On November 27, 2006, the Department of Toxic Substances Control (DTSC) received approval from the Office of Administrative Law (OAL) for the Phase I Environmental Site Assessments (Proposed New and Expanding School Site) emergency regulations (OAL Reference Number O6-1117-11E, posted at www.dtsc.ca.gov). The emergency regulations (Cal. Code Regs., tit. 22, div. 4.5, ch. 51.5, commencing with §69100), establish guidelines for completion of a Phase I and Phase I Addendum using the updated American Society for Testing and Materials (ASTM) Standard E1527-05 and include sampling and analysis of organochlorine pesticides (OCPs) from termiticide application.

This proposed rulemaking would further amend regulation text in sections 69100, 69101, 69102, 69103, 69104, 69105, 69106, 69107, 69108 and add section 69109. This rulemaking would finalize the emergency component of those regulations and present other procedural and clarifying changes to the Phase I and Phase I Addendum processes. These regulations streamline the environmental review process and help minimize site assessment costs for properties historically considered unlikely to have contamination, such as residential properties, and ensure consistency within laws and policies of DTSC; and provide needed clarity in the sampling and analysis procedures as they relate to the Phase I Addendum.

**EFFECT TO AVOID DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS**

DTSC finds this rulemaking necessary to finalize the emergency regulations in order to avoid conflict with the national ASTM Standard E1527-05 for conducting Phase I Environmental Site Assessments.

**STUDIES RELIED ON**

There was a Residential Pesticide Study completed by DTSC in 2006 which supports the basis for the provision to allow results of sampling and analysis for OCPs in soil from termiticide application to be submitted in a Phase I Addendum. However, the basis for the determination to include OCPs as part of a Phase I and Phase I Addendum is a voluntary procedure and does not establish a “regulatory level, standard, or other requirement” as defined by Health and Safety Code section 57004 and does not require
The Office of Health Hazard Assessment (OEHHA) did review the Residential Pesticide Study and OEHHA’s comments were incorporated in the Study. A Notice of Exemption under the California Environmental Quality Act has been prepared as allowed by title 14, California Code of Regulations, and is available for public review.

ALTERNATIVES CONSIDERED

DTSC did not pursue any alternatives other than developing regulations pursuant to Education Code section 17210, subsection (g). This Education Code section authorizes DTSC to adopt final regulations that establish guidelines for a Phase I Environmental Site Assessment. DTSC held informal meetings with the Coalition for Adequate School Housing, the California Department of Education, and various school districts in the process of developing the proposed regulations. The development of these regulations is considered to be to the benefit of all parties involved. Additionally, in order for schools to receive State funds to purchase property, these assessments must be conducted to ensure the health and safety of California’s children.

DETAILED STATEMENT OF REASONS

Duplication: In some instances, these proposed regulations may duplicate statutory provisions in part; however, such duplication is necessary to meet the clarity standard, and put the regulatory requirements into context for DTSC’s stakeholders, including but not limited to: school districts, environmental assessors, consultants, communities, and the public at large.

Change in Chapter Title and Addition of Article 1. The chapter title was changed to reflect a general approach to assessment procedures for school sites. “Article 1” was added with the title specific to the Phase I Assessments at proposed new and expanding school sites. These changes were made because it is anticipated that there may be a future need for adding more articles dealing with other specific aspects of school site assessment, such as “existing school sites.” The prior format was not amenable to adding new provisions. Throughout this new article, references to the current chapter 51.5 have been replaced by reference to article 1 to reflect this formatting change.

Section 69100. Purpose. This section explains the purpose for maintaining guidelines for the development of a Phase I and a Phase I Addendum; it contains minor, nonsubstantive grammatical changes; and references “article” due to changes in title 22 format of chapter 51.5. The section also acknowledges the addition of sampling and analysis of “organochlorine pesticides (OCPs)” as part of the Phase I and Phase I Addendum processes. Based on available literature, findings of the Residential Pesticide Study completed by DTSC in 2006, and experience of DTSC, OCPs from termiticide application may be present around structures with wood components. OCPs are hazardous substances (pesticides) which may pose an unacceptable health risk if present at proposed school sites. Potential contamination from lead-based paint, electrical transformers, and termiticide application may be the only reason a more costly...
and lengthy Preliminary Environmental Assessment is required at properties otherwise considered unlikely to have contamination, such as residential properties. Consistent with existing regulations, allowing sampling and analytical results for OCPs in soil from termiticide application to be included in a Phase I Addendum will streamline and minimize costs associated with environmental review of these types or proposed school sites. This amendment is necessary to maintain consistency with the other amendments made to other sections of this regulation.

**Section 69101. Applicability.** For purposes of clarity, there is one minor format change in this section--“chapter” to “article.”

**Section 69102. Definitions.** The introductory paragraph of this section has been expanded to make several clarifying changes, and to add a reference to the Health and Safety Code.

