

## INITIAL STATEMENT OF REASONS

## HAZARDOUS WASTE FACILITY PERMITTING CRITERIA

Department Reference Number: R-2016-03

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<b>I. DETAILED STATEMENT OF THE SPECIFIC PURPOSE AND RATIONALE</b> .....	2
<b>II. ECONOMIC IMPACT ANALYSIS</b> .....	5
<b>III. REPORTS RELIED ON</b> .....	7
<b>IV. REASONABLE ALTERNATIVES CONSIDERED</b> .....	9
<b>V. DUPLICATION OR CONFLICTS WITH FEDERAL REGULATIONS ADDRESSING THE SAME ISSUES</b> .....	15
<b>VI DETAILED STATEMENT OF REASONS: SUMMARY AND RATIONALE</b> .....	16
Chapter 10 .....	17
Article 2. Definitions.....	17
§ 66260.10 Definitions .....	17
Chapter 14 and Chapter 15 .....	17
Article 2. General Facility Standards.....	17
§§ 66264.16 and 66265.16 .....	17
Article 6. Water Quality Monitoring and Response Programs for Permitted Facilities.....	23
§ 66264.101 Corrective Action for Waste Management Units.....	23
Article 8. Financial Requirements.....	24
§§ 66264.143 and 66265.143 Financial Assurance for Closure.....	25
§§ 66264.144 and 66265.144 Cost Estimate for Postclosure Care. ....	30
§§ 66264.145 and 66265.145 Financial Assurance for Postclosure Care.....	30
§§ 66264.146 and 66265.146 Use of a Mechanism for Financial Assurance of Both Closure and Postclosure Care.....	32
§§ 66264.147 and 66265.147 Liability Requirements.....	33
§ 66264.151 Wording of the Instruments.....	35
Chapter 20 .....	37
Article 2. Permit Application.....	37
§ 66270.14 Contents of the Part B: General Requirements.....	37
§ 66270.14(b)(22) .....	37
§ 66270.14(b)(23) .....	37

§ 66270.14(b)(24) Community Involvement Profile.....	37
§ 66270.14(c)(8).....	48
§ 66270.14(e) Hazardous Waste Facility Permit Health Risk Assessment .....	48
Appendix I. Classification of Permit Modifications .....	82
Chapter 21. Procedures for Hazardous Waste Permit Decisions.....	83
Article 3. Violations Scoring Procedure for Hazardous Waste Facility Operations.....	83
§ 66271.50 Applicability .....	83
§ 66271.51 Determining the Initial Score for Each Class I Violation.....	88
§ 66271.52 Adjustment to the Initial Score for Each Violation.....	94
§ 66271.53 Inspection Violation Score .....	95
§ 66271.54 Facility Violations Scoring Procedure (VSP) Score.....	97
§ 66271.55 Permit Decisions .....	98
§ 66271.56 Requirements for Facility VSP Score of “Conditionally Acceptable” .....	102
§ 66271.57 Requirements for Facility VSP Score of “Unacceptable” .....	108
§ 66271.58 Appeals for Reconsideration.....	114

## I. DETAILED STATEMENT OF THE SPECIFIC PURPOSE AND RATIONALE

The Department of Toxic Substances Control (DTSC) enforces federal and state protections at facilities that manage hazardous waste. This waste may pose a threat to public health and safety or the environment. DTSC is undertaking this rulemaking to enhance public health protections, especially for members of vulnerable communities. DTSC is adopting these regulations pursuant to California Health & Safety Code section 25200.21. That section authorizes and requires 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 these safeguards, 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, etc.);
- Evidence of financial responsibility and qualifications of ownership;
- Provision of financial assurances pursuant to Health & Safety Code section 25200.1;
- Training of personnel in the safety culture and plans; and
- Completion of a health risk assessment.

Health & Safety Code section 25200.21 was enacted as part of Senate Bill 673 (SB 673, Stats. 2015, Chapter 611, section 1, effective January 1, 2016). A companion piece of SB 673 was enacted as Health & Safety Code section 25200.23. (SB 673, Stats. 2015, Chapter 611, section 2, effective January 1, 2016). That section 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 of a permit application;
- 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 & Safety Code section 39711.

DTSC notes the companion provision<sup>1</sup> to further establish context for these regulations that are being adopted pursuant to the directive in Health & Safety Code section 25200.21. DTSC also notes that the provisions of Health & Safety Code section 25200.23 do not explicitly compel DTSC to adopt regulations in carrying out its obligations under that section. Rather, DTSC must make changes to its internal management and operations to accomplish the goals set out in Health & Safety Code section 25200.23. If DTSC were to implement permitting program reforms under Health & Safety Code section 25200.23 in a manner that would subject them to the Administrative Procedure Act (APA, commencing with Government Code section 11340), DTSC would comply with the APA for such reforms. Under these provisions, Health & Safety Code sections 25200.21 and 25200.23, DTSC can accomplish a suite of regulatory and programmatic improvements to its permitting program, focusing especially on consistency, transparency, and public input opportunities.

DTSC’s Permitting Division considers and issues decisions on applications for hazardous waste facility permits. In general, facilities that treat, store, or dispose of hazardous waste in California are required to have a hazardous waste facility permit issued by DTSC. These permits authorize the facilities’ activities, while also imposing conditions on facilities’ operations. Compliance with such conditions is subject to inspection and other forms of review by DTSC’s enforcement program. DTSC’s enforcement program conducts inspections to ensure compliance with hazardous waste management requirements. If DTSC discovers violations, it may take several different types of enforcement actions. Violation of permit conditions subjects the violator to a range of penalties that may include one of the following: imposition of administrative penalties; imposition of civil

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<sup>1</sup> Health and Safety Code, section 25200.23

penalties; or prosecution under criminal statutes set out in the California Hazardous Waste Control Law. (Health & Saf. Code, section 25100 et seq.)

DTSC's permitting program is the bedrock of its regulatory oversight of facilities that treat, store, or dispose of hazardous waste. The principal purpose of DTSC's permitting program is to ensure that those entities operate safely for facility personnel and nearby residents, and in a manner that protects the environment. DTSC's Permitting Division imposes permit conditions to prevent and control releases of harmful substances from a facility to air, water, or soil. DTSC has issued 121 permits to 113 facilities in California. (Some facilities hold more than one permit.) A broad range of facilities hold hazardous waste facility permits, from small family-owned businesses, such as used oil transfer stations, to Lawrence Berkeley National Laboratory, which has a permit for the treatment and storage of hazardous waste, as part of its operations as a contractor to the United States Department of Energy.

DTSC is authorized by the United States Environmental Protection Agency (U.S. EPA) to administer and enforce California's hazardous waste management program in this state in lieu of the federal hazardous waste management program—the Resource Conservation and Recovery Act of 1976 (RCRA, Title 42, United States Code, commencing with section 6901), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA). DTSC also implements a hazardous waste management program for facilities not subject to RCRA. DTSC calls these the “non-RCRA” universe of regulated entities, including non-RCRA permitted facilities.

The basic steps in DTSC's permitting process include the following:

1. Pre-application meeting with permit applicant and the receipt of an application;
2. Completeness review and technical review of permit application;
3. Public notice of Draft Permit or Intent to Deny Permit;
4. Public Meeting/Hearing;
5. Responses to Comments received during public comment periods;
6. Permit Decision to issue or deny a permit; and
7. Permit Appeal process, as applicable.

At Step 1, DTSC permitting staff meets informally with facility representatives, and the permit applicant provides DTSC with a permit application. At Step 2, DTSC Permitting staff conduct a thorough review of the permit application to determine if all required components are included and to determine whether or not the application complies with all substantive requirements set out in statute and regulation. Then, at Step 3, DTSC issues a public notice of its proposed decision based on its review of the permit application to either issue the permit or deny the permit application. This triggers the public meeting at Step 4. At this stage, interested parties, and members of the public have the opportunity to address DTSC and the permit applicant with comments, concerns, and questions. Then, at Step 5, DTSC responds to any comments received during any public comment period(s). DTSC then, at Step 6, issues the permit or permit denial decision. Finally, at Step 7, depending on how the public comment period(s) unfolded, there may be a permit appeal process.

These proposed regulations focus on step 2. That is, these proposed regulations would create a more specific and consistent basis for DTSC's Permitting Division to review and evaluate prior violations, if any, of the Hazardous Waste Control Law (commencing with Health & Safety Code section 25100) 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 these proposed criteria in the exercise of its discretion when reviewing new permit applications or permit modifications and when considering whether to suspend or revoke an existing permit.

DTSC proposes to add new provisions to Title 22, California Code of Regulations, Division 4.5, Chapters 10, 14, 15, 20, and 21. These regulations are necessary to satisfy the mandates of Health & Safety Code section 25200.21.

The benefits of the proposed regulations include DTSC's fulfillment of its legislative mandate to adopt these regulations and greater transparency and consistency in DTSC's decision-making regarding permit actions. The proposed regulations will also shore up DTSC's financial assurance requirements to address changes necessitated due to the passage of time. These include changes to account for the effects of inflation on various financial threshold amounts and problems discovered while implementing these requirements over the past 30+ years. Other improvements are proposed for the regulations related to the training of facility staff. In addition, DTSC has determined that the enhanced transparency and consistency will, in turn, foster greater public confidence in DTSC's administering of its permitting program. DTSC also believes that the proposed regulations will indirectly lead to greater protection of public health and safety, and the environment.

