FINAL STATEMENT OF REASONS

HAZARDOUS WASTE FACILITY PERMITTING CRITERIA

Department Reference Number: R-2016-03

Office of Administrative Law Notice File Number: Z 2017-0912-12

I. GENERAL INFORMATION

Health and Safety Code section 25200.21 was enacted into law as part of Senate Bill 673 (Stats. 2015, chapter 611, section 1, effective January 1, 2016.) Section 25200.21 is part of the California Hazardous Waste Control Law (HWCL), Health and Safety Code section 25100 et seq. Section 25200.21 requires the Department of Toxic Substances Control (DTSC) to adopt regulations establishing criteria used for the issuance of a hazardous waste facility permit or a permit modification, which may include criteria for the denial, suspension, or revocation of a permit. Section 25200.21 further requires DTSC to consider a facility's past violations (compliance history,) cumulative impacts to the surrounding community (including vulnerable populations,) financial responsibility, facility personnel training, and completion of a health risk assessment in DTSC's permit decisions. The proposed regulations impose the following requirements on facilities: (1) new violations scoring procedure requirements; (2) new community involvement profile to enhance public participation requirements; (3) additional financial assurance requirements for corrective action; (4) additional training requirements; and (5) new health risk assessment requirements.

The benefits and purpose of the proposed regulations include DTSC's fulfillment of its legislative mandate to adopt these regulations and the enhanced transparency and consistency in DTSC's permit decisions. The enhanced transparency and consistency would, in turn, foster greater public confidence in DTSC's administering of its hazardous waste facility permitting program. The proposed regulations are

also intended to have a deterrent effect on the hazardous waste facilities and to encourage them to comply with applicable law and regulations.

PUBLIC REVIEW AND COMMENT

DTSC published these regulations three times for public review and comment:

45-Day Public Review and Comment Period:

On September 22, 2017, DTSC published the originally proposed regulatory text, Initial Statement of Reasons, Economic and Fiscal Impact Statement (Form 399) and attachments, and California Environmental Quality Act CEQA) Notice of Exemption for public review and comment. DTSC held the public hearing on the proposed regulations on November 6, 2017.

24-Day Notice of Post-Hearing Changes:

On June 29, 2018, DTSC published revised regulatory text for public review and comment. The purpose of this public notice period was to allow the public to review and comment on post-public hearing changes to the originally proposed regulatory text. During this time, DTSC also published a revised Form 399 and attachments for the revised regulations. This public review and comment period was originally scheduled to conclude on July 16, 2018, but was extended for seven (7) days to July 23, 2018.

15-Day Notice of Post-Hearing Changes:

On July 27, 2018, DTSC published further revised regulatory text for public review and comment. The purpose of this public notice period was to allow the public to review and comment on limited revisions made to the regulatory provisions regarding the use of financial assurance mechanisms for corrective action after the conclusion of the 24-day public notice period that commenced on June 29, 2018. This public review and comment period concluded on August 13, 2018.

This Final Statement of Reasons addresses the original regulatory text first proposed in September 2017 and subsequently revised in June 2018 and July 2018, as well as non-substantive changes made to the regulations following the 15-day public review and comment period in July 2018. These non-substantive changes are summarized below in Section VIII.

Following consideration of the public comments received on the September 2017, June 2018, and July 2018 versions of the proposed regulations, and on the various supporting documents made available for public review and comment, DTSC prepared and included as part of this Final Statement of Reasons for these regulations the following response to comment documents:

Response to Public Comments Received during the 45-Day Public Review and Comment Period (September 22, 2017 – November 6, 2017)

Response to Public Comments Received during the 24-Day Notice of Post-Hearing Changes (June 29, 2018 – July 23, 2018). This includes the Response to Public Comments Received during the 24-Day public review of the Economic and Fiscal Impact Statement (Std. 399) (June 2018)

Response to Public Comments Received during the 15-Day Notice of Post-Hearing Changes (July 27, 2018 – August 13, 2018).

DTSC is still planning to file a Notice of Exemption (NOE) under the California Environmental Quality Act or "CEQA." But based on the comments DTSC received, DTSC has elected not to pursue the exemption authorized by the CEQA Guidelines found in section 15061, subsection (b)(3) of title 14 of the California Code of Regulations. Instead, DTSC anticipates using the categorical exemption found in section 15308, known as the "Class 8 categorical exemption." The Class 8 categorical exemption is for "actions taken by regulatory agencies, as authorized by state or local ordinance, to assure the maintenance, restoration, enhancement, or protection of the environment where the regulatory process involves procedures for protection of the environment." (Cal. Code of Regs., tit. 14, § 15308.)

Senate Bill 673 (SB 673, Stats. 2015, ch. 611, section 1, effective January 1, 2016) authorizes DTSC to set regulatory requirements for hazardous waste facility permit decisions by considering a hazardous waste facility's compliance history, cumulative impacts to the surrounding community (including vulnerable populations), financial responsibility, facility personnel training, and completion of a health risk assessment. DTSC has determined that the proposed regulations are actions taken by DTSC to protect the environment by assuring the maintenance, restoration, enhancement, or protection of the environment.

This Final Statement of Reasons is a stand-alone document. This document provides a description of, and a statement of necessity for, each provision of the final regulatory text. Each section of this Final Statement of Reasons takes one of (or a combination of) the following approaches:

- Reiterates the corresponding section of the Initial Statement of Reasons.
- Presents a revised version of the corresponding section of the Initial Statement of Reasons to reflect and explain changes to the originally proposed regulation that DTSC made available for review and comment during the June 2018 and the July 2018.
- Provides additional information in response to comments and questions received during the three public review and comment periods for these regulations. This stand-alone approach to preparation of the Final Statement of Reasons eliminates the need for the reader to review both the Initial Statement of Reasons and the Final Statement of Reasons to get a complete understanding of the final regulatory text.

BACKGROUND

DTSC enforces federal and state protections at facilities that manage hazardous waste to protect public health and safety or the environment from any threat that may be posed by the waste. DTSC is undertaking this rulemaking pursuant to SB 673 to enhance public health protections, especially for members of vulnerable communities. SB 673 added section 25200.21 to the Health and Safety

Code. Health and Safety Code section 25200.21 authorizes DTSC to adopt regulations establishing or updating criteria used for the issuance of a new or modified hazardous waste facility permit or renewal of a permit, which may include criteria for the denial or suspension of a permit. In adopting the regulations required by section 25200.21, DTSC must consider for inclusion as criteria all the following:

- Number and types of past violations that will result in a denial;
- The vulnerability of, and existing health risks to, nearby populations;
- Minimum setback distances from sensitive receptors (e.g., schools, hospitals, elder care facilities, and other sensitive locations);
- Evidence of financial responsibility and qualifications of ownership;
- Provision of financial assurances pursuant to Health and Safety Code section 25200.1;
- Training of personnel in the safety culture and plans, emergency plans, and maintenance of operations; and
- Completion of a health risk assessment.

As a result of the enactment of SB 673, section 25200.23 was also added to the Health and Safety Code. Section 25200.23 requires DTSC to "develop and implement programmatic reforms designed to improve the protectiveness, timeliness, legal defensibility, and enforceability of DTSC's permitting program, including strengthening environmental justice safeguards, enhancing enforcement of public health protections, and increasing public participation and outreach activities." In accomplishing these reforms, DTSC must do all the following:

- Establish transparent standards and procedures for hazardous waste facility permitting decisions, including those applicable to permit revocation and denial;
- Establish terms and conditions to better protect public health and the environment, including in imminent and substantial endangerment situations;
- Employ consistent procedures for reviewing permit applications, integrating public input into those procedures, and making timely permit decisions; and
- Enhance public participation using procedures that provide for the early identification and integration of public concerns into permitting decisions, including concerns of communities identified pursuant to Health and Safety Code section 39711.

While the provisions of Health and Safety Code section 25200.23 do not compel DTSC to adopt regulations, they direct DTSC to make, and DTSC is making, changes to its internal management and operations to accomplish the goals that are set forth in the statute. They also provide context for the regulations that are the subject of this Final Statement of Reasons. Under the combined provisions of Health and Safety Code sections 25200.21 and 25200.23, DTSC aims to develop a suite of regulatory and programmatic improvements to its permitting program, focusing especially on consistency, transparency, and public input opportunities.

To satisfy the mandates of Health and Safety Code section 25200.21, DTSC proposes to add new provisions to Title 22, California Code of Regulations, Division 4.5, Chapters 10, 14, 15, 20, and 21. These proposed regulations would create a more transparent and consistent process for DTSC's

Permitting Division to review and evaluate prior violations, if any, of the Hazardous Waste Control Law and its implementing regulations in Title 22, California Code of Regulations, Division 4.5, (commencing with section 66260.1) by permit applicants and permit holders. DTSC would employ the criteria in these proposed regulations when reviewing new permit applications or permit modifications and in exercising its discretion in considering whether to issue, deny, suspend, or revoke a permit.

The benefits of the proposed regulations include DTSC's fulfillment of its legislative mandate for greater transparency and consistency in its permit decisions. The proposed regulations will also bolster DTSC's financial assurance requirements, including making changes to account for the effects of inflation on various financial threshold amounts and to address problems discovered while implementing these requirements over the past 30 plus years. Other improvements to DTSC's regulatory program in the proposed regulations are directed toward the training of hazardous waste facility staff, and the preparation of a community involvement profile and a health risk assessment.

DTSC has determined that the enhanced transparency and consistency that will result from the proposed regulations will foster greater public confidence in DTSC's permitting program. The proposed regulations will also result in greater protection of public health and safety and the environment.

II. ECONOMIC IMPACT ANALYSIS

In accordance with Government Code section 11346.3, subdivision (b), DTSC has made the following assessments regarding the proposed regulations.

The proposed regulations impose the following requirements on hazardous waste facilities:

- Additional training requirements in sections 66264.16 and 66265.16 impact all 109 permitted facilities in California.
- Amended financial assurance requirements found in sections 66264.140 – 66264.151 and 66265.140 – 66265.147 impact all 109 permitted facilities in California.
- New violations scoring procedure (VSP) requirements in sections 66271.50-66271.57 impact 82[1] of the 109 permitted facilities in California.
- New community involvement profile (CIP) requirements in section 66270.14(b)(23) will impact 82 permitted facilities in California every ten years when permit applications are submitted.
- New health risk assessment (HRA) requirements in section 66270.14(e) will impact 82 permitted facilities in California every ten years when permit applications are submitted.

<u>Creation or Elimination of Jobs within California</u>

[1] Post-closure facilities are exempt from this requirement. 27 of the permitted facilities in California are post-closure facilities. (This number is accurate as of June 2018 and is subject to change..)

DTSC has determined that the adoption of these regulations will not lead to the creation or elimination of jobs in California. The proposed regulations impose few new or revised duties or burdens on typical hazardous waste facility owners or operators. New duties are primarily in the newly-proposed health risk assessment and community involvement profile requirements, which would be required in connection with hazardous waste facility permit applications every ten years. The revised training and financial assurance are ongoing requirements. Rather, the adoption of these regulations will primarily affect DTSC's review, approval, and denial processes for hazardous waste facility permitting applications, bringing more transparency and consistency to DTSC's permitting decisions. Typically, DTSC receives approximately ten to 16 hazardous waste facility permits applications in any given year, most of which consist of permit renewal applications for existing facilities.

While the VSP is a new requirement, the resource-intensive aspects of the VSP fall mainly on DTSC. The VSP requirement allows DTSC to comprehensively evaluate a hazardous waste facility's compliance history by assessing the seriousness of hazardous waste management violations and scoring the violations using the process outlined in the regulations. The VSP requirements may lead to imposition of additional permitting conditions or they may lead to permit denial, suspension, or revocation if the facility's compliance history is found to be less than acceptable. The cost of the VSP is proportional to the level of noncompliance with hazardous waste regulations and law. However, a great majority of facilities are compliant and will have almost no additional cost due to the VSP requirement. SB 673 and the proposed regulations are intended to have a deterrent effect on hazardous waste facilities and to encourage the regulated community to comply with applicable law and regulations. In terms of cost associated with adverse permit decisions, the proposed regulations do not mandate any specific permit decision, but require that DTSC initiate a process to deny, suspend, or revoke a permit.

Furthermore, if DTSC were to deny any permit under existing law and regulations, the subsequent closure of that facility would have occurred with or without the VSP because DTSC is already authorized to consider a facility's compliance history when making permit decisions. Thus, there is little, if any, basis to conclude jobs in this industry would be created or eliminated by the proposed regulations.

Creation of New Businesses or Elimination of Existing Businesses within California

The proposed regulations are not entirely directed at businesses, and, as stated above, impose few new or revised requirements on businesses in California. The proposed regulations mostly reflect current DTSC practices when reviewing hazardous waste facility permit applications. DTSC has determined that the adoption of these regulations will not lead to the creation or elimination of businesses in California. As was discussed in the above paragraph, the primary effect of the proposed regulations will be to shed further light on decisions made by DTSC's Permitting Division and to foster more consistency in those decisions.

As noted above, hazardous waste facilities are a very small segment of the overall California economy. There are a total of 109 permitted hazardous waste facilities in California and DTSC

receives only ten to 16 hazardous waste facility permit renewal applications per year. Further, the hazardous waste management industry has experienced little growth over the past 20+ years. DTSC does not believe that the proposed regulations will lead to the creation or elimination of businesses in California.

Expansion of Current California Businesses

DTSC has determined that the proposed regulations will not have any impact on fostering or inhibiting the growth of existing businesses. As discussed above, the primary focus and consequence of the regulations is on bringing greater transparency and consistency to DTSC's permitting process. Again, the proposed regulations are primarily aimed at DTSC's implementation of its permitting program and not on businesses in California. The modest changes proposed for hazardous waste facilities are not expected to have any impact on expansion or contraction on California businesses in general.

Benefits of the Regulations to the Health and Welfare of California Residents, Worker Safety, and California's Environment

DTSC is seeking greater transparency and consistency in its permitting process. This will foster a better understanding of DTSC's decisions and advance protection of public health and the environment. The proposed regulations, among other things, allow DTSC to take a hazardous waste facility's compliance history into consideration in imposing permit conditions or other mitigation measures or in denying, suspending, or revoking a hazardous waste facility permit.

The proposed regulations improve DTSC's regulation of hazardous waste facilities by:

- Establishing a consistent method to evaluate the compliance history for hazardous waste facilities in permit decisions that is consistent with DTSC's existing penalty regulations set out in Title 22, California Code of Regulations, Division 4.5, Chapter 22, Article 3.
- Enhancing facility compliance by providing an enforcement metric that will encourage owners and operators to comply with applicable requirements. Compliance scores will be continually updated and over time, compliance performance trends will be reflected in this metric. The goal is to incentivize facilities to reduce the number of violations by increasing compliance with the Hazardous Waste Control Law, which will ultimately result in better facility compliance scores over time.
- Clarifying the factors and the procedures to be used when making permit decisions.
- Enhancing financial assurance requirements to protect against changing economic conditions, long time frames, and inflation, thus increasing the likelihood that state funds will not be needed to close facilities in a protective manner.
- Characterizing the health risks of facility operations to ensure greater protection of facility's workers and the surrounding communities;

- Collecting data regarding population characteristics to identify vulnerable populations surrounding or adjacent to hazardous waste facilities and addressing both environmental justice and public participation opportunities; and
- Training, on an annual basis, facility personnel to improve safety and compliance with the Hazardous Waste Control Law and the implementing regulations.

III. IDENTIFICATION OF REPORTS RELIED ON

In accordance with Government Code section 11346.2, subdivision (b)(3), DTSC notes that it relied upon the following reports, studies, and/or similar documents in proposing the adoption of these regulations.

Senate Bill 673 was signed into law on October 8, 2015 and provides the authority and mandate to adopt the proposed regulations. DTSC relied upon the Economic and Fiscal Impact Statement (STD. 399) and the following documents in developing this rulemaking package:

GENERAL

Analysis of Senate Bill 673 (2014-2015 Reg. Sess.), Senate Rules Committee, Office of Senate Floor Analyses, September 4, 2015.

Permitting Process Review and Analysis, Final Report, Department of Toxic Substances Control, prepared by CPS HR Consulting, October 2013.

Permitting Enhancement Work Plan, Department of Toxic Substances Control, March 2014.

Overview of the Department of Toxic Substances Control's Permitting Program, Department of Toxic Substances Control for its Independent Review Panel, December 2015.

Report of the Independent Review Panel to Governor Edmund G. Brown, Jr. on the Permitting Program, Department of Toxic Substances Control, January 2016.

TRAINING

Hazardous Waste Operations and Emergency Response, subsection (p) of section 5192 of Title 8 of the California Code of Regulations. Available at https://www.dir.ca.gov/title8/5192.html.

Transportation training requirements, section 172.704 of part 172 of Title 49 of the Code of Federal Regulations. Available at https://www.gpo.gov/fdsys/pkg/CFR-2010-title49-vol2/pdf/CFR-2010-title49-vol2-sec172-704.pdf.

FINANCIAL ASSURANCE

Financial Assurances: Strengthening Public Safety of Waste Facilities and Surface Mines, Report of the Legislative Analyst Office, California, April 2006. Available at http://www.lao.ca.gov/2006/site_assurances/site_assurances_042606.htm.

Financial Responsibility for Environmental Obligations: Are Bonding and Assurance Rules Fulfilling Their Promise? Boyd J, Research in Law and Economics, Issue 20, pp. 417-486, 2002. Available from the Resources for the Future web site: . http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-01-42.pdf

Subtitle C and D Corporate Financial Test Analysis Issue Paper Assessment of Financial Assurance Mechanisms, U.S. Environmental Protection Agency, March 18, 1996. Available at . https://archive.epa.gov/epawaste/nonhaz/municipal/web/pdf/paper10.pdf

RCRA Financial Assurance for Closure and Post-Closure, Office of the Inspector General Audit Report, March 30, 2001.

COMMUNITY INVOLVEMENT PROFILE

CalEnviroScreen 3.0 (California Communities Environmental Health Screening Tool), Office of Environmental Health Hazard Assessment, January 2017. Available at https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf.

Department of Toxic Substances Control Public Participation Manual, Department of Toxic Substances Control, October 2001. Available at http://www.dtsc.ca.gov/LawsRegsPolicies/Policies/PPP/upload/DTSC-PublicParticipationManual.pdf.

United States Census Bureau webpage and data, 2010. Available at https://www.census.gov/data/data-tools.html.

FACILITY HUMAN RISK ASSESSMENT

Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A), Interim Final, U.S. Environmental Protection Agency, EPA/540/1-89/002, December 1989. Available at https://www.epa.gov/sites/production/files/2015-09/documents/rags_a.pdf.

Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), Office of Environmental Health Hazard Assessment, February 2015. Available at https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

Risk Characterization Handbook, U.S. Environmental Protection Agency, Science Policy Council, EPA 100/B-00/002, December 2000. Available at http://www.epa.gov/osa/spc/pdfs/rchandbk.pdf.

VIOLATIONS SCORING PROCEDURE

Envirostor database, Department of Toxic Substance Control. Available at https://www.envirostor.dtsc.ca.gov/public/.

IV. REASONABLE ALTERNATIVES CONSIDERED

Permit Decision Criteria

VIOLATIONS SCORING PROCEDURE - AVAILABLE ALTERNATIVES INCLUDED THE FOLLOWING:

Chosen Alternative: DTSC determined that adding new provisions to Title 22, California Code of Regulations, Division 4.5, Chapter 21, Article 3 is the most effective and least burdensome alternative to meeting its mandate to adopt the proposed regulations authorized by SB 673. This is because the proposed regulations improve on existing DTSC Permitting Division practices and policies in a manner that most efficiently and effectively enhances protection of public health and safety and the environment. DTSC developed these regulations after considering input from staff in DTSC's permitting and enforcement programs, as well as from outside consultants, interested parties, and members of the general public. These regulations provide greater transparency and consistency regarding the criteria and process DTSC uses for the issuance of a new or modified hazardous waste facility permit and renewal, denial, suspension, and revocation of a hazardous waste facility permit.

When making permit decisions DTSC is required to consider, among other things, a facility's compliance history. In this context, the compliance history can include many measures of facility compliance. The VSP sets up a simplified process to evaluate and characterize a hazardous waste facility's compliance with substantive hazardous waste requirements. In the chosen alternative, the VSP process is used to score individual inspections and to establish an overall score for the facility. These scores provide a clear and simple mechanism for DTSC, the permitted facilities, and the public to understand how well a facility complies with core requirements, and how the facility's compliance compares to other permitted facilities.

The calculation of the VSP Score is consistent with DTSC's existing methods and processes for addressing administrative penalty calculations for hazardous waste management violations. Generally, each Class I violation is scored, and DTSC compiles an inspection violation score that is the total of all the Class I violations found during a given inspection. The Facility VSP Score calculation includes all Class I violations that are found during DTSC compliance inspections over a rolling ten-year period. The sum of all final inspection violation scores is then divided by the number of inspections during the preceding ten-year period. The resulting number is the Facility VSP Score. This division is the final step in normalizing VSP scores by averaging the scores based upon the total number of inspections performed at the facility during the specified compliance period. This factor would also indirectly take into account the type of facility (e.g. facilities that pose a lower risk are inspected less frequently, unless violations are found,) and the inspection intervals. For example, landfills are inspected more frequently than the facilities authorized by a Standardized Permit.

In addition, the proposed regulations provide a streamlined mechanism for hazardous waste facilities to dispute and DTSC to review their provisional inspection violation scores. The provisional inspection violation score is the driver for the final inspection violation score and overall Facility VSP Score. As such, it is important that this score be accurate. To that end, and to give facilities due process tailored to DTSC's decisions regarding provisional scoring, DTSC created a streamlined dispute

resolution process for this procedure. The proposed regulations also provide a process for a facility to appeal its assignment to a compliance tier based on the Facility VSP Score DTSC calculated for the facility.

Rejected Alternatives:

Alternative 1. No action. Among other things, the enabling legislation requires DTSC to adopt regulations establishing or updating criteria for permit decisions, and establish transparent standards and procedures for permit decisions, including those that are applicable to permit denial, suspension, and revocation. The enabling legislation also includes a non-exhaustive list of criteria that DTSC must consider in drafting these regulations. Those criteria include the "[n]umber and types of past violations that will result in a denial." In addition, numerous stakeholders, including, community advocates, businesses, and elected officials, have asked DTSC to establish consistent, transparent and accountable decision-making processes. The lack of transparency and accountability has contributed to an erosion of trust in DTSC's permit decisions, and in particular, DTSC's consideration of compliance history when making those decisions. If DTSC were to take no action to develop permit decision criteria to consider the number and type of violations by a facility, DTSC would likely face a critical loss of confidence in its permitting program. Moreover, DTSC sees great benefit from increasing transparency and accountability. For these reasons, DTSC rejected the "no action" alternative.

Alternative 2. Draft regulations that provide a framework for characterizing a facility's compliance with substantive requirements that does not use the VSP and are based on criteria other than DTSC's penalty regulations (Tit. 22, Cal. Code Regs., Ch. 22, Art. 3). There are criteria other than those previously promulgated in regulations by DTSC that DTSC could rely on in developing these regulations. That is, the enabling legislation that authorizes and mandates that DTSC adopt regulations did not specify the required content of the regulations. Rather, the enabling legislation specified a non-exhaustive list of criteria that DTSC must consider in drafting these regulations. (See Health & Safety Code, § 25200.21.) DTSC considered and rejected other potential criteria from those specified in this rulemaking because they were not as appropriate as the criteria selected here in carrying out the legislative mandate and in conforming to DTSC and other statutory and regulatory requirements. This rejected alternative would have been unduly complex. More specifically, it would have created two different sets of criteria for evaluating the same thing—violations of hazardous waste management requirements.

Alternative 3. Modify the proposed Facility VSP Score process by changing some of the principal input factors or the formula for the computation. For example, DTSC could modify the Facility VSP Score based on the following:

- A total score instead of an average score;
- A variable time period based on the time from permit issuance;
- A time frame adjusted to reflect a change of facility ownership;

- A score adjusted to account for intent, complexity of the facility, or economic benefit gained through noncompliance; or
- Violations expanded to include Class II and minor violations instead of only Class I.

DTSC rejected this alternative because one of DTSC's objectives was to keep the calculation simple and remove input factors that may unduly complicate the scoring process. By ensuring the scoring process is not unnecessarily complex, DTSC can use its existing resources to implement the process, and minimize the costs to affected businesses, while providing clear and meaningful compliance information to inform its permit decisions and the public.

Alternative 4. Draft a Complex, Multi-Staged Dispute Resolution Process. DTSC rejected this alternative because it would be unnecessarily complicated and time consuming for reviewing DTSC's straightforward calculation of provisional inspection violation scores. DTSC included an administrative challenge to the assigned compliance tier in section 66271.57(b) through (f) after deleting the appeal process for VSP permit decisions in section 66271.58.

In response to various comments received by DTSC regarding the VSP, DTSC has made substantial changes to sections 66271.50 through 66271.57. These include the following: a process to score violations found during compliance inspections; a dispute process for an owner or operator to dispute the inspection violation scores for violations occurred before the effective date of the regulations and violations that occur after the effective date of the regulations; a process to calculate the Facility Violations Scoring Procedure Score; a process to assign the final compliance tier; and a process to challenge the final compliance tier assignment. The VSP processes will not affect an owner or operator's existing due process right to challenge DTSC's permit decisions or enforcement actions.

FINANCIAL ASSURANCE - AVAILABLE ALTERNATIVES INCLUDED THE FOLLOWING:

Chosen Alternative: The chosen alternative will modify three parts of the financial assurance regulations as follows:

- Limit insurance used as a financial assurance mechanism to insurance provided by those companies licensed or authorized in the State of California. This is done to strengthen financial assurance by making this mechanism subject to the relatively strict reporting and supervision requirements of the California Department of Insurance.
- Clarify the point at which financial assurance for corrective action is required.

DTSC chose this alternative as the approach best supported by the empirical and anecdotal evidence regarding operation of DTSC's financial assurance program over the past 30+ years. More specifically, the selected alternative updates outdated monetary thresholds for financial assurance and closes some gaps in existing regulations.

Rejected Alternatives:

Alternative 1. No action. This alternative would allow the effectiveness of the financial test mechanism for meeting financial assurance requirements to continue to erode due to changing economic conditions and the passage of time. Under the existing regulations, hazardoushazardous waste facility owners and operators are allowed to use captive insurance policies to meet their financial assurance obligations; under this alternative they would be allowed to continue to use captive insurance policies without additional requirements. "Captive insurance" is a type of insurance in which a parent company creates a licensed insurance company to provide coverage for itself and, often, its subsidiaries. Inherent in this type of insurance is a lack of separation of risk of upset or loss by the operating entity—in this case, a hazardous waste facility— from the risk of financial failure of that same company or its parent. This lack of separation of operational risk and financial risk is the primary reason that DTSC is rejecting the alternative of allowing captive insurance to remain as an acceptable means of providing financial assurance to DTSC. A facility that relies on captive insurance may be less likely to be able to cover the cost of damage and contamination in the event of an emergency event at a facility. The point at which financial assurance for corrective action is required would also remain unclear. This alternative was rejected because of DTSC's responsibility to protect public funds and to ensure that the owners and operators of hazardous waste facilities bear financial responsibility for cleaning up contamination at the facility during the operations and after the facility has been closed.

Alternative 2. Allow corporations to use the existing financial test criteria if they also achieve a specified Altman Z-Score. This alternative would only modify the financial test mechanism. In 2004, DTSC held public workshops to address concerns about the financial test. The existing financial test mechanism had not been modified since its adoption in the federal regulations in 1982. One of the proposals DTSC asked for comment on was the use of the Altman Z-Score, a measure of financial insolvency. The Z-Score was developed in the late-1960s by Professor Edwin Altman of the New York University, School of Business. The Z-Score is a composite of five weighted, financial ratios. Professor Altman stated that the Z-Score was capable of predicting a corporation's likelihood of insolvency within two years of the rating. Professor Altman stated that a Z-Score higher than 2.99 (for a public company) or 2.60 (for a private company) made that company highly unlikely to become insolvent. A score lower than 1.81 (for a public company) or 1.1 (for a private company) would indicate that a company would likely become insolvent within the next two years.

In an earlier proposal, DTSC indicated that a corporation would need an Altman Z-Score of 3.0 or greater to qualify for reliance on the financial test mechanism to satisfy financial assurance requirements. DTSC has rejected this proposal because of the limited nature of the data on which Professor Altman based his ratings. The data was collected from mid-sized manufacturing companies. The universe of companies using the financial test in California represents a broader range of size and industry (more than just manufacturing). Since Professor Altman based these ratios on this limited set of data, DTSC believes that the Z-Score does not adequately reflect the actual businesses DTSC regulates. More importantly, use of this test alone would not resolve the other issues addressed by the regulations DTSC is proposing.

Alternative 3: Adopt the modified financial test mechanism used by the State of Alabama. This alternative allows single-parent captive insurance companies to provide financial assurance, when these companies qualify for and make all filings required by the financial test mechanism. DTSC concluded that any company qualifying for use of this hybrid mechanism could also pass the financial test. Therefore, DTSC considered this mechanism as duplicative, unnecessary and unduly cumbersome.

TRAINING - AVAILABLE ALTERNATIVES INCLUDED THE FOLLOWING:

Chosen Alternative: DTSC determined that a modest number of meaningful improvements were needed to make the training programs at hazardous waste facilities more appropriately tailored to facility operations in order to better support safe operation of the facility. DTSC is adding a new requirement for the annual certification of training records. The proposed regulations also amend sections 66264.16 and 66265.16 by adding language to clarify existing regulations. These training requirements apply to employees at permitted hazardous waste facilities that handle hazardous waste.

Rejected Alternatives:

Alternative 1. No Action. The enabling legislation specified training in a non-exhaustive list of criteria that DTSC must consider in drafting these regulations. DTSC evaluated existing training requirements and did not find any issues that would be so egregious as to be the basis for a permit denial due to deficiencies in the training programs developed for facilities. However, DTSC found enough violations due to failure to comply with training requirements to merit adding clarifying language. DTSC reviewed enforcement data to determine whether better compliance with operational requirements could be attained by making improvements to the requirements related to training. DTSC determined that there were changes needed to improve upon the current regulations governing the training of facility staff. Accordingly, DTSC rejected the no action alternative because DTSC concluded that these proposed regulations are necessary to carry out its duties in implementing its permitting program and afford better protection to facility personnel and surrounding communities.

Alternative 2. More Extensive Regulations. DTSC could have redesigned the entirety of the regulations governing training requirements at hazardous waste facilities. But DTSC determined that such a wide scope of regulatory changes was not necessary. This is because DTSC did not see a pattern of noncompliance by facilities that necessitated a wholesale reworking to prevent or decrease the violations observed. DTSC also concluded that a massive overhaul of the training requirements would be unduly complex and expensive for facilities with little incremental benefit. Accordingly, DTSC rejected this alternative.

COMMUNITY INVOLVEMENT PROFILE - AVAILABLE ALTERNATIVES INCLUDED THE FOLLOWING:

Chosen Alternative: The proposed regulations require that the applicant for a hazardous waste facility permit include a Community Involvement Profile that describes the characteristics of the surrounding community and identifies potential environmental justice issues. SB 673 authorizes that DTSC adopt regulations to establish criteria for its permit decision-making process. One of the criteria that DTSC must consider in making permit decisions is "the vulnerability of, and existing health risks to, nearby populations" (see Health and Safety Code section 25200.21(b).)

The proposed requirement for a Community Involvement Profile (CIP) will ensure the availability of accurate and current data to identify community vulnerability at the time of the permit application submittal. It will initiate earlier and more robust public engagement in the permit review process.

Rejected Alternatives:

Alternative 1. No Action. This alternative would do little to help DTSC's efforts to address environmental justice. California was one of the first states in the nation to codify environmental justice principles in statute.[2] Beyond the fair treatment called for in that statute, SB 673 requires DTSC to consider community vulnerability, cumulative impacts, and potential risks to health and well-being when making permit decisions. The California Environmental Protection Agency's (CalEPA) has instituted policies and practices designed to protect those individuals disproportionately impacted by pollution, and include them in the decision-making processes of its boards and departments. [3] To do nothing would place DTSC out of compliance with the mandate from the California Legislature to consider "the vulnerability of, and existing health risks to, nearby populations" as a criterion for these proposed regulations. Therefore, DTSC rejected this alternative.

Alternative 2. Require all RCRA and non-RCRA facilities to hold at least one public meeting. Section 66271.31 of the existing hazardous waste permitting regulations currently requires an owner or operator of a RCRA hazardous waste facility to hold at least one public meeting prior to submittal of a hazardous waste facility permit application. This alternative would extend the requirement to non-RCRA facilities. Public meetings provide an important forum for sharing information and receiving comments. However, DTSC understands from public input that some community members often are distrustful of the information provided when these meetings are held by the facility. In addition, some community members are less likely to share candid information in a forum convened by a hazardous waste facility. For this reason, DTSC did not find that the additional facility-led public meetings would meaningfully enhance public involvement or strengthen environmental justice safeguards. Further, this alternative would not support the consideration of community vulnerability

[2] Government Code section 65040.12, subdivision (e) defines "environmental justice" for planning and land use as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies."
[3] Section 71110 of the Public Resources Code requires CalEPA to "[c]onduct its programs, policies, and activities that substantially affect human health or the environment in a manner that ensures the fair treatment of people of all races, cultures, and income levels, including minority populations and low-income populations of the state."

or existing health risks. DTSC rejected the alternative because it does not adequately implement SB 673.

Alternative 3. Require the Community Involvement Profile to be submitted six months before the due date for the Part B permit application. In theory, having a Community Involvement Profile in advance of a permit application would be beneficial. However, without the Part B application, it would be difficult to review the Community Involvement Profile information. Essentially, one informs the other. For these reasons, DTSC rejected this alternative.

FACILITY HEALTH RISK ASSESSMENT - AVAILABLE ALTERNATIVES INCLUDED THE FOLLOWING:

Chosen Alternative: The enabling legislation specifies a non-exhaustive list of criteria that DTSC must consider in drafting these regulations. The criteria include requiring the completion of a health risk assessment to inform permit decisions. Health risk assessments can provide crucial information on the potential health impacts to the surrounding community resulting from the operation of, or releases from, a facility. With this information, DTSC will be better able to prevent or mitigate such health impacts. DTSC has determined that a tiered approach is the most effective method to incorporate health risk assessments into its permit decisions.

The proposed regulations include three tiers of requirements for health risk assessments. In the first tier, all applicants for hazardous waste permits are required to complete a health risk assessment questionnaire. Based on the information provided in the questionnaire and specified criteria, DTSC determines whether the applicant must submit a Screening Level Health Risk Assessment as described in the second tier. The Screening Level assessment uses conservative assumptions and represents a worst-case health risk scenario. The third tier requires the preparation of a Baseline Health Risk Assessment, which is a more detailed analysis than the Screening Level Health Risk Assessment. DTSC may require the third-tier analysis based on the information provided through either the first or second tier.

While all of DTSC's programs and requirements are intended to prevent releases of contaminants into the environment, there are also releases associated with facility operations and transportation related to and from the facility, residuals of historic contamination, and unexpected events that lead to the release of contaminants. The application of known site conditions or screening can help focus the subsequent, more expensive and complex assessments. The use of a questionnaire and established screening methods yield useful information about the most impactful exposure scenarios. Overall, DTSC determined this stepwise screening and baseline risk characterization scheme allows for an effective health assessment.

Rejected Alternatives:

Alternative 1. No Action. Currently, DTSC requests an applicant to perform a baseline health risk assessment on a case by case basis. Generally, this request is made to evaluate the most complex

hazardous waste facilities or to determine cleanup levels for contaminated sites. A health risk assessment may also be required to support the findings of an environmental impact report prepared in accordance with CEQA for a permit decision. The case-by-case nature of the current approach creates inconsistencies, causes uncertainty and does not support the most appropriately informed decision-making in all cases. It also results in delays in permit review because applicants are not able to plan accordingly, baseline health risk assessments can be time-intensive to prepare, and the lack of a standardized process may lengthen the iterative process for preparation and review.

