilities) requires an application for permit modification be submitted to the Department; approval of such a permit modification or approval of an application for a permit for a new facility is subject separately to the CEQA review process. Any effect on land use will derive from those applications to build or modify hazardous waste facilities and will be subject to that separate CEQA review. Thus, adoption of these regulations will not affect land use.

3.2.7 NATURAL RESOURCES

No changes in the effect of the regulations have been identified which will cause a negative impact on what is normally considered "natural resources". However, the capacity of the State to treat and dispose of hazardous waste is one of the important resources of the State; regulations should also be examined for their impact on the State's capacity to treat and dispose of hazardous waste. Regulations which identify new hazardous waste streams and regulations which affect the number of facilities accepting hazardous waste for treatment or disposal could potentially affect that capacity. As discussed below, none of the proposed regulations identified as different in effect from existing law will cause new facilities to be built and none will cause a significant increase in generated hazardous waste.

Adoption of the organic lead test method as Appendix X to Chapter 11 may newly identify an unknown number of materials as hazardous. The Department feels that this number will be minimal. The organic lead test method simply quantifies lead levels more accurately; however, the wastes in question will already have been identified as hazardous by their total lead content through the Total

Threshold Limiting Concentration (TTL) for lead. It is principally applicable to gasoline contaminated soils which are also currently identified as hazardous due to ignitability and aquatic toxicity. Thus, the Department feels that this method will primarily help quantify the organic lead content of existing wastestreams rather than identify new hazardous wastes.

The contaminated container regulations require hazardous disposal of containers which may have met the federal standard for clean containers applicable currently. These containers are those less than 5 gallons which meet the Federal empty definition¹⁰. The proposed regulations require that containers meeting the federal definition be further emptied as much as they can be in normal use before nonhazardous disposal. The Department feels, however, that the small containers for which this change applies will be further emptied by use so that the containers can be disposed of as nonhazardous. Thus, the containers will be cleaned and disposed in the same manner as they are currently, but with less residue remaining. The proposed regulations also require that these small containers be destroyed before nonhazardous disposal making them available for subsequent reuse. The Department feels that only a small fraction of these containers would be reused in any case and that reuse of containers which previously held hazardous materials is undesirable.

The Department feels that changing technical standards for tanks at facilities operating under interim status will not cause any existing facilities to cease managing hazardous waste. These standards apply to facilities subject to the permitting deadlines in State statute and will mostly be permitted before the new interim status regulations are effective. Thus, the universe of facilities subject to increased technical standards for tanks is small. This change will not significantly affect capacity for treatment and disposal of hazardous waste.

The ban on growing of food chain crops at interim status land treatment facilities will not cause an impact on land treatment capacity because the land disposal restrictions and the permitting deadlines will eliminate interim status land treatment facilities.

The additional requirements for managing contaminated containers as hazardous and addition of the organic lead test method may generate a small additional volume of hazardous waste. This waste will consume additional hazardous waste disposal site space which is considered a natural resource. However, these wastes would be disposed of in any case with the impact being on hazardous waste disposal space or nonhazardous waste disposal space. The impact from these additionally identified hazardous wastes on disposal sites will thus be insignificant.

¹⁰40 CFR Section 261.7

The additional liner requirements for specified interim status facilities and the groundwater monitoring regulations could have a significant impact on groundwater which is a natural resource. This impact is considered above in portion 3.3 of this document.

In addition, any undiscovered impacts on the capacity of facilities in the State to manage hazardous waste will be mitigated by the Department's mandate to rely on waste minimization and waste avoidance to reduce volumes of hazardous waste generated. The Department's policy, as dictated by the Legislature in SB 14 of 1989, is to rely on reduction to eliminate shortfalls in capacity rather than to rely on construction of new facilities or expansion of old facilities.

3.2.8 RISK OF UPSET

None of the proposed regulations which potentially affect the environment creates potential for additional risk of upset.

3.2.9 TRANSPORTATION/CIRCULATION

Identification of new hazardous wastes creates an impact on transportation of hazardous waste. Identification of contaminated containers which must be regulated as hazardous waste will require their transport to hazardous waste disposal sites. These materials will be transported as hazardous waste whereas they would otherwise be transported as nonhazardous waste. Transportation as hazardous waste will lead to longer trips to the limited number of disposal and treatment sites. These containers will be generated by persons generating other hazardous wastes (ie: the spent material formerly contained in these containers) and will largely be transported to a disposal or recycling site with other generated hazardous wastes. The Department has concluded that identification of these additional hazardous wastes will have an insignificant affect on transportation and circulation.

3.2.10 PUBLIC SERVICES

None of these regulations will cause permitted hazardous waste treatment, storage, or disposal facilities to be built or expanded and no new treatment processes are mandated by these regulations. The proposed additional requirements requiring facility modifications all apply to interim status facilities which do not have permits and cannot request permit modifications for these changes to the facilities. There will be no new development requiring governmental actions

Since the regulations identified as having a potential impact on

the environment will not cause building or significant expansion of any hazardous waste management facilities, no increase in fire, police, or other local public safety services are anticipated.

The contaminated container rules will only cause a handful of generators to become subject to local and State generator inspections. Most facilities which generate contaminated containers are already generating hazardous waste from the spent materials originally held in those containers. Very few will become generators of only contaminated containers and pose a new workload on State and local generator inspections.

Thus, none of the regulations identified as potentially affecting the environment has been identified as having an effect on the demand for energy.

3.2.11 ENERGY

None of these regulations will cause hazardous waste treatment, storage, or disposal facilities to be built or expanded and no new treatment processes are mandated by these regulations. There will be no new development requiring electricity or natural gas; none of the regulations identified as potentially affecting the environment has been identified as having an effect on the demand for energy.