## II. ECONOMIC IMPACT ANALYSIS

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

### Creation or Elimination of Jobs within California

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 hazardous waste facility owners or operators. (These are primarily in the area of the newly-proposed Health Risk Assessment and community involvement profile requirements and the Financial Assurance proposed revisions.) Rather, the adoption of these regulations will primarily affect DTSC's review, approval, and denial processes for hazardous waste facility permitting decisions, bringing more transparency and consistency to those decisions. There are 113 permitted hazardous waste facilities in California. But of these, 27 facilities are no longer operational; their permits are for their post-closure monitoring and clean-up activities that are subject to permitting requirements. This leaves 86 operating hazardous waste facilities. Typically, DTSC receives approximately ten to fifteen permit applications in any given year. These include both initial applications for proposed new facilities and applications for permit renewals for existing facilities. Thus, there is little, if any, basis to conclude jobs in this niche industry would be created or eliminated

by the proposed regulations. Again, the proposed regulations impose very few new or additional operational requirements on the affected industry—hazardous waste facility owners and operators. These changes are not expected to lead to job growth or shrinkage.

#### Creation of New Businesses or Elimination of Existing Businesses within California

The proposed regulations are not entirely directed at businesses, and 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 regarding those decisions. Again, as noted above, this is a very small segment of the overall California economy that has experienced few new business ventures over the past 20+ years. DTSC sees no reason why these proposed regulations would have any impact on that business reality.

#### Expansion of Current California Businesses

DTSC has determined that the 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 decision-making. 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 facility requirements are not expected to have any impact on expansion or contraction on California businesses.

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

DTSC wants greater transparency and consistency regarding DTSC's permitting decision-making. This will foster greater understanding of DTSC's decision-making in its permitting program and advance protection of public health and the environment. The proposed regulations, among other things, incorporate evaluation of hazardous waste violations as part of the permitting decisions. Simply put, the greater the number of significant violations, the greater the chance for imposition of mitigation measures or permit denials, suspensions, or revocations. These actions would then ultimately protect the health and welfare of California residents, facility workers, and better protect the environment.

The benefits of the proposed regulations include all of the following improvements:

- Normalization of the evaluation of compliance history for hazardous waste facilities and consistency with DTSC's existing penalty regulations set out in Title 22, California Code of Regulations, Division 4.5, Chapter 22, Article 3;
- Enhancement of facility compliance by providing an enforcement metric to facilities that encourages owners and operators to improve their compliance with applicable requirements. Compliance scores will be continually updated and over time, compliance

performance trends will be reflected in this metric. The goal is a lack of, or reduced number of, violations resulting in lower scores;

- Clarification of the factors and the procedures to be used when making permit decisions;
- Enhancement of the current 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;
- Health risk characterization of facility operations to ensure greater protection of facility's workers and the surrounding communities;
- Data collection of population characteristics to identify vulnerable populations and address both environmental justice and public participation opportunities; and
- Annual training of facility personnel to improve safety and compliance with the Hazardous Waste Control Law and the implementing regulations.

### III. REPORTS RELIED ON

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

#### GENERAL

Senate Bill 673 (Stats. 2015, Chapter 611, sections 1 and 2) was signed into law on October 8, 2015. The bill provides the authority and mandate to adopt the proposed regulations. DTSC has relied upon the Economic and Fiscal Impact Statement (STD. 399) and the following documents in developing this rulemaking package:

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

Department of Toxic Substances Control, Permitting Process Review and Analysis, Final Report, 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 compiled by the 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 of the 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](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/rff/Documents/Rff-DP-01-42.pdf>.

“Subtitle C and D Corporate Financial Test Analysis Issue Paper Assessment of Financial Assurance Mechanisms (March 18, 1996) Retrieved from the U.S. EPA web site: <http://www.epa.gov/epaoswer/non-hw/muncpl/finance/famc/paper10.pdf>.

“RCRA Financial Assurance for Closure and Post-Closure” U.S. EPA, Office of the Inspector General Audit Report (March 30, 2001).

#### COMMUNITY INVOLVEMENT PROFILE

CalEnviroScreen 3.0, Update to the California Communities Environmental Health Screening Tool, January 2017, California Environmental Protection Agency (CalEPA), Office of Environmental Health Hazard Assessment. 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, 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. EPA, EPA/540/1-89/002, December 1989. Available at [https://www.epa.gov/sites/production/files/2015-09/documents/rags\\_a.pdf](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/cnr/2015guidancemanual.pdf>.

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

#### VIOLATIONS SCORING PROCEDURE

Department of Toxic Substance Control’s Envirostor. 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 has 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 approach to meeting its mandate to adopt regulations. 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 has chosen these regulations as the preferred alternative. DTSC has 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 DTSC uses for the issuance of a new or modified permit, renewal, denial, suspension, and revocation of a hazardous waste facility permit.

The Violations Scoring Procedure (VSP) sets up a process to evaluate a facility’s compliance history. The calculation of the Facility VSP Score is consistent with existing methods and processes for addressing administrative penalty calculations for hazardous waste management violations. The VSP calculation includes all Class I violations that are found during DTSC compliance inspections over a rolling ten-year period. Each Class I violation is scored, and DTSC compiles an inspection score that is the total of all the violations found during a given inspection. The total for all inspections 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 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 complexity of a facility and the inspection intervals, because generally, the more complex a facility, the more frequent their DTSC’s inspection rotation schedule.

In addition, DTSC determined that a simple and quick mechanism for reviewing preliminary inspection violation score disputes was necessary. The preliminary inspection score is the driver for the final inspection score and overall Facility VSP Score. As such, it is important that DTSC get this

score correct. To that end, and to give facilities due process tailored to DTSC's decisions regarding preliminary scoring, DTSC created a streamlined dispute resolution process for this procedure.

**Rejected Alternatives:**

**Alternative 1.** No action. Section 25200.21 of the Health & Safety Code requires that DTSC adopt regulations "establishing or updating criteria used for the issuance of a new or modified permit or renewal of a permit...." To do nothing would place DTSC out of compliance with this mandate from the California Legislature. Moreover, DTSC sees great benefit from increasing transparency and accountability. Therefore, DTSC rejected this alternative.

**Alternative 2.** Draft regulations that establish grounds for denial or suspension of a permit based on criteria other than DTSC's Penalty Regulations. 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 section 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 approaches for evaluating the same thing—violations of hazardous waste management requirements. Furthermore, for future violations found during a compliance inspection, two separate sets of criteria would have to be documented—one for penalties and one for these regulations. Newer criteria would be absent from older inspection reports, which would make it impossible to assess these violations and difficult to ensure consistency. The regulations primarily impact DTSC in the carrying out of its duties in implementing its permitting program.

**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, the 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 evaluation of the compliance history.

**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 fairly straightforward decision making by DTSC—arriving at preliminary inspection scores. DTSC has adopted a multi-staged, more formal dispute resolution procedure for the Safer Consumer Products program, but did not believe that approach would be appropriate here. The decisions subject to dispute resolution for this program are not nearly as technically or scientifically complex as those made under the Safer Consumer Products program; thus, the decisions in this instance do not warrant the same dispute resolution approach as was taken in the Safer Consumer Products regulations.

**Financial Assurance - Available alternatives included the following:**

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

- Modify the existing financial test mechanism. The alternative chosen will add a credit rating to the financial ratios test, require all financial tests to be supported by a 20 percent trust fund, and update the regulations to account for changing economic conditions and inflation factors since the original regulations were promulgated approximately 20 years ago.
- 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 20+ 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. Hazardous waste facility owners and operators 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 upset 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 State funds and to ensure that the owners and operators of hazardous waste facilities at the end of operation clean up contamination at the facility.

**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 some concerns with 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 1960's 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. Altman stated that a Z-Score of 2.99 (for a public company), 2.60 (for a private company) or greater made that company highly unlikely to become insolvent. A score lower than 1.81 (public), 1.1 (private) would indicate a company that 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 midsized 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:** The modified financial test mechanism used by the State of Alabama 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 this hybrid mechanism could also pass the financial test, therefore DTSC considered this mechanism 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. DTSC is adding a new requirement for the annual certification of training records. The draft 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 members. DTSC rejected this alternative because DTSC concluded that these draft regulations are necessary to carry out its duties in implementing its permitting program and to afford better protection to facility personnel and surrounding communities.

**Alternative 2. More Extensive Regulations:** DTSC could have revamped 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 revamping 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. So, DTSC rejected this alternative.

**Community Involvement Profile - Available alternatives included the following:**

**Chosen Alternative:** The alternative requires 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. Addressing environmental justice concerns requires the early involvement of affected communities and other stakeholders. This is the initial step to gather available information and bring it into the process when a permit application is submitted.

**Rejected Alternatives:**

**Alternative 1. No Action.** This alternative would do little to help DTSC's efforts to address environmental justice and enhance public participation. California was one of the first states in the nation to codify environmental justice concepts in statute.<sup>2</sup> Beyond the fair treatment called for in that statute, Senate Bill 673 requires DTSC to include indicators of community vulnerability, cumulative impact, and potential risks to health and well-being when making permit decisions. CalEPA's policy and practice is to protect those individuals disproportionately impacted by pollution

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<sup>2</sup> Government Code section 65040.12(e) defines "environmental justice."

in decision-making processes. To do nothing would place DTSC out of compliance with a mandate from the California Legislature.<sup>3</sup> Therefore, DTSC rejected this alternative.

**Alternative 2.** This alternative would have required all RCRA and non-RCRA facilities seeking permits to hold at least one meeting with the public to solicit questions from the community and inform the community of proposed hazardous waste management activities. Section 66271.31, which requires an owner or operator to hold at least one public meeting prior to submittal of the permit application, currently applies solely to RCRA facilities when applying for an initial permit or to applicants seeking renewal of permits that include proposing a significant change in facility operations. DTSC determined it was not necessary or appropriate to extend this requirement to non-RCRA facilities as well. This is because these operations are inherently less dangerous and complex than RCRA facilities. Primarily for these reasons, non-RCRA facilities tend to generate far less public interest and public involvement than RCRA facilities.