Subsection (a) was deleted as previously written and is now addressed as subsection (f). Subsection (a) now defines “Department,” clarifying that “Department” refers to the Department of Toxic Substances Control.

Subsection (b) modifies the definition for “lead” to clearly specify that lead only refers to lead from “lead-based paint” for the purpose of site assessments to be documented in the Phase I and Phase I Addendum at school sites. This change is nonsubstantive because current regulation subsection (a) already established the source of lead in soils to be from lead-based paint.

Subsection (c) was deleted as previously written, and now defines “OCPs” as used in this article of these regulations. This definition is needed to clarify this term, which is now used in the regulation text. This subsection specifies that “OCPs” refers only to OCPs from termiticides for the purpose of site assessments to be documented in the Phase I and Phase I Addendum at school sites. See section 69100 above for the explanation of the inclusion of OCPs into the Phase I Addendum.

Subsection (d) is amended to clarify that the term “PCBs” in this article refers only to polychlorinated biphenyls from electrical transformers for the purpose of site assessments to be documented in the Phase I and Phase I Addendum at school sites. This change is nonsubstantive because current regulation subsection (a) already established that source of PCBs to be from electrical transformers.

Subsection (e) adds clarification to the term “Phase I” as used in this article, in accordance with provisions of Education Code section 17210(g). The Education Code references both “property” and “site.” Usage of the term “site” in these regulations does not conflict or go beyond statutory usage, as it refers to the school project being assessed for recognized environmental conditions.
Subsection (f) defines the term “Phase I Addendum” for the purpose of these regulations. The definition of “Phase I Addendum” has been revised to include OCPs in soil from termiticide application. It further clarifies that the Phase I Addendum is submitted to DTSC along with or after the submittal of the Phase I. The amended definition applies a limitation to the use of a Phase I addendum to only sites containing the contaminants listed in amended subsections (b), (c), and (d).

Subsection (g) was previously subsection (e). No other changes were made to the text of this definition.

Section 69103. References. The ASTM and the United States Environmental Protection Agency (USEPA) standards and guidance referenced in Section 69103 are nationally recognized standards and commonly used and referred to for sampling and analysis. Subsection (a)(1) has been further amended to reference the recent change in the ASTM to specify the requirements adopted by ASTM for due diligence for commercial real estate transactions. A Phase I environmental assessment conducted according to this ASTM document meets the requirements of the California Education Code, Section 17210, subsection (g). The ASTM address was updated to reflect the current mailing address.

Revisions to this section are necessary to update reference to ASTM Standard E1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, as cited in the existing regulations, which has been superseded by the new standard approved on November 1, 2005, ASTM Standard E1527-05. ASTM Standard E1527-05 is now the nationally recognized standard for conducting a Phase I for commercial real estate and is the primary reference for conducting Phase I for proposed new and expanding school sites.

Reference to ASTM Standard E1527-05, developed concurrently with all appropriate inquiries (AAI) provisions, will also maintain consistency of DTSC laws and policies as described below. Several minor revisions are made to references, such as updating website addresses, for purposes of clarity only. Without these revisions, the public may not be able to find the appropriate documents incorporated by reference.

The federal 2002 Brownfields Amendments to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) required USEPA to develop regulations establishing standards and practices for conducting AAI. To satisfy this requirement, USEPA developed a Final Rule for “Standards and Practices for All Appropriate Inquiries” (40 C.F.R. § 312) that became effective on November 1, 2006. To be eligible for federal liability protections under the 2002 Brownfields Amendments, bona fide purchasers, contiguous property owners, and innocent landowners must comply with AAI and may use ASTM Standard E1527-05 to satisfy this requirement. USEPA provided statewide training on the new federal regulations in mid-2006. Subsequently, DTSC staff began developing the emergency regulations to ensure that DTSC’s regulations would incorporate the updated requirements.
Additionally, the State also passed the California Land Reuse and Revitalization Act of 2004 (CLRRA) effective January 1, 2005. CLRRA established immunity qualification provisions for bona fide purchasers, contiguous property owners, and innocent landowners in Health and Safety Code, Division 20, Chapters 6.82 and 6.83, and requires that participants comply with AAI (which may include use of ASTM Standard E1527-05) prior to property acquisition.

Subsection (a)(2) references the guidance document containing the sampling and analytical methods established by USEPA. This document specifies the procedures for sampling and analysis of soils for lead, OCPs, and PCBs. The amended citations correct inaccuracies. The website for this reference has been updated since the adoption of the emergency regulations.

Subsection (a)(3) references the document containing the procedures to qualify the data produced by the USEPA analytical methods for organic compounds, including OCPs and PCBs. This reference has been amended to reflect the current version of the USEPA Guideline. This document provides guidance for the technical review of analytical data, specifying performance criteria for specific areas such as blanks, calibration standards, performance evaluation standard materials, and instrument performance checks. A website for obtaining the guidelines is added.