The enabling legislation specifically requires DTSC to adopt regulations to establish permit decision criteria, and to consider requiring applicants to complete a health risk assessment. The legislation also requires DTSC to establish transparent standards and procedures, employ consistent procedures for reviewing permit applications, and make timely permit decisions. Continuing the current approach on a case-by-case basis would not meet the mandate in the enabling legislation because SB 673 authorizes DTSC to consider the completion of an HRA in a consistent and transparent manner.

Alternative 2. Require a baseline risk assessment for all facilities. This runs contrary to currently-accepted practices for health risk assessments. Not all facilities pose the same human health impacts. Therefore, using the most comprehensive method for all facilities is not an efficient or effective use of resources to protect public health and the environment.

V. DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS ADDRESSING THE SAME ISSUES

There is no conflict or duplication between these proposed regulations and federal regulations addressing the same issues. In particular, there are no counterpart federal regulations to these proposed regulations for VSP, CIP, or HRA. But there is a counterpart federal regulation specifying broad criteria for termination of an existing permit and denial of a permit renewal application. (40 CFR § 66270.43) The proposed regulations go beyond federal requirements. Unlike these proposed regulations, the federal provision does not have a process to evaluate compliance history or specific criteria that will result in a permit denial or revocation. Rather, the federal provision provides four very broad bases for termination of a permit: (1) noncompliance by the permittee with any condition of the permit; (2) the permittee's failure in the permitting process to fully disclose all relevant facts; (3) the misrepresentation of any relevant facts; or (4) the United States Environmental Protection Agency's (U.S. EPA) determination that a permitted activity endangers public health or the environment and can only be regulated to acceptable levels by permit modification or termination.

In addition, there are broader counterpart federal regulations that were adopted by, and are administered by, U.S. EPA in its regulation of hazardous waste facilities. U.S. EPA must adhere to those federal regulations in implementing the federal hazardous waste facility permitting program. As noted earlier, DTSC has been authorized by U.S. EPA to administer the California hazardous waste management program in California in lieu of RCRA.

RCRA authorizes states with hazardous waste management programs at least as stringent as RCRA and of at least the same scope to seek and obtain authorization from U.S. EPA to implement the given state's hazardous waste program in lieu of RCRA. DTSC obtained such authorization from U.S. EPA in 1991, and has been implementing the California hazardous waste program in lieu of RCRA ever since. DTSC has quite frequently exercised this authority to enact regulations that are either more stringent than counterpart federal regulations, or are broader in scope, or both. This proposed rulemaking is another such instance. As such, DTSC has determined that it meets the criteria in Government Code section 11346.2, subdivision (b)(6)(A).

As previously stated, these newly proposed regulations impose a few new obligations or burdens on regulated entities related to training, financial assurance, and preparation of a Health Risk Assessment and a Community Involvement Profile. DTSC believes that any unforeseen, incidental new costs to hazardous waste facility owners and operators is justified by the benefit to human health, public safety, public welfare, or the environment. That is, the increased transparency and consistency in DTSC's permitting decisions that will result from these regulations, which DTSC believes will result in better decision making and protection of public health and the environment, is sufficient justification for these regulations. (Government Code section 11346.2, subdivision (b)(6)(B).)

The proposed regulations do not duplicate or conflict with federal regulations for financial assurance, postclosure care, or corrective action because RCRA allows RCRA-authorized states to be more stringent and broader in scope, but not less stringent than RCRA. California is a RCRA-authorized state. The proposed regulations are both more stringent and broader in scope than the federal regulations.

VI. DETAILED STATEMENT OF REASONS: SUMMARY AND RATIONALE

For purposes of this Final Statement of Reasons, all regulatory references are to the California Code of Regulations, Title 22, Division 4.5, unless otherwise specified.

Non-substantive Changes

DTSC made the following non-substantive changes to the regulations after the close of the last 15-day public review and comment period, which commenced on July 27, 2018, and closed on August 13, 2018.[4]

- The word "the" was inserted into section 66260.14 for the definition of "Admitted carrier." The revision was made to correct the omission of this word. The new text is as follows:
    - *"Admitted carrier" means an insurance company entitled to transact the business of insurance in this state, having complied with the laws imposing conditions precedent to transactions of such business.*

[4] This public review and comment period was extended from 15 days to 24 days.

- The words "it is" were mistakenly deleted in paragraph 5 of section 66264.151(e) in the revised text that was released on July 27, 2018. The proposed text is also missing a hard return after paragraph (5). There is no regulatory effect for revising this text.
    - The previously proposed text was:
        - *"(5) The premium due is paid. The Insurer certifies that: …"*
    - The new revised text is:
        - *"(5) The premium due is paid.*
          The Insurer certifies that it is: …"
- The words "it is" were mistakenly deleted in paragraph 3 of section 66264.151(i) in the revised text that was released on July 27, 2018. There is no regulatory effect for revising this text. The new revised text is
    - *"3. The Insurer certifies that it is: …"*
- The words "potential magnitude and" were deleted from section 66270.14(e)(1)(D). This term is duplicative of the term "potential health impact." There is no regulatory effect with the revision of this text. The new revised text in section 66270.14(e)(1)(D) is:

  "Potential health impact of the human exposure to persons both within and outside of the facility resulting from releases specified in either subparagraphs (1)(A) or (1)(B) or both of this subsection.

Chapter 10

Article 2. Definitions

§ 66260.10 Definitions

Section 66260.10 has been amended to define two additional terms.

The first term is "Chemical of Potential Concern" or "COPC." This term is necessary to understand what chemicals will be evaluated in a health risk assessment conducted pursuant to section 66270.14, subsection (e). A COPC is an identified chemical that may be hazardous to human health or the environment related to the site, initially from hazardous waste or hazardous waste processing operations.

COPCs are first identified as the releases of hazardous waste or hazardous waste constituents, and hazardous materials (collectively, hazardous materials) to the environment, that are subject to the provisions of Health and Safety Code, Division 20, Chapters 6.5, 6.8, and 6.82. For purposes of the hazardous waste facility human risk assessment, this term includes any transformation products, degradation products, and emissions. Conservative assumptions will be used to focus on the chemicals that have the potential to pose risk. The resultant COPCs will then be carried forward for further evaluation in subsequent steps of the risk assessment process. It is important to define this term and ensure that all chemicals with hazard characteristics and potential exposure are evaluated to ensure that the health risks associated with their presence are properly addressed.

The second term added is "admitted carrier." The definition of "admitted carrier" in the proposed regulations is identical to the definition of that term used by CalRecycle in its financial assurance regulations in California Code of Regulations, title 27, section 22200(b). This term is necessary to allow for a common understanding and usage of the term in the context of insurance coverage for the solid waste facilities regulated by CalRecycle and the hazardous waste facilities regulated by DTSC.

Chapter 14 and Chapter 15

Chapter 14 and chapter 15 are two sets of regulations that set the standards for owners and operators of permitted facilities and facilities that operate under an interim status authorization, respectively. The reason for two sets of regulations having few differences is because a facility in existence at the time the regulations took effect could not be expected to immediately comply with the permit standards of chapter 14. Chapter 15 also applies to generators that store hazardous waste or treat hazardous waste onsite, and it provides the same flexibility for generators authorized under the permit by rule tier, the conditional authorization tier, and the conditionally exempt tier.

Because the two chapters differ only when necessary, the proposed regulations address the same or similar content in both chapters.

Article 2. General Facility Standards

§§ 66264.16 and 66265.16

Sections 66264.16 and 66265.16 modify facility personnel training program requirements to ensure all personnel will have the enhanced knowledge and training to ensure the safe operation and maintenance of hazardous waste management activities. Health and Safety Code section 25200.21, subsection (f) specifies that training in safety culture and plans, emergency plans, and maintenance of operations should be considered as criteria to make permit decisions for facilities.

DTSC reviewed compliance issues related to training violations or violations that were the result of lack of training of hazardous waste facility personnel and found common violations. These include failure to adequately train employees that manage hazardous wastes and failure to maintain employee training records. It is necessary to train personnel so that operations are conducted in a manner that meets regulatory standards, prevents releases of hazardous waste, ensures appropriate emergency response actions are taken, and protects the health and safety of all facility personnel and the public. DTSC also made non-substantive editorial changes to these provisions to correct syntax errors. All of these changes are necessary to correct deficiencies in the current training program regulations.

Sections 66264.16(a) and 66265.16(a) specify that the training program must include applicable requirements under section 5192(p) of Title 8 of the California Code of Regulations. This is analogous

to the federal Hazardous Waste Operations and Emergency Response Standard (HAZWOPER[5]) that applies to distinct groups of employers and their employees. The covered personnel include any employees who are exposed or potentially exposed to hazardous substances. For hazardous waste facilities, these primarily cover the following activities:

- corrective actions;
- operations involving hazardous wastes; and
- emergency response operations for releases.

In addition, employees may also be subject to Department of Transportation requirements known as "Hazmat." These transportation requirements apply to hazardous waste transporters and hazardous waste transfer facilities. Under federal law, some hazardous waste transportation activities are exempt from permitting. However, in California, transfer facilities require a hazardous waste permit. For example, in California, Hazmat requirements apply to truck-to-truck or truck-to-railcar permitted transfer facilities. These provisions are necessary so that training requirements are commensurate with the responsibilities of hazardous waste facility employees. It is also necessary to build on existing regulatory requirements that protect workers so that the entire training regime works as an integrated comprehensive whole.

This section includes a non-substantive editorial change to the text. DTSC changed the passive voice to the active voice. As such, these changes are necessary to make clear who is required to comply with the regulations and allow DTSC to more effectively enforce the regulations.

Sections 66264.16(a)(1) and 66265.16(a)(1) specify that the training program must include the provisions in this section. This is necessary to make clear all the elements of the training program, and to make them enforceable.

Sections 66264.16(a)(2) and 66265.16(a)(2) requires the owner of operator of a hazardous waste facility to provide its employees with hazardous waste management procedures training, including, but not limited not to, contingency plan training and the identification and segregation of incompatible hazardous wastes or products. Incompatible wastes are those wastes whose chemical or physical properties make them dangerous when they come into contact with each other. They are dangerous due to risks ranging from instability all the way to the point of explosion. The proposed regulations help minimize the risk of harm from the handling of incompatible wastes by establishing a more robust and focused employee training program that addresses the risks from incompatible wastes. Incompatible wastes coming into contact with each other may cause emergency response situations (e.g., fires or explosions). Data regarding violations has identified circumstances in which fires and explosions have occurred due to accidental mixing of incompatible wastes. These accidents have occurred at facilities where concurrent training violations related to chemical compatibility or segregation have been identified. To prevent this, it is important to identify waste that is

[5] HAZWOPER is an acronym which stands for Hazardous Waste Operations and Emergency Response. HAZWOPER training is covered under California Code of Regulations, title 8, section 5192 and OSHA standard in Title 29 of the Code of Federal Regulations, Part 1910.120.

incompatible with other wastes when storing or treating these wastes. Incompatibles must be must be physically separated when placed in the same storage area.

If incompatible wastes are being treated in the same container, owners or operators must ensure that the waste will not react. This means wastes must be prevented from: 1) becoming too hot (this will prevent fire or explosions); 2) producing toxic or flammable mists, gases, fumes, or dust (this will prevent workers from being exposed to the waste and will prevent fire or explosions); 3) being placed in damaged containers so that the container will not rupture or bulge; and 4) endangering workers, or the environment in any way. These regulations are necessary to ensure personnel are properly trained about how to identify and segregate incompatible wastes to ensure safety of facility personnel and prevent accidents.

Sections 66264.16(a)(3) and 66265.16(a)(3) specify that emergency response procedures include prevention, mitigation, abatement, and notification procedures to address safety culture. It is important to foster a more comprehensive safety culture at hazardous waste facilities to minimize the risk of upset or other causes of injury to facility personnel. DTSC looked for definitions of "safety culture" and found the following two that closely match our goals for improving safety:

- Department of Industrial Relations' regulation for Title 8, California Code of Regulations, Section 5189.1 of the General Industry Safety Orders - Process Safety Management for Petroleum Refineries: "'Process Safety Culture.' This definition describes the combination of group values and behaviors that reflect whether leaders and individuals share a collective commitment to emphasize safety. This is necessary to ensure the protection of employees and to promote the prioritization of safety over competing goals."
- The United Kingdom's Health and Safety Executive's definition is "…the product of the individual and group values, attitudes, competencies and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety programs."

These definitions are very similar. The proposed regulations build on existing regulations that collectively foster a safety culture and are necessary to emphasize that these activities are an important first step to help build a stronger safety culture at facilities, thus helping to ensure the safety of facility personnel, the community, and the environment. The new provisions represent an expansion of the previous focus of the training requirements to ensure that the training program is comprehensive enough to protect facility personnel.

Sections 66264.16(a)(3)(F) and 66265.16(a)(3)(F) require that emergency response training provided to facility personnel include training to shut down facility operations in case of an emergency. It may be critical to shut off equipment or utilities during an emergency to minimize the extent of potential damage. Knowing the correct procedures to safely execute the shutdown of operations is necessary to ensure an additional safety margin. Thus, this new requirement is necessary to accomplish that objective.

Sections 66264.16(a)(3)(G) and 66265.16(a)(3)(G) require emergency response training to include self-protection measures. It is important for facility personnel to know what personal protective equipment is available for their safety and how to select and use equipment for everyday hazardous

waste handling and for emergency response incidents. Safety considerations are essential for the prevention of hazards, which may injure facility personnel. As such, this topic needs to be included as part of any work place training program. This is especially true when dealing with hazardous wastes. Accordingly, DTSC finds it necessary to modify the existing regulations to strengthen these requirements.

Sections 66264.16(a)(3)(H) and 66265.16(a)(3)(H) require that emergency response training include accident prevention methods. There are various accident prevention requirements found in Division of Occupational Safety and Health (DOSH or Cal/OSHA) regulations (Title 8, California Code of Regulations, sections 3203 and 5192). However, it is important for personnel training to address the prevention of other accidents, such as chemical accidents. The following are some recommendations from the Organisation for Economic Co-operation and Development's (OECD) 2003 Guiding Principles: Chemical Accident Prevention[6] that may apply to owners or operators of facilities:

- Knowing the hazards and the risks at the facility will help develop more detailed accident prevention methods. Employees need to be trained to understand the consequences of human or technological failures, as well as releases resulting from natural disasters or deliberate acts.
- Promoting a "safety culture" that is known and accepted throughout the facility. A safety culture requires visible top-level commitment to safety and the support and participation of all employees.
- Learning about safety management systems. Safety management systems for hazardous facilities include using appropriate technology and processes, operational procedures and practices.
- Additional training on operating more complex hazardous waste management units. This reduces the likelihood of accidents and minimizes the consequences of accidents that occur. For example, understanding the effects of reducing operating pressures and/or temperatures, improving inventory control. and using simpler processes.
- Training when implementing changes. Any significant changes, as well as maintenance/repairs and start-up and shut-down operations, increase the risk of an accident. It is therefore particularly important to be aware of this and to take appropriate safety measures prior to and when significant changes are implemented.

DTSC has examined the OECD document and determined that it may be instructive for use in these regulations. More specifically, the subject matter is very much on point—chemical accident prevention. These concepts are very much in line with enhancing emergency procedures by requiring

[6] OECD Guiding Principles for Chemical Accident Prevention, Preparedness and Response Guidance for Industry (including Management and Labour), Public Authorities, Communities, and other Stakeholders, second edition; Organisation for Economic Co-operation and Development, Health and Safety Publications Series on Chemical Accidents No. 10; 2003. Available at http://www.oecd.org/chemicalsafety/chemical-accidents/Guiding-principles-chemical-accident.pdf.

facility personnel to learn about prevention methods to improve facility safety. It is necessary to modify the existing regulations to strengthen training requirements that address accident prevention.

Sections 66264.16(a)(4) and 66265.16(a)(4) introduce two general subject areas—general awareness training and function-specific job training—to be included in a hazardous waste facility's training program. These provisions are necessary to provide the framework for the later, more specific provisions.

Sections 66264.16(a)(4)(A) and 66265.16(a)(4)(A) specify that the training program must ensure that all personnel be given "general awareness training"—training that informs facility personnel and provides them with an understanding of hazardous waste activities at the facility. Current regulations do not clearly specify the need for all facility personnel to have a "general awareness" of the overall facility hazardous waste operations, including security and safety considerations. Such general awareness is critical for emergency preparedness. Everyone within the facility boundaries needs to be cognizant of the safety considerations for the types of hazardous waste being handled and how they are handled, even if their job functions do not involve direct contact with the waste. There needs to be an awareness of potential upset scenarios and the procedures that will be implemented in the event of a site-wide emergency response. Even those facility employees not directly involved with operations need to be aware of how to protect themselves and fellow employees from harm due to facility operations. Therefore, these provisions are necessary to ensure that these objectives are met.

Sections 66264.16(a)(4)(B) and 66265.16(a)(4)(B) specify that all employees involved with hazardous waste management activities must be provided with training specific to their job functions. Training requirements must be tailored to the nature of the work performed by facility personnel. Proper training in workplace requirements and procedures, especially regarding the management of hazardous waste, is essential for the protection of onsite personnel, the public, and the environment.

Sections 66264.16(b) and 66265.16(b) include a non-substantive editorial change to the text. DTSC changed the passive voice to the active voice. As such, these changes are necessary to make clear who is required to comply with the regulations and allow DTSC to more effectively enforce the regulations.

Sections 66264.16(c) and 66265.16 (c) include a non-substantive editorial change to the text. DTSC changed the passive voice to the active voice. As such, these changes are necessary make clear who is required to comply with the regulations and allow DTSC to more easily enforce the regulations.

Sections 66264.16(d) and 66265.16(d) specify that the training records required by the remainder of this subsection demonstrate compliance with subsection (a) of these provisions and include the specific elements set out in paragraphs (1) through (4) of this subsection. This provision is intended to, and is necessary to, ensure that the training records actually demonstrate compliance with the important elements of a training program. Subsection (d) serves to clarify the nature of the documents that must be retained by a facility.

Sections 66264.16(d)(2) and 66265.16(d)(2) each include a non-substantive editorial change to the text to correct a citation error. As such, these changes are necessary to correct drafting errors.

Sections 66264.16(d)(3) and 66265.16(d)(3) specify that the written description of the facility's training program must include a syllabus or outline of the type and amount of both introductory and continuing training that will be provided to certain facility personnel. There is a lack of specificity in the existing regulations regarding what is a qualified written description of a training program. The amendments here create an opportunity to prevent deficient training records that do not correspond with any specific training syllabus or outline. This provision is necessary to specify the appropriate and acceptable type of documentation for the facility personnel training requirements.

Sections 66264.16(d)(4) and 66265.16(d)(4) require that an employee sign or certify records that substantiate that the required training was completed. The existing regulations lack clear documentation requirements for the current safety training plan or program requirements that must be met by facility personnel. These provisions are necessary to ensure documentation for employee training is properly provided. This, in turn, is necessary to greater protection of facility personnel from injuries related to handling hazardous waste.

Sections 66264.16(e) and 66265.16(e) include a non-substantive editorial change to the text. DTSC changed the passive voice to the active voice. As such, these changes are necessary to make clear who is required to comply with the regulations and allow DTSC to more effectively enforce the regulations.

Sections 66264.16(f) and 66265.16(f) make specific that, beginning in 2021, the owner or operator must prepare and submit to DTSC by March 1 of each year, an annual certification that attests to the training of the facility personnel that complies with subsections (a) and (c). This section is added to ensure greater certainty that required employee training has been provided. DTSC has observed that clarification is necessary to ensure adequate documentation that a hazardous waste facility actually implements its training program as required by DTSC.

Sections 66264.16(f)(1) and 66265.16(f)(1) require a facility owner or operator to include in its training certification a signed statement certifying that facility staff have been trained in a manner that satisfies the requirements of the training section as applicable, and any applicable requirements of Cal/OSHA (Title 8, California Code of Regulations, section 5192(p)) and Department of Transportation Hazmat (Hazmat) requirements (Title 49, Code of Federal Regulations, section 172.704). There is no documentation currently required to be submitted to substantiate an employee's completion of annual training. This new reporting requirement is necessary to ensure that facilities are actually meeting the training requirements, and are held accountable for implementing and maintaining the personnel training program. Again, this is necessary to enhance the safety of facility personnel.

Sections 66264.16(f)(1) and 66265.16(f)(1) require the training plan to include a specified Cal/OSHA training, which includes both initial training timeframes, as well as identification of training that must be maintained through periodic refresher training on a specified schedule (e.g., "HAZWOPER" annual

8-hour refresher). This ongoing training is required by other regulatory regimes. Requiring facilities to report that Cal/OSHA HAZWOPER and Hazmat requirements have been met is necessary to ensure that the facilities actually provide this required training to the facility employees.

Sections 66264.16(f)(2) and 66265.16(f)(2) specify that the training certification must include the name of each employee trained and the employee's job title. Facility records must be kept updated with this information to document new employees, and job changes to ensure records are complete. The identification of employees by name and title brings greater clarity and certainty when DTSC examines training records to determine if all employees have received appropriate training. This is necessary to ensure that when new employees are hired, that they are identified as new employees and that their training is properly documented. This requirement is necessary to provide for ongoing corroboration of training provided for all employees, not just those who are new.

Section 66265.16(g) excludes generators from the certification requirement in section 66265.16(f). This section is necessary to make clear that the certification provision is not intended to apply to generators that accumulate hazardous waste onsite in compliance with section 66262.34.

Article 6. Water Quality Monitoring and Response Programs for Permitted Facilities

§ 66264.101 Corrective Action for Waste Management Units.

Sections 66264.101(b) adds a new subsection (b) to clarify the point in time at which financial assurance is required for corrective action. More specifically, the owner or operator of a hazardous waste facility is required to provide financial assurance for corrective action within 90 days of DTSC's approval of a corrective measures implementation workplan. Further, the financial assurance mechanism and the related process used for corrective action would allow DTSC to have access to the funding to perform corrective action if the owner or operator fails to do so.

Facilities are required under Health and Safety Code sections 25187 and 25200.10 to implement corrective action when DTSC has determined there is or has been a release of hazardous waste or hazardous constituents into the environment from a hazardous waste facility. Owners and operators of hazardous waste facilities are required to be financially responsible for the characterizations of all releases, corrective measure studies, and implementation of DTSC-approved corrective measures necessary to protect human health and the environment.

Requiring the owner or operator to establish financial assurance is an essential aspect of the corrective action requirements. The primary purpose of the financial assurance mechanism to ensure that funds will be available when needed to conduct necessary work to protect human health and the environment when the owner or operator becomes unable or unwilling to undertake corrective action to address contamination at the facility. Any financial assurance mechanism or process proposed by the owner or operator is subject to DTSC's approval.

This provision is necessary to make clear when corrective action funding must be provided. More importantly, this requirement ensures that there is a backup mechanism to ensure funds are

available and that there is an enforceable means to ensure that corrective measures are implemented. This is necessary for the protection of public health and the environment and ensure that it would not burden taxpayers for any cleanup of contaminated facilities.

Sections 66264.101(c) is renumbered to accommodate the new text in subsection (b) and includes a non-substantive editorial change to the text to correct a syntax error.

Renumbered subsection (c) is also amended to include the use of an agreement, in addition to a permit or order, as the legal mechanism to require corrective action at a hazardous waste facility.

The change is necessary to ensure the availability of sufficient financial resources, provided by the facility owner or operator, for use by regulatory agencies to complete corrective action. This carries out the intention of both federal and state law to protect public health and the environment throughout the entire corrective action process.

Sections 66264.101(d) is renumbered. This change is necessary to accommodate the insertion of new text into subsection (b). This includes a non-substantive editorial change to make it consistent with other text.

Article 8. Financial Requirements

These provisions in article 8 also include non-substantive editorial changes to the text to correct syntax errors.

§§ 66264.143 and 66265.143 Financial Assurance for Closure.

Sections 66264.143(e)(1) and 66265.143(d)(1). Existing regulations currently require, in regard to the provision of insurance as a financial assurance mechanism, that "[a]t a minimum, the insurer shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States." DTSC proposes to require that the insurer be an admitted carrier licensed in the State of California, or eligible to provide excess or surplus lines of insurance in the State of California. This section further requires that excess or surplus lines of insurance be placed through a broker licensed by the California Department of Insurance, and underwritten by a surplus lines insurer on the California Department of Insurance's List of Approved Surplus Line Insurers.

This change is necessary because California has some of the strictest insurance regulations in the nation. In contrast, regulations in other states are insufficient to provide the necessary level of financial assurance to the State of California for hazardous waste facilities. Many other states do not require that insurance companies provide the same level of financial reserves to ensure payment of their policy liabilities, do not monitor insurance companies as closely as does California, and do not make available the submission from the insurance companies that are required to demonstrate financial stability.

The amendments include tabulating paragraphs 66264.143(e)(1) into (e)(1), (e)(1)(A), and (e)(1)(B) and 66265.143(d)(1) into (d)(1), (d)(1)(A), and (d)(1)(B) for additional clarity.

Sections 66264.143(f)(1) and 66265.143(e)(1) also include non-substantive editorial changes to the text to correct syntax errors.

Sections 66264.143(f)(1)(A)2. and 66265.143(e)(1)(A)2. are new subsections that add a requirement for a minimum corporate credit rating to the (A) alternative version of the existing financial test mechanism. The provisions specify minimum credit ratings from one of the two principal credit rating services—Standard and Poor's and Moody's. The incorporation of this requirement is necessary to strengthen the assurance of financial ability to meet the requirements of this article, thus decreasing the likelihood that DTSC would have to pay for closure costs instead of the owner or operator.

Sections 66264.143(f)(1)(A)3. and 66265.143(e)(1)(A)3. are renumbered from the previous section 66264.143(f)(1)(A)2. This is necessary to accommodate the new subparagraph (A)2. added above.

Sections 66264.143(f)(1)(A)4. and 66265.143(e)(1)(A)4. are renumbered from the previous section 66264.143, subsection (f)(1)(A)3. This is necessary to accommodate the new subparagraph (A)2. added above.

This section also increases the amount of tangible net worth that a facility must demonstrate to qualify for this version of the financial test mechanism from $10 million to $20 million. This is necessary to require tangible net worth in an amount that accounts for the effect of inflation since the financial test mechanism was originally authorized. The amount has never been updated to account for the effects of inflation. The start date for measuring the effects of inflation is April 7, 1982. That is the date the Interim Final Rule (47 FR 15032) authorizing the Financial Test became effective. The period ends on March 31, 2017, the last date for which data regarding the effects of inflation is available. The Gross Domestic Product Implicit Price Deflator was at 50.561 on April 1, 1982. The March 31, 2017 number was 112.854. This equates to a 62.293 deflator differential between the two dates. That is an increase of 123 percent (i.e., inflation) between those two dates. Applying that percentage increase to the $10,000,000 total net worth requirement established in regulations in April 1982, an increase of $12,320,000 is necessary to provide the same equivalent total net worth value in today's dollars. The result is $22,320,000 would be the equivalent level of financial protection. DTSC has rounded off that figure to $20,000,000 for simplicity, ease of use, and to be consistent with practices in the affected industry. So, $20 million is the amount of tangible net worth an entity must have to meet the financial test mechanism.

Sections 66264.143(f)(1)(A)5. and 66265.143(e)(1)(A)5. are renumbered from the previous sections 66264.143(f)(1)(A)4. and 66264.143(e)(1)(A)4. This is necessary to accommodate the new subparagraph (A)2. added above. In addition, additional changes were made, which are described immediately below.

Section 66264.143(f)(1)(A)5. and 66265.143(e)(1)(A)5. currently require that a company relying on the financial test mechanism demonstrate assets in the United States equal to 90 percent of total assets or six times the closure cost estimate for the facility to which the financial test mechanism

applies. Currently, a company with multiple facilities is able to use the same assets to demonstrate compliance for each of the several facilities, resulting in an actual absence of adequate assets to cover all of the facilities. The proposed changes require that the owner or operator relying on the financial test mechanism demonstrate assets in the United States equal to 90 percent of total assets or six times the closure cost estimate for the aggregate of all liabilities for which assets are offered as a financial assurance. This is necessary to ensure that the financial assurances offered will not be diminished by other similar obligations and to increase the likelihood that funds are actually available from the owner or operator to pay for closure costs. DTSC does not anticipate any facilities leaving the marketplace due to this change. Rather, many facilities will be able to meet this new standard. A small, but unknown, number of facilities will need to avail themselves of a different means of meeting the financial assurance requirements.

Sections 66264.143(f)(1)(B) and 66265.143(e)(1)(B) include non-substantive editorial changes to the text to correct syntax errors.

Sections 66264.143(f)(1)(B)3. and 66265.143(e)(1)(B)3. increase the amount of tangible net worth that a facility must demonstrate to qualify for this version of the financial test mechanism from $10 million to $20 million. This is necessary to account for the effect of inflation since the financial test mechanism was originally authorized.

Section 66264.143(f)(1)(B)4. and 66265.143(e)(1)(B)4. currently require that the financial test mechanism demonstrate assets in the United States equal to 90 percent of total assets or six times the closure cost estimate for the facility to which the test applies. The changes made here are the same as discussed above for the "(A)" financial test alternative in 66264.143(f)(1)(A)(5) and 66265.143(f)(1)(A)(5). Therefore, the reasoning above need not be repeated here.

Sections 66264.143(f)(2) and 66265.143(e)(2) change the references to "paragraphs 1 through 4 of the letter from the owner and operator's chief financial officer" to read "paragraphs 1 through 6 of the letter from the owner and operator's chief financial officer" to account for the changes to this subsection. The current text should read "paragraphs 1 through 6 of the letter from the owner and operator's chief financial officer" because paragraph 5 also contains the terms listed within subsections Sections 66264.143(f)(1) and 66265.143(e)(1). Changing the text to read "paragraphs 1 through 6" is necessary to correct this oversight. The reference to section 66264.151, subsection (f) was added to this subsection to identify the location of the letter.

Section 66264.143(f)(3)(A) includes a non-substantive editorial change to make consistent with other text.

Sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B) add a requirement that "a copy of the owner and operator's financial statements" be submitted to DTSC as part of the financial test application. The existing regulation requires the submission of "the independent certified public accountant's (CPA's) report on examination of the owner and operator's financial statements for the latest completed fiscal year." The addition of this requirement is necessary to allow DTSC to examine the documents upon which the CPA letter is based to ensure its accuracy and reliability. A small but significant

number of CPA letters submitted have not accurately reflected the financial statements upon which they are required to have been based. This change is necessary to decrease the incidence of this happening.

Section 66264.143(f)(3)(C) and 66265.143(e)(3)(C) include non-substantive editorial changes to the text to correct syntax errors.

Section 66264.143(f)(3)(C)1. and 66265.143(e)(3)(C)1. include a syntax change to correspond to the syntax change described immediately above.

Section 66264.143(f)(3)(C)2. and 66265.143(e)(3)(C)2. currently require that there be a statement in the "special report from the owner and operator's independent certified public accountant to the owner or operator," that "no matters came to the independent certified public accountant's attention which caused that accountant to believe that the specified data should be adjusted." This statement is known in the field of accounting as a "negative assurance."

The American Institute of Certified Public Accountants (AICPA) is the standards organization for Public Accounting in the United States. The AICPA standards govern acceptable practices for certified public accountants in the United States. After U.S. EPA created the negative assurance requirement, the AICPA changed the professional standards to prohibit the use of a negative assurance in any document related to compliance with a regulatory or statutory requirement. The applicable standards and rules include, but are not limited to: Statement on Standards for Attestation Engagements numbers 10, 11, and 12 and Statement on Auditing Standards number 75, and their associated rules.

Ownership of corporations may be either public or private. Public corporations are those companies that have publicly traded stock. The passage of the Sarbanes-Oxley Act of 2002 (SOX) added a further layer of complexity. SOX requires that publicly traded corporations meet accounting rules developed by the Public Company Accounting Oversight Board (PCAOB). While these will likely be harmonized with the rules of the AICPA, there is the possibility that two different corporations could use a financial test mechanism with the same operating conditions, but be subject to different accounting rules.

While DTSC could issue different sets of rules for public and private corporations, DTSC feels that doing so would add an additional layer of complexity upon an already difficult rule to interpret. As a result, DTSC is requiring the corporation's independent certified public accountant to specify the compliance standards that the accounting firm is using.

This statement is changed to require that the independent certified public accountant "identify the specific accounting standards and guidance relied upon to prepare the report." This change is necessary to bring the regulation into conformance with current accounting regulations and standards, which do not allow the type of statement mandated by the regulation as it now exists. In addition, it should be noted that while this change may at first blush appear to cause DTSC's hazardous waste management program to be less stringent than RCRA; that is not in fact the case. That is because U.S. EPA issued a memorandum on February 27, 1997 that directed U.S. EPA regional

staff and RCRA-authorized states to accept "agreed upon procedures" language in the Certified Public Accountant's letters issued to satisfy these requirements, and not insist upon "negative assurance" language in these letters. U.S. EPA and the RCRA-authorized states, including California, have been administering their programs consistent with the U.S. EPA memorandum for quite some time.

§§ 66264.144 and 66265.144 Cost Estimate for Postclosure Care

Section 66264.144(a)(1) and 66265.144(a)(1) make non-substantive editorial changes to the text to correct syntax errors.

Section 66264.144(a)(2) and 66265.144(a)(2) address the calculation of the postclosure cost estimate. The proposed regulations require the annual postclosure cost estimate to be multiplied by 30 years or as required by section 66264.117 and 66265.117, respectively. The regulations propose that upon issuing or renewing a postclosure permit that includes a postclosure cost estimate, the time period multiplier will be 30 years. These amendments are consistent with existing related regulations that require postclosure permits to be issued for 10 years and require 30 years of postclosure financial assurance. The regulations are necessary to ensure the facilities have adequate assets for postclosure care so that DTSC does not have to pay for these costs.

Section 66264.144(b) and 66265.144(b) make non-substantive editorial changes to the language to correct formatting and numbering. This is necessary for accuracy and clarity of the language.

Section 66264.144(c) and 66265.144(c) make non-substantive editorial changes to the language to correct formatting and numbering. This is necessary for accuracy and clarity of the language.

Section 66264.144(d) and 66265.144(d) make non-substantive editorial changes to the language to correct formatting and numbering. This is necessary for accuracy and clarity of the language.

§§ 66264.145 and 66265.145 Financial Assurance for Postclosure Care.

Although section 66264.143 applies to Financial Assurance for Closure and section 66264.145 applies to Financial Assurance for Postclosure Care, the regulatory requirements and proposed changes for 66264.145 are extremely similar to 66264.143. In fact, they are analogs to one another. So, the Final Statement of Reasons for 66264.143 amendments apply equally to 66264.145 amendments. The references to section 66264.143 listed below identify where to find the Final Statement of Reasons for each amendment to section 66264.145.

Similarly, section 66265.143 applies to Financial Assurance for Closure and section 66265.145 applies to Financial Assurance for Postclosure Care; as such, the regulatory requirements and proposed changes for 66265.145 are also extremely similar to 66265.143. Again, they are analogs to one another. So, the Final Statement of Reasons for 66265.143 amendments apply equally to 66265.145 amendments. The references to sections 66264.143 and 66265.143 listed below identify where to find the Final Statement of Reasons for each amendment to section 66265.145.

Chapter 14

Section 66264.145(e)(1). See above Final Statement of Reasons for sections 66264.143(e)(1) and 66264.143(d)(1).

Sections 66264.145(f)(1) identifies the criteria to meet the financial test mechanism and guarantee for closure. The amendment is necessary to incorporate the requirements of added sections 66264.145(f)(11) into the financial test mechanism.