**Alternative 3.** Require the Community Involvement Profile to be submitted six months before the due date for the Part B permit application. Although, in theory, having this information in advance of the permit application would be beneficial, without the Part B application, it would be difficult to review the community involvement profile information. Essentially, it is necessary to read the Part B permit application and community involvement profile information in tandem. 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 specified the completion of a health risk assessment in a non-exhaustive list of criteria that DTSC must consider in drafting these regulations. DTSC has determined that a tiered approach is the most effective method to implement this mandate. A full-blown, comprehensive health risk assessment provides crucial information on the potential health impacts to the surrounding community, but may be too burdensome for all facilities in relation to the benefits provided. Not all facilities represent the same pollution burden on the surrounding community. More specifically, a time-consuming and expensive Health Risk Assessment process may not be necessary if screening processes and information indicate that no further assessment is necessary. This has the added benefit of allowing DTSC to tailor the level of effort to the risk posed. Thus, it allows DTSC to also focus its time and resources on the facilities of most concern. By setting up a three-tiered requirement, DTSC has the flexibility to assess all the facilities based on conservative exposure assumptions and only require those with problematic site-specific conditions to be evaluated more thoroughly.

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<sup>3</sup> Section 71110 of the Public Resources Code requires CalEPA to “Conduct 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.”

While all of DTSC's programs and requirements are intended to prevent releases of contaminants into the environment, there are still residuals of historic contamination and some 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 uses baseline health risk assessment only to evaluate the most complex hazardous waste facilities or to determine cleanup levels for contaminated sites. For hazardous waste facility permit decisions, DTSC makes a determination to require a health risk assessment on a case-by-case basis. Health risk assessment may also be required to support the findings of an environmental impact report prepared in accordance with the California Environmental Quality Act for a permit decision. However, without regulations to require a health risk assessment, DTSC must make the argument to owners or operators of a facility that a health risk assessment is necessary to characterize the risk posed by the facility and to ensure hazardous waste facility permits are protective of human health and the environment. But these regulations allow DTSC to pursue a tiered approach that will ensure important health risk information is provided to the community, and that health risk assessment processes and decisions are based on sound data and methods.

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

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

There are no specific counterpart federal regulations to these proposed regulations for a violations scoring procedure or health risk assessment. Therefore, there is no conflict or duplication between these proposed regulations and federal regulations addressing the same issues. 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) 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) U.S. EPA's 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. RCRA authorizes states to implement their hazardous waste regimes if the state regulates the same or greater scope of activities and provides the same or greater degree of protection as does RCRA and its implementing regulations. 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(b)(6)(A).

In addition, there is no additional cost or burden imposed on any regulated entity pursuant to these regulations regarding the violations scoring procedure. While DTSC points out again that 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 is of the opinion 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(b)(6)(B).) In addition, the other improvements upon the existing regulations will result in a better regulatory regime.

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

## Chapter 10

### Article 2. Definitions

#### § 66260.10 Definitions

Section 66260.10 has been amended to create a two new definitions.

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(e). A chemical of potential concern (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.

(COPC) 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 goes beyond and includes any of 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 chemicals of potential concern will then be carried forward for further evaluation to subsequent steps in 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.

## Chapter 14 and Chapter 15

### 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(f) specified 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: the 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 health and safety of all facility personnel and the

public. These provisions also make various nonsubstantive editorial changes to the text 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) 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.

**Sections 66264.16(a)(1) and 66265.16(a)(1)** specify that the training program must include the provisions in this subsection. 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)** specify that adequate hazardous waste management training must be provided to minimize the potential risk of hazardous waste releases or mismanagement of incompatible wastes. 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 the 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/or 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 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:

- 1) Department of Industrial Relations’ proposed 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.”
- 2) 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. What is proposed in this regulation does not fully address safety culture as defined above. This is because DTSC is building on existing regulations that collectively foster a safety culture. However, these provisions are necessary to make specific that all 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)** are needed, and specify training requirements for facility personnel to shut down operations for facilities in case of an emergency response to the list of items in which facility personnel must be trained. 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)** specify that safety training must 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)** specify that safety training must 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<sup>4</sup> 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, 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 when significant changes are planned - before they are implemented.

DTSC has examined the OECD document and determined that it is informative and instructive for use in these regulations. More specifically, the subject matter is very much on point—Chemical Accident

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<sup>4</sup> 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>

Prevention. The concepts embodied in the OECD Guiding Principles document is very much in line with current thinking on these subjects and DTSC believes they will be useful to DTSC and hazardous waste facilities.

DTSC finds it necessary to modify the existing regulations to strengthen requirements that address accident prevention.

**Sections 66264.16(a)(4) and 66265.16(a)(4)** introduce two general subject areas to be included in the 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 training that informs them and provides 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, especially security and safety considerations. Such general awareness is critical for the purpose of 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 training specific to their job functions. Training requirements must be tailored to the nature of the work performed by facility personnel. The inclusion and reference to “Standard Operating Procedures” serves the purpose of ensuring that personnel will be trained to understand and perform applicable procedures associated with the operation plans in Part B of the permit, as well as any associated procedures relevant to an employee’s specific job functions. Proper training in the 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(a)(4)(d) and 66265.16(a)(4)(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 nonsubstantive 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. 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)** amend these provisions to 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(f) and 66265.16(f)** make specific that the applicant 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 subsection (a). 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 facility's training program is actually being implemented.

**Sections 66264.16(f)(1) and 66265.16(f)(1)** require a signed statement certifying that facility staff have been trained in a manner that satisfies the requirements of sections 66264.14 or 66265.14, as applicable, and any applicable requirements of Cal/OSHA (Title 8, California Code of Regulations, section 5192) 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.

These provisions also require the training plan to include a specified training schedule, 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"<sup>5</sup> 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 certification must include the name of each employee trained and the employee's job title. Facility records must be kept updated with this

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

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.

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

### **§ 66264.101 Corrective Action for Waste Management Units.**

**Sections 66264.101** adds a new subsection (b) to clarify the point in time at which financial assurance is required for corrective action. More specifically, DTSC is mandated to require financial assurance for corrective action at the earliest time DTSC is able to make a reasonable determination of the amount of financial assurance required. And DTSC must attempt to make a reasonable determination of the amount of financial assurance no later than the time corrective action is initiated.

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, remedy selection, and corrective measures necessary to protect human health and the environment.

The proposed regulations instruct DTSC to review all relevant data prior to issuing a permit or order so that, if appropriate, requirements for financial assurance may be incorporated into the permit or order. However, this proposed regulation does not preclude DTSC from requiring financial assurance prior to investigation or interim measures. This requirement is necessary to provide more certainty that a facility can provide funding for all phases of corrective action, to require financial assurance at the appropriate time, and to decrease the likelihood that DTSC will have to pay for corrective action.

**Sections 66264.101(c)** amends this subsection to include a requirement that the financial assurance for corrective action be set at a minimum of 25% of the amount specified in subsection (b) as an advance payment. Typically, the advance is specified in a corrective action consent agreement.

The change is necessary to ensure the availability of sufficient financial resources, provided by the facility owner or operators, for use by regulatory agencies to complete corrective action. This carries out the intention of both federal and state law to protect human health and the environment throughout the length of a corrective action. Subsection (c) is renumbered to

accommodate the new text in (b) and includes a nonsubstantive editorial change to the text to correct a syntax error.

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

## Article 8. Financial Requirements

### Summary of Proposed Changes to Financial Requirement Regulations

In general, the changes proposed to the Financial Assurance Regulations as part of the SB 673 rulemaking effort track changes previously proposed by DTSC in 2009-2010. For various reasons not germane to this rulemaking, those suggested changes were never adopted into regulation. The changes discussed here reflect discussions with DTSC staff involved with the prior rulemaking effort and the general public.

1. The draft regulations strengthen the financial test mechanism in all the various contexts where it appears in the regulations as a means of satisfying financial assurance obligations. These contexts include closure costs, postclosure care costs, and third party liability. In addition, conforming changes were made to the provision in the regulations that dictates the wording of financial instruments used to meet financial insurance requirements (Title 22, California Code of Regulations, section 66264.151).
2. The proposed changes to the financial test mechanism include all of the following:
  - A. An owner or operator may not “double-count” or “double-dip” on the assets relied upon to satisfy financial assurance requirements. More specifically, the same assets may not be used to meet DTSC’s financial assurance requirements and financial assurance requirements imposed by any other government agency. This greatly increases the likelihood the assets will actually be available to DTSC in the case of a triggering event.
  - B. “Captive Insurance” is precluded from being used to satisfy financial assurance obligations. 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. The reason for proposing to eliminate this type of insurance coverage is due to the lack of separation of risk of upset or triggering event at a facility (e.g., explosion, fire, or uncontrolled release of hazardous wastes) from the risk of financial failure of that same company or its parent. While the text does not explicitly contain this ban, it is achieved by requiring all lines of insurance used to satisfy these requirements be purchased from an insurance entity licensed by the California Department of Insurance. And the California Department of Insurance does not authorize captive insurers.