3.2.12 UTILITIES

None of these regulations will cause hazardous waste treatment, storage, or disposal facilities to be built or expanded and no new treatment processes are mandated by these regulations. There will be no new development requiring water, electricity, natural gas, or sewer services. Thus, none of the regulations identified as potentially affecting the environment has been identified as having an effect on any public utility.

3.2.13 HUMAN HEALTH

Most of the regulations identified herein as having a potential effect on the environment have an effect on human health. However, many of these effects are through other environmental media such as groundwater used for domestic purposes, air, or soil contamination. Most of these impacts are have been examined previously in this document and found not to have a significant adverse effect. Thus, this portion of this document will consider only those regulations with a potential to affect human health directly or through a medium not previously analyzed.

Addition of Appendix XI, a test method for determining

concentrations of organic lead in wastes, will identify wastes hazardous for organic lead content. This addition could change management practices for types of hazardous waste in a manner which can affect human health. For instance, identification of organic lead in soils contaminated with leaded gasoline will lead to different management techniques. Soil with significant concentrations of tetraethyl lead could not, for instance, be treated by aeration in a populated area because of the high toxicity of tetraethyl lead. Addition of this appendix will have potential positive effects on human health by ensuring that organic lead contamination is discovered in wastes so that they can be managed in such a way as to mitigate the special hazardous of organic lead compounds.

Article 13 of proposed Chapter 15 applies the State's ban on growth of food chain crops at permitted land treatment facilities has been extended to apply to interim status facilities. The Department feels that growth of food chain crops on land treatment facilities may lead to incorporation of hazardous constituents such as heavy metals from degraded petroleum wastes into those crops and would have a significant potential for human health effects. Thus, addition of this requirement will have a positive potential impact on human health.

3.2.14 IMPACTS NOT DISCUSSED

The proposed regulations establish Statewide standards for managing hazardous waste but do not establish any particular projects. Therefore, the following categories of impact, while applicable to a site-specific project, were not identified as significant for this CEQA review and have been omitted"

- o Noise
- o Light and glare
- o Population
- o Aesthetics
- o Housing
- o Recreation
- o Cultural resources

3.2.15 MANDATORY FINDINGS OF SIGNIFICANCE

Most of the regulations in this package exist already in State and federal law (which can be state law by reference in Health and Safety Code section 25159.5(b)). Those which are new regulatory requirements or which have been applied to persons not previously subject to those requirements improve the management of hazardous waste in the State and lessen the possibility of an adverse environmental impact. There are no mandatory findings of significance.

4.0 DETERMINATION

On the basis of this evaluation:

I find that the proposed project COULD NOT have a significant
averse effect on the environment and a NEGATIVE DECLARATION
will be prepared.

Prepared by:

7/5/90
Date

Michael S. [Signature]
Signature

Environmental Impacts concurrence:

4/6/90
Date

Carl D. Blair
Signature

4/9/90
Date

[Signature]
Signature

4/9/90
Date

C. D. O'Neill
Signature

APPENDIX 2

LOCATIONS FOR PUBLIC REVIEW OF
RCRA AUTHORIZATION REGULATION PACKAGE

Department of Health Services, Toxic Substances Control Division:

Headquarters: Technical Reference Library
400 P St, 4th floor
Sacramento, CA
(916) 324-5898

Sacramento area Regional Office:
TSCP Region I
10151 Croyden Way
Sacramento, CA
(916) 855-7700

San Francisco Bay area:
TSCP Region II
700 Heinz Ave, Building F
Berkeley, CA
(415) 540-3919

Los Angeles area:
TSCP Region III
1405 San Fernando Blvd
Burbank, CA
(818) 567-3129

Long Beach area:
TSCP Region IV
245 W Broadway, 3rd floor
Long Beach, CA
(213) 590-4868

State designated depository libraries - See attached list, next page

**** DEPOSITORY LIBRARIES ****

Under the provisions of the Library Distribution Act (sections 14905, 14906, and 14907), the libraries listed below have contracted with the Department of General Services to serve as complete or selective depositories. They agree to provide adequate facilities for the shelving and use of the publications deposited with them, render reasonable service without charge to qualified patrons, and retain all publications received until authorized to dispose of them.

Complete Depositories

One copy of each state publication as defined in Government Code section 14902 must be placed on deposit with each complete depository. Provisions of the State Administrative Manual authorize the California State Library to receive three copies of monographs and two copies of annual reports and periodicals.

California State Library, Government Publications Section, Library and Courts Building, P.O. Box 942837, Sacramento, 94237-0001
California State University, Chico, Library-Government Publications Center, Chico, 95929
California State University, Long Beach, Library-Government Publications, 6101 East Seventh Street, Long Beach, 90840
Fresno County Free Library, Government Publications, 2420 Mariposa Street, Fresno, 93721
Los Angeles Public Library, Serials Division, 630 West Fifth Street, Los Angeles, 90071
Oakland Public Library, 125 Fourteenth Street, Oakland, 94612
San Diego Public Library, Science and Industry Department, 820 E Street, San Diego, 92101
San Diego State University, Malcolm A. Love Library, 5402 College Avenue, San Diego, 92182
San Francisco Public Library, Documents Department, Civic Center, San Francisco, 94102
Stanford University Libraries, Government Documents Department, Stanford, 94305
University of California, Berkeley, General Library-Documents Department, Berkeley, 94720
University of California, Davis, Shields Library-Documents Department, Davis, 95616
University of California, Los Angeles, University Research Library, Public Affairs Service, 405 Hilgard Avenue, Los Angeles, 90024
University of California, San Diego, Central University Library, Government Documents Department, C-075-P, La Jolla, 92903
University of California, Santa Barbara, Library-Government Publications Section, Santa Barbara, 93106