Section 66264.145(f)(1)(A)2. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)2. and 66265.143(e)(1)(A)2.

Section 66264.145(f)(1)(A)3. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)3. and 66265.143(e)(1)(A)3.

Section 66264.145(f)(1)(A)4. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)4. and 66265.143(e)(1)(A)4.

Section 66264.145(f)(1)(A)5. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)5. and 66265.143(e)(1)(A)5.

Section 66264.145(f)(1)(B)1. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)1. and 66265.143(e)(1)(B)1.

Section 66264.145(f)(1)(B)3. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)3. and 66265.143(e)(1)(B)3.

Section 66264.145(f)(1)(B)4. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)4. and 66265.143(e)(1)(B)4.

Section 66264.145(f)(2). See above Final Statement of Reasons for section 66264.143(f)(2) and 6626466265.143(e)(2). In addition, the current text incorrectly references section 66265.151, which does not exist, so the proposed text corrects the reference to 66264.151.

Section 66264.145(f)(3)(A). See above Final Statement of Reasons for sections 66264.143(f)(3)(B).

Section 66264.145(f)(3)(B). See above Final Statement of Reasons for sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B).

Section 66264.145(f)(3)(C)2. See above Final Statement of Reasons for sections 66264.143(f)(3)(C)2. and 66265.143(e)(3)(C)2.

Chapter 15

Section 66265.145(d)(1). See above Final Statement of Reasons for sections 66264.143(e)(1) and 66265.143(d)(1).

Sections 66265.145(e)(1) identifies the criteria to meet the financial test mechanism and guarantee for closure. The amendment is necessary to incorporate the requirements of added sections 66264.145(e)(10) into the financial test mechanism.

Section 66265.145(e)(1)(A)2. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)2. and 66265.143(e)(1)(A)2.

Section 66265.145(e)(1)(A)3. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)3. and 66265.143(e)(1)(A)3.

Section 66265.145(e)(1)(A)4. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)4. and 66265.143(e)(1)(A)4.

Section 66265.145(e)(1)(A)5. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)5. and 66265.143(e)(1)(A)5.

Section 66265.145(e)(1)(B)1. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)1. and 66265.143(e)(1)(B)1.

Section 66265.145(e)(1)(B)3. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)3. and 66265.143(e)(1)(B)3.

Section 66265.145(e)(1)(B)4. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)4. and 66265.143(e)(1)(B)4.

Section 66265.145(e)(2). See above Final Statement of Reasons for sections 66264.143(f)(2) and 66265.143(e)(2).

Section 66265.145(e)(3)(B). See above Final Statement of Reasons for sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B).

Section 66265.145(e)(3)(C)2. See above Final Statement of Reasons for sections 66264.143(f)(3)(C)2. and 66265.143(e)(3)(C)2.

§§ 66264.146 and 66265.146 Use of a Mechanism for Financial Assurance of Closure, Postclosure Care, and Corrective Action.

Existing Sections 66264.146 and 66265.146 specify that the financial mechanisms for both closure and postclosure should be secured. The revised regulations note that each facility for which closure, postclosure, or corrective action must have appropriate financial assurance in place. This again will preclude an owner or operator from “double-counting” assets relied upon to satisfy financial assurance requirements. More specifically, the same assets may not be used to meet DTSC’s financial assurance requirements for multiple facilities without considering a reduction in the value of those assets in the amounts being used to meet the financial assurance requirements for other facilities owned or operated by the entity using that financial test mechanism. Financial assurance requirements must be met for each facility. This is necessary to greatly increase the likelihood the assets will actually be available to DTSC in the case of a triggering event. That is, this greatly reduces the likelihood that DTSC will have to pay the costs of closure or postclosure care, or corrective action due to the insolvency of the facility owner or operator.

§§ 66264.147 and 66265.147 Liability Requirements

Although section 66264.143 applies to Financial Assurance for Closure and section 66264.147 applies to Liability Requirements, the regulatory requirements and proposed changes for 66264.147 are extremely similar to 66264.143. In fact, they are analogs to one another. So, the Final Statement of Reasons for 66264.143 amendments would apply equally to 66264.147 amendments. The references to section 66264.143 listed below identify where to find the Final Statement of Reasons for each amendment to section 66264.147.

Similarly, section 66265.143 applies to Financial Assurance for Closure and section 66265.147 applies to Liability Requirements. As such, the regulatory requirements and proposed changes for 66265.147 are extremely similar to 66265.143. Again, they are analogs to each other. So, the Final Statement of Reasons for 66265.143 amendments would apply equally to 66264.147 amendments. The references to section 66265.143 listed below identify where to find the Final Statement of Reasons for each amendment to section 66265.147.

Chapter 14

Section 66264.147(a)(1). See above Final Statement of Reasons for sections 66264.143(e)(1) and 66265.143(d)(1).

Section 66264.147(b)(1)(A). See above Final Statement of Reasons for sections 66264.143(e)(1) and 66265.143(d)(1).

Section 66264.147(f)(1)(A)2. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)2. and 66265.143(e)(1)(A)2.

Section 66264.147(f)(1)(A)3. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)4. and 66265.143(e)(1)(A)4. for discussion of tangible net worth increase. This section is renumbered from the previous section 66264.147(f)(1)(A)2. to accommodate the new subparagraph (A)2. added.

Section 66264.147(f)(1)(A)4. This section is renumbered from the previous section 66264.147(f)(1)(A)3.to accommodate the new subparagraph (A)2. added above.

Section 66264.147(f)(1)(B)2. See above Final Statement of Reasons for section 66264.143(f)(1)(B)2. and 66265.143(e)(1)(B)2.

Section 66264.147(f)(3)(B). See above Final Statement of Reasons for sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B).

Section 66264.147(f)(3)(C). See above Final Statement of Reasons for sections 66264.143(f)(3)(C) and 66265.143(e)(3)(C).

Section 66264.147(f)(3)(C)2. See above Final Statement of Reasons for sections 66264.143(f)(3)(C)2. and 66265.143(e)(3)(C)2.

Section 66264.147(f)(6). The amendment corrects spelling of “occurrence.”

Chapter 15

Section 66265.147(a)(1)(A). See above Final Statement of Reasons for sections 66264.143(e)(1) and 66265.143(d)(1).

Section 66265.147(b) makes conforming changes to the word "non-sudden" to match the term "nonsudden" defined in section 66264.141. This is necessary to make it clear that it is meant to be the same term.

Section 66265.147(b)(1)(A). See above Final Statement of Reasons for sections 66264.143(e)(1) and 66265.143(d)(1).

Section 66265.147(f)(1)(A)2. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)2. and 66265.143(e)(1)(A)2.

Section 66265.147(f)(1)(A)3. See above Final Statement of Reasons for sections 66264.143(f)(1)(A)4. and 66265.143(e)(1)(A)4. for discussion of tangible net worth increase. This section is renumbered from the previous section 66265.147(f)(1)(A)2.to accommodate the new subparagraph (A)2. added.

Section 66265.147(f)(1)(A)4. This section is renumbered from the previous section 66264.147(f)(1)(A)3. to accommodate the new subparagraph (A)2. added above.

Section 66265.147(f)(1)(B)1. See above Final Statement of Reasons for sections 66264.143(f)(1)(B)1. and 66265.143(e)(1)(B)1.

Section 66265.147(f)(1)(B)2. See above Final Statement of Reasons for section 66264.143(f)(1)(B)3. and 66265.143(e)(1)(B)3.

Section 66265.147(f)(3)(B). See above Final Statement of Reasons for sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B).

Section 66265.147(f)(3)(C). See above Final Statement of Reasons for sections 66264.143(f)(3)(C) and 66265.143(e)(3)(C).

Section 66265.147(f)(3)(C)2. See above Final Statement of Reasons for sections 66264.143(f)(3)(C)2. and 66265.143(e)(3)(C)2.

§ 66264.151 Wording of the Instruments

Section 66264.151(e) sets forth the required form and wording of a Certificate of Insurance for Closure and Postclosure Care instruments. Amendments to this subsection reflect corresponding amendments made to sections 66264.143(e), 66264.145(e), 66265.143(d), and 66265.145(d) by this rulemaking. More specifically, the phrases "California License Number: [insert license number]" and "Admitted [ ] Excess or Surplus Lines [ ]" were added. Again, these changes to the required wording of a financial instrument are necessary to reflect the proposed changes discussed in the above sections. Those underlying changes are, in turn, necessary to strengthen the stability and solvency requirements for insurers writing lines of insurance to meet DTSC's financial assurance requirements.

Section 66264.151(e)(5) is amended to require an insurer that provides insurance to an owner or operator of a facility to meet DTSC's financial assurance requirements certify that it is an admitted carrier licensed in the State of California, or eligible to provide excess or surplus lines of insurance in the State of California. This section further requires that the insurance is underwritten by a surplus lines insurer on the California Department of Insurance's List of Approved Surplus Line Insurers.

These changes are necessary to make conforming changes to the underlying changes discussed above regarding insurance requirements for closure, postclosure care, and liability. Those changes, in turn, strengthen DTSC's financial assurance requirements. The State of California's insurance requirements are among the strictest in the country. This gives DTSC greater confidence in insurance protection provided a California-sanctioned insurance company than in insurance provided by a company licensed in other states whose licensing requirements are not as strict or robust.

Section 66264.151(f) sets forth the required form of a letter from the Chief Financial Officer in support of an application for the financial test mechanism for closure or post closure.

Amendments to this subsection at **paragraph 5** regarding the wording of the financial instrument are conforming changes that reflect amendments made to sections 66264.143(f), 66264.145(f), 66265.143(e), and 66265.145(e). More specifically, those provisions of the regulations prohibit an owner or operator of a facility from relying on the same assets to meet financial assurance obligations imposed by DTSC and for another governmental agency. As discussed above regarding the underlying provisions, the prohibition is necessary to ensure that the assets relied upon by an owner or operator are not impaired or illusory. More specifically, allowing a facility owner or operator to rely on the same assets to meet financial assurance requirements at more than one facility creates a much greater likelihood that those assets will not be sufficient if they need to be tapped for closure, postclosure care, or liability costs.

Section 66264.151(f)6. is merely a numbering change. Newly added paragraph 5. results in the prior paragraph 5. being renumbered as paragraph 6. Again, this change is necessary to accommodate new paragraph 5.

Section 66264.151(f) "Alternative I" contains several new, minor wording changes to reflect the underlying changes elsewhere in the financial assurance regulations. More specifically, there are changes that: reflect the renumbering of the paragraphs in subsection (f); reflect the proposed change to $20 million net worth for the financial test mechanism; the identity of the current corporate credit rating of the firm and the name of the rating service, and the date of the corporate credit rating. All of these changes are necessary to reflect the corresponding changes in regulatory text set out above.

Section 66264.151(f) "Alternative II" also contains several new, minor wording changes that reflect underlying changes made elsewhere in the financial assurance regulations. More specifically, there are changes that: reflect the renumbering of paragraphs in subsection (f); and a change to reflect the $20 million figure for minimum net worth. These changes are necessary to conform to the underlying changes to these requirements, as discussed above.

Section 66264.151(g) sets forth the form of a letter from the Chief Financial Officer in support of an application for the financial test mechanism for liability or for closure or postclosure care obligations. Amendments to this subsection are made as necessary conforming amendments to sections 66264.143(f), 66264.145(f), 66264.147(f), 66265.143(e), 66264.145(e), and 66264.147(f). These changes to subsection (g) include a statement that the firm is using the financial test mechanism or its equivalent to provide financial assurance or guarantee to other government agencies. There is also a renumbering of paragraphs to correspond to new paragraph 5 and renumbered paragraph 6. All other changes are identical to those discussed under section 66264.151(f) "Alternative I." Amendments also removed inappropriate "$" where information requested involved dates or bond ratings.

Section 66264.151(i) sets forth the form of a Hazardous Waste Facility Liability Endorsement. This section adds to the form the information required by section 66264.147 or section 66265.147, respectively. More specifically, at sections 66264.151(i)3(a) the insurer must certify that it is licensed to transact business in the State of California; or 66264.151(i)3(b) it is eligible to provide insurance as an excess or surplus insurer in the State of California, and the insurance has been transacted by and through a surplus or excess lines broker currently licensed by the California Department of Insurance. The insurance provider is also required to provide appropriate license numbers and to certify the wording of the instrument is as required by these regulations. All of these changes are necessary in order for the wording of the instrument to conform to the underlying requirements, as discussed above.

Section 66264.151(j) sets forth the form of a Hazardous Waste Facility Certificate of Liability Insurance. This section adds to the form the information required by section 66264.147 or section 66265.147. These wording changes are parallel to those discussed above regarding section 66264.151(i). These changes are necessary in order for the wording of the instrument to be compatible with the underlying changes to the financial assurance requirements.

Chapter 20

Article 2. Permit Application

§ 66270.14 Contents of the Part B: General Requirements

§ 66270.14(b)(22)

Section 66270.14(b)(22) specifies that a permit applicant must prepare and submit to DTSC, as part of the Part B permit application, the most recent corrective action cost estimate and a copy of the documentation to demonstrate financial assurance. This provision allows a new facility to wait until 60 days prior to the initial receipt of hazardous waste before submitting the required information to DTSC. This requirement is necessary to ensure that corrective action is planned for and adequately funded.

§ 66270.14(b)(23) Community Involvement Profile

Section 66270.14(b)(23) specifies the contents required to complete a Community Involvement Profile (profile). Permit applicants must prepare this profile, which must include the information specified in subparagraphs 66270.14(b)(23)(A) through (G). This profile summary is the initial step to provide additional information needed to identify surrounding community demographics, community issues, sensitive receptors, and potential offsite sources of pollution, among other things.

According to the California Office of Environmental Health Hazard Assessment (OEHHA),[7] "Californians are burdened by environmental problems and sources of pollution in ways that vary across the state. Some Californians are more vulnerable to the effects of pollution than others."

In January 2017, OEHHA, on behalf of the CalEPA, released Version 3.0 of the California Communities Environmental Health Screening Tool (CalEnviroScreen). CalEnviroScreen identifies California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution.

CalEnviroScreen is a screening tool that evaluates the burden of pollution from multiple sources in communities while accounting for potential vulnerability to the adverse effects of pollution. CalEnviroScreen ranks census tracts in California based on a number of considerations, including: potential exposures to pollutants, adverse environmental conditions, socioeconomic factors and prevalence of certain health conditions.

The community involvement profile is a screening tool for identification of vulnerable populations. DTSC has based some of the required information in the community involvement profile on the population characteristics for sensitive populations and socioeconomic factors used in existing screening tools, such as CalEnviroScreen. DTSC is in the process of proposing regulations to address the issues of vulnerable populations and cumulative impacts related to permit decisions, and DTSC will be collecting needed information to represent population characteristics through the community involvement profile.

Table 1 below has some examples of community characteristics that are used to characterize Environmental Justice considerations and vulnerable populations in existing screening tools, and those proposed for the community involvement profile.

[7] CalEnviroScreen 3.0, Update to the California Communities Environmental Health Screening Tool, January 2017, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.

TABLE 1. Environmental Justice Characteristics and Tools

U.S. EPA- EJ[8]	EJScreen[9]	OEHHA's CalEnviroScreen 3.0	Community Involvement Profile
Race	Minority		Race and Ethnicity
Color			
Income	Low Income	Poverty	Household income
National origin			
	Less than high school education	Educational Attainment	Educational attainment
		Housing Burdened Low Income Households	
	Linguistic Isolation	Linguistic Isolation	Linguistic Isolation & Languages spoken in the home
		Unemployment	Unemployment rate
	Age Structure (less than 5 years and greater than 64)		Age structure
		Asthma	
		Cardiovascular Disease	
		Low Birth Weight Infants	

Other health organizations such as the National Institutes of Health and the World Health Organization define vulnerable populations differently; again, this highlights the fact that the definition is highly dependent on its purpose and the objective for its use.

This provision specifies that the scope of the profile must include any census tract in which the hazardous waste facility is located. Certain hazardous waste facilities are located in sparsely populated census tracts. Relying on the limited census tract data for those facilities could inadequately characterize the community most affected by the facility. For that reason, during the comment period DTSC clarified and expanded the geographic area to be included in the profile, to

[8] U.S. EPA defines environmental justice (U.S. EPA EJ) as "The fair treatment and meaningful involvement of all people, regardless of race, color, national origin or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policies." Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis. EPA, Office of Federal Activities. Washington, D.C., 1998.

[9] EJSCREEN: Environmental Justice Screening and Mapping Tool available at https://www.epa.gov/ejscreen.

include census tracts within 1 mile the facility, for those facilities located in the census tracts with a population of less than 2,000 people.

The definition of "community," as including the census tracts in which the facility is located, was chosen for the ease of the permit applicant acquiring required demographic information. According to the United States (U.S.) Census Bureau, census tracts are small, relatively permanent statistical subdivisions of a county. Census tracts usually cover a contiguous area and have a population size between 1,200 and 8,000 people. However, the spatial size of census tracts varies widely depending on the density of settlement.

Census tract boundaries generally follow visible and identifiable features and, at times, may follow nonvisible legal boundaries. State and county boundaries are always census tract boundaries. Tribal census tracts are unique geographic entities defined within federally recognized American Indian reservations and off-reservation trust lands and may cross state and county boundaries. In contrast, the "areas of influence," for purposes of environmental assessments, are the areas likely to be affected by the facility and may not be limited to census tracts. Areas of influence may extend and include such areas as a watershed or air-shed. For purposes of the profile, the term "community" will primarily be used.

The profile is necessary to determine community characteristics and community concerns regarding the nearby presence of a hazardous waste facility. It is a practical, cost-effective method for identifying, evaluating, and addressing potential offsite impacts to the surrounding community that may be caused by a facility.

The assessment will help ensure that potential community concerns are brought to light early in the permit application review process and that community concerns are incorporated into the permit review and permit determination process. This increases the ability of DTSC and the facility to be more responsive to public input and to effectively work to resolve community concerns to reduce potential adverse impacts to affected communities.

The profile information also supplements DTSC's public involvement program by helping identify the broader range of potential social and health impacts of a hazardous waste facility. Knowing the demographics of the community alerts both the facility owners and DTSC to potential impacts on all segments of the community. By avoiding disproportionate adverse impacts on specific populations, DTSC works to ensure that it can achieve environmental justice objectives. As such, the entirety of section 66270.14(b)(23) is necessary for DTSC to meet its mandate to work toward achieving environmental justice in all its policies and programs.

Section 66270.14(b)(23)(A) requires the applicant to provide a facility description that consists of salient information about the type of hazardous waste facility being proposed. This description is important and is necessary to provide an understanding of the hazardous waste activities. The summary provides an overview of the facility and the surrounding land uses in sufficient detail to anticipate potential community impacts.

Section 66270.14(b)(23)(A)1. requires the applicant to include a description of the hazardous waste activities taking place at the facility in the profile. It is necessary to identify hazardous waste management activities that will take place at the facility to have a context and backdrop for evaluating potential impacts on the surrounding community.

Section 66270.14(b)(23)(A)2. requires the applicant to include the facility address or, if not available, a description of the facility's location in the profile. The facility site, which is the area on which the facility stands, may encompass both land or water areas. It is necessary to understand the physical description of the hazardous waste facility site in the context of the hazardous waste activities, to anticipate potential impacts associated with the facility's operations. In other words, the impacts may be directly related to the size and configuration of the area affected. An example of this phenomenon is that a landfill may have more impacts than a small used oil storage facility.

Section 66270.14(b)(23)(A)3. requires the profile to include the county assessor's parcel number or description of the legal boundaries. This information is required by existing subsection 66270.14(b)(18)(G). This information provides information needed to identify the specific facility footprint and proximity to community, necessary to evaluate potential impacts.

Section 66270.14(b)(23)(A)4. specifies that a description of surrounding land uses and zoning designations within a 2,000-foot distance from the facility boundaries must be described in the community involvement profile. Each city or county sets its own land use and zoning policy that guides the distribution, general location, and extent of uses of land for housing, business, industry, open space, agriculture, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The U.S. Census Bureau lacks a nationally consistent method for identifying and accounting for non-residential urban land uses[10] and thus, this information is not currently available for census tracts. Local land use and zoning maps are needed to obtain this information. This provision establishes the extent of the geographical area that needs to be described.

Generally speaking, a facility's impacts will be localized and more pronounced in the facility's immediate surroundings. It is important to understand the connection between the surrounding land use and potential environmental quality impacts to the community. It is necessary to understand the layout of a community to understand the community. And it is necessary to collect information at the appropriate level of detail, depending on the complexity of the nature of the operations at the facility. DTSC believes that land use can reasonably be used for causal inference of potential environmental impacts on the surrounding community.

The originally proposed regulation required information for a one-mile radius from the facility. Based on comments received during the 45-day public comment period, DTSC revised the language to provide more clarity and focus by establishing a distance of 2,000 feet from the facility boundary rather than a radius from a point location.

Section 66270.14(b)(23)(B) requires the applicant to include a preliminary identification and summary of specified, relevant community demographic information—population characteristics—in

[10] https://www2.census.gov/geo/pdfs/reference/ua/Century_of_Defining_Urban.pdf.

the profile. The information about community demographics in the profile will be used as a screening tool for identification of vulnerable populations. DTSC has determined that the information below is necessary in order for the profile to provide a preliminary characterization of the community demographics near a facility. Definitions for each of the socioeconomic characteristics are found on the U.S. Census Bureau's website glossary.[11]

"Age structure" means the distribution of a population according to age, usually by 5-year age groups.

"Educational attainment" means the highest level of education completed in terms of the highest degree or the highest level of schooling completed.

"Household income" means the sum of the income of all people 15 years and older living in the household. A household includes related family members and all the unrelated people, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit, is also counted as a household.

"Languages spoken in the home" means the language currently used by respondents at home, either "English only" or a non-English language which is used in addition to English or in place of English.

"Linguistic isolation" is a term used in the 2000 Census data to identify a household in which all members 14 years old and over speak a non-English language and also speak English less than ''very well.'' In a linguistically isolated household, no one 14 years old or older speaks only English. All the members of a linguistically isolated household are tabulated as linguistically isolated, including members under 14 years old who may speak only English. The Census Bureau still tabulates statistics for these households but no longer uses the terms "linguistic isolation." The new term is "ability to speak English" which means a person who speaks a language other than English at home. This refers to the assessment of their ability to speak English, from "very well" to "not at all."

"Population" means all people, male and female, child and adult, living in a given geographic area.

"Population projections" means estimates of the population for future dates. They illustrate plausible courses of future population change based on assumptions about future births, deaths, international migration, and domestic migration. Projections are based on an estimated population consistent with the most recent decennial census as enumerated. While projections and estimates may appear similar, there are some distinct differences between the two measures. Estimates usually are for the past, while projections typically are for future dates. Estimates generally use existing data, while projections must assume what demographic trends

[11] https://www.census.gov/glossary/.

will be in the future. For dates when both population estimates and projections are available, population estimates are the preferred data.

"Race and Ethnicity" means the race and ethnicity categories mandated by the Office of Management and Budget's 1997 standards. For race these include White; Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander. The2010 Census also allowed respondents to select the category referred to as Some Other Race. For ethnicity, there are only two categories: Hispanic or Latino origin.

"Unemployment rates" mean the number of unemployed people as a percentage of the civilian labor force.

Section 66270.14(b)(23)(B)1. specifies that the profile must include age structure data. When trying to identify vulnerable populations, age distribution is key to understanding the prevalence of infants, children, and the elderly in the community. For example, the population over age 65 is expected to increase the fastest compared to the total population due to the aging baby boomers. There may be additional health concerns that impact this older sector of the community.

Section 66270.14(b)(23)(B)2. specifies that the profile must include educational attainment level data. The education of a responsible adult family member may influence several health characteristics. Persons in families with higher levels of education are likely to be more aware of preventive health issues and this may have a protective effect from exposure to environmental pollutants that damage health.

It is important and necessary to use education attainment as an indicator to screen for community vulnerability because it correlates with health disparities. Of the various social determinants of health that explain health disparities by geography or demographic characteristics (e.g., age, gender, race, and ethnicity), the literature has pointed prominently to education. Research based on decades of experience in the developing world has identified educational status (especially of the mother) as a major predictor of health outcomes, and economic trends in the industrialized world have intensified the relationship between education and health. In the U.S., the gradient in health outcomes by educational attainment has steepened over the last four decades.[12, 13, 14]

Section 66270.14(b)(23)(B)3. specifies that the profile must include information on household income. There are several ways in which health is likely to correlate with income levels. Persons in families with higher incomes are more likely to have health insurance coverage and better access to health care, both financially and geographically. They also are most likely to have greater access to

[12] Zimmerman E, Woolf SH. Understanding the relationship between education and health. Discussion Paper. Washington, DC: Institute of Medicine; 2014.
[13] Goldman D, Smith JP. The increasing value of education to health. Soc Sci Med 2011;72:1728–37.
[14] Olshansky SJ, Atonucci T, Berkman L, et al. Differences in life expectancy due to race and educational differences are widening, and many may not catch up. Health Aff 2012;31:1803-13.

nutritional foods, and hence have better health profiles than persons in lower income groups.[15] Conversely, there are several studies that correlate lower incomes with higher exposures to air pollutants[16] and low birth weight babies.[17] As such, it is necessary to include this important information in the profile.

Section 66270.14(b)(23)(B)4. specifies that the profile must include information on languages spoken in the home. This information is necessary to allow DTSC and facility owners and operators to provide information to communities in languages actually spoken and understood by community members. This allows community members to become involved with permit decisions.

Section 66270.14(b)(23)(B)5. specifies that the profile must describe English language isolation or proficiency. The inability of an entire household or head of household to communicate in English is a barrier to communicate with social services and other government personnel. For example, in the case of a local emergency, such households could not understand an emergency communication provided in English. It is logical to assume that when linguistically isolated households are geographically concentrated, communications to those areas should be provided in the appropriate languages.[18] Therefore, it is necessary to include this type of information in the profile.

Section 66270.14(b)(23)(B)6. specifies that the profile must include statistics on the population size and any significant population projections that exist. The U.S. population growth is slowing for the most part, but there are other key trends that may affect changes in community demographics. These trends include migration in and out of the community, emigration, and immigration. It is necessary to be aware of the projected changes in population size, density, composition and homogeneity to better understand the characteristics of the community and to tailor outreach efforts based on this information.

Section 66270.14(b)(23)(B)7. specifies that the profile must include race and ethnicity composition information. Differences in health status, health outcomes, life expectancy, and many other indicators of health in different racial and ethnic groups are well- documented and are referred to as health disparities. The U.S. Health Resources and Services Administration defines health disparities as "population-specific differences in the presence of disease, health outcomes, or access to health care." It is important to understand if and how race and ethnicity measures indicate a health disparity in the surrounding community.

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[15] Dawson DA. Family structure and children's health: United States, 1988. National Center for Health Statistics. Vital Health Stat 10 (178). 1991.

[16] Meng Y, Wilhelm M, Ritz B, Balmes J, Lombardi C, Bueno A*, et al.* (2011). Is disparity in asthma among Californians due to higher pollution exposures, greater vulnerability, or both? In CAR Board (Ed.). Sacramento: CARB.

[17] Zeka A, Melly SJ, Schwartz J (2008). The effects of socioeconomic status and indices of physical environment on reduced birth weight and preterm births in Eastern Massachusetts. *Environ Health* 7:60.

[18] Siegel P., Martin E., and Bruno R., Language Use and Linguistic Isolation: Historical Data and Methodological Issues, U. S. Census Bureau, February 12, 2001

Race and ethnicity have been correlated with the presence of hazardous waste facilities and contaminated sites. People of color in studied regions of southern California were found to have a greater likelihood of living in areas with higher toxic releases.[19] Numerous studies have shown the location of hazardous waste sites in communities has long been an environmental justice concern in California.[20][21][22] It is important and necessary to know the racial and ethnic characteristics of the surrounding community to understand and identify such patterns.

Section 66270.14(b)(23)(B)8. specifies that the profile must include unemployment rates. Employed persons are more likely to have health insurance for their families and hence may have better access to health care for preventive medical intervention. The rate of unemployment is a factor commonly used in describing disadvantaged communities. Lack of employment and resulting low income often oblige people to live in neighborhoods with higher levels of pollution and environmental degradation.[23] Unemployment may also be the result of persons with chronic medical conditions, who cannot work. This increases their susceptibility and reduces the access to health care. [24] It is necessary to have this useful information for an appropriate and comprehensive profile.

Section 66270.14(b)(23)(C) requires the applicant to include information regarding known health or environmental concerns that have been asserted by the public or government agencies since the last hazardous waste permit was issued. The concerns are those stemming from the facility's operation, hazardous waste activities, or facility modifications.

Known public health concerns in the surrounding community may include those raised on a national level, as well as additional local public health issues identified within the community. Such issues could include higher exposures to lead, asthma, and low birth weight.

There may also be known environmental concerns related to the facility that the community has voiced to the facility. It is necessary to know what the community believes to be the health issues attributed to the hazardous waste facility. This is especially true at the start of the permitting process so that everyone can understand what health or environmental issues need to be addressed, clarified, and mitigated. The permit process may include imposing additional permit conditions that reduce adverse impacts to the community beyond required minimum standards. The public plays an important role in the permitting process for hazardous waste facilities. They and other interested

[19] Morello-Frosch R, Pastor MJ, Porras C, Sadd J (2002). Environmental justice and regional inequality in southern California: implications for future research. Environmental Health Perspectives 110(Suppl 2): 149-154.

[20] Aliyu AA, Kasim R, Martin D (2011). Siting of hazardous waste dump facilities and their correlation with status of surrounding residential neighborhoods in Los Angeles County. *Property Management*. 29 (1): 87-102.

[21] Boer JT, Pastor MJ, Sadd JL, Snyder LD (1997). Is there environmental racism? The demographics of hazardous waste in Los Angeles County. Social Science Quarterly 78(4):793-810.

[22] Rechtschaffen, C. (2003). The Evidence of Environmental Injustice. Environmental Law News-Environmental Law Section.

[23] OEHHA CalEnviroScreen 3.0

[24] Collins JG, LeClere FB. Health and selected socioeconomic characteristics of the family: United States, 1988–90. National Center for Health Statistics. Vital Health Stat 10(195). 1996.

parties can contribute valuable information and ideas that improve the quality of both DTSC decisions and permit applications.

Section 66270.14(b)(23)(D) requires the applicant to include a description of any known community interest and public activities, such as public meetings or hearings, related to the hazardous waste facility that have occurred in the previous five years. In addition to the many public participation activities required by state and federal hazardous waste facility permitting regulations, there may be public interest groups that have formed that can present ongoing community input to the permitting process. These groups may include a citizens' advisory panel, advocacy groups, or any other non-governmental organization. These public involvement activities usually involve meetings or other forms of communication.

It is necessary to gauge the level of interest in the permitting of a facility so that a proper public participation program can be developed to facilitate a dialogue with the community. The involvements of community groups or ongoing community meetings are indicators of high interest regarding a facility.

Section 66270.14(b)(23)(E) requires the applicant to identify the locations of sensitive receptors within the community in the profile. The identification of sensitive receptors must include all schools, child care facilities, hospitals, elderly housing, and elder care facilities or convalescent facilities. Sensitive receptors are people that have an increased sensitivity to environmental chemicals of potential concern. The permit review will need to take these sensitive receptors into account and may require additional protections depending on their proximity to the facility or transportation routes taken for hazardous waste shipments. It is important to identify the proximity of sensitive individuals (receptors) to a facility because it may require a more comprehensive evaluation of potential offsite health impacts.

Section 66270.14(b)(23)(F) requires the applicant to identify the locations of tribal lands within the community in the profile. This includes both federally and non-federally recognized tribes. Federally recognized tribal lands are owned either by an individual Indian or a tribe, the title to which is held in trust by the federal government. In the U.S., it is the inherent authority of indigenous tribes to govern themselves and tribal nations are recognized as "domestic dependent nations." At present, there are 567 federally recognized American Indian and Alaska Native tribes and villages.[25]

Non-federally recognized tribes are not officially recognized as indigenous nations by the U.S. federal government. In California, a non-federally recognized tribe is defined in state law (Pub. Resources Code § 21073) as a Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission. Over forty of these tribes have petitioned to be federally recognized, but have not yet been approved.

The federal government conducts its relationships with federally recognized tribes on a government-to-government basis; this is not the case in California. California laws do not apply on tribal lands.

[25] List of Federally Recognized Tribes is available at https://www.bia.gov/cs/groups/xraca/documents/text/idc1-033010.pdf, Federal Register / Vol. 81, No. 86 / May 5, 2016 / Notices. The list is updated annually.

However, there may be cross-border impacts between tribal and non-tribal lands, so it is important to identify the possibility of any potential impact to tribal communities and necessary to include tribal representation in the permit process because of their unique legal status.

Section 66270.14(b)(23)(G) requires the applicant to identify offsite sources of potential exposures to hazardous waste, hazardous materials, or contaminated sites within the community. Existing permitted and non-permitted activities and potential polluting sources may be of heightened concern to the community when the facility is clustered near other sources of potential health impacts. The public may be exposed to multiple chemicals of potential concern from a variety of sources. These multiple offsite sources may add to cumulative impacts to adjacent communities. Cumulative impacts are the combined impacts from aggregate exposures to an individual or a population.

There are a number of federal and state environmental databases that may be helpful when identifying these offsite sources. Examples are:

- Resource Conservation and Recovery Act Information System (RCRIS) maintained by U.S. EPA
- Envirofacts database
- Toxics Release Inventory (TRI) maintained by U.S. EPA
- Biennial Reporting System (BRS) maintained by U.S. EPA
- Comprehensive Environmental Response, Compensation and Liability Act Information System (CERCLIS) maintained by U.S. EPA
- Aerometric Information Retrieval System (AIRS) maintained by U.S. EPA
- Permit Compliance System (PCS) in the Wetlands, Oceans, and Watersheds (OWOW) and Storage Retrieval Database (STORET) maintained by U.S. EPA
- Envirostor maintained by DTSC
- California Toxic Release Inventory Program (CalTRIP) maintained by DTSC
- Cortese List Data Resources maintained by CalEPA

This information is necessary to understand the potential impacts on the nearby community from multiple environmental stressors and to assess if a community or sensitive receptors may potentially experience greater exposures to pollutants. The potential offsite sources are identified in the following subparagraphs.

Section 66270.14(b)(23)(G)1. specifies that the applicant must identify other hazardous waste facilities in the surrounding community. Other hazardous waste facilities may be found in DTSC's Envirostor database.