- C. The minimum net worth of a company to qualify for the financial test mechanism is being raised from \$10 million to \$20 million. This adjustment is being proposed to account for inflation over the 30+ years since the regulations were first adopted. The dollar amount is tied to the Gross Domestic Product implicit price inflator/deflator used in federal regulations. That is, the federal government has a tool and a method that adjusts the value of a dollar over time upward (inflator) or downward (deflator) to reflect the effects of inflation and deflation.
  - D. Minimum credit rating standards are being introduced. Currently, a company's creditworthiness is not tied to any objective standard used by the two principal rating services—Standard and Poor's and Moody's. This lack of standardization of the value of a company puts DTSC at greater risk of insolvency of an owner or operator than would be the case with specified creditworthiness standards.
  - E. A Trust Fund payment schedule is being added. The schedule calls for 2% per year to be paid in over a 10-year period. This results in 20% of potential liabilities being set aside and available to DTSC in the event of a triggering event. This amount is consistent with DTSC's practice regarding how much funding for corrective action is required at the outset of that process. Without this schedule and specified pay-in amounts, DTSC is at greater risk of a company's inability to cover required costs in the event of a triggering event.
3. Finally, the draft regulations would require an owner or operator of a facility to provide financial assurance for corrective action at the earliest time that DTSC may make a reasonable determination of the amount required. DTSC must attempt to make a reasonable determination no later than the point at which corrective action is initiated. Currently, the regulations do not specify when corrective action must be funded. This puts DTSC at a much greater risk of facility insolvency or instability to provide adequate funding.

These provisions in article 8 also make various nonsubstantive 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 "At 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 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 issued through a broker licensed by the California Department of Insurance.

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/or 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)** identify the criteria to meet the financial test mechanism and guarantee for closure. They have been amended to require compliance with sections 66264.143(f)(11) and 66265.143(e)(10). These amendments are necessary to incorporate the additional requirements regarding funding of closure activities of newly added sections 66264.143(f)(11) and 66265.143(e)(10), respectively, into the financial test mechanism.

**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 an alternate version of the 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(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 123.20% (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 various nonsubstantive 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. See above Statement of Reasons for sections 66264.143(f)(1)(A)4. and 66264.143(e)(1)(A)4. DTSC does not anticipate any facilities leave 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.

**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. 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. These sections are changed to 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 aggregate of all liabilities for which assets are offered as a financial assurance. This is necessary to ensure the owner or operator actually has adequate assets in the event money is needed to meet financial assurance obligations.

**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 66265.143(f)(2) makes an editorial change; paragraphs 1-4 was amended to read, “1 through 6.”

**Section 66264.143(f)(3)(A)** includes a nonsubstantive 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 incidents of that happening.

**Section 66264.143(f)(3)(C) and 66265.143(e)(3)(C)** include various nonsubstantive 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.

**Sections 66264.143(f)(11) and 66265.143(e)(10)** are added to require that the owner or operator using a financial test mechanism and guarantee for closure establish and maintain a trust account that conforms to the requirements specified in subsection (a) of section 66264.143 and subsection (a) of section 66265.143 respectively, except as otherwise set forth in this subsection. Payments into the trust fund are required over a maximum of ten years until the trust account is equal to twenty percent of the financial guarantee. The purpose of this new requirement is to protect public funds in the event of the sudden financial decline of a guarantor and to provide ready access to funds for the initial phase of closure. Twenty percent was chosen as the required amount of ready funds due to the startup costs that DTSC has experienced in the closure of sites where financial assurance was lacking or unavailable. The ten year pay in period is intended to mitigate the economic burden on facilities using the financial test mechanism. Subparagraph (C) requires that the trust fund account for the effects of inflation and be maintained at 20% of the total amount of the financial guarantee amount. Collectively, these changes are necessary to shore up deficiencies with the current requirements for funding closure costs.

**Sections 66264.143(f)(12) and 66265.143(e)(11)** are essential to prevent a facility owner or operator from relying on the same assets to satisfy financial assurance requirements by DTSC and another governmental agency. This provision precludes a facility owner or operator from “double counting” the same assets. 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. See the Initial Statement of Reasons sections 66264.143(f)(1)(A)5. and 66265.143(e)(1)(A)5. for further discussion.

#### **§§ 66264.144 and 66265.144 Cost Estimate for Postclosure Care.**

**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 nonsubstantive 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 nonsubstantive 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 nonsubstantive 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 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 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 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 Statement of Reasons for each amendment to section 66265.145.

#### **Chapter 14**

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

**Section 66264.145(f)(2)**, See section 66264.143(f)(2), supra. 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 Statement of Reasons for sections 66264.143(f)(3)(B).

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

**Section 66264.145(f)(12)**, See above Statement of Reasons for sections 66264.143(f)(11) and 66265.143(e)(10).

**Section 66264.145(f)(13)**, See above Statement of Reasons for sections 66264.143(f)(12) and 66265.143(e)(11).

## Chapter 15

**Section 66265.145(d)(1)**, See above 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 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 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 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 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 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 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 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 Statement of Reasons for sections 66264.143(f)(2) and 66265.143(e)(2).

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

**Section 66265.145(e)(11)**, See above Statement of Reasons for sections 66264.143(f)(11) and 66265.143(e)(10).

**Section 66265.145(e)(12)**, See above Statement of Reasons for sections 66264.143(f)(12) and 66265.143(e)(11).

### **§§ 66264.146 and 66265.146 Use of a Mechanism for Financial Assurance of Both Closure and Postclosure Care.**

Sections 66264.146 and 66265.146 specify that the financial mechanisms for both closure and postclosure should be secured for each facility. 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. 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 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 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 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 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 Statement of Reasons for each amendment to section 66265.147.

#### **Chapter 14**

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

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

**Section 66264.147(f)(1)(A)2.**, See above 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 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, subsection (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 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 Statement of Reasons for sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B).

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

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

## Chapter 15

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

**Section 66265.147(f)(1)(A)2.**, See above 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 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, subsection (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 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 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 Statement of Reasons for sections 66264.143(f)(3)(B) and 66265.143(e)(3)(B).

**Section 66265.147(f)(3)(C)**, See above 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 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 is licensed to do business in California. In addition, any excess or surplus lines of insurance used to satisfy these same requirements must be transacted by and through an excess or surplus lines broker licensed by the California Department of Insurance. 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 section 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 made to section 66264.143(f); 66264.145(f); 66264.147(f); 66265.143(e); 66264.145(e); 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, a corrective action cost estimate and a copy of the documentation to demonstrate financial assurance. This provision allows a new facility to wait sixty (60) days prior to the initial receipt of hazardous waste before submitting the required information to DTSC. Together, these requirements are necessary to ensure that corrective action is planned for, is adequately funded, and takes place in a timely manner.

##### § 66270.14(b)(23)

**Section 66270.14(b)(23)** requires that all relevant standard operating procedures (SOPs) or similar documents that a facility may have created are identified and included as part of a hazardous waste facility Part B permit application. Review of the SOPs by DTSC is necessary to ensure such procedures are consistent with the Part B Operations Plan, regulatory requirements, personnel training program, facility design considerations, and facility design standards. This provision also requires that these documents are readily available during enforcement inspections. Reporting by DTSC permitting staff identifies a potential for inconsistency in reviews or knowledge of SOPs when compared to the approved Part B Operations Plan. It is important that SOPs used at specific facility's onsite work stations be consistent with the rest of the Part B permit application. This provision is necessary to include complete regulatory review and the performance of consistency assessments comparing the rest of the Part B permit application and any relevant SOPs.

This provision allows the applicant to submit SOPs or similar documents to DTSC in an electronic format or to submit in paper copy. This provision is necessary to allow for reasonable and appropriate means of submitting SOPs to DTSC in differing contexts.

##### § 66270.14(b)(24) Community Involvement Profile

**Section 66270.14(b)(24)** 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)(24)(A) through (G). This profile summary is the initial step to provide additional information as to how hazardous waste facilities affect people and communities.

According to the California Office of Environmental Health Hazard Assessment (OEHHA)<sup>6</sup>, "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."

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<sup>6</sup> CalEnviroScreen 3.0, Update to the California Communities Environmental Health Screening Tool, January 2017, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment.

OEHHA's CalEnviroScreen model is made up of multiple components, each of which contributes to cumulative impacts. These are mainly components representing pollution burden and population characteristics. DTSC has based some of this profile on OEHHA's population characteristics for sensitive populations and socioeconomic factors. The profile will be used as a screening tool for identification of vulnerable populations. The criteria for vulnerable populations and cumulative impacts for permit decisions have not been finalized. However, DTSC is using the census tract information to represent population characteristics that are based on existing definitions and other screening tools. Table 1 below has some examples of community characteristics that may be used to identify vulnerable populations.

TABLE 1. Other Environmental Justice Characteristics and Tools

U.S. EPA- EJ <sup>7</sup>	EJScreen <sup>8</sup>	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	

<sup>7</sup> 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 socioeconomic 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.

<sup>8</sup> EJSCREEN: Environmental Justice Screening and Mapping Tool available at <https://www.epa.gov/ejscreen>.

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 community involvement profile must include any census tract that borders the hazardous waste facility. The definition of “community,” as including the census tracts that border the facility was chosen for the ease of the permit applicant acquiring required demographic information. According to the United States 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 community involvement profile, the term “community” will primarily be used.

The community involvement 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 summary 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)(24) is necessary for DTSC to meet its mandate to work toward achieving environmental justice in all of its policies and programs.

**Section 66270.14(b)(24)(A)** specifies that the applicant must provide a facility description that consists of salient information about the type of 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)(24)(A)1.** specifies that the hazardous waste activities taking place at the facility need to be described 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)(24)(A)2.** specifies that the applicant must describe the facility site and county assessor's parcel number. 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 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)(24)(A)3.** specifies that a description of surrounding land uses and zoning designations within a one mile radius of the facility 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<sup>9</sup> 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.