Subsection (a)(4) references the document containing the procedures to be followed to qualify the data produced by the USEPA analytical methods for inorganic compounds, including lead. This document provides guidance in the technical review of analytical data. The USEPA guidance document number, date, and website address have been updated since the adoption of the emergency regulations.

Subsection (a)(5) has been amended to update the USEPA guidance reference number, date, and website address since the adoption of the emergency regulations. This document provides guidance to assist in planning, implementing, or managing data verification and validation processes. Data verification and validation are necessary to demonstrate that field sampling and laboratory analytical activities have been conducted in accordance with applicable requirements, and that the resulting data meet the requirements for a specific intended use.

Section 69104. Preparation of a Phase I and Phase I Addendum. This section has been amended to include information for preparing the Phase I Addendum in addition to the Phase I.

Subsection (a) provides the specific statutory references requiring development of a Phase I.

Subsection (b) provides the process for the development of a Phase I. This subsection contains minor grammatical changes.
Subsection (c) has been amended and now provides further clarification about what is included in a Phase I and specifically identifies the four types of information required in a Phase I: a site map, a description of the intended use of the property, a description of past and existing land uses, and recommendations. It also references section 69108 of this regulation. The Phase I contains historical information, while the Phase I Addendum contains sampling results. However, the Phase I Addendum may be submitted along with or after the Phase I. Subparagraph (2) contains minor amendments that provide clearer instructions to the Phase I preparer.

Subsection (d) has been amended and specifies the more common source(s) of potential contamination to be considered in the development of the Phase I. The list of contaminants and sources in this subsection has been expanded (from 7 to 16 contaminants) based on DTSC’s professional experience and are necessary to identify potential releases of a hazardous material or presence of a naturally-occurring hazardous material consistent with Education Code section 17210, subsection (g) during the evaluation process.

Subsection (e) amends the verification of activities that are part of the Phase I so that specific activities are listed instead of general references. This information is necessary to establish the timeframe of 180 days for determining how recent a Phase I and a Phase I Addendum need to be and/or the type of additional information required to be submitted to DTSC.

Subsection (f) has been added and provides clarifying information about the process for submitting the Phase I Addendum to DTSC. It also references section 69109 of this article for making recommendations that may contain sampling and analysis specific to lead sampling protocols in section 69105; for sampling and analysis of OCPs in soils in section 69106; and PCBs in soils in section 69107.

Section 69105. Sampling for Lead in Soil. Subsection (a) makes some clarifying changes and provides a reporting process for school districts to use when they choose to submit sampling data for lead in soil. The clarifying changes in this subsection are consistent with changes made throughout proposed article 1.

Subsection (b) amends the lead-based paint evaluation process, and adds clarifying timeframes that will aid in determining when structures will require this evaluation. Exceptions are provided for residential structures constructed on or after January 1, 1979 and school structures constructed on or after January 1, 1993. The exception for residential structures coincides with the 1978 federal ban which prohibited application of paint containing more than 0.06% (i.e., 600 parts per million) lead by weight on residential structures. The exception for school structures accounts for use of surplus paint that may have been used after the ban. These exceptions are also consistent with title 17, California Code of Regulations, section 35043, which presumes that any paint or surface coating on a structure is lead-based paint with the exception of paint or
surface coating used on residential structures constructed on or after January 1, 1979 and school structures constructed on or after January 1, 1993.

Subsection (c) amends the protocols for pre-demolition sampling for lead in soil for lead-based paint. This subsection has been modified to clarify sample collection processes and makes some formatting and grammatical changes.

Subsection (d) is necessary to delineate the protocols for post-demolition sampling for lead in soil from lead-based paint if the site has not been graded and foundations remained in place. Specific sampling procedures have been added to delineate the protocols for initial and additional sample collection. Although subparagraph (1) adds sampling protocol based on subsection (c)(1), it is necessary to require a second set of sampling to ensure that the site is well characterized since the demolition of buildings, but no grading, has occurred. The Department may require further sampling. Subparagraph (2) contains minor grammatical changes.

Subsection (e) has been amended to clarify the sample collection protocol if demolition of structures, removal of foundations or slabs, or movement of soil has occurred. The format has also been modified. Subparagraph (1) sampling protocol retains the currently required grid method from subsection (d)(1) and identifies surface sampling as zero to six inches and subsurface sampling as two to three feet based on professional sampling practice. Subparagraph 2 requires step-out sampling if lead is detected, which is a standard sampling protocol.

Subsection (f) has been added from subsection (e), with some minor grammatical changes for clarification, and is necessary to specify how soil samples will be analyzed for lead. The requirement for analysis of uppermost soil from the core is generally accepted standard protocol.