Section 66270.14(b)(23)(G)2. specifies that the applicant must identify large quantity generators of hazardous waste in the surrounding community, which may be found on the Biennial Reporting System (BRS). The Biennial Reporting System is a national system that collects data on the generation, management, and minimization of hazardous waste. BRS includes detailed data on the

generation of hazardous waste from large quantity generators and data on waste management practices from treatment, storage and disposal facilities.[26]

Section 66270.14(b)(23)(G)3. specifies that the applicant must identify sites identified by DTSC pursuant to Health & Safety Code section 65962.5, also known as the "Cortese List," in the surrounding community. These are generally sites requiring cleanup under the State Response and/or Federal Superfund. There is a CalEPA website page that provides information regarding the facilities or sites and identified as being on the "Cortese List." [27]

Section 66270.14(b)(23)(G)4. specifies that the applicant must identify entities or industrial facilities in the surrounding community required to report under the federal TRI Program. TRI tracks the management of certain toxic chemicals that may pose a threat to human health and the environment. Facilities in different industry sectors must report annually to U.S. EPA how much of each chemical is released to the environment and managed through recycling, energy recovery and treatment.[28]

Section 66270.14(b)(23)(G)5. specifies that the applicant must identify any entities or industrial facilities in the surrounding community handling or storing any hazardous chemicals required to report under the federal Emergency Planning and Community Right-to-Know Act (EPCRA). This information needs to be obtained from Local Emergency Planning Committees (LEPCs). The LEPCs develop local emergency response plans and provide information about chemicals in the community to citizens. Plans are developed by LEPCs with stakeholder participation.[29]

Section 66270.14(b)(23)(G)6. specifies that the applicant must identify transportation corridors in relation to the facility. "Broadly defined, a 'corridor' generally refers to a geographic area that accommodates travel or potential travel. Normally, a corridor is considered to be a 'travel shed,' an area where trips tend to cluster in a general linear pattern, with feeder routes linking to trunk lines that carry longer distance trips in a metropolitan area."[30]

Transportation is a source of pollution, generating air, soil, water, and noise pollutants, including particulate matter, carbon monoxide, nitrogen oxide, and carcinogens. Reports by the American Public Health Association and others have linked air pollution to negative health outcomes, including asthma, respiratory illness, heart disease, poor birth outcomes, cancer, and premature death.[31]

Every U.S. census tract is classified by traffic density and proximity to roads. These classifications fall within several traffic volume ranges using year 2008 traffic data and the 2010 and 2000 U.S. Census

[26] Biennial Reporting (BR) search is available at https://www.epa.gov/enviro/br-search.
[27] Cortese List Data Resources is available at http://www.calepa.ca.gov/sitecleanup/corteselist/.
[28] TRI website is available at https://www.epa.gov/toxics-release-inventory-tri-program.
[29] Emergency Planning and Community Right-to-Know Act (EPCRA) is available at https://www.epa.gov/epcra.
[30] Transportation Research Board, National Research Council: NCHRP Report 435, "Guidebook for Transportation Corridor Studies: A Process for Effective Decision-Making," Washington, D.C., 1999.
[31] Raynault E and Christopher E, Key Issues in the Planning Process Briefing, How Does Transportation Affect Public Health?, Publication Number: FHWA-HRT-13-004, Issue No: Vol. 76 No. 6, May/June 2013 available at http://www.fhwa.dot.gov/publications/publicroads/13mayjun/05.cfm.

results. The results indicate that 19 percent of the population lives near high volume roads. A larger share of non-white residents and lower median household incomes live near these high-volume roads where, typically, the concentration of mobile source air pollutants has been found to be elevated.[32]

It is important and necessary to identify transportation corridors near hazardous waste facilities as another potential source of public health impacts to residents of the affected community.

§ 66270.14(c)(8)

Section 66270.14(c)(8) includes a citation referencing section 66264.7098, but that section does not exist. The proper citation is section 66264.708. Insertion of the term "section 66264.708" is necessary to correct the citation error.

§ 66270.14(e) Hazardous Waste Facility Permit Health Risk Assessment (HRA)

Section 66270.14(e) provides a stepwise process to prepare a hazardous waste facility permit HRA, and specifies the required data and information to be included. This standardizes the steps the applicant will take to assess the health risks posed by the facility. This subsection is necessary to ensure that the risks posed due to the proposed operations of a new or existing hazardous waste facility have been appropriately evaluated and adequately documented. This in turn is necessary to ensure that DTSC considers the health risks posed by the facility when making decisions about the facility's permits. The HRA provides DTSC with sufficient information necessary to evaluate those risks and to allow DTSC to make informed decisions about permitting the facility. Furthermore, Health and Safety Code section 25200.21 requires that DTSC consider requiring the completion of an HRA by an applicant as part of the hazardous waste facility permitting process. This provision carries out that mandate. This section is necessary to provide applicants and other interested parties with a level of predictability and certainty regarding the methods and information needed to conduct an HRA. The HRA itself is necessary for DTSC to be apprised of the health risks associated with the hazardous waste facility and for DTSC to make permitting decisions to address those risks.

An HRA is the evaluation of scientific information on the hazardous properties of environmental stressors (hazard characterization), the dose-response relationship (dose-response assessment), and the extent of human exposure to those agents (exposure assessment). HRAs provide a means of estimating the potential for an adverse effect on a select population resulting from exposure to a single chemical or mixture of chemicals. This risk is generally defined as a function of the concentration of chemical(s) to which an individual of known size and specified characteristics is exposed, for a given period of time, via ingestion, inhalation, or dermal contact. HRAs can evaluate short term (acute) and long term (chronic) exposures to any group, including both cancer and non-

[32] Rowangould GM, A census of the US near-roadway population: Public health and environmental justice considerations Transportation Research Part D: Transport and Environment, Volume 25, December 2013, Pages 59–67.

cancer health endpoints. The evaluation can consider onsite and offsite populations, and can address routine operations as well as accidental releases.[33] The product of the HRA is a statement regarding the probability that populations or individuals so exposed will be harmed and to what degree (risk characterization).

DTSC often uses the results of an HRA to determine whether a release or threatened release of hazardous waste or chemicals of potential concern poses an unacceptable risk to human health or the environment that warrants remedial action. An HRA for a hazardous waste facility must also include evaluation of emissions from normal operations at the facility. An HRA for purposes of these regulations must include onsite and offsite hazards resulting from hazardous waste management, foreseeable accidents, and any transportation associated with hazardous waste shipments.

In the proposed regulation, facilities would evaluate both acute and chronic exposures for onsite and offsite populations, and would consider cancer and non-cancer endpoints. These regulations require a tiered approach to an HRA. The steps include a questionnaire, a screening HRA, and a baseline HRA. Tiered requirements for health risk assessments ensure that DTSC has the information it needs to understand and address potential health impacts on communities around hazardous waste facilities, while at the same time limiting potential delays in permit review and minimizing costs to applicants.[34]

This section provides that an owner or operator will complete a questionnaire that DTSC will review to determine the appropriate level of risk assessment, if any, that must be prepared. Upon DTSC's review of the HRA questionnaire completed by the facility, DTSC must then require either a screening level (qualitative) assessment or baseline assessment (quantitative) or require no further action.

Section 66270.14(e)(1) identifies the objective of the HRA. The following paragraphs set forth the elements of this HRA that assist in characterizing the risk posed by the operation of a hazardous waste facility.

Section 66270.14(e)(1)(A) specifies the HRA must include an evaluation of any known releases of hazardous waste or chemicals of potential concern at the facility that have resulted in contaminated media. California's Hazardous Waste Control Law requires facilities that treat, store or dispose of hazardous wastes to investigate and clean up hazardous releases into soil, ground water, surface water and air. This requirement for hazardous waste facilities is called "corrective action," which is a cleanup process that may vary based on site-specific conditions. A typical cleanup may include steps such as: an initial site assessment (facility assessment); site characterization (facility investigation); interim actions; evaluation of remedial alternatives (corrective measures study); and implementation of the selected remedy (corrective measures implementation).

DTSC oversees the corrective action process and authorizes cleanup under a permit when there is an identified release of hazardous waste or chemicals of potential concern at a facility. However, these

[33] Review of Chemical Agent Secondary Waste Disposal and Regulatory Requirements, National Research Council, National Academies Press, 2007.
[34] Guidelines for Exposure Assessment, U.S. EPA, Published on May 29, 1992, Federal Register 57(104):22888-22938; EPA/600/Z-92/001, May 1992.

cleanups can take a long time and site conditions may represent a potential threat to human health during the interim. Therefore, it is necessary for the HRA to characterize the risk of these known releases.

Section 66270.14(e)(1)(B) requires that any reasonably foreseeable potential releases of hazardous waste or chemicals of potential concern from both normal operations of or upset conditions at the facility, including releases associated with transportation to or from the facility, must be included in the HRA.

The HRA must include an evaluation of the impacts due to releases associated with the operation of the hazardous waste facility as permitted, which may be different than how it is routinely operated. In other words, determining the environmentally worst-case scenario for the health effects of a hazardous waste facility requires the use of maximum permitted capacity and foreseeable non-routine releases. These activities must include all storage, transfer, treatment, and disposal as described in the permit application. Furthermore, foreseeable upset conditions and their potential impacts must be evaluated.

Transportation impacts are relevant in an HRA because of air quality impacts associated with air emissions, especially diesel exhaust. The composition of air emissions from transportation may vary due to many factors, but includes incomplete combustion products and particulates. Diesel exhaust is a Group 1 carcinogen, which causes lung cancer and has a positive association with bladder cancer.[35]

Potential impacts on public health and safety from upset conditions and hazardous waste associated with the facility must be included in the HRA. The risk of upset must include accidental conditions that could potentially result in catastrophic releases, spills, fires, and explosions. The HRA must consider different scenarios for all proposed activities, including storage, treatment, transfer, and disposal of hazardous waste. See section 66270.14, subsection (e)(7)(A)5. for additional details regarding upset conditions. Information from past incidents at the same, or similar facilities can be used to identify the likelihood of an incident happening. Finally, the HRA must assess the likelihood of an incident to cause environmental impacts.

Section 66270.14(e)(1)(C) specifies that the applicant must identify the potential pathways of human exposure to hazardous wastes or chemicals of potential concern resulting from the known and reasonably foreseeable potential releases discussed above. This is necessary because risk is a function of both exposure and hazard. Without a pathway for a constituent of hazardous waste to reach an individual or a population, there is no exposure or risk. The role of exposure is important in determining if harmful conditions or exposure to environmental pollutants pose a risk. Not all chemicals of potential concern released to the environment result in an exposure to humans. There are three exposure routes for a person to be exposed to a COPC: skin contact (dermal); eating or

[35] "IARC: Diesel Engine Exhaust Carcinogenic," IARC Monographs on the Evaluation of Carcinogenic Risks to Humans Volume 105: Diesel and Gasoline Engine Exhausts and Some Nitroarenes, International Agency for Research on Cancer (IARC). June 12, 2012.

drinking the substance (ingestion); and breathing the substance (inhalation). Accordingly, this provision requires the HRA to evaluate all three potential routes of exposure.

Section 66270.14(e)(1)(D) specifies that the applicant must describe the potential health impacts to persons both within and outside of the facility resulting from exposures to the known and reasonably foreseeable potential releases discussed above. Once the potential exposure has been identified, it is necessary to assess the amount of exposure and the consequences of this exposure. The exposure assessment is necessary to identify the potential magnitude of the exposure by identifying how much of the chemical is present in the environment and for how long. The measure of the human exposure is the dose-response assessment, which is used to evaluate quantitatively the relation between exposures and toxic responses. The health effects will differ based on time of exposure, dose and manner of exposure.

Section 66270.14(e)(2) lists the various steps of the HRA process that a facility may have to complete, depending on the facts and circumstances of a given facility. This is necessary to clarify that this HRA process is tiered and that the applicant may need to develop multiple submittals to comply with the requirement to conduct an HRA. This provision is also necessary to clarify the scope of what is required and simplifies the terminology to facilitate the discussion. It is also necessary to specify the requirements for each of the HRA steps.

Section 66270.14(e)(2)(A) specifies that the first step in an HRA is a hazardous waste facility health risk assessment questionnaire. It also specifies the provisions of the regulations that provide what is required to comply with this provision. It is necessary to specify the submittals and information requirements for this step in the HRA process. This provision also provides the abbreviated name for this step as the “HRA Questionnaire” to facilitate the discussion by shortening the name and simplifying the term.

Section 66270.14(e)(2)(B) specifies that screening level health risk assessment is the second step in an HRA. It also specifies the provisions of the regulations that describe the required information to comply with this provision. It is necessary to specify the submittals and information requirements for this step in the HRA process. This provision also provides the abbreviated name for this step as the “Screening Level HRA” to facilitate the discussion.

Section 66270.14(e)(2)(C) specifies that a baseline health risk assessment is the third step in an HRA. It also specifies the provisions of the regulations that provide what is required to comply with this provision. It is necessary to make specific the submittals and information requirements for this step in the HRA process. This provision also provides the abbreviated name for this step as the “Baseline HRA” to facilitate the discussion.

Section 66270.14(e)(3) specifies that an applicant must submit the HRA Questionnaire at the time of the submittal of the Part B permit application. This is necessary to establish how and when the HRA and the Part B permit application processes begin. This provision clarifies that the applicant must comply with the requirements found in subparagraphs (e)(3) through (e)(7) in completing the HRA Questionnaire.

Section 66270.14(e)(3)(A) specifies that for the listed types of permits, the tiered approach is modified. An applicant for hazardous waste facility permit for a Class I landfill, a large treatment facility with a Title V permit under the Clean Air Act, an incinerator, or a boiler or industrial furnace is required to submit a Baseline HRA along with the HRA Questionnaire at the time the Part B permit application is submitted. This approach is necessary to streamline the HRA process for those facilities that require a more in-depth analysis due to the more complex nature of their operations and concerns about hazardous waste disposal or air emissions.

Section 66270.14(e)(3)(A)1. makes clear that permit applicants for a Class 1 landfill must complete and submit a Baseline HRA, as well as an HRA Questionnaire, concurrently with submittal of the Part B permit application. A Baseline HRA is necessary for landfills to assess health effects in relation to residences near class I landfill facilities.

Well-designed landfills are designed to prevent groundwater contamination, landfills still have the potential to leak leachate from containment systems. The leachate can further percolate through the ground into an aquifer or other body of water and pollute the water. California hazardous waste regulations require double liners and leak detection systems in addition to groundwater monitoring for hazardous waste landfills.

A substantial number of studies have been conducted on various types of landfill sites and found that risks to health from landfill sites are hard to quantify. Researchers have reported an increase in risk of adverse health effects, such as low birth weight, birth defects, and certain types of cancers, for individuals living near landfill sites. However, the researchers found it difficult to conclude from these studies whether these symptoms are an effect of direct toxicological action of chemicals present in waste sites, an effect of stress and fears related to the waste site, or an effect of reporting bias. What could be concluded was, "There is insufficient exposure information and effects of low-level environmental exposure in the general population are by their nature difficult to establish."[36] However, a Baseline HRA can provide this information and estimate risks to human health due to the activities of hazardous waste disposal in Class 1 landfill facilities.

Section 66270.14(e)(3)(A)2. specifies that an applicant for a large treatment facility subject to a Title V operating permit under the federal Clean Air Act or an operating permit under the California Clean Air Act of 1988 must submit a Baseline HRA, as well as an HRA Questionnaire, concurrently with submittal of the Part B permit application. There is ample evidence that air pollution can have an adverse effect on health, especially the health of susceptible people (e.g., young children, the elderly and particularly those with pre-existing respiratory disease). Hazardous waste facilities may be subject to regulations based on the identified point source, but may also have non-point sources of emissions. A Baseline HRA is necessary to inform interested parties about risks to workers and the public related to chemicals released to the air and due to the activities of large hazardous waste treatment facilities.

[36] Vrijheid, M., Health Effects of Residence Near Hazardous Waste Landfill Sites: A Review of Epidemiologic Literature, Environmental Health Perspectives Volume 108, Supplement 1, March 2000, Environmental Epidemiology Unit, Department of Public Health and Policy, London School of Hygiene and Tropical Medicine, London, United Kingdom

Section 66270.14(e)(3)(A)3. specifies that an applicant for a hazardous waste incinerator permit must submit a Baseline HRA, as well as an HRA Questionnaire, concurrently with submittal of the Part B permit application. Hazardous waste incinerators use controlled combustion to treat or destroy hazardous waste. Incineration of hazardous waste has the potential to increase air pollution due to emissions of constituents contained in waste and the products of their combustion. Chemicals of potential concern are known to be released during the operation of these incinerators. Particulate matter, carbon monoxide, acidic gases and acidic particles, some metals, and organic compounds (dioxins and furans), and other products of incomplete combustion may pose concerns about potential health effects to nearby communities, especially if there are large increases in ambient concentrations of pollutants attributable to the incinerator.

A Baseline HRA will help determine facility specific emissions to ensure that pollutants do not pose a significant health risk. This provision is necessary to require that a permit applicant complete a Baseline HRA to determine the nature and amount of emissions, as well as to aid in the assessment of the risk posed by such emissions. A Baseline HRA will inform interested parties about risks to workers and the public related to chemicals released to the air and due to the activities of an incinerator at a hazardous waste facility. DTSC may place permit conditions on operating parameters for hazardous waste management units in order to protect the public. For example, the operating capacity of a unit may be reduced, if emissions create an unacceptable risk.

There is no federal statutory or regulatory requirement to conduct HRAs for hazardous waste incinerators. However, in 2005, the final Maximum Achievable Control Technology (MACT) rule was promulgated by U.S. EPA pursuant to the Clean Air Act. This rule added language to the RCRA regulations to provide authority for state permitting agencies to require HRAs on a case-by-case basis and add conditions to RCRA permits based on HRA results (40 CFR 270.10(l) and 270.32(b), respectively). This provision is necessary to make it clear that incinerators are required to complete a Baseline HRA at the same time as it completes and submits an HRA Questionnaire and Part B Permit Application.

Section 66270.14(e)(3)(A)4. specifies that an applicant for a boiler or industrial furnace (BIF) burning hazardous waste will need to submit a Baseline HRA, as well as an HRA Questionnaire, concurrently with submittal of the Part B permit application. BIFs are typically used to burn hazardous waste for the significant energy and material recovery potential, with waste treatment being a secondary benefit. Boilers typically combust waste for energy recovery, while industrial furnaces burn waste for both energy and material recovery. Hazardous waste regulations apply identical emission standards to BIFs and incinerators because they may also emit pollutants that may be of concern, including particulate matter, semi-volatile and low volatile metals, and total chlorine. To qualify for alternative limits in a hazardous waste facility permit for emissions, an applicant must complete a site- specific risk assessment.[37]

[37] Title 22, California Code of Regulations, section 66266.106

This provision is necessary to make it clear that an applicant for a hazardous waste BIF, such as cement kilns, lightweight aggregate kilns, boilers, and hydrochloric acid production furnaces needs to complete and submit to DTSC a Baseline HRA at the time of submittal of the HRA Questionnaire and Part B Permit Application. More importantly, this provision is necessary to ensure that the potentially significant risks posed by BIFs are subject to a Baseline HRA so that DTSC has appropriate understanding of those risks.

Section 66270.14(e)(4) specifies the required elements of the HRA Questionnaire. Overall, this provision is necessary to establish the information and submittal requirements for completion of an HRA Questionnaire, which itself is necessary to serve as an important screening tool and source of information regarding the HRA. An applicant for a hazardous waste facility permit must submit the information listed in subparagraphs 66270.14(e)(4)(A)-(D) to ensure the HRA Questionnaire is complete and makes it clear that the HRA Questionnaire includes three elements. The language is tabulated for ease of understanding. This provision is necessary to ensure the HRA Questionnaire is uniform and appropriately tailored to the operation of a hazardous waste facility in a given community.

Section 66270.14(e)(4)(A) specifies the scope of information gathering that an applicant is required to perform by specifying the submittal is to include information that can be reasonably ascertained by the applicant to assess the potential for the public to be exposed to hazardous wastes or hazardous constituents from sources related to the facility. That is, the regulations do not require new research or creation or compilation of data that is not yet in existence. Rather, the permit applicant must locate and make use of existing information to complete the HRA Questionnaire. This is necessary to ensure that the questionnaire can be completed without being overly burdensome or the applicant having to expend significant amounts of money for development of additional information or data.

This subparagraph reflects DTSC's view that, for purposes of the HRA Questionnaire, the applicant can conserve its resources that would otherwise be required to conduct lengthy research, and may instead gather existing information to help determine the relative potential adverse impacts of a facility operating in a specific community.

Section 66270.14(e)(4)(B) requires the applicant to provide inventory of potential facility releases, emissions, and discharges in accordance with paragraph (e)(5). Additional details for the necessity of each of these specified requirements is provided in section 66270.14(e)(5). This section is necessary to allow for ease of use and common understanding of the term, "inventory of potential facility releases, , emissions, and discharges" and to make its requirements specific.

Section 66270.14(e)(4)(C) requires the health risk assessment assumptions checklist (HRA Assumptions Checklist) as part of the HRA Questionnaire. During the HRA process, risks have to be identified to find all possible exposure paths from potential sources of chemicals of potential concern. The HRA Assumptions Checklist helps qualitatively identify potential risks and prioritizes them against the risk evaluation criteria for hazardous waste facilities. As such, the HRA Assumptions Checklist is necessary to ensure the HRA Questionnaire is correctly and fully completed.

Section 66270.14(e)(4)(D) requires a conceptual site model of exposures or potential exposures as part of the HRA Questionnaire. The conceptual site model is a means of organizing existing data and describing the relationships between chemicals released and the receptors that may be exposed. It is based on site history, site conditions, and available site sample analyses. This is necessary to have a basic understanding of facility operations and to have a context for evaluating potential risks posed by a facility of the type being proposed for a permit decision.

Section 66270.14(e)(5) requires the applicant to provide inventory of potential facility releases, emissions, and discharges that includes a description of hazardous facility operations and known emissions or releases of chemicals of potential concern. This inventory includes a facility description of hazardous waste operations and identification of potential sources of COPCs. The facility description in section 66270.14(e)(5)(A) provides a description of the potential sources of COPC that may result from the operation of the facility. The identification of known and potential sources of COPCs in section 6670.14(e)(5)(B) provides information regarding air emissions, wastewater discharges, soil or groundwater contamination, spills, foreseeable accident events, and remediation information, if available. Additional details for the necessity of each of these specified requirements are provided in sections 66270.14(e)(5)(A)(1) through (8) and 66270.14(e)(5)(B)(1) through (6).

Section 66270.14(e)(5)(A) requires a description or hazardous waste facility operations as a component of the HRA Questionnaire. The facility description in its entirety will provide salient information about the type of facility being proposed in the permit application. This description is a central element of the HRA and is necessary to provide an understanding of the hazardous waste activities and the operation of hazardous waste management units. The summary is intended to require that information be submitted in sufficient detail to anticipate health and environmental impacts. Elements that must be included are described in the following subparagraphs at (e)(5)(A)1. through 8., along with a statement of necessity.

Section 66270.14(e)(5)(A)1. requires a summary of the site's past uses. Historical uses often indicate the types of chemicals of potential concern that may be present, the possible extent of contamination, and the possible magnitude of human exposure. Site history information can include information from sources including, but not limited to, the following:

- Sanborn Fire Insurance Maps;
- title and deed;
- site plans and facility as-built drawings; and
- federal, state, county and local government offices.

This is necessary to determine if past uses could potentially be an additional source of contamination. For example, underground storage tanks for petroleum products may be a source of historical contamination. As such, this information is necessary for DTSC to make an appropriate and comprehensive evaluation of potential risks posed by a hazardous waste facility in a community.

Section 66270.14(e)(5)(A)2. requires the HRA Questionnaire to include a description of hazardous waste handling processes. This is necessary to help identify facility activities that may contribute to releases of chemicals of potential concern, especially from transfer operations.

Section 66270.14(e)(5)(A)3. requires the HRA Questionnaire to include a description of the types of permitted hazardous waste management units. It is important to identify hazardous waste management units and describe the activities that are being authorized. Hazardous waste regulations have standards that are specific to specific types of units. For example, storage units have secondary containment requirements; treatment units have waste analysis plans to ensure process effectiveness. This is necessary to allow DTSC to understand the activities occurring at the facility, especially as they may contribute to the possibility of an unplanned release of hazardous waste.

Section 66270.14(e)(5)(A)4. requires the HRA Questionnaire to include a description of the maximum production rates of hazardous waste treatment, transfer, and storage." The greater the production rates of hazardous waste, the greater the potential for emissions and releases to the environment. This information is necessary to understand the size of the operation and the capacity to handle the maximum production rates of hazardous waste treatment, transfer, and storage.

Section 66270.14(e)(5)(A)5. requires the HRA Questionnaire to include a description of the "[t]ypes and quantity of hazardous waste transferred, treated, stored or disposed on site." The characteristics of the hazardous waste being handled by the facility are indicative of the types of risk posed by the chemicals of potential concern. For example, volatile organic solvents evaporate into the air and can be inhaled; toxic metals cause long term health effects; ignitable waste is capable of causing fires; and corrosive waste may corrode equipment. These hazard characteristics are important to evaluate potential risk posed by handling these various waste streams.

Section 66270.14(e)(5)(A)6. requires the HRA Questionnaire to describe the "[o]verall process flow diagrams showing hazardous waste movement or flow through the facility." This is important and necessary to more fully understand hazardous waste operations and how such activities may pose a risk to employees and the surrounding community. A process flow diagram helps one to understand the complexity of the hazardous waste operations. This is necessary to further understand the nature of the facility's operations, especially in light of the risks such operations may pose.

Section 66270.14(e)(5)(A)7. requires the HRA Questionnaire to describe the vehicular traffic, including diesel truck traffic under normal and maximum permitted operations. Most hazardous waste is delivered by heavy-and medium-duty trucks equipped with diesel engines. The exhaust from diesel engines contains a mixture of gases and very small particles that can create a health hazard when not properly controlled or if the volume of truck traffic is significant. As such, this information is necessary for interested parties to become informed about potential risks posed by vehicle traffic related to facility operations.

Section 66270.14(e)(5)(A)8. requires the permit applicant to list in the HRA other environmental permits that are required to operate the hazardous waste facility, including their expiration dates. Typically, these other permits include air permits and wastewater discharge permits. These permits

may indicate there is additional pollution control equipment needed to meet the Clean Air Act or the Clean Water Act. Knowing the existence and scope of other environmental permits is necessary in order for DTSC and other interested parties to have a comprehensive understanding of the nature of the operations at the facility. This in turn allows for a full evaluation of potential risks posed by the facility's operation. This information is necessary to ensure the full scope of potential health risks is characterized and considered.

Section 66270.14(e)(5)(B) requires that the applicant identify the known and potential sources of chemicals of potential concern in the HRA Questionnaire. If there is any evidence of contamination, the provisions in this subsection are intended to have the applicant indicate a potential source of emissions or releases. A source is the place where the chemical originates. Chemicals of potential concern can enter the environment from many different sources such as landfills, incinerators, tanks, drums, or waste management units. Human exposure to hazardous waste can occur at the source or the chemicals of potential concern may move to a place where people can come into contact with it. Chemicals of potential concern can move through air, soil, and water. Each of the requirements in section 66270.14(e)(5)(B) is necessary to highlight source categories that may need additional assessment to complete either a Screening Level HRA or a Baseline HRA. This provision sets out the broad subject areas that are necessary to assess health risks and that must be identified as known and potential sources of COPC. DTSC chose to include a general inventory of each of these topic areas for ease of use by the permit applicant. The requirement for the identification of known and potential sources of COPC is set up as a narrative list of factors for which information must be collected and reported, if available. Each of these factors is necessary to have a proper HRA. These include all the following provisions under section 66270.14(e)(5)(B).

Subsections 66270.14(e)(5)(B)1. through 3. require a summary of monitoring data. The amount and types of monitoring data vary greatly from one facility to the next, there is no single protocol to follow for how to summarize and present data. The identification of known and potential sources of COPC should provide meaningful summaries of environmental monitoring data that is most important. Listing every data point for every contaminant in every medium is not necessary.

The identification of known and potential sources of COPC should include tables, charts, or other formats with detailed information about the chemicals being monitored at the facility and the concentrations detected. Regardless of the display format used, there should also be a brief narrative describing the contents of the summary.

Section 66270.14(e)(5)(B)1. requires that air emission information be included as a known and potential source of COPC. Any business that emits hazardous air emissions during its operations is regulated by the federal and state Clean Air Act (CAA) and may require a permit for air emissions, either by overall source, specific device, or by pollutant. Title V of the federal Clean Air Act requires an operating permit for stationary sources that have air emissions in exceedance of Title V air emission thresholds and for specific devices or sources, such as incinerators. In California, air quality management districts issue these permits in accordance with their rules, regulations, and the California Clean Air Act. The air permit requires reporting air monitoring to ensure compliance with emission limits.

To assess the nature and quantity of the air emissions permitted at a facility, it is necessary to provide some of the required reporting information specified in the Title V permit, such as air sources, the pollutants emitted, the daily emission limitations, and monitoring data. The term "pollutants" is used here because it matches the terminology used in the implementing air quality regulations. The information described in this subparagraph is not required if an air permit is not required at the facility.

A summary of the air monitoring data for the most recent three years is required. The summary may list:

- name of chemicals monitored and its Chemical Abstract Services (CAS) number;
- emission limits for each chemical;
- maximum hourly emissions in pounds per hour;
- frequency of detection (above emission limits); or
- average annual emissions in pounds per year.

Other data that must be summarized is any air emission data reported on any of the following, as applicable:

- an emission inventory criteria and guidelines report[38] pursuant to Air Toxics "Hot Spots" Information and Assessment Act of 1987 (H&SC §§ 44300-44394);
- an annual toxic release inventory form pursuant to Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986" (42 U.S.C. § 11023); or
- a national emissions inventory report required pursuant to the National Ambient Air Quality Standard implementation rules and the Clean Air Act.

Emission information about air releases from a facility required in this provision is necessary to ensure a complete assessment of potential offsite impacts and exposures to nearby populations due to these potential emissions.

Section 66270.14(e)(5)(B)2. requires the information stipulated in wastewater discharge permits, which protect water quality, be included as a known and potential source of COPC. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, regional water boards regulate wastewater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program. Storm water is also subject to NPDES regulations. Wastewater discharged into sewers is exempt from federal NPDES requirements, but California law may still apply to such discharges.

Under California law, waste discharge requirements (WDRs)[39] apply to dischargers that conduct onsite treatment systems. The WDR pretreatment program was developed to ensure that industrial

[38] Incorporated by reference in section 93300.5 of Title 17 of the California Code of Regulations.
[39] In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non-Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

facilities that discharge to a municipal collection system pre-treat their wastewater to not pose a threat to human health or the environment. These discharge requirements limit the pollutants in discharges and require dischargers to monitor their wastewater to ensure that it meets all discharge limits.

To assess the nature and quantity of wastewater discharges at a facility, it is necessary to provide some of the required reporting information specified in the National Pollutant Discharge Elimination System permits and Waste Discharge Requirements permits, such as discharge points, the pollutants, the daily discharge limitations, and monitoring data. The term "pollutants" is used here because it matches the terminology used in the implementing water quality regulations. The information described in this paragraph is not required if a discharge permit is not required for the facility.

A summary of the wastewater monitoring data as required by a discharge permit for the most recent three years is required. The summary may list:

- name of chemicals monitored and its Chemical Abstract Services (CAS) number;
- discharge limits for each chemical;
- maximum hourly discharges in pounds per hour;
- frequency of detection (above discharge limits); or
- average annual discharges in pounds per year.

Other data that must be summarized is any water release data reported on an annual toxic release inventory form (42 U.S.C. § 11023). It is important to indicate water releases from a facility to assess potential offsite impacts and any potential exposure routes to nearby populations. The wastewater discharge information required in this provision is needed to ensure a complete assessment of potential offsite impacts and exposures to nearby populations due to these potential discharges.

Section 66270.14(e)(5)(B)3. requires that any information documenting a soil or groundwater contamination plume from any corrective action cleanup currently in progress be reported. If contamination has been found in groundwater, a RCRA facility investigation is required to obtain information on the nature and extent of a release so that appropriate corrective measures can be implemented at the facility.

If groundwater contamination has been found, then data, including sources, known chemicals of potential concern, a summary of available groundwater monitoring, and possibly a summary of available indoor monitoring data, may be available. If this data is not current, only a summary of the most recent three years is necessary to aid in the assessment of any risk. This provision is necessary to ensure a full and comprehensive HRA is developed.

A summary of the groundwater monitoring, or indoor vapor intrusion investigation data for the most recent three years is required. The summary may list:

- name of chemicals monitored or detected and Chemical Abstract Services (CAS) number;
- range of concentrations for each chemical of potential concern;
- location and date of the maximum concentrations;

- central tendency value (e.g., mean concentration or 95 percent upper confidence limit for the mean;
- frequency of detection (overall); or
- frequency of detection (above comparison values).

Vapor intrusion occurs when there is a migration of vapor-forming chemicals from any subsurface source into an overlying building. Indoor air investigations are warranted when volatile chemicals are found in contaminated soil or ground water plume at or emanating from facilities.

Facilities are required to implement a groundwater monitoring program to detect the release of hazardous constituents to the underlying groundwater if facilities manage hazardous waste in land units, such as landfills, or if required under corrective action.[40] Monitoring groundwater and indoor air ensures that any releases are detected and remediated in a timely manner. This data is important to summarize because it indicates a source of potential contamination that may represent a complete exposure pathway. This data can then be used to assess exposure.

The information described in this subparagraph is not required if there is no soil contamination or groundwater contamination found at and under the facility. Indoor vapor intrusion investigation data may not be available, if the chemicals of potential concern in groundwater are not volatile organic compounds. Corrective action reports, such as the Remedial Facility Investigation will be used to characterize the any existing soil contamination.

Contamination information required in this provision is needed to ensure a complete assessment of potential offsite impacts and exposures to nearby populations due to these potential sources of COPCs.

Section 66270.14(e)(5)(B)4. requires that all known accidental spills be provided as a known and potential sources of COPC. This section specifies that spills documented in accordance with all grants of authorization (e.g. permit or interim status document) to operate a hazardous waste facility or subject to hazardous materials reporting requirements under state or federal laws are to be identified. This information is required to be documented or reported. The reporting requirements are found in the following laws and regulations:

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") (42 U.S.C. § 9601 et seq.);
- The Emergency Planning and Community Right-to-Know Act (EPCRA) (Section 304, 42 U.S.C. § 11004); and
- Spill Prevention, Control, and Countermeasure (SPCC) Regulation (40 CFR 112).

An owner or operator may want to categorize the spills as incidental or spills requiring emergency response. Incidental spills are limited in quantity, exposure potential, or toxicity and present minor safety or health hazards to employees in the immediate work area. Incidental releases are limited in quantity, exposure potential, or toxicity and present minor safety or health hazards to employees in

[40] Title 22, California Code of Regulations, Chapters 14 and Chapter 15, Article 6.

the immediate work area or those assigned to clean them up. Spills requiring emergency response may result in fire, explosion, or chemical exposure. The spill information required by this provision is necessary to ensure potential health risks associated with accidents and spills is appropriately characterized due to these potential sources of COPCs.

Section 66270.14(e)(5)(B)5. requires assessing the risk presented by a facility due to any foreseeable accidents or upset scenarios, such as fire, floods, earthquakes, or catastrophic releases in the HRA. This provision requires the applicant to examine the risks of immediate human impacts due to accidents or natural disasters. Upset scenarios include both operational accidents, natural disasters and other catastrophic events, such as power outages.

For operational accidents, there are some commonly accepted industry standards. For example, chemical process, a facility owner or operator may want to review the recommendations of the Center for Chemical Process Safety, or the Health and Safety Executive of the United Kingdom. The main objective is to analyze the risk of the facility generating serious health impacts or injuries to the public.

For natural disasters, a facility owner or operator can use historical information to project long-term risks due to severe weather perils, such as flooding, storm surges, and power outages. California agencies offer many resources to assist in assessing risks due to natural disasters. The California Office of Emergency Services provides MyHazard[41] which is an online tool for the general public to discover natural hazards, such as earthquake, flood, fire, and tsunami, in their area by address, city, or zip code. The California Department of Conservation provides collections of online interactive maps on potential risks due to earthquake, tsunami inundations, and landslides.[42] Additional information regarding earthquake, flood, and fire hazards include the following:

- United States Geological Services' Earthquake Hazards Program;
- Federal Emergency Management Agency (FEMA)'s National Earthquake Hazards Reduction Program Hazards;
- National Flood Insurance Program maps published by FEMA;
- Information about flood hazards available from the United States Army Corps of Engineers;
- Designated floodway maps available from the Central Valley Flood Protection Board;
- Dam failure inundation maps available from the Office of Emergency Services;
- Awareness Floodplain Mapping Program available from the Department of Water Resources;
- Maps of levee protection zones;
- Fire hazard severity zone maps available from the Department of Forestry and Fire Protection; and
- Information about wildfire hazard areas may be available from the United States Geological Survey.