**Section 66270.14(b)(24)(B)** specifies which demographic information must be included in the profile. The applicant must provide the identification and summary of various population characteristics. The information about community demographics in the profile will be used as a screening tool for identification of vulnerable populations. These factors are required elements of the community involvement profile, which must include all the elements in the following subparagraphs. DTSC has determined that all of these elements are necessary in order for the community involvement profile to paint a comprehensive picture of the community near a facility, and to fully understand the potential impacts to that community by having a hazardous waste facility nearby.

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<sup>9</sup> [https://www2.census.gov/geo/pdfs/reference/ua/Century\\_of\\_Defining\\_Urban.pdf](https://www2.census.gov/geo/pdfs/reference/ua/Century_of_Defining_Urban.pdf)

Definitions for each of the socioeconomic characteristics are found on the United States Census Bureau's website glossary<sup>10</sup>.

**"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 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

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<sup>10</sup> <https://www.census.gov/glossary/>

American; American Indian and Alaska Native; Asian; Native Hawaiian and Other Pacific Islander. The 2010 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)(24)(B)1.** specifies that the profile must include age structure. 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)(24)(B)2.** specifies that that educational attainment level data be identified. 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.<sup>11</sup>

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 United States, the gradient in health outcomes by educational attainment has steepened over the last four decades.<sup>12,13,14</sup>

**Section 66270.14(b)(24)(B)3.** specifies that that the household income must be identified. 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 nutritional foods, and hence have better health profiles than persons in lower income groups.<sup>15</sup> Conversely, there are

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<sup>11</sup> OEHHA CalEnviroScreen 3.0

<sup>12</sup> Zimmerman E, Woolf SH. Understanding the relationship between education and health. Discussion Paper. Washington, DC: Institute of Medicine; 2014.

<sup>13</sup> Goldman D, Smith JP. The increasing value of education to health. *Soc Sci Med* 2011;72:1728–37.

<sup>14</sup> 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.

<sup>15</sup> Dawson DA. Family structure and children’s health: United States, 1988. National Center for Health Statistics. *Vital Health Stat* 10 (178). 1991.

several studies that correlate lower incomes with higher exposures to air pollutants<sup>16</sup> and low birth weight babies.<sup>17</sup> As such, it is necessary to include this important information in the profile.

**Section 66270.14(b)(24)(B)4.** specifies that languages spoken in the home must be provided. This information is necessary in order for 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)(24)(B)5.** specifies that English language isolation or proficiency be described. An entire household's or the head of household's inability 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, this warrants targeting communications to those areas in other languages.<sup>18</sup> Therefore, it is necessary to include this type of information in the profile.

**Section 66270.14(b)(24)(B)6.** specifies that statistics on the population size and any significant population projections that exist be identified. Mostly, the U.S. population growth is slowing, but there are other key trends that may affect the demographics in a community. These trends include migration in and out of the community, emigration, and immigration. It is necessary to be aware of these population 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)(24)(B)7.** specifies that race and ethnicity composition be described. Population demographic data provides important context for understanding the burden of disease and threats to health. 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 United States 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 race and ethnicity measures indicate a health disparity in the surrounding community.

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

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<sup>16</sup> 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.

<sup>17</sup> 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.

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

greater likelihood of living in areas with higher toxic releases.<sup>19</sup> Numerous studies have shown the location of hazardous waste sites in communities has long been an environmental justice concern in California.<sup>20,21,22</sup> 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)(24)(B)8.** specifies that the unemployment rates be identified. 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.<sup>23</sup> 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.<sup>24</sup> It is necessary to have this useful information to arrive at an appropriate and comprehensive profile.

**Section 66270.14(b)(24)(C)** specifies that known community concerns regarding public health or the environment be included in the community involvement profile. The identification of material issues must include issues raised by the public and affected agencies and a response of the applicant to those issues since the last permit issuance.

Known public health concerns in the surrounding community may include those that have been raised on a national level. These health concerns may include diabetes, obesity, heart disease, cancer and communicable illnesses. There may be additional local public health issues identified within the community. These issues may 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 and mitigated. The permit process may include imposing additional permit conditions that can 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

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<sup>19</sup> 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.

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

<sup>21</sup> 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.

<sup>22</sup> Rechtschaffen, C. (2003). The Evidence of Environmental Injustice. *Environmental Law News-Environmental Law Section*.

<sup>23</sup> OEHHA CalEnviroScreen 3.0

<sup>24</sup> 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)(24)(D)** specifies that the applicant must include in the community involvement profile a description of any known public activities that have occurred in the previous five years related to the hazardous waste facility. 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)(24)(E)** specifies that the applicant must identify the locations of sensitive receptors within the community. The identification of sensitive receptors must include all schools, child care facilities, hospitals, elderly housing, elder care facilities or convalescent facilities, or other sensitive locations where occupants are immobile. Sensitive receptors are people that have an increased sensitivity to environmental chemicals of potential concern. It is necessary to know about these sensitive receptors. 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)(24)(F)** specifies that the applicant must identify the locations of tribal lands within the community boundaries. 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 United States, 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.<sup>25</sup>

Non-federally recognized tribes are not officially recognized as indigenous nations by the United States federal government. In California, a non-federally recognized tribe is defined in state law ([Public 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.

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<sup>25</sup> 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.

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. 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)(24)(G)** specifies that the applicant must 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)(24)(G)1.** specifies that the applicant must identify other hazardous waste facilities. Other hazardous waste facilities may be found in DTSC's Envirostor database.

**Section 66270.14(b)(24)(G)2.** specifies that the applicant must identify large quantity generators of hazardous waste, 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.<sup>26</sup>

**Section 66270.14(b)(24)(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.” There is a CalEPA website page that provides information regarding the facilities or sites identified as being on the “Cortese List.”<sup>27</sup>

**Section 66270.14(b)(24)(G)4.** specifies that the applicant must identify entities or industrial facilities required to report under the federal Toxics Release Inventory (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.<sup>28</sup>

**Section 66270.14(b)(24)(G)5.** specifies that the applicant must identify any entities or industrial facilities 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.<sup>29</sup>

**Section 66270.14(b)(24)(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.”<sup>30</sup> The concept is useful because it allows one to consider the linear nature of the roadway as a movement in space and time.

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.<sup>31</sup>

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 results. The results indicate that 19% of the population lives near high volume roads. A larger share of

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<sup>26</sup> Biennial Reporting (BR) search is available at <https://www.epa.gov/enviro/br-search>

<sup>27</sup> Cortese List Data Resources is available at <http://www.calepa.ca.gov/sitecleanup/corteselist/>

<sup>28</sup> TRI website is available at <https://www.epa.gov/toxics-release-inventory-tri-program>

<sup>29</sup> Emergency Planning and Community Right-to-Know Act (EPCRA) is available at <https://www.epa.gov/epcra>

<sup>30</sup> Transportation Research Board, National Research Council: NCHRP Report 435, “Guidebook for Transportation Corridor Studies: A Process for Effective Decision-Making,” Washington, D.C., 1999

<sup>31</sup> 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>

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.<sup>32</sup>

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 to 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**

**Section 66270.14(e)** provides a stepwise process to prepare a hazardous waste facility permit Health Risk Assessment (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 thoroughly vetted and adequately documented. This in turn is necessary to ensure that DTSC fully considers the health risks posed by the facility. The HRA provides DTSC with sufficient information necessary to evaluate those risks and to put DTSC in a position to make informed decisions about permitting the facility. Furthermore, Health & 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, a level of predictability and certainty regarding the methods and information needed to conduct an HRA. The HRA itself is necessary in order 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 are a means of estimating the potential for an adverse effect on a select population upon 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 are performed for acute and chronic exposures of both onsite and offsite populations.<sup>33</sup> 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).

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<sup>32</sup> 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.

<sup>33</sup> Review of Chemical Agent Secondary Waste Disposal and Regulatory Requirements, National Research Council, National Academies Press, 2007

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. DTSC is using the term, "hazardous waste facility permit health risk assessment or HRA," to make specific that this evaluation must include existing concentrations of chemicals of potential concern and a risk characterization of hazardous waste management activities detailed in a permit application.

These regulations require a tiered approach to an HRA. The steps include a questionnaire, a screening HRA, and a baseline HRA. This tiered approach, "strike[s] a balance between the costs of adding detail and refinement to an assessment and the benefits associated with that additional refinement."<sup>34</sup>

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 (semi-quantitative) assessment or baseline assessment (quantitative) or require no further action.

**Section 66270.14(e)(1)** makes specific the objective of the hazardous waste facility permit health risk assessment. The following paragraphs set forth the elements of this HRA that characterize 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 that have resulted in contaminated media. California's Hazardous Waste Control Law requires that facilities that treat, store or dispose of hazardous wastes 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: initial site assessment (facility assessment), site characterization (facility investigation), interim actions, evaluation of remedial alternatives (corrective action measure studies), and implementation of the selected remedy (corrective measures implementation).

DTSC oversees the corrective action process and authorizes a cleanup process under a permit when there is an identified release of hazardous waste or chemicals of potential concern at a facility. However, these cleanups can take a long time and during the interim site conditions may represent a potential threat to human health. Therefore, it is necessary for the HRA to characterize the risk of these known releases.

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<sup>34</sup> 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

**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 the facility and upset conditions at any regulated unit, including releases associated with transportation to or from the facility, must be included in the risk characterization.

The HRA must include an evaluation of the impacts due to the operation of the hazardous waste facility as permitted, not necessarily as actually 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. 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 issues associated with air emissions, especially diesel exhaust. The composition of air emissions 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.<sup>35</sup>

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 risk assessment must consider different scenarios for all proposed activities, including: storage, treatment, transfer, and disposal of hazardous waste. See section 66270.14(e)(7)(A)5. for additional details on 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 identify the potential pathways of human exposure to hazardous wastes or chemicals of potential concern. 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 chemical of potential concern: skin contact (dermal); eating or 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 describe the potential magnitude and potential health impacts to persons both within and outside of the facility resulting from exposures to releases of hazardous waste or chemicals of potential concern. 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

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<sup>35</sup> ["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

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 Hazardous Waste Facility Permit Health Risk Assessment process that a facility may have to complete, depending on the facts and circumstances of a given facility. This is necessary to make clear 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 a hazardous waste facility permit health risk assessment 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 up the name and simplifying the term.