Subsection (g) provides the quality control procedures and has been reformatted.

Subsection (h) specifies that data on lead concentrations is to be submitted to DTSC. This section has been reformatted.

Section 69106. Sampling for OCPs in Soil. This section was added as part of the emergency rulemaking, and no additional changes are proposed. This section establishes the process for sampling OCPs in soil from termiticide and the submission of data.

Subsection (a) describes the ways in which a school district may conduct and submit sampling data.

Subsection (b) establishes the evaluation process, and specifies that DTSC may request that sampling data be submitted in a Phase I Addendum unless DTSC determines that OCPs in soil are not a concern based on the review of the Phase I.
exception is provided for wooden structures constructed on or after January 1, 1989. This exception coincides with the 1988 federal prohibition of use of chlordane (an OCP) as a termiticide. National studies and the DTSC study show that use of OCPs were likely to have been used on wooden structures constructed prior to 1989.

Subsection (c) indicates the protocols for pre-demolition sampling for OCPs. Sampling requirements are based on generally accepted professional protocol.

Subsection (d) delineates the protocols for post-demolition sampling for OCPs if the site has not been graded and foundations remained in place. Specific protocols are established for initial and additional sample collection for surface and subsurface soils. Sampling requirements are based on generally accepted professional protocol.

Subsection (e) clarifies the sample collection protocol if demolition of structures, removal of foundations or slabs, or movement of soil has occurred. Sampling requirements are based on generally accepted professional protocol.

Subsection (f) specifies how soil samples will be analyzed using USEPA Test Methods (section 69103(a)(2)).

Subsection (g) establishes the quality control procedures for laboratories using the National Functional Guidelines cited in section 69103 of these regulations.

Subdivision (h) specifies that data identifying OCPs will be submitted to DTSC.

Section 69107. Sampling for PCBs in Soil. This section was renumbered as part of the emergency rulemaking and some minor formatting changes were also made. This section specifies how sampling for PCBs in soil from electrical transformers should be conducted and indicates how data is to be submitted to DTSC.

Subsection (a) describes how a school district may conduct and submit sampling data to DTSC. It also references subsections (b) through (f) for specific guidance on soil sampling, collection, analysis, and quality control.

Subsection (b) specifies the collection of soil samples to evaluate historical and current PCB contamination from electrical transformers. Sampling is required for historical or current transformers installed prior to January 1, 1979. An exception is provided for transformers installed on or after January 1, 1979. This exception coincides with the 1978 federal ban prohibiting production of PCBs.

Subsection (c) has been amended to specify protocols for surface and subsurface soil sampling that are standard practice.

For the purpose of clarity, Subsections (d) and (e) from the emergency rulemaking have been amended and are now subsections (e) and (f) within this section.
Subsection (d) now addresses additional sample collection and specifies that further step-out samples may be required if PCBs from electrical transformers are identified in the soil. The sampling protocol reflects standard practice.

Subsection (e) now specifies that only surface samples need be analyzed initially for PCBs using USEPA Test Methods. If surface samples test positive for PCBs, then the samples that were collected at depth must also be analyzed.

Subsection (f) specifies the quality control procedures for laboratories using the National Functional Guidelines cited in section 69103 of these regulations.

Subsection (g) specifies that PCB data must be submitted to DTSC.

Section 69108. Phase I Recommendations. The emergency rulemaking renumbered this section from 69107 to 69108. This section was also amended to add OCPs in soil from termiticide application to the conditions for making recommendations in the Phase I. DTSC is required to make determinations for each prospective new or expanded school site on a case-by-case basis to ensure that contaminants in soils do not endanger the health and safety of students or staff and/or endanger the environment. Amendments to this section are consistent with changes made throughout article 1.

Subsection (a) is amended to clarify when further investigation is not required.

Subsection (b) is amended to clarify when a Phase I Addendum will be recommended to evaluate a site for lead, OCPs, or PCBs in soil.

Subsection (c) is amended to specify when a Preliminary Endangerment Assessment is needed for sampling or testing to determine if site conditions indicate a hazardous material release has occurred; if there is a potential threatened release; or if there is naturally occurring hazardous materials present at the site.

Section 69109. Phase I Addendum Recommendations. This new section was not included in the emergency rulemaking. It specifies when certain recommendations are required based on the evaluation of data in the Phase I Addendum. DTSC will make case-by-case determinations to ensure that soil concentrations do not exceed acceptable levels.

Subsection (a) clarifies when a no further investigation recommendation is appropriate, based on certain specified conditions, including concentrations of lead, OCPs, and or PCBs in soil.
Subsection (b) clarifies when it is appropriate to recommend that a Preliminary Endangerment Assessment is necessary to determine if a hazardous material release has occurred and what the extent of the release, as well as other potential releases.