[41] MyHazards is available at http://myhazards.caloes.ca.gov/
[42] Regulatory Maps Portal is available at https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html

Recently enacted Government Code section 65302 requires that revisions of a local hazard mitigation plan include a review and update of the safety element to address climate adaptation and resiliency strategies applicable to that city or county. Regional information on how to proactively address the consequences of climate change can be found in the California Adaptation Planning Guide.[43] The internet-based Cal-Adapt tool[44] can provide additional details to assist in developing the vulnerability assessment for potential climate change impacts, such as sea rise and flooding.

A facility owner or operator can describe the risk of upset using any of the following approaches: narrative, qualitative, or quantitative. A narrative approach would identify potential accidental releases of hazardous waste and describe a worst-case scenario for spills and other releases. A qualitative approach is developed with relative judgements made in order to categorize each hazard. The level of risk is dependent on both the likelihood of the event and its consequence. A scale for likelihood may be described as very unlikely, unlikely, likely, or very unlikely. A scale for level of level of consequence may be described as low, medium, high. A risk analysis can then be documented in a matrix. For example, to evaluate operational upsets, a facility operator or owner would need to identify principal tasks in the facility's operation, their potential hazards, and probable causes of a release. The causes may be human error, equipment failure, and/or natural phenomena. Quantitative risk approach is similar but assigns a numeric scale for both frequency and consequences.

This provision is necessary to assess and disclose any potential impacts both onsite and offsite that may result from foreseeable upset scenarios, including natural disasters. These are considered in addition to the average operating emissions or releases generated by a facility.

Section 66270.14(e)(5)(B)6. requires a summary of a summary of any remediation or corrective action taken in response to emissions or releases due to those listed in subparagraphs 1 through 4 of this subsection. This is necessary to identify any emissions or releases that have been addressed and may no longer be a source or potential source of chemicals of potential concerns.

Section 66270.14(e)(6)(A) specifies the hazard identification information that should be submitted as part of the HRA Assumption Checklist. This is the second element necessary to characterize health risks. Hazard identification aims to identify chemicals of potential concern, their distribution in the different media and consequently to which relevant receptors are exposed.

Section 66270.14(e)(6)(A)1. requires the identification of chemicals of potential concern for each environmental media to be included in the HRA Assumptions Checklist. This information must include any chemical of potential concern found in the sources specified in paragraph (1)(A) of this section. These may have been detected in monitoring programs of air, water, or soil and any chemicals of potential concern that may be released due to normal operations, or upset conditions. The applicant may want to summarize this information for detected chemicals as follows:

- Name of the chemicals of potential concern;
- Media sampled;

[43] The guide is available at http://resources.ca.gov/climate/safeguarding/local-action/
[44] Cal-Adapt available at http://beta.cal-adapt.org/tools/ or http://cal-adapt.org/

- Summary of sampling data; and
- Range of concentrations of chemicals found.

This information is necessary and important to ensure that all potential chemicals of potential concern have been identified for purposes of a hazardous waste facility permit HRA.

Section 66270.14(e)(6)(A)2. requires the applicant to identify the transformation or degradation products, if applicable, for chemicals of potential concern to which exposure may occur. Depending on the environmental media where they are detected, chemicals can undergo changes resulting from different chemical, physical, biological or photochemical processes, resulting in different chemicals to which exposure may occur.

Transformation generally changes one chemical into another through physical, chemical, or biological processes. Degradation is a form of transformation. Chemical transformation is influenced by hydrolysis, oxidation, photolysis, and biodegradation. A key transformation process for organic pollutants is aqueous photolysis often in the form of photochemical reactions.

During these transformation processes, newly formed products may become more or less harmful to human health and the environment than the original chemical. For example, it is known that chlorinated solvents, such as perchloroethylene, degrade to trichloroethylene, which then degrades to dichloroethylene, and to vinyl chloride in groundwater. Each of these degradation products varies in toxicological effects. Similarly, transformation occurs during incineration, and results in the formation of toxic chemicals, such as furans and dioxins. Since transformation and degradation products may pose a different degree of harm than the original chemical, it is necessary for the HRA to include this important information relating to the risks posed by these agents. The information required by this provision is necessary to ensure potential health risks are fully and accurately characterized.

Section 66270.14(e)(6)(B) requires a toxicity assessment to be included in the HRA Assumptions Checklist. A toxicity assessment is another crucial element of a hazardous waste facility HRA. The toxicity assessment of the chemicals of potential concern must include a description of the relationship between the concentrations of the chemicals of potential concern and anticipated toxicity response. The toxicity assessment may include both qualitative and quantitative information for the chemicals of potential concern. This information is necessary to determine the appropriate toxicity values of chemicals to assess health risks.

Section 66270.14(e)(6)(B)1. requires the identification of the inherent hazard traits or toxicity characteristics of the chemicals of potential concern. Hazard traits or toxicity characteristics may include:

- Toxicological hazard traits, such as carcinogenicity, developmental toxicity, and reproductive toxicity;
- Endpoint toxicological hazard traits, such as cardiovascular toxicity, respiratory toxicity, neurotoxicity, and others;
- Physical or chemical properties, such as corrosivity, ignitability, or reactivity; or

- Exposure potential hazard traits, such as persistence and bioaccumulation.

These hazard characteristics or traits are important and necessary to be included because risk is a function of hazard and exposure. Information about inherent chemical hazards is necessary to determine whether exposure to the chemical poses a potential risk to health.

Section 66270.14(e)(6)(B)2. requires that, if available, regulatory screening levels for each of the chemicals of potential concern listed by media for the protection of human health developed by state or federal environmental agencies be included in the HRA Assumptions Checklist. Risk-based screening levels are derived from equations combining exposure assumptions with chemical-specific toxicity values. Screening levels take into account worst-case exposure assumptions and conservative toxicity values. Default exposure parameters and factors represent a reasonable maximum exposure conditions for long-term or chronic exposures. In general, screening level calculations use the best available science from commonly used sources, such as Office of Environmental Health Hazards Assessment's (OEHHA) Chronic Reference Exposure Levels, U.S. EPA's Integrated Risk Information System (IRIS), U.S. EPA's Provisional Peer Reviewed Toxicity Values, U.S. EPA's Health Effects Assessment Summary Table, or U.S. Agency for Toxic Substances and Disease Registry's minimal risk levels. Using screening level criteria uses readily available data and information that is conservative and protective of the risks posed by the facility.

DTSC, the State Water Resources Control Board (SWRCB), and OEHHA have also developed screening levels that can be used for the HRA Questionnaire. Screening levels cover a range of media (soil, groundwater, soil gas, and indoor air) and are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated hazardous waste facilities or sites. These include:

- DTSC's modified screening levels are based on the U.S. EPA Regional Screening Levels (RSLs);
- SWRCB's Environmental Screening Levels provide conservative screening levels for over 100 chemicals commonly found at sites with contaminated soil and groundwater for a range of water impacts; and
- OEHHA's California Human Health Screening Levels are concentrations of chemical of potential concern in soil or soil-gas below thresholds of concern for risks to human health.

Also see Section 66270.14(e)(10)(A)2. for a further discussion of screening levels that are appropriate for the Screening Level HRA. This provision allows the use of peer-reviewed toxicity information developed by OEHHA, and U.S. EPA.

The purpose of this step is to disclose if a screening level exists for the COPCs in media. Because there are many hazard traits without human testing data, it is necessary to require the owner or operator to report available screening level information to ensure information gaps are identified and that missing information is gathered to support the timely and accurate completion of the HRA.

Section 66270.14(e)(6)(B)3. requires that the categories of receptors likely affected or most susceptible to the chemicals of potential concern be provided in the HRA Assumptions Checklist. Human receptors include those that are potentially impacted or threatened by the chemicals of

potential concern, located within the facility or near the facility along an identified migration pathway. Receptors can be identified and characterized surrounding activities and land use categories, such as industrial, residential or recreational. The identification of sensitive subpopulations are categories of receptors which may lead to an increased risk. Sensitive subpopulations of potential concern are children, pregnant and nursing women, elderly people, people with chronic diseases, and others.

Categories of receptors may be classified as:

- Residential populations;
- Recreational populations;
- Worker populations;
- Transient populations[45];
- Potentially "high risk" populations;[46] or
- Uniquely vulnerable populations.[47]

The identification of categories of receptors is needed to validate that the assumptions for the screening levels are appropriate and protective. Information related to categories of receptors is depended on the most susceptible receptors to relevant chemicals of potential concern. Further information may be needed to properly complete an HRA.

Section 66270.14(e)(6)(C) requires an exposure assessment to be included in the HRA Assumptions Checklist. An exposure assessment identifies the affected population and, if possible, describes the amount, frequency, length of time, and route of exposure and is another crucial element of a hazardous waste facility HRA. The purpose of characterizing the exposure setting is to identify current human activities or land uses that provide the basis for evaluation of potential exposure scenarios resulting from releases or emissions from one or more sources. Evaluation of exposure is a key component of chemical risk assessment, and understanding the factors that influence exposure is necessary to have a more focused assessment. The exposure information should address the chemicals of potential concern depicted by the conceptual site model and include the information described in the following subparagraphs:

Section 66270.14(e)(6)(C)1. requires that transport processes of each chemical of potential concern into and between environmental media be provided as part of toxicity assessment included in the HRA Assumptions Checklist. Contaminant movement depends on both chemical properties of the chemicals of potential concern and the site's environmental, physical, chemical, and biological characteristics. An understanding of transport processes is necessary and important to account for the movement of a chemical through air, soil, and water to a receptor and to determine the possible locations of the chemical in the environment. The information required in this provision is necessary to characterize how the chemicals of potential concern are, or have been, released to the

[45] Transient populations may include recreationist, trespassers, migrant workers, etc.
[46]Potentially "high risk" populations may include children, elderly, those with pre-existing health conditions.
[47] Uniquely vulnerable populations are populations that might be more sensitive or vulnerable due to special diets, activities, or cultural practices might experience increased exposure to contaminants.

environment, and their movement through the environment, in order to accurately assess potential exposures that may occur beyond the facility and to appropriately evaluate potential health risks.

Section 66270.14(e)(6)(C)2. requires the identification of, and rationale for, exposure scenarios for each chemical of concern in environmental media be provided as part of the toxicity assessment included in the HRA Assumptions Checklist. The exposure scenarios must identify potential points of contact and all potential exposure routes of the chemicals of potential concern to receptors. The purpose of this section is to document potential exposure scenarios for all current or future scenarios. The exposure points include all exposure mediums, such as media and food. Exposure routes include the means by which people physically contact environmental contamination at the exposure point by inhalation, dermal contact, and ingestion of chemicals of potential concern. See section 66270.14(e)(10)(A)1. for additional discussion of simple exposure routes. This information is necessary to support the determination as to whether any exposure pathway is complete and affects a receptor. It is necessary to understand which exposure pathways are complete in order to perform an accurate HRA.

Section 66270.14(e)(6)(C)3. requires the identification of, and rationale for, potential receptors be provided as part of toxicity assessment included in the HRA Assumptions Checklist. The documentation of the HRA must contain a description of the potentially exposed persons likely to be affected who work, live, play, visit, or otherwise come to the facility or the surrounding environment. The human receptors are described as subpopulations rather than specific individuals so that the results of the risk characterization can be generalized. While the receptors are described in terms of subpopulations, the product of the HRA is still an assessment of the risk that applies to the protection of an individual within that group. This information is necessary to identify receptors under both the current and future scenarios in order to ensure that all potential exposure pathways are evaluated. This requirement is necessary for the completion of a thorough and complete HRA.

Section 66270.14(e)(6)(C)4. requires the identification of, and rationale for, potential or complete exposure pathways be provided as part of toxicity assessment included in the HRA Assumptions Checklist. This section requires the applicant to identify when the migration pathway(s) are complete and incomplete. Incomplete pathways need not be evaluated. A complete pathway is an exposure route with an impacted receptor that is associated with a confirmed source. An incomplete pathway is missing one of these components—source, exposure route, and a receptor. This requirement is necessary for the completion of a thorough and complete HRA.

Section 66270.14(e)(7)(A) specifies that the conceptual site model must be provided as both a narrative and a graphic or visual representation of actual or predicted relationships between receptor populations and the chemicals or other stressors to which they may be exposed. To facilitate the visualization of site conditions, the representation of a site conceptual model provides actionable information that can generate a common understanding of complex site conditions. The conceptual site model is a planning tool used for identifying chemical sources, complete exposure pathways, and potential receptors. For a simple scenario, the narrative description may be notes or text boxes on a drawing if the applicant chooses to present the information in that fashion. For a more complex site,

it may be a separate document that clearly describes the facility, chemicals of potential concern, pathways, and receptors.[48]

Furthermore, the conceptual site model may be represented by a variety of methods or combination of methods, such as a diagram, map, cross section, matrix, or other graphic to describe the site condition or environmental setting. Newer trends are geocoded graphics that can further improve the visualization of the site conditions at a facility by leveraging geographic information system (GIS) technology. GIS capabilities store and can be used to manipulate a database to present the information in a graphic form, such as a map, site plan, a two or three-dimensional model representation of a contaminant plume, etc. The conceptual site model will be dictated by the complexity of the facility and the amount and type of available data.

By developing the conceptual site model, HRA decisions can be made to effectively address and protect the impacted or potentially impacted receptors. This provision is necessary to provide a framework that can be used to aid and document HRA's risk characterization in an appropriate and comprehensive fashion.

Section 66270.14(e)(7)(B) specifies the attributes needed to be included to completely describe the relationship between chemicals and the receptors. Each of these provisions is necessary to establish the proper scope and contents of the conceptual site model. The following paragraphs describe the required elements.

Section 66270.14(e)(7)(B)1 requires the conceptual site model to describe the actual and potential sources of emissions and releases of hazardous waste or chemicals of potential concern. A source is the origin of environmental contamination. Identifying possible sources helps determine what environmental media may be affected and how hazardous waste or chemicals of potential concern might reach populations at or near a site or facility. Sources of interest may include hazardous waste releases from a leaking storage tank, waste material poured on the ground or air emissions from a waste management unit. This information is necessary to understand the possible sources of chemicals of potential concern, a critical element of knowledge for an HRA.

Section 66270.14(e)(7)(B)2. requires the conceptual site model to include a listing of chemicals of potential concern and their release mechanisms. This is a very basic requirement in an HRA and is necessary to conduct an appropriate evaluation of potential risks posed by a facility. The stressors at a hazardous waste facility include chemicals of potential concern that are constituents in the hazardous waste streams handled, but also include transformation products, by products, and degradation products. Release mechanisms are the manner by which hazardous waste and their constituents (chemicals of potential concern) are released or made to leave their sources or matrices of sources. The release mechanism can be physical, chemical, thermal, or radiological and the transfer of chemicals to another medium or media is likely to occur. For example, the release mechanisms can be volatilization, runoff, solubility, chemical transformation, or leaching. This

[48] New Jersey Department of Environmental Protection, Technical Guidance for Preparation and Submission of a Conceptual Site Model, dated December 16, 2011.

information is necessary to characterize how each chemical of potential concern enters the environment, which in turn contributes to the understanding of potential exposure pathways, and is needed to complete a thorough and accurate HRA.

Section 66270.14(e)(7)(B)3. requires that the conceptual site model to identify impacted media. Environmental media may serve to transport chemicals of potential concern from the source to possible points of human exposure. Affected media may include air, groundwater, surface water, surface and subsurface soils, sediment, soil gas, and others. This information is necessary to understand how the chemicals of potential concern move through the environment and the resulting nature and extent of contamination.

Section 66270.14(e)(7)(B)4. requires that the conceptual site model to show potential exposure pathways, including fate and transport routes. Fate and transport refers to how chemicals of potential concern move through, and are transformed in, the environment. Evaluating fate and transport of chemicals of potential concern within environmental media is the step in the exposure pathway evaluation that helps determine how chemicals of potential concern might move from a source area to an exposure point. In addition to identifying potential exposure pathways, pathways that are incomplete do not pose a risk and can be eliminated from further evaluation. This information is necessary to ensure the HRA appropriately evaluates the potential risks posed by operation of the facility.

Section 66270.14(e)(7)(B)5. requires the conceptual site model to include the exposure routes for each potential receptor to be identified for both onsite routes and those adjacent to the facility. In general, individuals may be exposed to chemicals of potential concern in environmental media by ingestion, inhalation, or dermal contact.

The potential receptor must be identified for each exposure route. The specific populations that might be exposed to chemicals of potential concern will influence the extent to which actual exposures may be occurring. Both the characteristics and size of the potentially exposed population need to be determined. Populations to consider include residents, recreationist, onsite and offsite workers, transients, and potential vulnerable populations. This information is necessary to identify routes of exposure and potential receptors. This is another necessary step in performing a proper HRA for a facility.

See sections 66270.14(e)(6)(C)3. and 66270.14(e)(6)(D)3. for additional discussion regarding the identification of receptors.

Section 66270.14(e)(8) requires that DTSC make a completeness determination after the review of the HRA Questionnaire. This evaluation occurs on a parallel track with the permit submittal. While the permit project manager is completing the technical review of the permit application, DTSC will have 90 days to review the HRA Questionnaire for compliance with the provisions found in paragraphs 66270.14(e)(4) through (e)(7).

This provision provides DTSC with discretion to determine how to proceed with the HRA. It is also necessary to ensure that the HRA Questionnaire is responded to in a timely manner, while providing time for DTSC to review the contents and make a completeness determination.

Section 66270.14(e)(8)(A) allows DTSC to require the applicant to submit supplemental information to complete DTSC's evaluation of the HRA Questionnaire. This provision is necessary so that DTSC has the appropriate information for its review and so that the applicant may have an opportunity to make the submittal complete and avoid an unnecessary rejection of the HRA Questionnaire.

Section 66270.14(e)(8)(A)1. provides the applicant with thirty (30) days to submit the supplemental information from the time the applicant receives the request for information. This provision is necessary to have binding time frames that are reasonable to the task involved.

Section 66270.14(e)(8)(A)2. provides DTSC thirty (30) days to evaluate the supplemental information submitted by the applicant. This is necessary to ensure that DTSC can complete its review of this new information and the HRA Questionnaire in a timely fashion.

Section 66270.14(e)(8)(A)3. specifies that an owner or operator will be required to submit a Screening Level HRA if DTSC determines that the supplemental information is not submitted in a timely manner, is unacceptable, or does not fulfill the requirements for an HRA Questionnaire. This provision is necessary to make clear what happens when supplemental information is not properly completed. It is important to keep the HRA process moving efficiently. This lets the applicant know what to expect when DTSC makes a determination and requires additional submittals.

Section 66270.14(e)(8)(B) outlines the range of determinations that DTSC must make and the criteria that DTSC must consider for each determination. This is necessary to bring certainty to this process and to let owners or operators know the range of decisions that may be made.

Section 66270.14(e)(8)(B)1. specifies that DTSC can require the applicant to complete a Screening Level HRA in accordance with the requirements of paragraphs (e)(10) and (e)(13). This is the next step needed to complete a hazardous waste facility HRA so that concentrations of each chemical of potential concern can be compared to media-specific screening levels for relevant receptors. This provision is necessary to ensure potential health risks to the public are appropriately evaluated and understood when the information provided in the HRA Questionnaire indicates further review is needed.

Subparagraphs a. through d. outline the criteria for determining if a Screening Level HRA must be required. Any of the subparagraphs below may trigger the Screening Level HRA.

Section 66270.14(e)(8)(B)1.a allows DTSC to require a Screening Level HRA if there is evidence of limited onsite contamination present. Corrective action to cleanup a site takes time and there are potential health risks in the interim that need to be assessed in addition to impacts due to hazardous waste operations at the facility. This requirement is necessary to determine whether the limited onsite contamination may result in risks to the public.

Section 66270.14(e)(8)(B)1.b allows DTSC to require a Screening Level HRA if information exists indicating that there are releases, emissions, or discharges of any pollutant or chemical of potential concern with no offsite consequences. This provision is necessary to gather further information about this issue of potential exposure relating to the normal operations of the facility, especially to onsite staff.

Section 66270.14(e)(8)(B)1.c allows DTSC to require a Screening Level HRA if there is information of a potential complete pathway between the chemical of potential concern and potential receptors, which indicates the receptors may be exposed to the chemical(s) and may face health risks. This provision is necessary to ensure potential health risks are appropriately characterized and understood.

Section 66270.14(e)(8)(B)1.d allows DTSC to require a Screening Level HRA if there is information of a foreseeable upset conditions may impact any offsite receptors. This provision is necessary to assess and determine if the facility can operate within acceptable safety margins and to ensure potential health risks are appropriately characterized and understood.

Section 66270.14(e)(8)(B)2. specifies that DTSC can require the applicant to complete a Baseline HRA in accordance with the requirements of paragraphs (e)(16) and (e)(19). If DTSC requires a Baseline HRA, an applicant may skip a Screening Level HRA and redirect resources to complete a quantitative baseline assessment. In order to make this determination, DTSC needs to assess the following four criteria.

Subparagraphs a. through d. outline the criteria for determining if a Baseline HRA must be required. Any of the subparagraphs below may trigger the Baseline HRA.

Section 66270.14(e)(8)(B)2.a allows DTSC to require a Baseline HRA if there is evidence of facility-wide onsite contamination present or contamination that has migrated beyond the facility boundaries. Corrective action to clean up a site takes time and there are potential health risks in the interim that may need to be assessed in additional to impacts due to hazardous waste operations at the facility. Further, these conditions present more complex potential exposure pathways that can only be appropriately analyzed through a Baseline HRA. This requirement is necessary to ensure potential health risks are appropriately characterized and understood, and to avoid unnecessary delays or costs that might accrue if the intermediate step of a Screening Level HRA was required.

Section 66270.14(e)(8)(B)2.b allows DTSC to require a Baseline HRA if there is information that the normal operations of the facility releases, emits or discharges any pollutant or chemical of potential concern with offsite consequences. This condition indicates a high likelihood that potentially significant health risks are present that can only be appropriately analyzed through a Baseline HRA. to fully quantify these significant exposure risks. This requirement is necessary to ensure potential health risks are appropriately characterized and understood, and to avoid unnecessary delays or costs that might accrue if the intermediate step of a Screening Level HRA was required.

Section 66270.14(e)(8)(B)2.c This condition indicates potential health risks are present that can only be appropriately analyzed through a Baseline HRA. This requirement is necessary to ensure potential

health risks are appropriately characterized and understood, and to avoid unnecessary delays or costs that might accrue if the intermediate step of a Screening Level HRA was required.

Section 66270.14(e)(8)(B)2.d This condition indicates a high likelihood that potentially significant health risks are present that can only be appropriately analyzed through a Baseline HRA. This requirement is necessary to quantify and determine if the facility can operate within acceptable safety margins, to ensure potential health risks are appropriately characterized and understood, and to avoid unnecessary delays or costs that might accrue if the intermediate step of a Screening Level HRA was required.

Section 66270.14(e)(8)(B)3. specifies that DTSC may decide that neither a Screening Level HRA nor a Baseline HRA is required based on its review of the HRA Questionnaire. In such cases, the applicant is not required to submit any additional information for purposes of the hazardous waste facility permit HRA. To make this determination, DTSC needs to assess the following four criteria, and cannot request additional information for a hazardous waste facility HRA if all four criteria are satisfied based on DTSC's evaluation of the completed HRA Questionnaire. These provisions are necessary to ensure that applicants are not required to undertake reviews or incur costs that are not necessary to protect public health or the environment, to reduce the review burden on DTSC, and to eliminate unnecessary delays in permit review.

Subparagraphs a. through d. outline the criteria for determining no further action is required to complete a hazardous waste facility permit HRA. All four subparagraphs below must be met in order to allow DTSC to determine that no additional risk assessment is needed.

Section 66270.14(e)(8)(B)3.a specifies that if there is no evidence of onsite contamination present, and all of the other three criteria for a no further action determination are also met, then no further work on an HRA will be necessary. This provision is necessary to ensure that applicants are not required to undertake reviews or incur costs that are not necessary to protect public health or the environment, to reduce the review burden on DTSC, and to eliminate unnecessary delays in permit review.

Section 66270.14(e)(8)(B)3.b specifies that if the normal operations of the facility do not release, emit or discharge any pollutant or chemical of potential concern, and all of the other three criteria for a no further action determination are also met, then further HRA work will not be necessary, again assuming the other three criteria for a no further action determination are also met. This provision is necessary to ensure that applicants are not required to undertake reviews or incur costs that are not necessary to protect public health or the environment, to reduce the review burden on DTSC, and to eliminate unnecessary delays in permit review.

Section 66270.14(e)(8)(B)3.c specifies that if there is no potential complete pathway between the chemical of potential concern and potential receptors, and all of the other three criteria for a no further action determination are also met, no further HRA analysis or documentation is needed. This provision is necessary to ensure that applicants are not required to undertake reviews or incur costs

that are not necessary to protect public health or the environment, to reduce the review burden on DTSC, and to eliminate unnecessary delays in permit review..

Section 66270.14(e)(8)(B)3.d specifies that if there is no foreseeable upset conditions which impact any offsite receptors, and all of the other three criteria for a no further action determination are also met, then no further HRA analysis or documentation is required. This provision is necessary to tailor the amount of HRA analysis and documentation to the potential risks posed, as revealed by the HRA Questionnaire.

Section 66270.14(e)(9) specifies that DTSC is required to provide a written notice to the applicant of DTSC's HRA Questionnaire determination in accordance with paragraph (e)(8). In addition, DTSC must specify in the notice the basis of the determination. This provision is necessary to make clear what DTSC is required to do upon evaluation of the HRA Questionnaire and to keep the HRA process moving efficiently. This lets the applicant know what to expect when DTSC makes a determination and requires additional submittals.

Section 66270.14(e)(9)(A) specifies that if an applicant receives an HRA Questionnaire Notice that requires a completion of a Screening Level HRA, the applicant must consult with and submit a Screening Level HRA work plan to DTSC within ninety (90) days. The applicant must also consult with DTSC within this 90-day time frame. DTSC has determined that consultation is necessary to ensure the scope of the Screening Level HRA will take into account all the elements needed. Consultation and coordination with DTSC is essential to developing a successful and meaningful hazardous waste facility HRA.

Section 66270.14(e)(9)(B) specifies that if an applicant receives a HRA Questionnaire Notice that requires a completion of a Baseline HRA, the applicant must consult with and submit a Baseline HRA work plan within ninety (90) days. DTSC is also requiring that the applicant consult with DTSC on the work plan. This provision for consultation is necessary to ensure the scope of the Baseline HRA will take into account all the elements needed. Consultation and coordination with DTSC is essential to developing a successful and meaningful hazardous waste facility HRA and to avoid unnecessary expenditure of time and resources on an HRA that does not meet DTSC's needs.

Section 66270.14(e)(10) specifies the key elements that are required to demonstrate the adequacy of the Screening Level HRA work plan and, consequently, the Screening Level HRA. The Screening Level HRA is intended to be a qualitative screening process.

The Screening Level HRA process provides a rapid and convenient risk-based assessment to determine if a chemical of potential concern poses an unacceptable health risk. Conservative assumptions, such as worst-case scenario and non-specific default values are used to estimate health impacts. Thus, screening levels use conservative assumptions to protect human health.

The Screening Level HRA work plan must address how the Screening Level HRA will ensure that the chemicals of potential concern are compared with published assessment criteria. These criteria have been developed to help undertake risk assessments. Using conservative values, a Screening Level HRA may address in this step many of the factors involved in receptor identification, and toxicity and

exposure assessment. In developing these criteria, specific receptors have been identified, certain exposure pathways have been assessed, and specific chemicals of potential concern are identified. These criteria may be either quite specific (e.g. facility worker exposure to benzene through inhalation). In other cases, the criteria may be general.

At this step, the work plan must identify what information will be collected either through literature review or site investigation. The primary purpose of the Screening Level HRA is intended to determine the following:

- whether there is a potentially complete pathway between the chemical of potential concern and potential receptors, and
- whether concentrations of chemicals of potential concern exceed benchmark or guideline values for relevant receptors or media of concern; and
- the identification of any hazardous waste management units or solid waste management units that fail the risk-based screening criteria.

Section 66270.14(e)(10)(A) specifies that the applicant shall submit to DTSC for its evaluation and approval a Screening Level HRA work plan that must include elements in subparagraphs 66270.14(e)(10)(A)1. through 3.

Section 66270.14(e)(10)(A)1. specifies that the Screening Level HRA work plan and Screening Level HRA must use the maximum capacity for treatment, storage, transfer and disposal of hazardous waste requested in the permit application for the calculation of exposure assessments. This will ensure that the exposure calculations are conservative and account for the maximum capacity of hazardous waste that is being authorized, even if the facility is operating below those levels at the time the HRA assessment is done.

Furthermore, the exposure assessment need only include simple exposure pathways which are principally direct exposures to the chemicals of potential concern, and receptors are limited to nearby residents and workers.

In determining the potential hazards and risks posed to human health, three primary exposure routes that exist are oral exposure, inhalation exposure, and dermal exposure. Each of these exposure routes consist of many potential pathways. Simple exposure pathways do not include indirect exposure routes. Below are examples of exposure routes and generally the first two pathways are considered simple exposure pathways and are indicated in italics.

- For ingestion or oral exposure, the potential pathways may include:
    - *Direct ingestion of drinking water;*
    - *Direct ingestion of soil;*
    - Indirect through food crops/vegetables raised in contaminated soil;
    - Indirect through meat, dairy products, and eggs from animals raised on contaminated sites;
    - Indirect through aquatic animals and plants caught in surface waters receiving contaminated runoff and groundwater; or

    - Indirect through mother's breast milk.
- For inhalation exposure, the potential pathways may include:
    - *Inhalation of volatiles and particulate matter;*
    - *Inhalation of contaminated dust; or*
    - Inhalation of air with chemicals evaporated in water, especially during a shower.
- For dermal exposure, the potential pathways may include:
    - *Contact with contaminated soils; or*
    - *Contact with contaminated water.*

Selection of which exposure pathways to evaluate depends on the potential risk needing to be assessed, which in turn depends on both the inherent hazards of the chemicals of potential concern and their environmental impact. It is necessary to clarify that for this tier of the HRA, simple exposure pathways are appropriate. If the assessment shows unacceptable risk, more complex exposure pathways will be evaluated in the Baseline HRA. It is important that the Screening Level HRA address exposure routes at an appropriate level balancing the need for a sound assessment with sensible economy in obtaining necessary data.

Section 66270.14(e)(10)(A)1.a specifies that the exposure assessment include a summary of the toxicity assessment, including appropriate toxicity values, be provided for each of the chemicals of potential concern. Appropriate toxicity values need to be determined for the chemicals of potential concern. These toxicity values include, but are not limited to, unit risk factors, inhalation and oral slope factors, carcinogenic slope factors, reference doses, reference concentrations, and chronic reference exposure levels (inhalation and oral).

Section 66270.14(e)(10)(A)1.b specifies that the approach and the estimate of reasonable maximum exposure concentrations described in the exposure assessment be based on either sampling data or modeling. The reasonable maximum exposure must be the highest exposure for groundwater, surface water, soil, and air that is reasonably expected to occur at the facility under current and potential future use. For example, the reasonable maximum exposure for most groundwater is defined as exposure to hazardous substances (chemicals of potential concern) in drinking water and other domestic uses.

This provision is necessary to characterize the onsite chemicals of potential concern concentrations, which are needed to compare with screening levels for each chemical of potential concern.

Section 66270.14(e)(10)(A)1.c requires the identification of receptors, routes of exposure (e.g., by inhalation, ingestion, or dermal uptake), and simple or direct exposure pathways in the exposure assessment. The receptors listed should be for each completed pathway. This characterization is necessary because it is required for selecting appropriate screening levels.

Section 66270.14(e)(10)(A)1.d specifies that the exposure assessment must address all chemicals of potential concern for screening cancer and non-cancer health impacts. This provision is necessary to consider the effects of all completed pathways.

Section 66270.14(e)(10)(A)2. specifies that the Screening Level HRA work plan and Screening Level HRA list the conservative regulatory screening values by media for the protection of human health.

The Screening Level HRA work plan must reference and use, to the maximum extent feasible, available peer reviewed information and tools developed by the Office of Environmental Health Assessment and the U.S. EPA.

Screening levels are typically used for evaluating cleanup sites. They are used for site "screening" and as initial cleanup goals, if applicable. The role of the screening levels is to help identify areas, chemicals of potential concern, and conditions that require further attention at a particular site. Generally, at sites where concentrations of chemicals of potential concern fall below screening levels, no further action or study is warranted. However, exceeding a screening level suggests that further evaluation of the potential risks is appropriate.

HRA methodologies are a body of science that is continually advancing. In general, screening level calculations use the best available science from commonly used sources, such as Office of Environmental Health Hazards Assessment's (OEHHA) Chronic Reference Exposure Levels, U.S. EPA's Integrated Risk Information System (IRIS), U.S. EPA's Provisional Peer Reviewed Toxicity Values, U.S. EPA's Health Effects Assessment Summary Table, or U.S. Agency for Toxic Substances and Disease Registry's minimal risk levels. Using screening level criteria uses readily available data and information that is conservative and protective of the risks posed by the facility.

OEHHA develops toxicity criteria using modeling parameters consistent with and inclusive of California's diverse demographic as authorized under state and federal law, including, but not limited to, section 71110 of the Public Resources Code and the with the California Children's Environmental Health Protection Act (Health & Saf. Code, section 39669.5). These toxicity criteria are substantive standards of control that provide health-based protection for the entirety of California's diverse population, including its most sensitive receptors, from harmful exposures to hazardous substance(s) released to the environment.

The advantage of using existing screening values is that they are established on a basic risk model, based on the concept of Source-Pathway-Receptor. The screening process normally is focused on the source; the chemical of potential concern must be present in quantities and concentrations sufficient to present a hazard. Use of screening level values allows quick assessments of individual chemicals of potential concern to help identify facilities that pose little or no risk.

This simplifies the assessment by comparing each chemical-pathway combination against a conservative value. The screening level provides a systematic way of assessing individual chemicals of potential concern and minimizing more complex investigations, when the chemicals are found below conservative values. It is necessary to use this conservative approach to maintain the premise of a tiered approach.

It is necessary to include screening level values to have a meaningful, robust and scientifically rigorous set of values. This in turn, will maximize use of existing resources. Sampling and screening are carried out at the source. If the source is not significant, in relation to established screening levels, then the overall risk is inherently low. This approach avoids sampling or monitoring at the receptor sites, where the contamination may come into contact with people.

Section 66270.14(e)(10)(A)3. requires that an outline of the presentation for the data be provided in the Screening Level work plan and Screening Level HRA. This is necessary to ensure that the right level of detail is provided to ensure the right level of effort and increase the acceptance of the HRA submittals.

Section 66270.14(e)(11) specifies that within 60 days of receipt of the Screening Level HRA work plan, DTSC will review the work plan to ensure compliance with subparagraph (e)(10)(A). This is necessary to give DTSC sufficient time to review the Screening Level HRA work plan and to keep the HRA process moving along.

Section 66270.14(e)(11)(A) allows DTSC to require the applicant to submit supplemental information for DTSC to complete its evaluation of the Screening Level HRA work plan. This provision provides the appropriate latitude to DTSC to request supplemental information and allows the applicant an additional opportunity to submit the necessary information. This helps to avoid an unnecessary denial of the Screening Level HRA work plan. DTSC believes this accommodation is reasonable and necessary when compared to the consequences of the decision.

Section 66270.14(e)(11)(A)1. requires the applicant to submit the supplemental information within thirty (30) days of receiving the request from DTSC. The requirement to submit the requested supplemental information no later than thirty days from the request is necessary to provide the applicant with enough time to compile and respond to DTSC's request in a meaningful time frame.

Section 66270.14(e)(11)(A)2. specifies that, within thirty (30) days of receipt of the supplemental information, DTSC must complete its evaluation of the supplemental information and provide a determination to accept or reject the Screening Level HRA work plan. This section is necessary to clarify what are the expected outcomes of DTSC's review and to provide time frames for accomplishing the work.