**Section 66270.14(e)(2)(B)** specifies that Screening Level Health Risk Assessment is another step in a hazardous waste facility permit health risk assessment. 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 another step in a hazardous waste facility permit health risk assessment. 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 any of the following: a Class I landfill, a large treatment facility with a Title V permit under the Clean Air Act, an incinerator, or boiler or industrial furnace, is required to submit a baseline HRA along with the HRA Questionnaire at the time the 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.

When rain percolates through waste in a landfill, it forms a liquid called leachate. This liquid 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. Although well-designed landfills are designed to prevent groundwater contamination, landfills still have the potential to leak leachate from containment systems.

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."<sup>36</sup> However, a Baseline HRA can provide this information and estimate risks to human health due to the activities of hazardous waste disposal in class I 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 at the time the Part B permit application is submitted, as well as the HRA Questionnaire. There is ample evidence that air pollution can have an adverse effect on the health of susceptible people (i.e. 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.

**Section 66270.14(e)(3)(A)3.** requires applicants for a hazardous waste incinerator permit must submit a Baseline HRA at the same time it submits the HRA Questionnaire and 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

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<sup>36</sup> 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

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 substantial 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. 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.** makes clear that applicants for a boiler or industrial furnace (BIF) burning hazardous waste will need to submit a Baseline HRA contemporaneously with submittal of an HRA Questionnaire and 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.<sup>37</sup>

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 significant

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<sup>37</sup> Title 22, California Code of Regulations, section 66266.106

risks posed by BIFs are subject to a Baseline HRA in order for DTSC to have an appropriate understanding of those risks.

**Section 66270.14(e)(4)** specifies the required elements of the HRA Questionnaire. The HRA Questionnaire is the first step of the hazardous waste facility HRA. 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 subparagraph 66270.14(e)(4)(B) to ensure the HRA Questionnaire is complete.

**Section 66270.14(e)(4)(A)** specifies that an applicant need only provide available information that can be reasonably ascertained. 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)** makes it clear that the HRA Questionnaire includes three elements. The language is tabulated for ease of understanding. This provision is necessary to make the HRA Questionnaire uniform and appropriately tailored to the operation of a hazardous waste facility in a given community.

**Section 66270.14(e)(4)(B)1.** requires the applicant to include a facility description in accordance with paragraph (e)(5). This is necessary to establish the extent of hazardous waste operations requested to be authorized in the permit application. It is also necessary to provide an overview of the facility operation by describing waste streams handled and proposed waste management units and activities.

**Section 66270.14(e)(4)(B)2.** 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)(B)3.** 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.

**66270.14(e)(5)** requires a facility description 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) through (J).

**Section 66270.14(e)(5)(A)** The facility name and the contact information must be provided. This is necessary to be able to contact the facility and clarify any issues quickly.

**Section 66270.14(e)(5)(B)** requires a description of the facility and its physical setting, which is important to understanding the environmental setting. Obtaining descriptive information about key geographic and other physical features of the facility lays the initial foundation for understanding potential associated exposures. It is necessary to describe the facility and identify any existing buildings, impervious surfaces, or vegetation on the site. Topographical characteristics, natural resources, land use, highways and major roads, surface waters, surrounding population density, and proximity of residential housing need to be described to identify potential receptors. This information also assists in identifying potentially exposed populations, which will support detailed exposure evaluations to be conducted later in the assessment process.

**Section 66270.14(e)(5)(C)** requires information about the site's past uses and operations. 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 in order 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)(D)** 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)(E)** 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. This is necessary to have an understanding of the activities occurring at the facility, especially as they may contribute to the possibility of an unplanned release of hazardous waste. 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.

**Section 66270.14(e)(5)(F)** requires the HRA Questionnaire to include a description of the “[n]ormal and maximum production rates of hazardous waste treatment, transfer, and storage.” 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. The greater the production rates of hazardous waste, the greater the potential for emissions and releases to the environment.

**Section 66270.14(e)(5)(G)** requires the HRA Questionnaire to include a description of the “[t]ypes and quantity of hazardous waste stored and treated.” This is necessary to further understand the nature of the facility’s operations, especially in light of the risks such operations may pose. 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)(H)** 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.

**Section 66270.14(e)(5)(I)** requires the HRA Questionnaire to describe the vehicular traffic, including delivery 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 in order for interested parties to become informed about potential risks posed by vehicle traffic related to facility operations.

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

**Section 66270.14(e)(6)** sets out the four broad subject areas that are necessary to assess health risks and that must be included in the HRA Assumptions Checklist. DTSC chose to include a general inventory of each of these topic areas for ease of use by the permit applicant. The HRA Assumptions Checklist 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 of the following provisions under section 66270.14(e)(6).

**Section 66270.14(e)(6)(A)** requires that the applicant identify the known and potential sources of chemicals of potential concern. 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 checklist items is necessary to highlight source categories that may need additional assessment to complete either a Screening Level HRA or a Baseline HRA.

**Subsections 66270.14(e)(6)(A)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 HRA Assumptions Checklist 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 HRA Assumptions Checklist 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)(6)(A)1.** requires that air emission Information be included in the checklist. 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 may be summarized is any air emission data reported on any of the following:

- an emission inventory criteria and guidelines report<sup>38</sup> 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.

It is important to indicate air releases from a facility to assess potential offsite impacts and exposures to nearby populations.

**Section 66270.14(e)(6)(A)2.** requires the information stipulated in wastewater discharge permits, which protect water quality, be included in the HRA Assumptions Checklist. 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)<sup>39</sup> are required for dischargers that conduct onsite treatment systems. The WDR pretreatment program was developed to ensure that industrial 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 NPDES and WDR 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

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<sup>38</sup> Incorporated by reference in section 93300.5 of Title 17 of the California Code of Regulations.

<sup>39</sup> 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.

regulations. The information described in this subparagraph 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 may 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.

**Section 66270.14(e)(6)(A)3.** requires that any information documenting a soil or groundwater contamination plume from any corrective action cleanup currently in progress be reported on the HRA Assumptions Checklist. 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, will be available. This data may be dated; so, 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.<sup>40</sup> 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.

**Section 66270.14(e)(6)(A)4.** requires that all known accidental 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 be provided as part of the HRA Assumptions Checklist. 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 (“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 applicant 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 the immediate work area or those assigned to clean them up. Spills requiring emergency response may result in fire, explosion, or chemical exposure. It is necessary to provide this information on the questionnaire because accidents and spills represent an additional potential for exposure to chemicals of potential concern.

**Section 66270.14(e)(6)(A)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. 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

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<sup>40</sup> Title 22, California Code of Regulations, Chapters 14 and Chapter 15, Article 6.

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<sup>41</sup> 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.<sup>42</sup> 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.

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.<sup>43</sup> The internet-based Cal-Adapt tool<sup>44</sup> 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 their 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

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<sup>41</sup> MyHazards is available at <http://myhazards.caloes.ca.gov/>

<sup>42</sup> Regulatory Maps Portal is available at <https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html>

<sup>43</sup> The guide is available at <http://resources.ca.gov/climate/safeguarding/local-action/>

<sup>44</sup> Cal-Adapt available at <http://beta.cal-adapt.org/tools/> or <http://cal-adapt.org/>

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, 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)(6)(B)** details what hazard identification information should be submitted as part of the HRA. 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.

The two following subparagraphs describe the information needed for identification of chemicals of potential concern. The information must include the following:

**Section 66270.14(e)(6)(B)1.** requires the identification of chemicals of potential concern for purposes of the hazardous waste facility permit HRA. This information must include any chemical of potential concern found in the sources specified in paragraph (A). 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;
- 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)(B)2.** requires the applicant to identify potential chemicals of potential concern's transformation or degradation products, if applicable. Depending on the environmental media where detected, chemicals can undergo slow changes resulting from different chemical, physical, biological or photochemical processes.

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.

**Section 66270.14(e)(6)(C)** requires a toxicity assessment, which 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. It is necessary to require this information to determine the appropriate toxicity values of chemicals to assess health risks.

**Section 66270.14(e)(6)(C)1.** requires the identification of the inherent hazard trait(s), or toxicity characteristics of the chemicals of potential concern. These 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. The inherent chemical hazards are critical to determine if there is a risk to health.

**Section 66270.14(e)(6)(C)2.** requires that 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 submitted, if available. 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 most protective toxicity values from such sources as 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, U.S. Agency for Toxic Substances and Disease Registry's minimal risk levels, or OEHHA's Chronic Reference Exposure 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 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 (ESL) 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 for any screening levels to be provided as long as the levels were developed by an environmental regulatory agency.

The purpose of this step is to disclose if a screening level exists for the chemicals of potential concern. There are many hazard traits without human testing data. It is necessary to require screening level information, if available, to complete an appropriate HRA.

**Section 66270.14(e)(6)(C)3.** requires that the categories of receptors likely affected or most susceptible to the chemicals of potential concern be provided. 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<sup>45</sup>;
- Potentially "high risk" populations;<sup>46</sup> or
- Uniquely vulnerable populations.<sup>47</sup>

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)(D)** requires an exposure assessment, which is another crucial element of a hazardous waste facility HRA. An exposure assessment identifies the affected population and, if possible, describes the amount, frequency, length of time, and route of exposure. 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

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<sup>45</sup> Transient populations may include recreationist, trespassers, migrant workers, etc.

