SITE MITIGATION AND BROWNFIELDS REUSE PROGRAM MANAGEMENT MEMO

MANAGEMENT MEMO: # EO-02-002-MM

TITLE: Response Actions for Sites Where Future Use May Include Sensitive Uses

AFFECTED PROGRAMS: Site Mitigation and Brownfields Reuse Program
Hazardous Waste Management Program

PURPOSE: This management memorandum provides guidance for Department of Toxic Substances Control (DTSC) staff in establishing remedial action objectives and the use of institutional controls as part of the remedy. It is primarily intended to apply at sites where sensitive uses do not currently exist, but are reasonably anticipated in the future. It is DTSC's goal that sites requiring response actions, where sensitive land uses are anticipated, be remediated to the degree that allows unrestricted use. In very limited, site-specific circumstances, exceptions to this goal may be acceptable with the approval of the appropriate Branch Chief in consultation with his/her Division Chief and Deputy Director.

This document is intended as guidance only. The applicable statutes and regulations control decisions concerning establishing remedial action objectives and institutional controls for response actions at hazardous waste, hazardous substance, and hazardous materials sites.

BACKGROUND: The California Health and Safety Code, Sections 25356, 25200.10, and 25187, gives DTSC the authority to require response actions or corrective measures for hazardous substance/hazardous waste releases, including those at hazardous waste facilities. The basis for DTSC's goal of remediation, to the extent that allows unrestricted use, derives from the National Contingency Plan's program goal [300.430(a)(1)(i)], remedy alternatives evaluation criteria [300.430(e)(7)(i), and 300.430(e)(9)(iii)(C)]. The program goal and evaluation schemes emphasize the selection of remedies that protect human health and the environment, maintain protection over time, minimize untreated waste and residual risks, and afford long-term protection, effectiveness, and permanence. In addition, California Education Code sections 17072.18, 17210, 17210.1, 17213.1, and 17213.2 give DTSC the authority to ensure that proposed school properties do not contain hazardous materials or that they have been appropriately remediated.

The site mitigation and corrective action processes include development and evaluation of alternatives for remediation or corrective measures. These alternatives may include cleanup that will allow unrestricted use, partial cleanup coupled with land use-restricting covenants, and, in very limited cases, no cleanup with land use-

restricting covenants constituting the entire remedial action. Any alternatives that include leaving contaminants at levels that are not suitable for unrestricted use are expected to include institutional controls, such as deed restrictions, in the form of land use-restricting covenants [40CFR300.430(a)(1)(iii)(D)]. Any selected remedy must protect human health and the environment and maintain protection over time [40CFR300.430(a)(1)(i)]. For the purposes of this guidance, sensitive land uses include, but are not limited to, residences, schools, day care facilities, hospitals, and hospices.

Remediation to levels that allow all sensitive uses of the land is always protective of human health and the environment, is most reliable over time, and provides the highest level of long-term protection, effectiveness, and permanence. Land use-restricting covenants should not be used to provide protection, except in very limited, site-specific instances. Sensitive land uses are generally not compatible with land use-restricting covenants because of the difficulty of monitoring the restrictions and the sensitive nature of the population associated with these uses. The better remedy is the one that provides the most protection, effectiveness, and permanence.

At some sites it may not be possible to implement a remedy that both protects human health and the environment and achieves protection for sensitive uses without the use of land use-restricting covenants. Caution must be exercised when considering a remedy in which the possibility of exposure to unacceptable levels of contaminants remains, no matter how improbable. The use of land use-restricting covenants to legally limit the exposure is required. The implementation of other protective measures that adequately reduce the likelihood of violation of the land use-restricting covenants needs to be included as part of the remedy as appropriate. In each and every case, the remedy, which includes any appropriate land use-restricting covenants, must protect human health and the environment, taking into account the possible future uses and misuses.

Evaluation of remedial alternatives provides a means to compare alternatives, such as remediation for unrestricted use and partial remediation with land use-restricting covenants. The alternative of unrestricted use cleanup should be included as part of the analysis of options for all response actions. The analysis of partial remediation alternatives should include the basis for, and provide the documentation to support, the claim of the technical impracticability of meeting the unrestricted-use scenario. Alternatives that propose leaving contaminants at levels that are not protective of the unrestricted-use scenario, and thus trigger the need for land use-restricting covenants, should, among other things, account for the loss in value of the site due to the limitations on use. The amount of the loss in value is the difference between the value

of the completely remediated property and the value if partial or no remediation is completed. This can be documented by either decreasing the cost of the unrestricted use remedy or increasing the cost of the partial-remediation alternative by the difference in value. The life cycle costs associated with implementing and maintaining land use-restricting covenants should also be evaluated.

ROLES AND RESPONSIBILITIES

Project Managers and Unit Chiefs

- Require adequate data collection, health and environmental risk assessments, and compilation of engineering controls, administrative controls, and remedial or corrective action components into remedial action alternatives that will protect human health and the environment.

- Ensure that the alternative of cleanup to unrestricted use be developed and evaluated. This alternative should include treatment or removal of all contaminants that present any current or potential health or environmental risks, whether the exposure pathway is or is not complete. The analysis of this alternative should also describe the basis for, and provide the documentation that supports, the claim of the technical impracticability of meeting the unrestricted-use scenario.

- Ensure that any response action alternatives that propose leaving contaminants above levels acceptable for unrestricted use contain land use-restricting covenants and long-term management components that ensure adequate protection for both present and possible future uses. The difference in property value between partial and complete remediation should be accounted for in the alternatives analysis. Additionally, the life cycle costs of *implementing and maintaining* land use-restricting covenants should also be evaluated.

- Any recommendation for exception to the preferred cleanup approach presented in this memorandum must be adequately supported and based upon the technical impracticability of achieving remediation to unrestricted levels. Every remedial alternative must adequately protect human health and the environment and be reliable over time.

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Branch Chief

The Branch Chief has approval authority for decision documents, such as Remedial Action Plans, Records of Decision, Corrective Measures, and Land Use-Restricting Covenants. In the case where the remedy proposed for selection incorporates institutional controls, including land use-restricting covenants, for a site where future use may include sensitive uses, the Branch Chief shall consult with the appropriate Division Chief(s) and the Deputy Director concerning the decision.

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DATE

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