Furthermore, if DTSC rejects the Screening Level work plan due to deficiencies, the next step could be for DTSC to issue a permit notice of deficiency (NOD). This NOD would count as one the three allowed for review of the permit application.

Section 66270.14(e)(12) requires DTSC to provide a written notice to the applicant of DTSC's determination to accept or reject the Screening Level HRA work plan and the basis for that determination. In addition, DTSC must also specify in the notice a due date for completion of the Screening Level HRA. This provision clarifies the information that DTSC must provide to the applicant and sets reasonable rules for requiring additional information.

Section 66270.14(e)(12)(A) specifies that the due date for the Screening Level HRA is 180 days after the date DTSC issues a notice of approval of the Screening Level HRA work plan, unless DTSC specifies an alternative due date. This is necessary to set a default time frame and to provide DTSC flexibility in determining when a Screening Level HRA is due to DTSC. This acknowledges resource constraints and the need for additional time for more complex risk assessments, additional monitoring, or additional sampling. The due date could also be shortened if the Screening Level HRA is not complex. This

provides certainty to the regulated community when a Screening Level HRA is due to DTSC and that allowances for unique situations will be taken into consideration.

Section 66270.14(e)(13) makes specific that the applicant must submit the Screening Level HRA meeting the requirements specified in subparagraph 66270.14(e)(10)(A) and Screening Level HRA work plan within the time frame specified in DTSC's determination notice. This provision is necessary to make clear the requirements for the Screening Level HRA. The notice must also include due date for the Screening Level HRA submittal. This provision is necessary to make clear what is expected of the applicant and the time frame for delivering a Screening Level HRA.

Section 66270.14(e)(14) specifies that DTSC will complete its review of the Screening Level HRA within ninety (90) days of receipt. DTSC must review the information for compliance with subparagraph (e)(10)(A) and the accepted Screening HRA work plan. These provisions are necessary to clarify and make specific to the applicant and other interested parties how DTSC will conduct its review of these documents and the time periods that apply to various actions to be taken by the applicant and DTSC. It is also necessary to keep the HRA process moving towards completion.

Section 66270.14(e)(14)(A) allows DTSC to require the applicant to submit supplemental information to complete DTSC's evaluation of the Screening Level HRA. This provision provides the appropriate latitude to DTSC to request supplemental information for the Screening Level HRA and allowing the applicant an additional opportunity to submit the necessary information. This helps to avoid an unnecessary denial of the Screening Level HRA. DTSC believes this accommodation is reasonable and necessary when compared to the consequences to the underlying decisions.

Section 66270.14(e)(14)(A)1. requires the applicant to submit the supplemental information within thirty (30) days of receiving DTSC's request. The requirement to submit the requested supplemental information no later than thirty days is necessary to provide the applicant with enough time to compile information and respond to DTSC's request in a meaningful time frame.

Section 66270.14(e)(14)(A)2. requires DTSC to complete its evaluation of the supplemental material within thirty (30) days from the date of submittal and to provide a determination of the Screening Level HRA within this same time frame. This provision is necessary to allow a reasonable time for review of new information and to keep the HRA process moving to completion.

Section 66270.14(e)(14)(B) requires DTSC to make a determination to either accept the Screening Level HRA or reject the Screening Level HRA and require that a Baseline HRA be submitted. There are various possible outcomes based on DTSC's determination. This provision is necessary to specify that DTSC has two (2) different decisions it may make at the completion of its review of the Screening Level HRA.

Section 66270.14(e)(14)(B)1. specifies that DTSC may accept Screening Level HRA and the hazardous waste facility HRA process is complete. This gives certainty and finality to the applicant, DTSC, and interested parties as to the status of the facility HRA process as complete.

Section 66270.14(e)(14)(B)2. specifies that DTSC may reject the Screening Level HRA and require submittal of a Baseline HRA. Again, this is necessary to provide DTSC with the necessary discretion to require a more expansive and comprehensive HRA when that is the document that DTSC decides is warranted based on its review of the Screening Level HRA.

Section 66270.14(e)(15) requires DTSC to provide a written notice to the applicant of its determination whether to accept the Screening Level HRA or reject the Screening Level HRA and require a Baseline HRA. In addition, DTSC will have to specify in the notice the basis of the determination. This provision is necessary to make clear what options DTSC has based on its review of the Screening Level HRA and to inform the applicant of any further work that is due.

Section 66270.14(e)(15)(A) specifies that if a Baseline HRA is required, the applicant must submit a Baseline HRA work plan within ninety (90)days of the receipt of DTSC's notice that a Baseline HRA is required. This provision is necessary to provide a reasonable time frame for an applicant to complete a Baseline HRA, and to keep the HRA process moving.

Section 66270.14(e)(16) specifies the requirements for a Baseline HRA Work Plan.

Section 66270.14(e)(16)(A) specifies the required scope of the Baseline HRA work plan to ensure that the Baseline HRA will meet the requirements of this section. An HRA may be conducted in different ways to meet different objectives. A Baseline HRA may involve a more detailed facility investigation than some other HRAs. The intention of this step is to undertake a site-specific assessment of each chemical of potential concern that is specific to the pathways, receptors, media, and environmental conditions found at the facility.

A Baseline HRA is a quantitative analysis of the potential adverse health effects (current or future) that could be caused by chemicals of potential concern at a facility. The results of a Baseline HRA will be used for risk characterization of a permitted hazardous waste facility operations and current site contamination. The risk characterization combines two previous steps, the exposure assessment with the hazard identification/toxicity assessment to describe potential adverse health effects. The Baseline HRA links exposure to effects within relevant timeframes for exposure.

The elements required for exposure and risk characterization are necessary to be included in the Baseline HRA. These elements build on the information that has been submitted in the HRA questionnaire and the HRA Screening Level HRA and leads to quantification of the risk of the operations of a facility on human health. The following subparagraphs list the mandatory elements of a Baseline HRA work plan. These are needed to quantify the risk associated with the operations of a hazardous waste facility.

Section 66270.14(e)(16)(A)1. specifies that a summary of toxicity assessment for each of the chemicals of potential concern be provided in the Baseline HRA work plan and Baseline HRA. Appropriate toxicity values need to be determined for the chemicals of potential concern. These toxicity values include, but are not limited to, unit risk factors, inhalation and oral slope factors, carcinogenic slope factors, reference doses, reference concentrations, and chronic reference exposure levels (both inhalation and oral).

A brief summary of the key health concern(s) associated with exposure to each chemical of potential concern must be provided in the Baseline HRA. The toxicity information must summarize both cancer and non-cancer endpoints, and identify effects by exposure routes.

Section 66270.14(e)(16)(A)2. requires the exposure estimates to receptors included in the Baseline HRA work plan and Baseline HRA be calculated to be based on either sampling data or modeling to estimate reasonable maximum exposure. The reasonable maximum exposure must be the highest exposure for groundwater, surface water, soil, and air that is reasonably expected to occur at the facility under current and potential future use. For example, the reasonable maximum exposure for most groundwater is defined as exposure to hazardous substances (chemicals of potential concern) in drinking water and other domestic uses. These calculations can use actual sampling data, monitoring data, or modeling data.

Exposure calculations must be performed for all potential human receptors or receptor age groups for which exposure is anticipated. Potential receptors may also include individuals in surrounding areas near the facility, if offsite exposures have occurred or are feasible. In these cases, the land use of the offsite properties will determine relevant offsite receptor groups. Common land use scenarios include residential, occupational, recreational and others.

This provision is necessary to characterize the onsite chemicals of potential concern concentrations, which are needed to quantify the exposure and risk characterization.

Section 66270.14(e)(16)(A)3. requires that the Baseline HRA work plan and Baseline HRA identify receptors, routes, and complex exposure pathways for chemicals of potential concern. Complex exposure pathways are indirect exposures that occur via transfer of the chemicals of potential concern into various multiple media. Indirect exposures may also conceivably occur by indirect means, such as:

- ingestion of contaminated fish or shellfish due to surface runoff or subsurface recharge of water bodies adjacent to a contaminated facility;
- inhalation of vapor and dermal absorption from contaminated groundwater or surface water while showering or bathing;
- ingestion or dermal contact and absorption from contaminated surface water while swimming;
- intake by the developing fetus via in utero exposure;
- ingestion of contaminated breast milk by infants; or
- ingestion of indoor dust or dermal contact with indoor dust that has been contaminated by tracking in contaminated soil.

The exposure assessment also needs to identify the receptors for each completed pathway. The characterization of the receptors is necessary because it is required for an exposure calculation, which is a critical element of a Baseline HRA.

Section 66270.14(e)(16)(A)4. requires the risk assessment included in the Baseline HRA work plan and Baseline HRA to include all pathways, routes, and all chemicals of potential concern for cancer

and non-cancer health impacts. Estimated doses of individual chemicals of potential concern resulting from more than one pathway of exposure are assumed to be additive unless scientific evidence is available to demonstrate otherwise.

For non-cancer health impacts, the health threats associated with exposure via multiple pathways may be apportioned between exposure pathways in any combination. For carcinogens, the cancer risks associated with exposure via multiple pathways may be apportioned between exposure pathways in any combination.

This provision is necessary to consider the effects of additivity when screening multiple chemicals. This is especially important when a single chemical of potential concern has multiple exposure pathways.

Section 66270.14(e)(16)(A)5. specifies that the Baseline HRA work plan and Baseline HRA must include the quantification of both exposure and risk characterization. This quantification of the exposure assessment should include all exposure equations, chemical- specific characteristics, receptor assumptions, exposure duration assumptions, the maximum concentration used to represent the concentrations of chemicals of potential concern in applicable media (air, water, soil, vegetation, etc.), and the identification of and the results from the application of any methods or models required to estimate concentrations in one environmental medium based on those in another medium. Risk calculations involve combining the exposure quantities and the toxicity benchmarks to calculate the excess lifetime cancer risks and non-cancer hazard for each of the pathways and receptors.

Cancer risk from exposure to emissions is the probability that a human receptor will develop cancer, based on a unique set of exposure, model, and toxicity assumptions. If an acceptable cancer risk level is one in a million or 0.000001, it is interpreted to mean that an individual has up to a one in 1,000,000 chance of developing cancer during their lifetime from the evaluated exposure.

Non-cancer health risks include acute, or short- term health problems such: as eye irritation, respiratory irritation, and headaches, and chronic, or long-term problems such as permanent damage to organs, the central nervous system, or reproductive functions, and developmental problems in children. Non-cancer health risk is defined by a Hazard Quotient (“HQ”). A hazard quotient is the ratio of the potential exposure to a substance and the level at which no adverse effects are expected. If the Hazard Quotient is calculated to be less than one (1), then no adverse health effects are expected as a result of exposure.

All of these factors are inputs that are necessary to calculate exposure assessment or to characterize the risk posed by chemicals of potential concern.

Section 66270.14(e)(16)(A)6. requires that an outline of the presentation for the data, analysis, and findings be provided in the Baseline HRA work plan and Baseline HRA. This is necessary to ensure that the right level of detail is provided to ensure the right level of effort and increase the acceptance of the HRA submittals.

Section 66270.14(e)(16)(A)7. specifies that DTSC may require additional information for a Baseline HRA workplan or Baseline HRA beyond that specified in subparagraphs (1) through (5) above. The complexity of a Baseline HRA may necessitate additional site-specific information that has not been specifically listed in subparagraphs (e)(16)(A)1. through (e)(16)(A)5. but that are important to quantify the risk. It is necessary for DTSC to have this flexibility to require submittal of additional information to have a thorough HRA.

Section 66270.14(e)(16)(B) specifies that the due dates for the Baseline HRA work plan are set out in subparagraphs (e)(3)(A), (e)(9)(A), or (e)(15)(A). It also specifies that within ninety (90) days of receipt of a notice that a Baseline HRA is required, the applicant must submit a Baseline HRA work plan, unless another date was specified by DTSC. This is necessary to make clear where the due date can be found depending on the triggering event and required document, and to keep the HRA process moving.

Section 66270.14(e)(17) specifies that within 60 days of receipt of the Baseline HRA work plan, DTSC shall review the information for completeness with paragraphs (e)(1) and subparagraph (e)(16)(A) and, if applicable, with any additional information specified in the Screening Level HRA notice for the Baseline HRA. This provision is necessary to provide reasonable time frames for review and to keep the HRA process moving.

Section 66270.14(e)(17)(A) specifies that DTSC may require the applicant to submit supplemental information for DTSC to complete its evaluation of the Baseline HRA work plan. This provision gives DTSC the appropriate latitude to request supplemental information for the Baseline HRA work plan, and allows the applicant an additional opportunity to submit the necessary information. This is necessary to provide flexibility and to avoid an unnecessary denial of the Baseline HRA work plan.

Section 66270.14(e)(17)(A)1. requires that the applicant submit the supplemental information within thirty (30) days of receiving a request from DTSC. This is necessary to provide the applicant with enough time to compile the information and to respond to DTSC's request in a meaningful time frame.

Section 66270.14(e)(17)(A)2. requires DTSC to complete its evaluation of the supplemental material within thirty (30) days from the date of submittal and to provide a determination of the Baseline HRA within this same time frame. This provision is necessary to provide a time frame for completing this task and to keep the HRA process moving.

Section 66270.14(e)(18) makes it clear that DTSC is required to provide a written notice to the applicant of its determination to accept or reject the Baseline HRA work plan and provide the basis of the determination. DTSC must also specify a due date for completion of the Baseline HRA, if applicable.

This provision is necessary to make clear the two potential outcomes of DTSC's review of the HRA work plan. It also confers authority on DTSC to accept or reject the Baseline HRA work plan when appropriate, and to keep the HRA process moving along. Furthermore, it is necessary to place the applicant and other interested parties on notice of the information requirements and deadlines. This

lets the applicant know what to expect when DTSC makes a determination and requires additional submittals.

Section 66270.14(e)(18)(A) specifies that the applicant has 180 days from the date DTSC issues a Baseline HRA work plan notice to complete the Baseline HRA unless DTSC specifies an alternative due date. DTSC has discretion to allow for an extended due date if the facility is complex, or if there are impacted receptors in the surrounding community. Alternatively, DTSC may shorten the time frame for this submittal. This provision is necessary to provide DTSC flexibility in determining when a Baseline HRA is due to DTSC. This acknowledges resource constraints and the need for additional time for more complex risk assessments, additional monitoring, or additional sampling. This provides certainty to the regulated community when a Baseline HRA is due to DTSC and that allowances for unique situations will be taken into consideration when it may be appropriate to shorten or lengthen the applicable time frame.

Section 66270.14(e)(19) makes clear that if the Baseline HRA work plan is accepted, the applicant is required to submit a Baseline HRA that complies with paragraph (e)(1), subparagraph(e)(16)(A), and the accepted Baseline HRA work plan by the due date given in the Baseline HRA notice. This is necessary to put the applicant on notice regarding the due date for the completion of this Baseline HRA and to keep the HRA process moving.

Section 66270.14(e)(20) specifies that DTSC has ninety (90) days from receipt of the Baseline HRA to review the document for completeness with the requirements for its submittal. This is necessary to give DTSC time to review of this information and to keep the HRA process moving.

Section 66270.14(e)(20)(A) specifies that DTSC may require the applicant to submit supplemental information to complete its evaluation of the Baseline HRA. This provision provides the appropriate latitude to DTSC to request supplemental information for the Baseline HRA and allows the applicant an additional opportunity to submit the necessary information. This avoids an unnecessary denial of Baseline HRA. This is necessary when compared to the consequences of the underlying decisions.

Section 66270.14(e)(20)(A)1. requires the applicant to submit the supplemental information within thirty (30) days of receiving DTSC's request. This is necessary to provide the applicant with enough time to compile the requested information and respond to DTSC's request in a meaningful time frame.

Section 66270.14(e)(20)(A)2. specifies that DTSC complete its review of the supplemental information within thirty (30) days from when the supplemental information is submitted and makes clear that DTSC may either accept or reject the Baseline HRA. This provision is necessary to ensure the applicant and DTSC have a suitable amount of time to complete the required steps for completion of the Baseline HRA and to keep the HRA process moving. Furthermore, this provision gives DTSC the discretion and authority to make an appropriate decision upon review of the Baseline HRA for compliance with all substantive and procedural requirements. This is necessary to have certainty and finality regarding the HRA process to the applicant, DTSC, and interested parties as to

the status of the facility HRA process as complete or not[?]. This provision is also necessary to make clear that DTSC retains the authority to reject a Baseline HRA if it deficient.

If DTSC accepts the Baseline HRA, then the hazardous waste facility HRA process is complete. On the other hand, if DTSC rejects the Baseline HRA, this will result in the denial of the permit application pursuant to section 66270.43 of this chapter. Without this retained authority, an applicant could submit a deficient Baseline HRA keep delaying the permit application review.

Section 66270.14(e)(21) specifies that DTSC will provide a written notice of its determination as its review of the Baseline HRA and provide the basis for the determination. This provision is necessary to allow the applicant to know what DTSC decided about the acceptability of the Baseline HRA and why DTSC decided the way it did.

Section 66270.14(e)(21)(A) specifies that DTSC may require annual updates to the Baseline HRA. Annual update may be needed to address site-specific conditions that may change over time, such as the identification of new releases and violations of permit conditions. The updates can take into consideration changes in the facility's operations or improvements in the reduction of releases, emissions, discharges, or contamination. There could also be advancing knowledge concerning the types of hazardous waste or identified COPCs released or potentially released. Updates can also confirm any modeling information if it has been replaced with monitoring data. This update does not entail a new Baseline HRA for each update, but will require any approved calculations to be redone with new data, as necessary. This provision is necessary to ensure that the Baseline HRA is representative of site conditions which are subject to change.

Section 66270.14(e)(22) provides an exemption from the HRA requirements for applications of a post-closure permit, or a Class 1 or Class 2 permit modification. This provision also gives DTSC the discretion to exclude applicants for a Class 3 permit modification from HRA requirements.

Post-closure care is required for land disposal units that leave waste in place upon closure. These sites must monitor and maintain liners, final covers, leachate collection and removal systems, leak detection systems, and gas collection systems to protect the surrounding environment and population from releases of hazardous constituents. Permit modifications may be necessary to adjust permit conditions and maintain facilities. This provision is necessary because these activities are required to ensure compliance with hazardous waste laws and regulations.

Section 66270.14(f) was formerly section 66270.14(e) and has been renumbered.

Appendix I. Classification of Permit Modifications

Subsection B.5. of appendix I of chapter 20 has been changed back to the language in the existing regulations.

Chapter 21. Procedures for Hazardous Waste Permit Decisions

Article 3. Violations Scoring Procedure for Hazardous Waste Facility Operations

The proposed regulations in Article 3 implements SB 673 by establishing criteria for permit decisions, and establishing transparent standards and procedures for permit decisions. The criteria in SB 673 addressed by the Violations Scoring Procedure (VSP) are the "[n]umber and types of past violations that will result in a denial."

These regulations establish the VSP —a detailed regulatory scheme that outlines transparent and consistent standards and procedures for permitting decisions. The proposed VSP regulations require DTSC to evaluate a facility's compliance history as part of DTSC's permit decision-making process, ensure that hazardous waste facility permit conditions are specifically tailored to the facility and are protective of public health and safety and the environment, and establish related public engagement elements as a key component of the permit decision-making process.

The VSP establishes a systematic process for evaluating and characterizing a hazardous waste facility's compliance with substantive hazardous waste management requirements. The regulations establish a transparent mechanism for the permitted facilities and the public to understand how well a facility complies with core requirements, and how the facility's compliance compares to other permitted facilities. Finally, the VSP establishes compliance tiers of facilities based on compliance history. Under these regulations, for example, DTSC must initiate proceedings to deny, revoke, or suspend permits for facilities in the unacceptable compliance tier. The procedure is needed to ensure that each facility's compliance is evaluated in a more structured, systematic, and transparently fair and consistent manner, when DTSC makes a permit decision.

Article 3 establishes a process for evaluating the seriousness of violations of hazardous waste management requirements at hazardous waste facilities. The violations are scored using the newly-established VSP established by this article. DTSC would use the VSP scores, as well as other factors, in making decisions on permit issuance, denial, suspension, revocation, and modifications of permits. The regulations require DTSC to complete a comprehensive review of the facility's compliance history during the permit decision-making process because the Facility VSP Score is one component of the permit decision process that DTSC must consider. Consequently, DTSC, hazardous waste facilities, and the general public will all have a greater understanding of how DTSC evaluates the most significant and serious violations as part of DTSC's permit decision-making process.

§ 66271.50. Applicability

Section 66271.50(a) defines relevant terms for purposes of the VSP. These definitions are necessary to define the scope of the VSP, provide uniformity and clarity regarding the meaning of the defined terms that appear throughout the VSP, avoid future disputes over the applicability of the VSP, and to aid DTSC in fulfilling its mandate pursuant to SB 673. Accordingly, these definitions serve as a necessary foundation for the VSP. This statement of necessity applies equally to all definitions in section 66271.50 detailed below.

Section 66271.50(a)(1) defines the term "compliance inspection," which is DTSC's primary mechanism for assessing a hazardous waste facility's compliance with hazardous waste laws and regulations. "Compliance inspection" is defined as "an evaluation of a hazardous waste facility's compliance with any operating hazardous waste management requirements set out in statute, regulation, permit, order, stipulation, agreement, settlement document, judgment, decree, grant of authorization issued by the Department, or other document establishing requirements upon operations at the facility" and includes both scheduled and unscheduled inspections. This definition of compliance inspection is essential to ensure clarity and avoid future disputes during implementation of Article 3 provisions.

Section 66271.50 (a)(2) defines the "Facility Violations Scoring Procedure Score" or the "Facility VSP Score" as "the numeric value assigned to a facility pursuant to section 66271.54(a) for the purpose of assigning the facility to a compliance tier …." The VSP requires scoring of each Class I violation identified during a compliance inspection. All Class I violations identified during a compliance inspection are then added together to arrive at an inspection violation score for the inspection. The Facility VSP Score is the sum of all the inspection violation scores for all compliance evaluations conducted in the prior ten (10) years divided by the total number of compliance evaluations. (The averaging is designed to ensure that inspection violation scores are normalized due to varying number and frequency of inspections and more easily allows for a comparison of the Facility VSP Score.) Based on a Facility VSP Score, DTSC must assign a hazardous waste facility to an "acceptable," "conditionally acceptable," or "unacceptable compliance tier." For "conditionally acceptable" hazardous waste facilities, the proposed regulations allow DTSC to impose measures on the facility—such as third-party compliance audits, restrictions or prohibitions on hazardous waste management activities, mitigation measures, enhanced permit conditions, and even a shortened permit duration—designed to protect public health and safety and the environment. For "unacceptable" hazardous waste facilities, the proposed regulations require DTSC to initiate the permit denial process pursuant to Division 4.5, Chapters 20 or 21, Article 1 of Title 22 of the California Code of Regulations. This definition of Facility VSP Score is essential to ensure clarity and avoid future disputes during implementation of this regulation.

Section 66271.50(a)(3) defines "repeat violation" as two or more violations of the same or closely-related statutory or regulatory requirements in separate compliance inspections. "Repeat violations" also includes two or more violations "of the same term, condition, or provision or a permit, order, stipulation, agreement, settlement document, judgment, decree, grant of authorization issued by the Department, or other document establishing requirements upon operations at the facility." Consideration of repeat violations allows DTSC to more comprehensively evaluate a hazardous waste facility's compliance history. In DTSC's experience, repeat violations tend to demonstrate indifference or incompetence in managing a facility's hazardous waste operations. As such, repeat violations warrant a higher score than an initial violation and the regulations allow DTSC to increase the initial score for a Class I violation to account for repeat violations. This definition of repeat violation is essential to ensure clarity and avoid future disputes during implementation of this regulation.

Section 66271.50(a)(4) defines the "violations scoring procedure" as "the totality of the criteria and steps set out in [Article 3] that govern the consideration of a facility's compliance history by the Department in making specified permit decisions" and the remedies available to hazardous waste facility owners and operators in response to DTSC's decisions. This definition of VSP is essential to ensure clarity and avoid future disputes during implementation of this regulation.

Section 66271.50(b) specifies that the VSP applies to "all operating 'hazardous waste facilities,'" with certain exceptions identified in subsections (b)(1)(A) and (B). Section 66260.10 defines "'hazardous waste facility" as: "(a) all contiguous land and structures, other appurtenances, and improvements on the land used for the treatment, transfer, storage, resource recovery, disposal or recycling of hazardous waste. A hazardous waste facility may consist of one or more treatment, transfer, storage, resource recovery, disposal or recycling operational units or combinations of these units." Thus, subsection (b) clearly identifies the scope of the VSP by detailing the types of businesses subject to the regulations—operating hazardous waste facilities (with certain exceptions outlined in subsections (b)(1)(A) and (B)—and the types of businesses that are not—all entities other than operating hazardous waste facilities. This definition is essential to ensure clarity and avoid future disputes during implementation of this regulation.

Section 66271.50(b)(1) excludes from the scope of the VSP hazardous waste facilities solely authorized by one of two types of authorizations: (1) post-closure permits or orders; and (2) permits or permit modifications for closure only. These are specified in more detail in the following subparagraphs (b)(1)(A) and (B). Hazardous waste facilities with these types of authorizations do not operate in a traditional fashion (e.g., as an ongoing business); rather, these facilities are undergoing closure or closed, and the authorizations provided to these facilities is limited in scope or in time. DTSC does not believe that inclusion of these facilities within the VSP is appropriate and this provision is necessary to clarify DTSC's intent regarding the scope of the VSP.

Section 66271.50(b)(1)(A) excludes hazardous waste facilities subject to a post-closure permit or order from the VSP. A post-closure permit is required for land disposal units that leave waste in place upon closure or any other hazardous waste management unit that cannot achieve clean closure standards. These sites must monitor and maintain liners, final covers, leachate collection and removal systems, leak detection systems, and gas collection systems, as appropriate, to protect the surrounding environment and population from releases of hazardous constituents. Existing regulations require hazardous waste facilities to obtain a permit or order to conduct post-closure activities. DTSC does not believe that inclusion of these facilities within the VSP is appropriate and this provision is necessary to clarify DTSC's intent regarding the scope of the VSP.

Section 66271.50(b)(1)(B) excludes hazardous waste facilities holding a permit or permit modification granted solely for closure activities from the VSP. Final closure occurs when all hazardous waste management units within the facility cease operation and close in accordance with applicable regulations. The closed units are subject to all applicable closure standards. In clean closure, owners remove all wastes from the closed unit and decontaminate or remove all equipment, structures, and surrounding soils. Existing regulations require permitted hazardous waste facilities to implement closure-related permit conditions when closing permitted units such as containers, tanks, waste piles,

incinerators, drip pads, and containment buildings. DTSC does not believe that inclusion of these facilities within the VSP is appropriate and this provision is necessary to clarify DTSC's intent regarding the scope of the VSP.

Section 66271.50(c) specifies that only "Class I violations" can be considered by DTSC for purposes of calculating a Facility VSP Score. "Class I violations" represent the most serious and significant types of hazardous waste management violations and are defined in section 66260.10 as:

> *"(a) a deviation from the requirements of Chapter 6.5 of Division 20 of the Health & Safety Code, or regulations, permit or interim status document conditions, standards or requirements adopted pursuant to that chapter, that represents a significant threat to human health or the environment, because of (1) the volume of waste; (2) the relative hazard of the waste; or (3) the proximity of the population at risk, or that is significant enough that it could result in a failure to accomplish the following:*
>
> > *(A) Assure that hazardous wastes are destined for and delivered to an authorized hazardous waste facility;*
> > *(B) Prevent releases of hazardous waste or constituents to the environment during the active or postclosure period of facility operation;*
> > *(C) Assure early detection of such releases;*
> > *(D) Assure adequate financial resources in the case of releases;*
> > *(E) Assure adequate financial resources to pay for facility closure;*
> > *(F) Perform emergency clean-up operation of, or other corrective actions for releases; or*
>
> *(b) The deviation is a Class II violation which is a chronic violation or committed by a recalcitrant violator. 'Class II Violation' means a deviation from the requirements specified in Chapter 6.5 of Division 20 of the Health & Safety Code, or regulations, permit or interim status document conditions, standards, or requirements adopted pursuant to that chapter, that is not a Class I violation."*

It is essential that the regulations specify that DTSC considers only Class I Violations in the calculation of a Facility VSP Score, to appropriately consider facility compliance with substantive hazardous waste management requirements, to provide clarity of the scope of VSP, and to avoid future disputes caused by lack of clarity during implementation of this regulation.

Section 66271.50(d) further clarifies the types of violations that can be considered by DTSC in calculating a Facility VSP Score by specifying certain exclusions outlined in subsections (d)(1) through (3), below. These exclusions allow DTSC to focus the VSP to address Class I violations—the most serious and significant hazardous waste management violations.

Section 66271.50(d)(1) states that "Class II violations" are generally not subject to the VSP. A "Class II violation" is defined in section 66260.10 as " a deviation from the requirements specified in Chapter 6.5 of Division 20 of the Health and Safety Code, or regulations, permit or interim status document

conditions, standards, or requirements adopted pursuant to that chapter, that is not a Class I violation." See above discussion in section 66271.50(c) for the definition of a "Class I Violation."

However, Class II violations that meet the definition of a Class I violation as specified in section 66260.10 may be considered by DTSC for purposes of calculating a Facility VSP Score. Section 66260.10 provides that a Class II violation becomes a Class I violation when "[t]he violation is a Class II violation which is a chronic violation or committed by a recalcitrant violator." The upgrading of a Class II violation to a Class I violation is done when DTSC determines that an administrative enforcement response is appropriate. This subsection does not impact how DTSC determines that a Class II violation should classified as a Class I violation. This regulatory text is needed to explain how Class II violations are considered, to avoid future disputes caused by lack of clarity during implementation of this regulation.

Section 66271.50(d)(2) also exempts "minor violations" from the VSP. Health and Safety Code section 25117.6 defines a "minor violation" as

> "(a) … a deviation from the requirements of this chapter [6.5], or any regulation, standard, requirement, or permit or interim status document condition adopted pursuant to this chapter, that is not a class I violation.
>
> (b)(1) A minor violation does not include any of the following:
>
> > (A) Any knowing, willful, or intentional violation of this chapter.
> > (B) Any violation of this chapter that enables the violator to benefit economically from noncompliance, either by reduced costs or competitive advantage.
> > (C) Any class II violation that is a chronic violation or that is committed by a recalcitrant violator.
>
> (2) In determining whether a violation is chronic or a violator is recalcitrant, for purposes of subparagraph (C) of paragraph (1), the department, or the local officer or agency authorized to enforce this chapter pursuant to subdivision (a) of Section 25180, shall consider whether there is evidence indicating that the violator has engaged in a pattern of neglect or disregard with respect to the requirements of this chapter [6.5]."

This provision is essential to define the scope of those violations considered in the scoring procedure, and eliminate or reduce related future disputes during implementation of the regulations.

Section 66271.50(d)(3) clarifies that the assessment of monetary penalties under Division 4.5, Chapter 22, Article 3 (Chapter 22) (commencing with Section 66272.60) may not be considered by DTSC in calculating a Facility VSP Score. Chapter 22 establishes a separate regulatory program for the inspection of hazardous waste facilities and for the assessment and imposition of monetary penalties by DTSC for violation of hazardous waste laws and regulations. This exemption is necessary to reinforce that the penalty regulations are separate and independent from the VSP although the requirements are similar but not identical. This subsection, along with subsection (f), below, emphasizes the independence of these two separate regulatory schemes.

Section 66271.50(e) clarifies that DTSC will use the VSP to assess a facility's compliance history when deciding to issue, deny, modify, suspend, or revoke a hazardous waste facility permit pursuant. There are, however, as noted in subsection (f), other laws and regulations that confer authority on DTSC to issue, deny, revoke, suspend, or modify a hazardous waste facility permit. Thus, this section is necessary to prevent any confusion about the scope of the VSP and, combined with subsection (f), below, reinforces DTSC's existing authority to issue, deny, revoke, suspend, or modify any hazardous waste facility permit, registration, or certificate.

§ 66271.51. Determining the Initial Score for Each Class I Violation

Section 66271.51 outlines how DTSC will determine an initial score for each Class I violation that occurred during the preceding ten-year period. The text in this provision is based on existing provisions in Chapter 22 that describe DTSC's assessment and imposition of monetary penalties. DTSC chose to base this provision on these existing penalty provisions because the subjects of potential harm and extent of deviation from requirements are similar. In Chapter 22, DTSC undertakes this evaluation to assess an appropriate monetary penalty for the violation(s). In the context of this article, DTSC conducts this evaluation to make appropriate decisions regarding the hazardous waste facility's permit status. Because the focus of the two inquiries is the same, and the concerns are the same—appropriate regulatory response by DTSC and protection of public health and the environment—DTSC has selected the provisions in Chapter 22 as the logical framework for assessing the initial score for each Class I violation pursuant to the VSP.

This section is necessary to establish the criteria and procedures DTSC must follow in arriving at an initial score for each Class I Violation that will, essentially, serve as the foundation of a hazardous waste facility's Facility VSP Score and resulting compliance tier assignment. It is also necessary that this section remain consistent with existing regulations examining the same conduct and concerned with the same outcomes—protection of public health and the environment. Finally, this section is necessary for DTSC to comply with the mandate of SB 673 to establish transparent and consistent standards and procedures for permitting decisions that consider a facility's compliance history, among other factors.

Section 66271.51(a) requires DTSC to determine an initial score for each Class I violation that occurred during the preceding ten-year period. In determining an initial score, DTSC is required to consider two factors: (1) the potential harm to public health and safety or the environment posed by the violation; and (2) the extent of deviation from hazardous waste management requirements posed by the violation. Again, these two factors are the same factors that are specified in Chapter 22 for the assessment of monetary penalties for violations of hazardous waste management requirements. It is important that these criteria be the same as those set out in Chapter 22 for the reasons set forth above. This provision is also necessary to specify that it is DTSC that undertakes the action and that it must start the evaluation process by arriving at an initial score for each Class I violation that occurred during the preceding ten-year period.

Section 66271.51(b) specifies that, in evaluating the potential harm to public health and safety or the environment posed by the violation, DTSC must categorize the potential for harm as "major,"

"moderate," or "minimal" to determine the initial score for a Class I violation. This is consistent with the approach outlined in Chapter 22. Specifically, section 66272.62(b) of Chapter 22 employs the "major," "moderate," and "minimal" classifications for categorizing the potential for harm attributable to a given violation. This symmetry is necessary to maintain consistency in evaluating the same conduct—hazardous waste management violations. In addition, this approach ensures that gravity of violation is based on the potential harm that could result from a violation, not on whether the violator was unlucky enough to have the harm actually occur. This same philosophy of prevention is also reflected in the federal RCRA program. Further discussion of the terms "major," "moderate," and "minimal" as applied to potential harm follows.

Section 66271.51(b)(1) introduces the categories for degree of potential harm outlined in subparagraphs (b)(1)(A) through (C), below. This provision, including the category definitions outlined in the subparagraphs below, is necessary to provide uniformity and clarity regarding the meaning of the defined terms that appear throughout the VSP, avoid future disputes over the applicability of the VSP, classify Class I violations in a rational and consistent manner, and ensure consistency between the VSP and Chapter 22.

Section 66271.51(b)(1)(A) defines "major" potential for harm as the "characteristics and/or amount of the substance involved represent a major threat to human health or safety or the environment and the circumstances of the violation indicate a high potential for harm." This most significant category of potential for harm looks at the factors that may lead to very harmful effects to public health and safety or the environment. It is, by necessity, a narrative standard to cover all the many unique facts and circumstances to which it could apply.

Section 66271.51(b)(1)(B) defines "moderate" degree of harm as the "characteristics and/or amount of the substance involved do not represent a major threat to human health or safety or the environment, and the circumstances of the violation do not indicate a high potential for harm." This provision is the necessary next logical extension of the definition of "major" set forth above. That is, it uses the same concepts, but addresses situations in which the risk is not as high as it is for "major" potential for harm.