<sup>46</sup> Potentially "high risk" populations may include children, elderly, those with pre-existing health conditions.

<sup>47</sup> 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.

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)(D)1.** requires that transport processes of each chemical of potential concern into and between media be provided as part of 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. Transport processes are necessary and important in accounting 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. This is important that the HRA Assumptions Checklist document how the chemicals of potential concern are or have been released to the environment and their movement through the environment to ensure how likely it is that exposure may occur beyond the facility.

**Section 66270.14(e)(6)(D)2.** requires the identification of, and rationale for, exposure scenarios. 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 is important information because the next evaluation is to determine if any exposure pathway is complete and affect a receptor. This information is a necessary component of a thorough and complete HRA.

**Section 66270.14(e)(6)(D)3.** requires the identification of, and rationale for, potential receptors. 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. It is necessary to identify receptors under both the current and future scenarios to ensure that all potential exposure pathways are evaluated.

**Section 66270.14(e)(6)(D)4.** requires the identification of, and rationale for, potential or complete exposure pathways. This section must 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.<sup>48</sup>

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 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 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

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<sup>48</sup> New Jersey Department of Environmental Protection, Technical Guidance for Preparation and Submission of a Conceptual Site Model, dated December 16, 2011.

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.

**Section 66270.14(e)(7)(B)3.** requires that impacted media be identified. 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 aspect of risk assessment is necessary to appropriately evaluate the potential risks posed by operation of the facility.

**Section 66270.14(e)(7)(B)5.** requires that 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's Office of Human Health and Ecological Risk and other appropriate staff 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 confers appropriate latitude for DTSC to make a determination regarding how to proceed with the hazardous waste facility HRA. It is also necessary to ensure that the HRA Questionnaire is responded to in a timely manner, while providing a sufficient amount of time for DTSC to review the contents and make a determination.

**Section 66270.14(e)(8)(A)** allows DTSC to require the applicant to submit supplemental information to complete its 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 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 requested 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 in order 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 may decide that a Screening Level HRA is needed and the applicant is required to comply 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 give DTSC the discretion to require an applicant to complete a Screening Level HRA when that is the appropriate response to the information provided in the HRA Questionnaire.

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.** specifies that a Screening Level HRA is needed if there 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 include all potential sources that can contribute to onsite contamination in the HRA.

**Section 66270.14(e)(8)(B)1.b.** specifies that a Screening Level HRA is needed if there is information that the normal operations of the facility releases, emits or discharges any pollutant or chemical of potential concern with no offsite consequences. This provision is necessary to gather further information about this issue of potential importance, especially to onsite staff.

**Section 66270.14(e)(8)(B)1.c.** specifies that a Screening Level HRA is needed if there information that there is a potential complete pathway between the chemical of potential concern and potential receptors.

**Section 66270.14(e)(8)(B)1.d.** specifies that a Screening Level HRA is needed if there information that there is a foreseeable upset conditions may impact any offsite receptors. A Screening Level HRA will be necessary to assess and determine if the facility can operate within acceptable safety margins.

**Section 66270.14(e)(8)(B)2.** specifies that one possible outcome of the review of the HRA Questionnaire is for DTSC to require a Baseline HRA that complies with the requirements of subparagraphs (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.** specifies that a Baseline HRA is needed if there is evidence of facility-wide onsite contamination present or contamination that has migrated beyond the facility boundaries. Corrective action to cleanup a site takes time and there are potential health risks in the interim that need to be assessed in additional to impacts due to hazardous waste operations at the facility. This requirement is necessary to include all potential sources that can contribute to onsite and offsite impacts in the HRA, and to have the applicant move directly to the Baseline HRA based on this important information regarding onsite and offsite contamination.

**Section 66270.14(e)(8)(B)2.b.** specifies that a Baseline HRA is needed 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. It is necessary to require a Baseline HRA to fully quantify these significant exposure risks. Therefore, a Screening Level HRA is not required.

**Section 66270.14(e)(8)(B)2.c.** specifies that a Baseline HRA is needed if there is information that there is a potential complete pathway between the chemical of potential concern and potential receptors. Again, a Baseline HRA is necessary to quantify these significant exposure risks.

**Section 66270.14(e)(8)(B)2.d.** specifies that a Baseline HRA is needed if there information that there is a foreseeable upset conditions may significantly impact any offsite receptors. In these

circumstances, a Baseline HRA is necessary to quantify and determine if the facility can operate within acceptable safety margins.

**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.

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 no evidence that there is onsite contamination present, then no further work on an HRA will be necessary, assuming the other three criteria for a no further action determination are also met. This is important because further HRA work requires that sampling data of environmental contamination be screened or evaluated to determine risk. This provision is necessary to tailor the amount of further HRA work, if any, to the risks posed in light of the HRA Questionnaire information.

**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, 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 tailor the amount of further HRA work, if any, to the risks posed in light of the information contained in the HRA Questionnaire.

**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, no further HRA analysis or documentation is needed. Again, this provision is necessary to require only the amount of HRA analysis and documentation as is appropriate in light of the results of the HRA Questionnaire.

**Section 66270.14(e)(8)(B)3.d.** specifies that if there is no foreseeable upset conditions which impact any offsite receptors, 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 its determination in accordance with paragraph (e)(8) based upon its review of the HRA Questionnaire. 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 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 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 Screening Level HRA work plan must demonstrate that the Screening Level HRA will include following subparagraphs 66270.14(e)(10)(A)1. through 2.

**Section 66270.14(e)(10)(A)1.** specifies that the work plan 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)2.** specifies that the conservative regulatory screening values be listed 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 and the Screening Level HRA must be based on the most recent peer reviewed toxicity criteria for unit risk factors, oral slope factors, reference doses, reference concentration, and reference exposure level values available. The U.S. EPA's Integrated Risk Information System (IRIS) generally supersedes all other sources of toxicity information. For further context, the U.S. EPA has published the Regional Screening Levels (RSLs) for Chemical Contaminants at Superfund Sites. These screening level or preliminary remediation goals are available on a website developed with Department of Energy's Oak Ridge National Laboratory. The screening levels posted on this website merge U.S. EPA Region 3's Risk-Based Concentration (RBC) Table, U.S. EPA Region 6's Human Health Medium-Specific Screening Level (HHMSSL) Table and the U.S. EPA Region 9's Preliminary Remediation Goals (PRG) Table. The RSL website is now the source of screening levels for all the U.S. EPA regions. The RSL tables provide comparison values for residential and commercial/industrial exposures to soil, air, and drinking water. The unified use of the RSLs, to screen chemicals at Superfund sites, promotes national consistency.

<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>

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.

Lastly, DTSC is currently proposing toxicity criteria for human health risk assessments. This provision is meant to be consistent with that rulemaking.

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)(11)** specifies that within 60 days of receipt of the Screening Level HRA work plan, DTSC will review the work plan to ensure the completeness 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. 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.** specifies that the applicant must 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 DTSC must complete its evaluation of the supplemental information and provide a determination to accept or reject the Screening Level HRA work plan within thirty (30) days from the date it is submitted. This section is necessary to clarify what are the expected outcomes of DTSC's review and to provide reasonable 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)** specifies that DTSC is required to provide a written notice to the applicant of DTSC's determination of the completeness of 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 facility Screening Level HRA. This provision clarifies the information that DTSC must provide to the applicant and sets reasonable rules for requiring additional submittals.

**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) within the time frame specified in DTSC's determination notice and the accepted applicable work plan. 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 it when a Screening Level HRA is required.

**Section 66270.14(e)(14)** specifies that DTSC will complete its review of the Screening Level HRA within ninety (90) days of its 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 its 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.** specifies that the applicant must submit the supplemental information within thirty (30) days of receiving the request for the supplemental information. 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 make a determination that the Screening Level HRA is accepted 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)** sets out the requirements for a Baseline HRA Work Plan. This title is added to introduce this subsection.

**Section 66270.14(e)(16)(A)** sets out 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 toxicity assessment 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 (cREs, 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.

According to the U.S. EPA's Risk Assessment Guidance for Superfund (RAGS) Part A (1989) and Part B (1991), there is a hierarchy for selecting toxicity values or factors. To this day, U.S. EPA's Integrated Risk Information System (IRIS) generally supersedes all other sources of toxicity information and is considered the "gold-standard" in terms of toxicological assessments. Since these guides were published, U.S. EPA has revised the hierarchy provided in the RAGS documents. The three tiers of toxicity values (based OSWER Directive 9285.7-53) are the same as those used for the Regional Screening Tables:

- EPA's Integrated Risk Information System (IRIS).
- The Provisional Peer Reviewed Toxicity Values (PPTRVs)<sup>49</sup> derived by U.S. EPA's Superfund Health Risk Technical Support Center (STSC).
- The Minimal Risk Levels (MRLs) developed by the Agency for Toxic Substances and Disease Registry (ATSDR).<sup>50</sup>
- The California OEHHA's Chronic Reference Exposure Levels from December 18, 2008 and the Cancer Potency Values from December 17, 2008.
- Health Effects Assessment Summary Table (HEAST) toxicity values maintained by the U.S. EPA.<sup>51</sup>

**Section 66270.14(e)(16)(A)2.** specifies that exposure estimates to receptors must be calculated 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.

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<sup>49</sup> PPRTV available at <https://hhpprtv.ornl.gov/> or <http://hhpprtv.ornl.gov/quickview/pprtv.php>.

<sup>50</sup> MRL available at <https://www.atsdr.cdc.gov/mrls/index.asp>

<sup>51</sup> HEAST is a comprehensive listing of provisional risk assessment information relative to oral and inhalation routes of exposure for chemicals is available at <https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=2877>.