Section 66271.51(b)(1)(C) defines "minimal" degree of harm as "the threats presented by the characteristics and the amount of the substance or by the circumstances of the violation are low." Again, this last category for classifying potential for harm is the next logical extension and application of the definitions "major" and "moderate" set forth above.

Section 66271.51(b)(2) delineates the factors DTSC is required to consider determining the degree of potential harm posed by a violation of hazardous waste laws and regulations. These factors are listed in subparagraphs (b)(2)(A) through (b)(2)(F), below. This provision, including the factors outlined in the subparagraphs below, is necessary to provide uniformity and clarity in the factors DTSC must consider when determining the degree of potential harm, classify Class I violations in a rational and consistent manner, and ensure consistency between the VSP and Chapter 22.

Section 66271.51(b)(2)(A) requires DTSC to consider "the characteristics of the substance involved" as one factor in determining the degree of potential harm posed by a violation. An example of a violation that may pose a major potential for harm is an uncovered drum of a deadly poison. An uncovered drum of a flammable liquid, where there are no potential sources of ignition, may pose a moderate potential for harm. An uncovered drum of used oil, for example, may pose a minimal potential for harm. Essentially, a substance's chemical make-up may, to a large extent, determine the degree of harm the substance may pose. Therefore, this provision is necessary to have the regulations reflect the differing potential for harm based on the inherent quality of the substance involved in the evaluation.

Section 66271.51(b)(2)(B) requires DTSC to consider "the amount of the substance involved" as another factor in determining the degree of potential harm posed by a violation. Generally, the greater the amount of a potentially harmful substance present, the greater the potential harm. Thus, DTSC has determined it reasonable and necessary to include the amount of a potentially harmful substance present as one of the factors for determining the overall potential for harm attributable to a given violation.

Section 66271.51(b)(2)(C) requires DTSC to consider "the extent to which human life or health is threatened" as a factor in determining the degree of potential harm posed by a violation. It is rather self-explanatory that DTSC chose to include this as a factor in determining the overall potential harm posed by a violation. This is necessary because determining the potential for harm to human health is the very essence of the characterization for the potential for harm posed by a violation.

Section 66271.51(b)(2)(D) requires DTSC to consider "the extent to which animal life is threatened" as a factor in determining the degree of potential harm posed by a violation. DTSC's overarching mandate is the protection of public health and safety and the environment. As part of its overall focus on the prevention of adverse impacts from hazardous waste operations, DTSC is also concerned about preventing harm to animal life. Thus, this provision is necessary to allow DTSC to consider this factor.

Section 66271.51(b)(2)(E) requires DTSC to consider "the extent to which the environment is threatened" as another factor in determining the degree of potential harm posed by a violation. Again, prevention of harm to the environment is a central purpose of DTSC's mission. It is necessary to the assessment of potential harm that DTSC consider potential effects of a hazardous waste management violation on the environment.

Section 66271.51(b)(2)(F) requires DTSC to consider "the extent to which potable water supplies are threatened" as a factor in determining the degree of potential harm posed by a violation. A threat to potable water supplies is, in fact, a threat to human health and the environment, and the importance of potential harm to potable water supplies warrants independent consideration. This provision is therefore necessary to allow DTSC to consider this threat to human health.

Section 66271.51(b)(3) further defines the types of hazardous waste management violations that can be classified as posing a "major" potential for harm. Not all Class I violations may be classified as

posing a "major" potential for harm pursuant to the VSP. Violations posing a "major" potential for harm must involve the management of hazardous waste; or the absence of adequate liability coverage or financial assurance for closure, post-closure, or corrective action; or the absence of a contingency plan, waste analysis plan, or closure plan. All other violations, including, but not limited to, violations sometimes referred to as "record-keeping" violations may not be classified as posing a major potential for harm unless otherwise specified in the regulations. This provision is necessary to provide uniformity and clarity regarding the types of Class I violations that may be classified as posing a "major" potential for harm, classify Class I violations in a rational and consistent manner, and avoid disputes over the classification of Class I violations.

Section 66271.51(b)(3)(A) establishes that a violation involving management of hazardous waste is one type of violation that may be classified as posing major potential harm. Mismanagement of hazardous waste could result in explosions, worker exposure, or release of hazardous waste to the environment, for example, thus posing major potential for harm. This provision is necessary to provide uniformity and clarity regarding the types of Class I violations that may be classified as posing a "major" potential for harm.

Section 66271.51(b)(3)(B) establishes that the absence of liability coverage or financial assurance for closure, post-closure, or corrective action is a type of violation that may be classified as posing major potential harm. The absence of liability coverage or financial assurance directly impacts the ability to respond to events that impact human health or the environment. This provision is necessary to provide uniformity and clarity regarding the types of Class I violations that may be classified as posing a "major" potential for harm.

Section 66271.51(b)(3)(C) establishes that the absence of a contingency plan, waste analysis plan, or closure plan is a type of violation that may be classified as posing major potential harm. The contingency plan, a waste analysis plan, and closure plan are substantive requirements for hazardous waste facilities. Contingency plans detail procedures to ensure rapid and effective responses to emergencies to minimize any danger to off-site residents or the environment. A waste analysis plan allows owners or operators to tailor their waste analysis procedures to the type of waste and techniques that the facility uses to manage the waste safely and to comply with technical requirements of the regulations. Closure plans specify how the facility will be decontaminated or otherwise secured at closure and how a disposal facility will be monitored and maintained after closure to reduce the possibility of future adverse impacts on human health or the environment. Violations of these requirements may lead to accidents and malfunctions at hazardous waste facilities, which could affect people near the facility. Such events will be reduced in number and in severity due to the implementation of these plans. This provision is necessary to provide uniformity and clarity regarding the types of Class I violations that may be classified as posing a "major" potential for harm.

Section 66271.51(b)(4) provides that, in determining the potential harm from violations of financial requirements, DTSC must consider the amount of costs of closure, post-closure, and corrective action for which there is no financial assurance or liability coverage and the likelihood of personal injury or property damages that, if they occur, will not be compensated due to inadequacy in financial

assurance or liability coverage. This provision is needed to ensure clarity regarding the types of Class I violations that may be classified as posing a "major" potential for harm.

Section 66271.51(b)(5) clarifies that a financial assurance violation that is a documentation error or omission that does not affect the actual functioning of adequate financial assurance or liability coverage for closure, post-closure, corrective action may not be classified as posing a "major" potential for harm. This provision is needed to clarify how various financial assurance requirements may be classified under this regulatory proposal. For example, if an insurance policy for financial assurance for closure lapses, this financial assurance no longer exists. This situation could result in a major potential for harm if contamination is present, but there are no funds to remediate the site. On the other hand, a failure to have a copy of the current policy available for immediate inspection is a type of violation that does not pose real environmental or financial threat. As such, it may not be classified by DTSC as posing a major potential for harm. This is because the policy is in effect, even though it is not available for inspection. This provision is necessary to specify this appropriate distinction.

Section 66272.51(b)(6) provides that groundwater monitoring documentation violations may be categorized as posing either "major," "moderate," or "minimal" potential for harm. In addition to the factors outlined in subsection (a)(2), the classification of the potential for harm of a groundwater monitoring documentation violation must also be based on the extent to which the violation may lead directly to environmental harm, have a potential for harm, or cause an inability to detect releases to groundwater. An example of a groundwater monitoring documentation violation that may pose a major potential for harm is the failure to have a sampling and analysis plan. An example of a groundwater monitoring documentation violation that may pose a moderate potential for harm may be, depending on the circumstances, incomplete recording of equipment calibration. An example of a groundwater monitoring documentation violation with a minimal potential for harm may be, depending on the circumstances, recording the depth to groundwater at less than the required level of accuracy. This provision is necessary to inform hazardous waste facility owners and operators, and other interested parties, of the types of groundwater monitoring documentation violations and how they may be classified. It is necessary that these violations be classified based on the differing levels of threat to the environment that they pose.

Section 66271.51(c) specifies that, in evaluating the extent of deviation from hazardous waste management requirements posed by a Class I violation, DTSC must categorize the extent of deviation as "major," "moderate," or "minimal" to determine the initial score for a Class I violation. This is consistent with the approach outlined in Chapter 22. Specifically, section 66272.62(b) of Chapter 22 employs the "major," "moderate," and "minimal" classifications for categorizing the potential for harm attributable to a given violation. This symmetry is necessary to maintain consistency in evaluating the same conduct—hazardous waste management violations. In addition, this approach ensures that DTSC considers the extent of deviation of a violation. This same approach for prevention is also reflected in the federal RCRA program. Further discussion of the terms "major," "moderate," and "minimal", as applied to extent of deviation, continues below.

Section 66271.51(c)(1) introduces the categories for extent of deviation outlined in subparagraphs (C)(1)(A) through (C), below. This provision, including the category definitions outlined in the subparagraphs below, is necessary to provide uniformity and clarity regarding the meaning of the defined terms that appear throughout the VSP, to avoid future disputes over the applicability of the VSP, to classify Class I violations in a rational and consistent manner, and to ensure consistency between the VSP and Chapter 22.

Section 66271.51(c)(1)(A) defines a "major" extent of deviation from hazardous waste management requirements as occurring when "the act deviates from the requirement to such an extent that the requirement is completely ignored and none of its provisions are complied with, or the function of the requirement is rendered ineffective because some of its provisions are not complied with." This provision takes a common-sense approach by articulating that the greatest extent of deviation occurs when hazardous waste management requirements are wholly or partially ignored as to deprive the public of any of the protective benefits intended by the requirements. This provision is necessary to appropriately spell out that such violations constitute a major extent of deviation from the requirement.

Section 66271.51(c)(1)(B) defines a "moderate" extent of deviation from hazardous waste management requirements as occurring when "the act deviates from the requirement, but it functions to some extent even though not all of its important provisions are complied with." This definition and approach recognize that there are some instances in which there is less than complete compliance with a hazardous waste management requirement, but the requirement still functions to a certain extent. This provision is necessary to specify the criteria for appropriately classifying the extent of deviation from a requirement as between major and minimal.

Section 66271.51(c)(1)(C) defines a "minimal" extent of deviation from hazardous waste management requirements as occurring when "the act deviates somewhat from the requirement. The requirement functions nearly as intended, but not as well as if all provisions had been met." This provision describes the lowest classification for extent of deviation and is reserved for those violations that have the least amount from deviation from the requirement that is the subject of the violation. This provision is necessary to appropriately have the extent of deviation for slight deviations from the regulatory requirement classified as minimal.

Section 66271.51(c)(2) specifies that the extent of deviation of a single requirement may be classified as "major," "moderate," or "minimal" depending on the totality of the circumstances. This allows DTSC to utilize its discretion with respect to determining the extent a violation deviates from a requirement. This provision is necessary to clarify that the extent of deviation ranking is dependent on the extent to which a requirement was complied with or not, as well as the context for the violation.

Section 66271.51(d) sets out a matrix that DTSC must use in determining the initial score for a Class I violation based on the potential for harm and extent of deviation for a violation. DTSC is required to select a score from the matrix cell that corresponds to the appropriate potential harm and extent of

deviation categories. The matrix in this subsection is identical to that in Section 66272.62[49], subsection (d) at the time of proposing this regulation, with two notable exceptions. The first is the penalty amounts in section 66272.62 ranging from $2,000 to $25,000 have been simplified by dropping the three zeros for thousands, and by dropping the dollar signs. The dollar signs are inapplicable here since DTSC is not using the matrix to assess monetary penalties. Instead, DTSC is using the matrix to score Class 1 violation as part of its permit decision-making process. Second, DTSC is omitting the range of penalty amounts within each cell of the matrix. The use of a range is not necessary for purposes of DTSC's permit-decision making process, and it would unduly complicate the VSP. This provision is necessary to ensure that the scoring of Class I violations is conducted in a rational and consistent manner.

The matrix for scoring is being included below as Figure 1. DTSC recently adopted emergency regulations[50] to reflect the increase in administrative penalties from $25,000 to $75,000 per day per violation. The increase in the maximum penalty amount was authorized by Assembly Bill No. 245 (AB 245; Chapter 499, Statutes of 2017) which amended Health and Safety Code sections 25188, 25189, and 25189.2.

Figure 1.

Potential Harm

Extent of Deviation	Major	Moderate	Minimal
Major	25	20	15
Moderate	20	15	6
Minimal	15	6	2

§ 66271.52. Adjustment to the Initial Score for Repeat Class I Violations

Section 66271.52 specifies the circumstances in which DTSC would adjust upward the initial score for repeat Class I violations. This section, including the subsections below, is necessary to provide uniformity and clarity regarding when repeat violations will result in an upward adjustment of an initial score for a Class I violations, to avoid future disputes over the adjustment of initial scores for repeat violations, to account for repeat violations in a rational and consistent manner, to ensure that

[49] The maximum penalty amount in section 66272.62 was increased from $25,000 to $70,000 effective July 5, 2018 as a result of DTSC's adoption of emergency regulations to implement Assembly Bill No. 245 (AB 245; Chapter 499, Statutes of 2017.)

[50] The penalty emergency regulations (DTSC Reference Number: R-2018-01) were approved by Office of Administrative Law on July 5, 2018 and became effective the same day. DTSC is proposing regular rulemaking for the permanent adoption of the penalty regulations before the emergency regulations cease to be effective on January 3, 2019.

a Facility VSP Score accurately reflects a hazardous waste facility's compliance history, and to ensure consistency (to the extent appropriate) between the VSP and Chapter 22.

Section 66271.52(a) requires that DTSC adjust the initial score for each Class I violation to reflect repeat violations. This provision is necessary to have a final violation score that reflects the totality of circumstances related to the violation. It is common in various regulatory regimes to treat a repeat offense more severely than an initial offense. In fact, DTSC has such provisions to address repeat violations in Chapter 22. This provision is needed to clarify that DTSC will increase the initial score to reflect repeat violations.

Section 66271.52(b) allows DTSC to make an upward adjustment to an initial score for a Class I violation based on a repeat violation only if the hazardous waste facility owner or operator has been provided with at least one Summary of Violations at the same facility within the prior three years or last three inspections. "Repeat violation" is defined in section 66271.50, subsection (a)(3). Summaries of Violations, however, that have been cancelled, retracted or withdrawn by DTSC or that have been successfully challenged in an administrative or judicial proceeding may not form the basis for an upward adjustment based on a repeat violation. This provision is intended to prevent any injustice that would result from counting a violation as a "repeat violation" when it has been disposed of in a manner that indicates it was not valid or accurate for some factual or legal reason, or both. With this approach, DTSC is attempting to look at the full background, nature, and context of various violations and violators. As described above, DTSC believes it is appropriate to adjust the initial score based on an adverse and relevant history of non-compliance. This provision is necessary to remove those violations deemed Class I based on repeat violations, but later determined to be no longer valid or accurate, from the basis for an upward adjustment to the initial score.

Section 66271.52(c) specifies that DTSC will adjust each initial Class I violation score based on the number of times a violation is repeated and sets forth a table identifying the upward adjustment based on the number of times the violation is repeated. The upward adjustment is 25 percent for the second instance (first "repeat violation"); 50 percent for the third instance (second "repeat violation"); and 100 percent for the fourth or more instances (third "repeat violation" or more). This provision carries out DTSC's stated intent of capturing the full extent of a facility's compliance history, as stated above, and is necessary to clarify how violations that continue to be repeated further affect the score.

§ 66271.53. Provisional and Final Inspection Violation Scores

Section 66271.53 outlines how DTSC calculates both provisional and final inspection violation scores for compliance inspections conducted at hazardous waste facilities subject to the VSP, as well as notification procedures for informing a facility of their inspection violation scores, a dispute resolution process for hazardous waste facilities to contest a provisional inspection violation score, and how and when a provisional inspection violation score becomes final. This provision, including the subsections outlined below, is necessary to provide uniformity and clarity in the inspection violation score calculation process, avoid future disputes generated as a result of lack of clarity about the process, and ensure the accuracy of inspection violation scores issued by DTSC.

Section 66271.53(a) clarifies precisely how a provisional inspection violation score is calculated, stating that it is the "sum of the scores for all Class I violations found during a compliance inspection … and adjusted for repeat violations …." This provision is fundamental to VSP and essential for implementation of the regulations.

Section 66271.53(b) describes how DTSC issues provisional inspection violation scores, as further detailed in subsections (b)(1) through (2), below. This section, including subsections (b)(1) through (2), below, is necessary to establish how DTSC will inform hazardous waste facility owners and operators of provisional inspection violation scores and to provide context to owners and operators for the dispute resolution process outlined in subsection (c), below.

Section 66271.53(b)(1) specifies that for compliance inspections that occur after the effective date of the proposed regulations, DTSC must send a provisional inspection violation score, including all Class I violation scores on which the score is based, to the facility owner or operator concurrently with the inspection report provided to the owner or operator pursuant to section 66272.1, subsection (c).[51] By delivering the provisional inspection violation scores with the inspection report, the facility receives prompt notification of its provisional inspection violation score. This in turn is necessary to ensure timely implementation of the VSP and provide hazardous waste facility owners or operator notice of their status under the VSP.

Section 66271.53(b)(2) specifies that for compliance inspections that occur ***before*** the effective date of the proposed regulations, DTSC must send provisional inspection violation scores, including all Class I violations on which the scores are based, to the hazardous waste facility owner or operator when DTSC provides the owner or operator with written notice of the facility's assignment to a compliance tier based on its Facility VSP Score. DTSC determined that a different procedure for written notification of provisional inspection violation scores applied to compliance inspections conducted before the effective date of the proposed regulations. For these inspections, inspection reports for pre-regulation inspections were already provided to the facilities. Accordingly, DTSC cannot follow the same notification process as outlined in subsection (b)(1), above, and it is necessary to prescribe a different process for pre-regulation inspections.

Section 66271.53(c) outlines the dispute resolution process provided to hazardous waste facility owners and operators to dispute their provisional inspection violation scores. The dispute process in the original proposed regulations applied only to future violations. In response to comments received on the proposed regulations, the dispute process now applies equally to provisional inspection violation scores issued both before and after the effective date of the proposed regulations. This section, including subsections (c)(1) through (4), below, is necessary to afford a hazardous waste facility owner or operator with an opportunity to challenge any provisional inspection violation scores the owner or operator believes are inaccurate or ineligible for consideration in the VSP

[51] Section 66272.1, subsection (c) requires DTSC to prepare a report listing any violations found during an inspection and provide a copy of the report to the operator of the hazardous waste facility.

process and ensures the accuracy of the inspection violation score, which serves as the foundation of the Facility VSP score, thus generating confidence in the VSP process.

Section 66271.53(c)(1) allows a hazardous waste facility owner or operator who seeks to dispute a provisional inspection violation score to submit a "Provisional Inspection Violation Score Dispute Document" (Dispute Document) with DTSC within 60 days of DTSC's issuance of the provisional inspection violation score. The 60-day time frame is the typical time frame allowed for bringing disputes. This provision to set such a timeframe is essential to avoid indeterminate delays while disputes are filed, to allow the Facility VSP score to be determined, and to move forward toward the overall goal of incentivizing permitted facilities to improve compliance.

Section 66271.53(c)(2) specifies the required contents of a Dispute Document. This information, discussed below in paragraphs (c)(2)(A) through (D), below, is necessary to ensure that the hazardous waste facility owner or operator is provided a framework in good faith for submitting its dispute, and for DTSC to have information sufficient for reviewing, evaluating, and rendering a decision on the merits of the dispute.

Section 66271.53(c)(2)(A) requires the Dispute Document to include a statement that describes "in detail the factual and legal basis of the dispute and the relief sought." This provision is based on similar dispute provisions for DTSC's Safer Consumer Products ("Green Chemistry" program), as well as those in DTSC's Cost Recovery and Reimbursement Policy. This is necessary to ensure that the hazardous waste facility owner or operator has a good faith basis for its dispute and for DTSC to have information sufficient for reviewing, evaluating, and rendering a decision on the merits of the dispute.

Section 66271.53(c)(2)(B) requires the Dispute Document to identify any claimed erroneous facts, assumptions, approaches, or conclusions of law made by DTSC. This provision is based on an analogous dispute resolution provision in DTSC's Safer Consumer Products regulations. This is necessary to ensure that the hazardous waste facility owner or operator has a good faith basis for its dispute and for DTSC to have information sufficient for reviewing, evaluating, and rendering a decision on the merits of the dispute.

Section 66271.53(c)(2)(C) requires the Dispute Document to include a statement describing any efforts already made by the owner or operator to resolve the dispute with DTSC. This provision is necessary to provide a full background and contextual understanding of what has already transpired regarding the dispute and to allow both the hazardous waste facility owner or operator and DTSC to avoid expending unnecessary effort on issues that may be moot or have been otherwise resolved, addressed, or dismissed.

Section 66271.53(c)(2)(D) requires the Dispute Document to include any photographs, documents, or any other material that supports the owner or operator's position regarding the disputed provisional inspection violation score. Such a requirement is practical and used in other regulations implemented by DTSC. A similar provision is found in DTSC's Safer Consumer Products regulations. This provision is necessary to ensure that the hazardous waste facility owner or operator has a good faith basis for its

dispute and for DTSC to have a sufficient basis for reviewing and evaluating the dispute to render a decision on the merits.

Section 66271.53(c)(3) allows a hazardous waste facility operator to request an extension of time, as detailed in paragraphs (c)(3)(A) through (C), below, to submit a Dispute Document to DTSC. When DTSC decided to extend the dispute of provisional inspection violation score to both future and past Class I violations in response to comments received on the proposed regulation, DTSC added this provision to provide a mechanism for granting extensions to submittal due dates for Dispute Documents.

Section 66271.53(c)(3)(A) allows a hazardous waste facility owner or operator to request, and DTSC to grant, a one time, up to 60-day extension to the due date for submittal of a Dispute Document. The extension request must be received by DTSC at least 30 days before the Dispute Document is due. This section further requires that any extension request be based on circumstances that the owner or operator could not reasonably anticipate or prevent. This section is necessary to provide accommodations to hazardous waste facility owners or operators if unforeseen circumstances delay the owner's or operator's submittal of a Dispute Document to DTSC. Additionally, requiring extension requests to be submitted to DTSC at least 30 days prior to the due date for a Dispute Document allows DTSC to timely and meaningfully process extension requests without prejudicing the hazardous waste facility owner or operator (e.g., notifying the owner or operator that an extension request was or was not granted too close to the due date or denying an extension request after the owner or operator expended significant time and effort on a Dispute Document). The provision allowing for a one time, up to 60-day extension is necessary to ensure the dispute resolution process is not unduly delayed and to prevent extension requests from being used as a mechanism to indefinitely delay the process.

Sections 66271.53(c)(3)(B)1. through 4 require an extension request to include the following information:

1. Information describing the type and date of the compliance inspection and a summary of the violations;
2. The due date for the Dispute Document;
3. The amount of additional time requested; and
4. The reason the extension is needed, including a detailed explanation of the unforeseen circumstances necessitating the extension.

Items 1 through 3 provide basic information necessary to the identify the scope of the request. Item 4 is necessary to avoid delays caused by inaction on the part of the owner or operator, and to require explanation of the unforeseen circumstances that cause the need an extension. These four information items are necessary to provide DTSC a sufficient basis for reviewing and evaluating if an extension request has merit and to allow DTSC to grant extensions consistently and fairly based on the circumstances generating the extension request.

Section 66271.53(c)(3)(C) requires DTSC to approve or deny, in whole or in part, an extension request and provide notice of its decision to the hazardous waste facility owner or operator within ten (10) working days of receipt of the extension request. This provision confers appropriate latitude for DTSC

to grant or deny the extension request to the extent warranted. It is also necessary to ensure that the request is responded to in a timely manner, while providing time for DTSC to review the contents and basis for the extension request and make a decision on the request. Finally, this provision is necessary to prevent inadvertent delays resulting in inadequate time for the owner or operators to submit a Dispute Document to DTSC if the extension is not granted.

Section 66271.53(c)(4) specifies that DTSC's appointed dispute resolution official will issue a written decision on the merits of a hazardous waste facility owner or operator's dispute of a provisional inspection violation score within 90 days of receipt of a Dispute Document. This provision clarifies that failure of the dispute resolution official to issue a written decision within 90 days does not constitute a granting of the relief sought. If the dispute resolution official denies the relief sought by the owner or operator, in whole or in part, the dispute resolution official must include a short and plain description of the basis for the denial in the written decision. Finally, the written decision of the dispute resolution is the Department's final decision on the disputed provisional inspection violation score and is not subject to additional administrative dispute resolution. This provision is necessary to ensure that DTSC renders clear and timely decisions to hazardous waste facility owners and operators on Dispute Documents submitted to DTSC for consideration. By limiting further administrative dispute, this provision allows the process to move forward efficiently. By clarifying that lack of a written decision within 90 days does not constitute granting of relief, and by requiring the written decision to be a short and plain description, this provision provides DTSC with the necessary flexibility to appropriately consider the dispute in a timely manner and provide an appropriate response.

Section 66271.53(d) outlines the process through which a provisional inspection violation score becomes a final inspection violation score. This section, including subsections (d)(1) through (3), below, is necessary to establish the process through which DTSC will issue final inspection violation scores, which will form the basis for the Facility VSP Score used to assign hazardous waste facilities to various compliance tiers.

Section 66271.53(d)(1) specifies that provisional inspection violation scores become final inspection violation scores if a hazardous waste facility owner or operator does not file a Dispute Document within the time required by subsection (c), above. This provision is necessary to provide hazardous waste facility owners and operators clarity that failure to file a Dispute Document will result in the issuance of a final inspection violation score. This also eliminates the need for owners and operators to take unnecessary action on a provisional inspection violation score to which the owner or operator does not object. This provision is also necessary to ensure the VSP process moves forward in a timely fashion.

Section 66271.53(d)(2) specifies that provisional inspection violation scores, disputed in accordance with subsection (c) above, will become final consistent with the dispute resolution official's written decision. This is necessary to achieve completion the dispute resolution process and allow the VSP process to move forward in a timely fashion.

Section 66271.53(d)(3) provides that that the failure of a hazardous waste facility owner or operator to comply with dispute resolution procedures outlined in section 66271.53 constitutes a waiver of the right to further contest the provisional inspection violation score. That is, the failure to comply with the dispute resolution provisions constitutes a failure to exhaust administrative remedies and precludes the hazardous waste facility owner or operator from disputing a provisional inspection violation score with DTSC. This provision is necessary to ensure that hazardous waste facility owners and operators are incentivized to properly follow the non-judicial dispute resolution process afforded by these proposed regulations, thus reducing litigation costs to owners or operators and DTSC.

§ 66271.54. Facility Violations Scoring Procedure (VSP) Score

Section 66271.54 details how and when DTSC determines a Facility VSP Score and assigns a hazardous waste facility to a compliance tier. This section, including the subsections discussed below, is necessary to establish the process through which DTSC determines and issues Facility VSP Scores and assigns a hazardous waste facility to a compliance tier. The Facility VSP Score is used by DTSC in making a decision to issue, deny, revoke, suspend, or modify a permit; thus, this section is necessary for DTSC to fulfill its mandate pursuant to SB 673 to bring transparency and consistency to DTSC's permit decision-making process.

Section 66271.54(a) provides, with two exceptions outlined in subsections (a)(1) and (2), that a Facility VSP Score consists of the sum of all provisional or final inspection violation scores for each compliance inspection conducted at a hazardous waste facility during the preceding 10-year period, divided by the number of compliance inspections. This provision, including the subsections outlined below, is necessary to provide uniformity and clarity in the Facility VSP Score calculation process, to avoid future disputes generated as a result of confusion about the process, and to ensure the accuracy of Facility VSP Scores issued by DTSC.

Section 66271.54(a)(1) provides that for compliance inspections conducted after the effective date of the proposed regulations, DTSC may not use a provisional inspection violation score to calculate a Facility VSP Score unless DTSC sent the provisional inspection violation score to the hazardous waste facility owner or operator in accordance with section 66271.53(b)(1). This provision is necessary to ensure that facility owners and operators have had ample time to be apprised of provisional inspection violation scores, to dispute any contested scores, and otherwise to respond to provisional inspection violation scores. This provision is also necessary to ensure that DTSC issues provisional inspection violation scores in a timely fashion if those scores are to be included in a Facility VSP Score.

Section 66271.54(a)(2) specifies that DTSC cannot include any Class I violation that has been cancelled, retracted, withdrawn, or successfully challenged in an administrative or judicial proceeding in calculating a Facility VSP Score. This provision is intended to, and is necessary to, prevent any unfounded or otherwise unfair outcome by including violations in the Facility VSP Score that have been overturned, successfully appealed, or otherwise dismissed.

Section 66271.54(b) outlines and defines the compliance tiers which will be assigned to a facility. The threshold scores for each tier were determined with a statistical analysis of Facility VSP Scores calculated based on the existing compliance history of the 82 permitted facilities that will become subject to this provision. The threshold values were calculated using the mean and standard deviation for the calculated Facility VSP Score data. The threshold score for a facility to be in the "unacceptable" -- 40 -- was based on the mean of the Facility VSP Scores plus three standard deviations. The "conditionally acceptable" tier threshold value of 20 is the mean plus two standard deviations. The "acceptable" tier encompasses the remaining facilities with Facility VSP scores less than 20. By establishing numeric scores for each compliance tier, DTSC assigns relative ranks to hazardous waste facilities based on their compliance histories in a manner easily understood by the public. This provision, including subsections (b)(1) through (3) below, is necessary for DTSC to assign the appropriate compliance tier and take necessary actions to protect public health and safety and the environment from hazardous waste facilities. This provision, including the subsections discussed below, is necessary to provide uniformity and clarity regarding the various compliance tiers and necessary actions that DTSC may take to protect human health and the environment.

Section 66271.54(b)(1) provides that a hazardous waste facility that receives a Facility VSP Score of less than 20 will be assigned to an "acceptable" compliance tier. This tier accounts for the vast majority of the 82 facilities subject to the VSP. This is consistent with DTSC's experience that most facilities have average or above average compliance histories.

Section 66271.54(b)(2) provides that a hazardous waste facility that receives a Facility VSP Score equal to or above 20 and less than 40 will be assigned to a "conditionally acceptable" compliance tier. This tier accounts for about five percent of the 82 facilities subject to the VSP. This provision is necessary to set the appropriate bar for facilities that require further attention from DTSC in the form of enhanced permit conditions or mitigation measures, for example, but may not be immediate candidates for permit denial, suspension, revocation, or modification.

Section 66271.54(b)(3) provides that a hazardous waste facility that receives a Facility VSP Score equal to or greater than 40 will be assigned to an "unacceptable" compliance tier. This tier accounts for about six percent of the 82 facilities subject to the VSP. This provision is necessary to identify those facilities that are immediate candidates for permit denial, suspension, revocation, or modification.

Section 66271.54(c) requires that DTSC calculate a Facility VSP Score annually and assign a compliance tier to all hazardous waste facilities subject to the VSP. On or before September 30 of each calendar year, DTSC is required to provide written notice to hazardous waste facility owners and operators of the Facility VSP Score based on facility compliance through December 31 of the prior calendar year, as well as the assigned compliance tier. On or before December 31 of each year, DTSC will post all of the Facility VSP Scores and compliance tier information on DTSC's website. This provision is necessary to provide clear notice to hazardous waste facility owners and operators of the timing when DTSC will issue Facility VSP Scores and when Facility VSP Scores will be made publicly available. Written notice of a Facility VSP Score and assignment to a compliance tier also initiates the

time frame for appeals by owners or operators of hazardous waste facilities assigned an "unacceptable" compliance tier.

Section 66271.54(d) requires DTSC to include all provisional or final inspection violation scores used to calculate a Facility VSP Score in the notice to owners and operators of hazardous waste facilities. This provision states that the owner or operator may dispute the provisional inspection violation score in accordance with section 66271.53(c). If the dispute resolution process results in a revised Facility VSP Score, this section requires DTSC to post the revised Facility VSP Score on DTSC's website within 90 days of the written decision of the dispute resolution. This provision is necessary to ensure that hazardous waste facility owners and operators are provided with the basis of their Facility VSP Score and compliance tier assignment and have an opportunity to dispute provisional inspection violation scores that the owner or operator believes are inaccurate or ineligible for consideration in the VSP process. This ensures the accuracy of the inspection violation score, which serves as the foundation of the Facility VSP score, thus generating confidence in the VSP process.

Section 66271.54(e) provides that a compliance tier assignment of "acceptable" or "conditionally acceptable" is final when all inspection violation scores on which the Facility VSP Score is based are also final pursuant to section 66271.53. Compliance tier assignments of "acceptable" and "conditionally acceptable" are not subject to further administrative dispute resolution under the VSP. This section is necessary to inform an owner or operator regarding the finality of an "acceptable" and "conditionally acceptable" compliance tier assignment.

Section 66271.54(f) provides that a compliance tier assignment of "unacceptable" becomes final in accordance with the process outlined in section 66271.57, below. Section 66271.57 outlines an appeal process for owners and operators of hazardous waste facilities assigned to an "unacceptable" compliance tier to further administratively challenge their Facility VSP Score. This section is necessary to notify owners and operators of a hazardous waste facility assigned to an "unacceptable" compliance tier of their right to appeal the compliance tier assignment.

§ 66271.55. Hazardous Waste Facility Permit Decisions

Section 66271.55(a) requires DTSC to conduct a complete review of a hazardous waste facility's compliance history when making a decision to issue, deny, revoke, suspend, or modify a permit under the VSP. Subsections (b) and (c), discussed below, describe the components of a complete facility compliance history review. These additional provisions are necessary because the Facility VSP Score is one component of DTSC's evaluation of the compliance history of a hazardous waste facility during the permit decision-making process. Other relevant, critical factors must be considered by DTSC during this process. These other factors are discussed in subsections (b) and (c), below.

Section 66271.55(b) outlines the components of a complete hazardous waste facility compliance history review. Some components of this review are detailed in subparagraphs (b) (1) through (8), below, but the list is not exhaustive. Subparagraph (b)(8), below, allows DTSC to consider "any other information required by law." This section, including subparagraphs (b)(1) through (8), below, is necessary to clarify the scope of DTSC's hazardous waste facility compliance evaluation and provide

notice to owners and operators of hazardous waste facilities regarding DTSC's evaluation. This section also ensures that DTSC considers all information necessary to ensure a comprehensive hazardous waste facility compliance review and make a fully informed decision regarding whether to issue, deny, revoke, suspend, or modify a hazardous waste facility permit. It is also necessary to allow DTSC to modify its hazardous waste facility compliance review to consider other information allowed by law, thereby eliminating the need for DTSC to amend this section in the future to account for changes in applicable law or regulation. This statement of necessity applies to each of the subparagraphs (b)(1) through (8), below; however, additional information is provided in support of various subparagraphs as relevant and appropriate.

Section 66271.55(b)(1) requires DTSC to consider a hazardous waste facility's final compliance tier assignment based on the facility's Facility VSP Score, all Class I violations, and provisional and final inspection violation scores used to calculate the Facility VSP Score.

Section 66271.55(b)(2) requires DTSC to consider Class II and minor violations not quantified as part of the Facility VSP Score. This provision is needed to allow DTSC the discretion to evaluate the history of all hazardous waste violations of a facility.

Section 66271.55(b)(3) requires DTSC to consider a hazardous waste facility's compliance with any permits, applicable orders, stipulations, agreements, settlement documents, judgments, decrees, grants of authorization, or other documents establishing requirements upon operations at the facility; hazardous waste laws and regulations; and any other applicable environmental laws and regulations. Hazardous waste facility operating requirements, hazardous waste laws and regulations, and other environmental laws and regulations are designed to protect public health and safety and the environment from harm. A facility's failure to comply with these requirements has the potential to compromise, or may in fact compromise, public health and safety and the environment and is an important consideration in DTSC's permitting decision-making process.

Section 66271.55(b)(4) requires DTSC to consider a hazardous waste facility owner's or operator's disclosure statement pursuant to Health and Safety Code sections 25112.5 and 25200.4. Health and Safety Code section 25200.4 requires an applicant for a hazardous waste facility permit to submit a disclosure statement as defined in Health and Safety Code section 25112.5. Section 25112.5 defines "disclosure statement," and outlines the detailed ownership and other information that must be included by the applicant in the statement. For example, a disclosure statement must include five years of information on final orders or license revocations or suspensions and civil or criminal prosecutions relating to the generation, transportation, treatment, storage, recycling, disposal, or handling of hazardous waste or hazardous waste materials by the applicant. Again, consideration of a hazardous waste facility permit applicant's disclosure statement ensures that DTSC's facility compliance history review takes into consideration comprehensive information regarding the facility's and facility owner's and operator's track records with respect to hazardous waste management.

Section 66271.55(b)(5) requires DTSC to consider a hazardous waste facility's safety record. This provision is necessary for DTSC to perform comprehensive review of compliance history, including safety performance.

Section 66271.55(b)(6) requires DTSC to consider a hazardous waste facility's compliance with financial assurance and liability coverage requirements for closure, post-closure, or corrective action. This allows DTSC to ensure that the hazardous waste facility is financially able to bear the costs associated with closing the facility and remediating any contamination that may have resulted from facility operations, thus protecting California taxpayers from bearing this burden.

Section 66271.55(b)(7) requires DTSC to consider information provided by hazardous waste facility owners or operators pursuant to section 66271.56 and 66271.57. These sections require hazardous waste facilities assigned to "conditionally acceptable" and "unacceptable" compliance tiers (if granted a permit pursuant to section 66271.57) to retain a third-party auditor to conduct a facility compliance audit and submit reports documenting the audit to DTSC. These audit reports may contain information relevant for consideration in deciding whether a permit should be issued to the facility. An example of such information is deficiency in the facility's hazardous waste management procedures. Whether a hazardous waste facility implements recommendations by the third-party auditor to improve the facilities' hazardous waste management practices is also relevant. This section is necessary to ensure DTSC can consider this information.

Section 66271.55(b)(8) requires DTSC to consider "[a]ny other information allowed by law." Such information may include information on facility siting, mandatory reporting data, and the information on availability of new technology.

In California, there has been widespread population growth and urbanization over the last few decades. This puts additional pressure to expand housing near industrial zones in cities where facilities are located. Siting controversies may arise when the distance from a facility to sensitive receptors has been reduced. For example, the location of a facility near a school may contribute to additional safety considerations both during normal facility operations and in the event of an accidental release of hazardous waste. Furthermore, there may be a need to review current land use designations. If local agencies modify land use at or near the facility, the facility may be required to obtain a new or modified conditional use permit.

Other information available to DTSC may include various mandatory environmental reports that may show a reduction or increase of emissions, releases, or hazardous waste generation or disposal. These reports include TRI reports, hazardous waste annual facility reports, air emissions inventory reports, greenhouse gas emissions reports, Cal OSHA notifications[52], and hazardous material release reporting, inventory, and response plans.[53]

It is important that DTSC is aware of updated information concerning how a hazardous waste facility can improve its hazardous waste treatment methods, reduce the volume of offsite disposal, and,

[52] Title 8, California Code of Regulations, section 342.
[53] Title 19, California Code of Regulations, Division 2, Chapter 4.

reduce health and environmental impacts from its operations. This provision is necessary to ensure that DTSC consider all relevant information when it exercises its statutory and regulatory authority to make permit decisions.

Section 66271.55(c) details additional information required to be considered by DTSC as part of its hazardous waste facility compliance history review, to the extent such information is readily available to DTSC. The statement of necessity provided for section 66271.55(b) applies equally to this section, including subparagraphs (c)(1) through (4). Additional information, however, is provided in support of various subparagraphs as relevant and appropriate.

Section 66271.55(c)(1) requires DTSC to consider, if readily available to DTSC, a hazardous waste facility owner's or operator's knowledge or intent in the commission of hazardous waste management violations. For example, if DTSC has information demonstrating that a facility owner or operated intentionally committed any hazardous waste management violations, then DTSC is required to consider the owner's or operator's intent as part of a hazardous waste facility compliance review. This is necessary to ensure that DTSC retains the discretion to deny, suspend, revoke, or modify a hazardous waste facility permit for an applicant that intentionally violates or consciously disregards hazardous waste laws and regulations.

Section 66271.55(c)(2) requires DTSC to consider, if readily available to DTSC, the record of complaints received against a hazardous waste facility, including the facility's record of resolving such complaints. This is necessary to ensure that facility-related complaints, such as, for example, those based on odors, noise, and traffic, are considered during the permit decision-making process, and the facility's record of responding to and resolving such complaints. Should DTSC issue a permit to a facility with a record of complaints, if warranted, these complaints may inform DTSC's development of permit conditions and other mitigation measures designed to prevent such issues from arising in the future.

Section 66271.55(c)(3) requires DTSC to consider, if readily available to DTSC, the hazardous waste facility's violations of requirements of other federal, state, or local environmental agencies. This evaluation is necessary to provide DTSC with insight into the overall environmental management practices of a facility, as currently allowed by law.

Section 66271.55(c)(4) requires DTSC to consider, a hazardous waste facility's record of returning to compliance and cooperation with DTSC. There are two contrasting levels of cooperation that should be evaluated differently. The first is where the facts concerning the violation show owners and operators show extraordinary effort by exceeding the minimum requirements in compliance or returning to compliance faster than expected. The second is where facts show recalcitrance by failing to cooperate, delaying compliance, creating obstacles to achieving compliance, failing to submit adequate documentation, or refusing to cooperate by intentionally failing to return to compliance with the regulations. Both levels of cooperation are relevant to DTSC's permitting decision-making process and this section ensures that DTSC can take this into account when making a hazardous waste facility permit decision.

§ 66271.56. Requirements for a Facility Assigned to a "Conditionally Acceptable" Compliance Tier

Section 66271.56(a) outlines certain requirements with which a hazardous waste facility assigned to a "conditionally acceptable" compliance tier based on its Facility VSP Score must comply. This section, including subsections (a)(1) through (2) below, is necessary to provide uniformity and clarity to hazardous waste facilities assigned to a "conditionally acceptable" compliance tier regarding the requirements applicable to these facilities and avoid future disagreements regarding these requirements. This statement of necessity applies to each of the subsections (a)(1) through (2), below; however, additional information is provided in support of various subparagraphs as relevant and appropriate.

Section 66271.56(a)(1) requires a hazardous waste facility assigned to a "conditionally acceptable" compliance tier to prepare and provide a third-party compliance audit to DTSC. Owners and operators of federal facilities, however, may prepare and submit to DTSC a facility self-disclosure audit using an internal auditor.

Compliance audits are designed to encourage greater compliance with laws and regulations that protect public health and safety and the environment. A compliance audit, in this case, is a detailed review of a hazardous waste facility's hazardous waste operations to assess compliance with applicable environmental laws and regulations, identify violations, and recommend actions needed to return to compliance. Use of a third-party auditor ensures objectivity in the audit process and that the audits are conducted by those with expertise in hazardous waste management practices. Third-party auditors have the benefit of conducting compliance audits in different environments, and providing informed perspectives and practical suggestions on approaches for achieving compliance. Although compliance audits may uncover long-standing issues of noncompliance, the audits provide opportunities for the facility to improve its hazardous waste management practices.

Certain federal facilities, including those with military, intelligence, nuclear-related, and law enforcement functions, may have special security or access requirements necessitated by the facility's mission. It may be necessary to obtain the appropriate clearances for access to classified national security information, facilities, or restricted data at federal facilities. For this reason, federal facilities are provided the flexibility to use internal auditors when necessary due to the national security issues.

This provision is necessary to require owners and operators implement an appropriate means and mechanism of identifying, correcting, and preventing violations of environmental laws and regulations. Such audits will also allow DTSC to better protect public health by including enhanced permit conditions and mitigation measures specifically tailored to the facility. DTSC has determined the best means for addressing and preventing a pattern of serious violations at a facility with a conditionally acceptable compliance tier, is to require an independent third-party audit of the hazardous waste facility's hazardous waste management practices.

Section 66271.56(a)(1)(A) specifies the process for a hazardous waste facility to select an independent, third-party auditor. This section, including subparagraphs (a)(1)(A)1. through 5., below, are necessary to ensure that the hazardous waste facility selects a truly independent, qualified third-party auditor to conduct the compliance audit in a timely manner. This ensures the reliability of the compliance audit, including its findings and conclusions, thereby outlining the path forward for DTSC and the hazardous waste facility to work together to improve the facility's compliance with hazardous waste laws and regulations. The time frames specified in this section are intended to ensure that the compliance audit is started and completed in a timely manner. This statement of necessity applies to each of the subparagraphs (a)(1)(A)1. through 5., below. Additional information, however, is provided in support of various subparagraphs as relevant and appropriate.

Section 66271.56(a)(1)(A)1. requires the owner or operator of a hazardous waste facility assigned to a "conditionally acceptable" compliance tier to provide DTSC with the names and qualifications of at least three proposed independent third-party auditors who are qualified to conduct hazardous waste facility audits. The facility must provide the names and qualifications of the proposed independent auditors to DTSC within 60 days of the hazardous waste facility's assignment to a "conditionally acceptable" compliance tier. It is necessary to require the names and qualifications of three proposed independent third-party auditors to reduce the number of times an alternate auditor's name will be submitted for approval and ensure the compliance audit is started and completed in a timely manner.

Sections 66271.56(a)(1)(A)1.a and b require that the proposed independent third-party auditors possess specific educational credentials (subparagraph (a)(1)(A)1.a.) and five-years' full-time professional-level experience performing environmental audits related to hazardous waste facilities (subparagraph (a)(1)(A)1.b). These provisions that specify a minimum level of education and proficiency are necessary to ensure the rigor and credibility of compliance audits.

Section 66271.56(a)(1)(A)2. specifies that DTSC has fifteen (15) days from receipt of the proposed independent third-party auditors' names and qualifications to accept or reject, in writing, the auditors proposed by the hazardous waste facility owner or operator. This provision, requiring DTSC provide timely feedback, is necessary to ensure that the compliance audit is started and completed in a timely manner.

Section 66271.56(a)(1)(A)3. requires that the hazardous waste facility owner or operator retain the services of an approved independent third-party auditor and provide written notice to DTSC within 30 days of DTSC's approval of one or more of the facility owner's or operator's proposed auditors.

Section 66271.56(a)(1)(A)4. allows DTSC to select an independent third-party auditor to conduct the compliance audit if DTSC rejects all the independent third-party operators proposed by the hazardous waste facility owner or operator. This is necessary to ensure that the compliance audit is conducted by a qualified professional and that the compliance audit is started and completed in a timely fashion.

Section 66271.56(a)(1)(A)5. requires the hazardous waste facility owner or operator to retain the services of the independent third-party auditor selected by DTSC pursuant to subparagraph (a)(1)(A)4, above, within 30 days of notice of DTSC's selection of the auditor. This provision is necessary to ensure that the compliance audit commences promptly.

Section 66271.56(a)(1)(B) specifies the necessary, minimum requirements of a compliance audit report prepared by the independent third-party auditor. This section, including subparagraphs (a)(1)(B)1. through 7, below, is necessary to ensure the quality and integrity of an audit, which depends, in part, on the existence of a complete and understandable record of the work the auditor performed. The required items for the audit report are described below in subparagraphs 66271.56(b)(1)(B)1. through 7. It is necessary to have the most critical elements of an audit spelled out and made mandatory to ensure that the audit report is comprehensive, well supported and documented, and meaningful to both DTSC and the hazardous waste facility owner and operator. This statement of necessity applies to each of the subparagraphs (a)(1)(B)1. through 7, below. Additional information, however, is provided in support of various subparagraphs as relevant and appropriate.

Section 66271.56(a)(1)(B)1. requires an audit report to include a complete description and discussion of all audit objectives, scope, audit criteria, audit activities, audit findings and conclusions, recommendations, and all evidence relied upon to support the audit conclusions. These topics are necessary to assess whether the planned and completed audit activities have adequately evaluated facility compliance, which provides context needed for DTSC to interpret audit conclusions. If the audit is not documented, then it becomes difficult to know what was done, what conclusions were reached, and how those conclusions were reached.

Section 66271.56(a)(1)(B)2. requires an audit report to include a complete inspection and review of all hazardous waste facility operations related to hazardous waste, including review of monitoring, records, reports, and other information necessary to evaluate and determine the facility's compliance with applicable operational requirements and hazardous waste laws and regulations. This is necessary to ensure a comprehensive and reliable compliance audit.

Section 66271.56(a)(1)(B)3. requires a compliance audit to include sampling and testing of potentially hazardous materials as necessary to determine the hazardous waste facility's compliance with applicable operational requirements and hazardous waste laws and regulations. This provision is necessary to ensure that the hazardous waste facility is managing all hazardous waste appropriately and as legally required.

Section 66271.56(a)(1)(B)4. requires an audit report to include a complete description of the inspections completed, a summary of all sampling and testing conducted and associated results, and a discussion of all information reviewed as part of the audit. This is necessary to ensure a comprehensive and reliable of the compliance audit.

Section 66271.56(a)(1)(B)5. requires an audit report to include a complete review of all safety practices and identification of all accidents in the preceding one year, and identify unsafe practices or

conditions that could lead to accidents. It is necessary to include a discussion of safety in the audit report to enhance safety.

Section 66271.56(a)(1)(B)6. requires an audit report to include a brief description of any written advisements or determination of violations directed to the hazardous waste facility by any local, state, or federal agency that identifies any violation of any hazardous waste facility requirement. This is necessary to assess how well the facility is operating in accordance with all applicable environmental laws and regulations.

Section 66271.56(a)(1)(B)7. requires an audit report to include a discussion of all findings and deficiencies related to facility, including identification of all instances of noncompliance with hazardous waste management requirements, as well as other environmental laws and regulations. This is necessary to ensure the audit report provides meaningful information, discussion, feedback, and recommendations regarding compliance with hazardous waste management requirements, laws, and regulations. This also enables DTSC to develop enhanced permit conditions and mitigation measures specifically tailored to the facility to better protect public health and safety and the environment.

Section 66271.56(a)(1)(C) requires the independent third-party auditor to submit at least two audit reports to DTSC in accordance with subparagraphs (a)(1)(C)1. and 2., below. This provision imposes basic requirements on the number and frequency of audits and ensures that hazardous waste facility owners and operators are aware of these requirements. Requiring at least two audits ensures that information regarding a hazardous waste facility's hazardous waste management practices is provided at more than just one point in time. This is necessary so that DTSC can continue to assess whether the facility is in compliance with applicable environmental laws and regulations.

Section 66271.56(a)(1)(C)1. and 2. require a hazardous waste facility owner or operator to submit the first audit report to DTSC no later than 270 days after receiving notification of the facility's assignment to a "conditionally acceptable" compliance tier pursuant to section 66271.54 (subparagraph (a)(1)(C)1) and no earlier than 180 days and no later than one year after the first audit report (subparagraph (a)(1)(C)2). These provisions impose basic requirements on the number and frequency of audits and ensures that hazardous waste facility owners and operators are aware of these requirements, if applicable. Requiring additional audits also ensures that information regarding a hazardous waste facility's hazardous waste management practices is provided at more than just one point in time. This is necessary so that DTSC can continue to assess whether the facility is in compliance with applicable environmental laws and regulations.

Section 66271.56(a)(2) requires a hazardous facility owner or operator to submit a compliance implementation plan to DTSC within 30 days following the submission of each audit report required pursuant to sections 66271.56(a)(1)(C)1. and 2. Subparagraphs (a)(2)(A) through (C) specify the contents and timing of the compliance implementation plan. This section, including subparagraphs (a)(2)(A) through (C), is necessary to ensure the compliance implementation plan meaningfully outlines how the facility will take action to comply with hazardous waste management requirements, laws, and regulations. Information in the compliance implementation can also inform DTSC's

development of enhanced permit conditions and mitigation measures specifically tailored to the facility to better protect public health and safety and the environment. This statement of necessity applies to each of the subparagraphs (a)(2(A) through (C), below.

Section 66271.56(a)(2)(A) requires the compliance implementation plan describe all actions needed to correct all deficiencies and to address all findings identified in the audit report.

Section 66271.56(a)(2)(B) requires the compliance implementation plan identify all permits and permit modifications required by DTSC and any other federal, state, or local agency needed to correct all deficiencies and address all findings identified in the audit report.

Section 66271.56(a)(2)(C) requires a compliance implementation plan to include deadlines for all actions needed to correct all deficiencies and address all findings identified in the audit report and submission of applications for all permits or permit modifications needed to implement the actions.

Section 66271.56(b) allows DTSC to require a hazardous waste facility owner and operator to revise its compliance implementation plan prior to DTSC approval. This provision is necessary to ensure that the compliance implementation plan includes the actions deemed necessary by DTSC to achieve compliance. Once DTSC approves the plan, all planned actions become enforceable commitments. This requirement enables DTSC to ensure that the facility owner or operator will be publicly accountable and the written compliance implementation commitments are clear and binding.

Section 66271.56(c) authorizes DTSC to impose additional requirements on a hazardous waste facility assigned to a "conditionally acceptable" compliance tier. The additional requirements include, but are not limited to, the requirements outlined in subsections (c)(1) through (4), below. The requirements outlined in subsections (c)(1) through (4) below, are examples of requirements that are intended to ensure protection of human health, safety, or the environment. These provisions are necessary to reinforce DTSC's existing authority to impose these requirements, and any other requirements or permit conditions deemed necessary by DTSC to protect human health, safety, or the environment.

Section 66271.56(c)(1) allows DTSC to impose a shorter operating period for the hazardous waste facility's permit than that specified in the permit. Existing law requires hazardous waste facilities to be authorized by DTSC. The purpose of a hazardous waste facility permit is to detail how a facility must comply with applicable laws and regulations to ensure that hazardous waste management activities are conducted in a manner that is protective of human health and safety and the environment. These permits are site-specific and establish the technical and administrative standards to which a facility must adhere to legally and protectively manage hazardous waste. Thus, it is important and necessary for facility owners and operators that have troublesome compliance histories to review and update permits more frequently to enable the facility to effectively continue to operate treatment, storage, and disposal units and avoid future violations. Shortening the duration of a permit allows DTSC an opportunity to evaluate the facility's operations with greater frequency.

Section 66271.56(c)(2) allows DTSC to restrict or prohibit hazardous waste management activities at the facility that are authorized in the permit. A hazardous waste facility permit establishes the

hazardous waste management activities a facility may conduct, as well as the conditions under which the facility can conduct them. A hazardous waste facility permit describes each authorized hazardous waste management unit that stores, treats, transfers, or disposes hazardous waste. The permit details the types of hazardous waste allowed, how each unit is designed and operated to meet hazardous waste requirements which are intended to protect human health and the environment from the risks posed by hazardous waste. Hazardous waste management units include containers, tanks, containment buildings, surface impoundments, and landfills.

DTSC's review of a facility's compliance history may reveal that the facility has failed or is unable to operate the facility or a specific hazardous waste management unit. Therefore, this provision is necessary because it gives DTSC the discretion to restrict or prohibit certain hazardous waste management activities that may be contributing to the facility's noncompliance.

Section 66271.56(c)(3) allows DTSC to impose additional conditions on hazardous waste management activities beyond those or different from those specified in the permit. This provision is necessary to allow DTSC to establish conditions tailored to address compliance issues at a specific facility, to foster compliance, and to protect human health and the environment.

Section 66271.56(c)(4) allows DTSC to impose requirements designed to mitigate potential harm associated with noncompliant activities, including community benefit agreements or other measurable actions to reduce impacts or alleviate adverse conditions caused by the facility's noncompliance with hazardous waste management requirements.

Community benefits agreements are agreements between a proponent of a project, such as a hazardous waste facility owner or operator seeking a hazardous waste facility permit, and a local community or neighborhood. Such agreements are designed to ensure that the local community or neighborhood participates in shaping the project and benefits from the agreement. These agreements may contain provisions requiring a project proponent to mitigate the environmental impacts of the project to which the agreement relates. For example, a community benefits agreement may fund studies on local environmental quality and community health.

This provision is necessary to make clear that DTSC can enter into community benefits agreements and take other measures to mitigate potential environmental harm associated with hazardous waste facility operations. It is important to provide DTSC with the flexibility to secure significant environmental and public health benefits beyond those achieved by compliance, and to help address the needs of communities impacted by violations of environmental laws and regulations.

Furthermore, these provisions are necessary to ensure that public health and the environment are protected from potential harm from the continued operation of a facility that has a demonstrated poor compliance with hazardous waste management requirements. These provisions are also necessary to ensure that DTSC's permit decisions are made in a transparent and an accountable manner.

§ 66271.57. Requirements for Facility Assigned to an "Unacceptable" Compliance Tier

Section 66271.57(a) clarifies the regulatory framework that applies to hazardous waste facilities assigned to an "unacceptable" compliance tier based on their Facility VSP Scores. This provision is necessary to provide uniformity and clarity to hazardous waste facility owners and operators regarding the regulatory process applicable to hazardous waste facilities assigned to an "unacceptable" compliance tier and avoid future disputes regarding the process. The Facility VSP Score is a critical component of DTSC's effort to fulfil its mandate pursuant to SB 673—establish transparent and consistent standards and procedures to make permit decisions that take a hazardous waste facility's compliance history into consideration. This statement of necessity applies equally to subsections (a)(1) and (2), below.

Section 66271.57(a)(1) requires DTSC, for facilities assigned to an "unacceptable" compliance tier, to initiate a process to deny, suspend, or revoke a permit pursuant to Chapter 20 or 21 of Division 4.5 in accordance in accordance subsections (b) through (f), below. This provision is necessary to clarify that initiation of a process to deny, suspend, or revoke a permit pursuant to Chapter 20 or 21 is mandatory for facilities that are assigned to an "unacceptable" compliance tier based on their Facility VSP Score.

Section 66271.57(a)(2) allows DTSC, in its discretion, to grant a permit or permit modification or otherwise resolve a pending permit action against a facility that has been assigned to an "unacceptable" compliance tier if DTSC makes certain written findings required by subsection (g). This provision is necessary to provide DTSC with discretion to grant hazardous waste facility permits to facilities that provide substantial and overriding benefits to the State of California and have implemented enforceable improvements to their facilities that will prevent future violations. DTSC, however, can only grant a permit or permit modification or otherwise resolve a pending permit action pursuant to this subsection after the process outlined in subsection (a)(1), above, has been initiated.

Section 66271.57(b) allows an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to challenge its compliance tier assignment in accordance with the provisions outlined in this provision. However, if the owner or operator does not challenge its compliance tier in accordance with this provision, the "unacceptable" compliance tier becomes final 60 days after DTSC's written notice to the hazardous waste facility of its compliance tier assignment. This provision, however, does not affect an owner or operator's existing due process right to challenge DTSC's permit decisions or enforcement actions. This provision is necessary to afford an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier with an opportunity to challenge its compliance tier assignment.

Section 66271.57(c) provides that an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier may challenge its compliance tier assignment within 60 days of DTSC's notice of compliance tier assignment. However, if the compliance tier assignment is based on a Facility VSP Score that includes provisional inspection violation scores disputed by the owner or operator pursuant to section 66271.53, the time frame for the owner or operator to challenge its

compliance tier assignment begins when the dispute resolution official issues the written decision regarding the dispute on the provisional inspection violation score. This provision is necessary to ensure that the accuracy of the Facility VSP Score and resulting compliance tier assignment.

Section 66271.57(d) specifies the factors the owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier must establish in order to challenge its compliance tier assignment. This provision, including subsections (d)(1) through (5), below, is necessary to provide uniformity and clarity to hazardous waste facility owners and operators regarding regulatory process applicable to hazardous waste facilities assigned to an "unacceptable" compliance tier. This statement of necessity applies equally to subsections (d)(1) through (5) below.

Section 66271.57(d)(1) requires the hazardous waste facility owner or operator to demonstrate in writing that it is able to operate the facility in compliance with the terms and conditions of its permit or any other document establishing requirements upon operations at the facility, with hazardous waste laws or regulations, and with any other applicable environmental laws and regulations, as a basis for challenging an "unacceptable" compliance tier assignment.

This provision ensures that DTSC conducts a comprehensive evaluation of a facility's environmental compliance when reviewing a challenge of an "unacceptable" compliance tier assignment. An "unacceptable" compliance tier assignment indicates a pattern of non-compliance of hazardous waste management requirements and other environmental laws and regulations, as well as a corresponding risk of harm to human health or the environment. This provision is necessary in that it requires the facility to document compliance with a broader range of environmental requirements, thus ensuring that the owner or operator has the capacity and commitment maintain compliance with all applicable environmental laws and regulations.

Section 66271.57(d)(2) requires the hazardous waste facility owner or operator to demonstrate that the facility, as constructed, can be operated in compliance with the terms and conditions of any document establishing requirements upon operations at the facility, with hazardous waste laws or regulations, and with any other applicable environmental laws and regulations, as a basis for challenging an "unacceptable" compliance tier assignment. The facility must be able to demonstrate that the owner or operator has maintained, upgraded, or retrofitted existing hazardous waste management units. This provision is necessary to ensure that equipment, structures, and other physical elements of the facility are designed, constructed, and maintained in a manner that meets applicable environmental and other standards and provides for the safe operations of the facility.

Section 66271.57(d)(3) requires the hazardous waste facility owner or operator to demonstrate that continued operation of the facility is unlikely to adversely impact human health, safety, or the environment. This provision is necessary to protect human health and the environment when immediate or direct threats have been identified and adequately addressed.

Section 66271.57(d)(4) requires the hazardous waste facility owner or operator to demonstrate compliance with financial assurance or liability coverage requirements for closure, post-closure, and corrective action. Hazardous waste facilities are required to demonstrate that they will have the

financial resources to properly close the facility or unit when its operational life is over, or provide the appropriate emergency response in the case of an accidental release. This provision is necessary to ensure that there is sufficient funding to address necessary closure and post closure requirements and releases of hazardous waste at the facility, and to ensure that the taxpayers would not be burdened with any cleanup of contaminated facilities.

Sections 66271.57(d)(5)(A) and (B) require one or more audit reports, if required, demonstrate an ongoing pattern of compliance with hazardous waste requirements (subsection (d)(5)(a)) and to demonstrate full implementation of actions to correct deficiencies and address findings of prior audits (subsection (d)(5)(b).) These provisions are necessary because they allow DTSC to consider recent significant improvement in compliance in making permit decisions.

Section 66271.57(e) requires DTSC, within 60 days of receipt of a hazardous waste facility owners' or operators' challenge to its compliance tier assignment, to issue a written notice regarding the time and location of a public meeting regarding the facility's "unacceptable" compliance tier assignment. At the public meeting, DTSC will present the grounds for assigning the hazardous waste facility to an "unacceptable" compliance tier, the owner or operator may present its opposition, and the public will be provided with an opportunity to submit comments.

It is important and necessary to provide an opportunity for the public to review the documents submitted for the challenge and provide comments to DTSC. This requirement is necessary to provide for timely participation by members of the public in the process and to inform DTSC's determination regarding the challenge.

Section 66271.57(f) requires DTSC to issue a written decision regarding the challenge to the hazardous waste facility's "unacceptable" compliance tier assignment within 60 days of the date of the public meeting. DTSC's decision shall be based upon its consideration of DTSC's evidence to support the Facility VSP Score and assignment to the "unacceptable" compliance tier, on evidence presented by the owner or operator in its written challenge and at the public meeting, and on any other relevant evidence presented at the public meeting held pursuant to subsection (e), above.

This provision is necessary to clarify the criteria that DTSC must consider when making the decision on the challenge, and to ensure that DTSC transparently reports its decision regarding the challenge and the basis for that decision.

Section 66271.57(f)(1) specifies that if DTSC upholds the hazardous waste facility's "unacceptable" compliance tier assignment, the Department's written decision will constitute the facility's final "unacceptable" compliance tier assignment. DTSC will then notify the owner or operator of DTSC's intent to initiate the process to deny, suspend, or revoke the facility's permit. This provision is necessary to clearly identify what the next step is when the unacceptable compliance tier assignment is upheld by DTSC.

Section 66271.57(f)(2) specifies that if DTSC changes the hazardous waste facility's compliance tier assignment to "conditionally acceptable," then the facility is subject to the provisions of section 66271.56 related to hazardous waste facilities assigned to a "conditionally acceptable" compliance

tier. This is necessary to clarify the consequence of changing the compliance tier assignment from "unacceptable" to "conditionally acceptable."

Section 66271.57(g) specifies that DTSC may issue a permit or permit modification or otherwise resolve a pending permit action for a facility with an "unacceptable" compliance tier assignment if DTSC makes a written determination, based on substantial evidence, that the grant of permit or permit modification or other resolution of a pending permit action will not pose a threat to public health or safety or the environment, and the two additional conditions outlined in subsections (g)(1) and (2) are met. This provision is necessary to give DTSC the discretion to consider factors beyond a facility's compliance tier assignment as long as the facility can demonstrate that it has implemented enforceable improvements at the facility and there are substantial and overriding benefits to the people of the State of California resulting from its continued operations.

Section 66271.57(g)(1) requires DTSC, in order to grant a permit or permit modification or otherwise resolve a pending permit action for a hazardous waste facility assigned to an "unacceptable" compliance tier, to find that the facility owner or operator has implemented enforceable improvements to its hazardous waste management processes or equipment that will prevent future violations. Such improvements may be identified in binding written agreements, orders, consent decrees, or permit modifications. This provision is necessary to ensure that a facility has remedied the underlying causes of violations to prevent future noncompliance and has made measurable improvements to its operations and processes for the protection of human health and the environment.

Section 66271.57(g)(2) requires DTSC, in order to grant a permit or permit modification or otherwise resolve a pending permit action for a hazardous waste facility assigned to an "unacceptable" compliance tier, to find that there are substantial benefits to the people of California resulting from the continued operation of the facility. For example, the facility's closure may create urgent public necessity and statewide concern due to the lack of capacity to treat, store, or dispose of hazardous waste. This provision is necessary to ensure that substantial and overriding benefits to the people of the State of California may be appropriately considered in DTSC's permit decision-making process.

Section 66271.57(h) authorizes DTSC, if it grants a permit or permit modification or otherwise resolves a pending permit action for a hazardous waste facility assigned to an "unacceptable" compliance tier, to impose certain requirements upon the facility, in addition to those deemed necessary by DTSC to protect human health or safety or the environment. The additional requirements are outlined in subsections (h)(1) through (3), below. This provision is necessary to ensure that if a facility with an "unacceptable" compliance tier is granted a permit or permit modification, appropriate safeguards are in place to ensure future compliance. This provision also reinforces DTSC's authority to impose requirements or permit conditions deemed necessary by DTSC for the protection of human health or the environment.

Section 66271.57(h)(1) provides that the term of a permit issued by DTSC to a hazardous waste facility assigned to an "unacceptable" compliance tier must not exceed five years instead of the usual term of ten years. This provision is necessary because it requires an owner or operator of a facility

that has troublesome compliance history to review and update its facility operations and permit application more frequently to ensure that the facility can be operated safely and effectively in compliance with applicable environmental laws and regulations.

Section 66271.57(h)(2) provides that any permit issued by DTSC to a hazardous waste facility assigned to an "unacceptable" compliance tier must contain enhanced compliance provisions, including, but not limited to compliance audits consistent with section 66271.56. This provision provides DTSC the flexibility to mitigate potential harm associated with noncompliant activities and to ensure the enhanced permit conditions are progressive and correct compliance problems at the facility. Please see the Statement of Reasons for sections 66271.56(a), (c)(1), and (c)(2), which apply equally to this subsection. This provision is necessary to prevent future noncompliance.

Section 66271.57(h)(3) provides that any permit issued by DTSC to a hazardous waste facility assigned to an "unacceptable" compliance tier must include mitigation measures for potential harm associated with noncompliant activities or events. These include enforceable measures to reduce or alleviate conditions caused by noncompliance. DTSC must require the facility owner or operator to take action to remedy the harm or risk caused by violations. These measures may go beyond what is required for a facility to return to compliance and can promote environmental justice, pollution prevention, and the development of innovative technologies that protect human health and the environment. This provision is necessary to impose requirements designed to mitigate potential harm associated with noncompliant activities or its operations and require the facility to take necessary measures to mitigate these potential harms.

Section 66271.57(i) allows DTSC to require a facility that is assigned to an "unacceptable" compliance tier to take any action determined by DTSC as necessary to comply with hazardous waste management requirements and other environmental laws and regulations. Actions that can be required by DTSC include, but are not limited to, those identified in subsections (i)(1) through (6), below.

These provisions are necessary to clarify that a facility may be subject to additional requirements as deemed necessary by DTSC, and to the extent allowed by law, to protect human health, safety, and the environment consistent with applicable hazardous waste management requirements, and other environmental laws and regulations. This statement of necessity applies to all the subsections in section 66272.57(i).

Section 66271.57(i)(1) authorizes DTSC to require an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to comply with section 66271.56 (regarding a "conditionally acceptable compliance tier,) which requires the completion of an independent third-party compliance audit. Please see the discussion in the Final Statement of Reasons for section 66271.56, which applies to this subsection.

Section 66271.57(i)(2) authorizes DTSC to require an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to conduct additional and/or enhanced training to improve facility operations and compliance. If the pattern of repeat violations indicates a deficiency

in the training of facility personnel, DTSC may require more focused training, additional subject material, or more frequent training to raise the level of proficiency in hazardous waste compliance. For example, additional training may include hazardous waste identification and characterization, labeling requirements, aisle spacing, or special handling for incompatible waste. It is important to assist employees in understanding the waste management requirements of RCRA and California's Hazardous Waste Control Law in the workplace under both normal and emergency conditions. It is necessary to increase training if noncompliance continues due to lack of proper training.

Section 66271.57(i)(3) authorizes DTSC to require an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to implement facility improvements related to the causes of the facility's noncompliance, including, but not limited to, repairing, replacing, or augmenting hazardous waste management units, equipment, devices, or secondary containment. Hazardous waste standards are important to ensure that hazardous waste is appropriately identified and handled safely to protect human health and the environment. When hazardous waste management units do not meet these standards, the potential for harm increases. When units need repair or replacement, it may lead to catastrophic releases, increased emissions due to leaks, industrial accidents, or fire. It is imperative that owners and operators maintain all hazardous waste management units, equipment, devices, and secondary containment to meet hazardous waste standards. This is necessary to implement facility improvements if noncompliance is due to hazardous waste units that do not meet hazardous waste standards. Please also see the Statement of Reasons in support of sections 66271.56(c)(2) and (3).

Section 66271.57(i)(4) authorizes DTSC to require an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to require the facility owner or operator to restrict or cease the operation of a hazardous waste management unit that is the underlying cause of the violations. Please see the Statement of Reasons in support of sections 66271.56(c)(2) and (3), which apply equally to this subsection.

Section 66271.57(i)(5) authorizes DTSC to require an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to conduct public participation and community engagement activities to address the facility's compliance issues and actions taken to return to compliance. It is important for a facility with compliance problems, to communicate with the community and provide an opportunity to hear from the public, how the owner's or operator's behavior is affecting them. This is necessary to ensure public participation and community engagement with respect to hazardous waste facilities.

Section 66271.57(i)(6) authorizes DTSC to require an owner or operator of a hazardous waste facility assigned to an "unacceptable" compliance tier to increase or expand facility monitoring, recordkeeping, and/or reporting. For example, this may entail expanded air monitoring at the facility's boundary, monthly reports on various elements of the facility's operating record, submittal of summary reports and results of inspections, or other summary reports of discharges or emissions. This provision is necessary to ensure that DTSC has the information and data needed to determine facility compliance and if permit conditions need to be clarified or revised, and to identify potential impacts from the facility operations on human health or the environment.