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.** The exposure assessment must include complex exposure pathways and the identification of receptors. 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.** The risk assessment must include all pathways 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 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.** specifies that DTSC may require additional information for a 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 compliance 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 the request from DTSC for supplemental information. 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.** provides DTSC thirty (30) days to complete its review of the supplemental information before making its determination as to how to proceed. This provision is necessary to provide a reasonable 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 based upon its review of the Baseline HRA work plan and 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 the Baseline HRA by the due date given in the Baseline HRA notice. This provision also requires that the Baseline HRA to address the requirements found in paragraph (e)(1), subparagraph(e)(16)(A), and the accepted Baseline HRA work plan. 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 compliance with the requirements for its submittal. This is necessary to give DTSC a reasonable time frame for 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 work plan. 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 for supplemental information. 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.

**Appendix I. Classification of Permit Modifications**

Subsection B.5. makes an editorial change to Appendix I to bring consistency with other Title 22 sections. This editorial change is for the purpose of modifying existing text “Changes in the training plan” to “Changes in the training program” to be consistent with other state and federal regulations’ reference to “training programs.” This change is necessary for clarity and consistency.

## Chapter 21. Procedures for Hazardous Waste Permit Decisions

### Article 3. Violations Scoring Procedure for Hazardous Waste Facility Operations

Article 3, as a whole, establishes a regime for evaluating the seriousness of violations of hazardous waste requirements at hazardous waste facilities. The violations are scored using the newly-established Violations Scoring Procedure established by this article. The scores are, in turn, then used by DTSC in making various permit decisions. As a consequence of this newly established regime, DTSC, hazardous waste facilities, and the general public will all have a greater understanding of how DTSC evaluates the most significant and serious violations in connection with DTSC's permit program decision making.

#### § 66271.50 Applicability

**Section 66271.50(a)** specifies definitions for purposes of this article. These definitions are necessary to provide uniformity and clarity regarding the meaning of the defined terms that appear throughout Article 3. These definitions serve as a necessary foundation for the violations scoring procedure provisions set out in this Article.

**Section 66271.50(a)(1)** provides a definition for the term "Compliance inspection." DTSC may complete various types of inspections; so, it is necessary to define this term to make it clear that only this type of inspection will be used for purposes of this article. "Compliance inspection" is defined here to apply to onsite evaluations to determine compliance with various hazardous waste management requirements set out in various places. It also extends to both scheduled and unscheduled inspections, whether during routine operations or in response to an unexpected event at a facility.

The compliance inspection is the primary compliance monitoring mechanism for assessing compliance with the hazardous waste laws and regulations. Other types of inspections include those conducted under DTSC authority. These inspections include compliance sampling inspection, comprehensive groundwater monitoring evaluation, case development inspection, operation and maintenance inspection, and information gathering.<sup>52</sup>

**Section 66271.50 (a)(2)** specifies that the "facility violations scoring procedure score" or the "Facility VSP Score" is the numeric value arrived at upon completion of all the steps in section 66271.54(a). The VSP requires that each Class I violation is scored. Then all Class I violations are summed to arrive at an inspection violation score. Finally, all inspection violation scores are used to calculate a Facility VSP Score. 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. It is necessary to distinguish between each of these intermediate steps to clarify that the Facility VSP Score reflects a facility's compliance history, not just one violation or one inspection. Furthermore, it is necessary to have this provision be based on an average score so that one or more

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<sup>52</sup> Inspection Authority Under Section 3007 of RCRA <https://www.epa.gov/sites/production/files/documents/auths3007rcra-mem.pdf>

outlier VSP scores do not result in assigning a compliance tier that will trigger additional hazardous waste management requirements.

**Section 66271.50(a)(3)** provides a definition for “repeat violation.” With this approach, DTSC is attempting to look at the full background, nature, and context of various violations and violators. This is necessary to clarify when the initial violation score of a specific Class I violation will be adjusted upward. “Repeat violations” are two or more violations of the same statutory, regulatory, or other requirement as a previous violation at the facility, whether intentional or not. Repeat violations tend to demonstrate indifference or incompetence in managing the facility’s operations. As such, these violations warrant a higher score than an initial violation. DTSC is of the opinion that it is appropriate to adjust the initial score based on an adverse and relevant history of non-compliance. This provision is necessary to accomplish that desired goal.

**Section 66271.50(a)(4)** defines the “violations scoring procedure” as the entirety of the steps laid out in article 3. The definition provides consistency of usage and promotes a common understanding of term. It is necessary as a naming convenience to collectively refer the underlying concepts in this article.

**Section 66271.50(b)** specifies the scope of entities that are subject to the regulations in this article (Article 3). More specifically, subsection (b) provides that “hazardous waste facilities” subject to the permitting requirements administered and enforced by DTSC are the only entities that are covered by the provisions of this article. Title 22, California Code of Regulations, section 66260.10, in turn, provides in pertinent part as follows: “‘Hazardous waste facility,’ ‘hazardous waste management facility,’ ‘HW facility,’ or ‘facility’ means: (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) specifies what types of businesses are subject to the requirements of this article—hazardous waste facilities—and what types of businesses are not—all entities other than hazardous waste facilities. This provision is necessary to clearly identify and limit the types of entities subject to these regulations.

**Section 66271.50(b)(1)** provides an exclusion from the VSP and the other provisions of Article 3 for facilities operating pursuant to specific types of permits or other grants of authorization. By their very nature, none of these forms of authorization would be an appropriate fit for application of the VSP because none of them addresses operations of a typical hazardous waste facility in an ongoing, operational mode. Rather, each of the authorization activities excluded here is limited in scope or in time. As such, it would be inappropriate to subject these activities to Article 3 processes and rules. Thus, this provision is necessary to clarify and confirm that the enumerated events are outside the scope of this article. These are specified in the following subparagraphs ((A) and (B)).

**Section 66271.50(b)(1)(A)** specifies that facilities operating pursuant to a postclosure permit or order are exempt from Article 3. A postclosure permit is required for land disposal units that leave waste in place upon closure or any other hazardous waste management unit that cannot achieve the clean

closure standards. 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. The standard postclosure care period is 30 years. Regulations require a permit or an order to authorize postclosure activities.

**Section 66271.50(b)(1)(B)** specifies that a facility holding a permit or permit modification granted solely for closure activities is exempt from Article 3. Final closure occurs when all hazardous waste management units cease operation and close according to the 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. Regulations require a permit to authorize closure activities for containers, tanks, waste piles, incinerators, drip pads, and containment buildings. This provision is necessary to limit application of Article 3 standards to ongoing, operational hazardous waste facilities.

**Section 66271.50(c)** specifies the types of violations of hazardous waste requirements that DTSC will evaluate using the Violations Scoring Procedure Score established by sections 66271.51 through 66271.54 of this article. More specifically, those violations consist of "Class I Violations." That term is defined in Title 22, California Code of Regulations, section 66260.10 to mean:

"(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."

By restricting the applicability of this article to Class I violations, DTSC is, in essence, limiting the applicability of Article 3 to the most serious violations of hazardous waste requirements. It is not DTSC's intent to subject every violation of the hazardous waste requirements to this new regime. Rather, DTSC is limiting applicability to the most serious and significant types of violations. DTSC

intends to revise its permitting program decision-making taking into account, in a new manner, the most serious violations. This provision is necessary to identify and appropriately limit the types of violations of hazardous waste requirements that are subject to these regulations.

**Section 66271.50(d)** provides further clarity as to the types of violations subject to the newly-created Facility VSP Score by specifying the types of violations or other provisions that are expressly excluded. Again, DTSC has focused this scoring procedure to address the most serious and significant violations only. To confirm and clarify this approach, DTSC has identified three specific types of violations or potential contexts to which this VSP does not apply. More specifically, DTSC, in this provision, has ruled out applying the Facility VSP Score to all criteria in section 66271.50(d)(1)-(3).

**Section 66271.50(d)(1)** states that “Class II Violations” are generally not subject to the VSP. The definition of “Class II Violation” is set out in Title 22, California Code of Regulations, section 66260.10. That provision defines “Class II Violations” as follows. ‘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.”

To understand this definition, one must then know the meaning of a “Class I Violation.” Section 66260.10 sets out that definition, as well. See above discussion in section 66271.50(c) for the definition of a “Class I Violation.”

The one specified exception to this rule that Class II violations are not subject to the VSP is for Class II Violations that become Class I violations under section 66260.10. That section 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.”

Again, this is consistent with DTSC’s stated objective of limiting the applicability of the VSP to the most significant and serious violations. So, in general, Class II violations are excluded from being subject to the VSP unless the Class II violation becomes a Class I violation based on it being a chronic violation or committed by a chronic violator.

This provision is necessary to have this program aligned with DTSC’s statutory and regulatory provisions that govern its enforcement program. It is also necessary to clarify and confirm the types of violations subject to the VSP. Again, these are limited to the most serious and significant violations.

**Section 66271.50(d)(2)** specifies that “Minor Violations,” as defined in California Health & Safety Code section 25117.6 are not subject to the requirements of Article 3. Health & Safety Code section 25117.6 provides as follows.

“(a) ‘Minor violation’ means 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].”

Due to the fact that the Legislature enacted statutory provisions that established the term “minor violation” in statute, as well as “Class II violation,” DTSC has crafted this provision to clarify and confirm that minor violations are not subject to the Violations Scoring Procedure—or any of the other provisions of this article. This is necessary to have an appropriate scope of this regime and to inform the regulated entities and the general public of the applicability of this program. Again, DTSC is limiting its applicability to the most serious and significant violations of hazardous waste requirements.

**Section 66271.50(d)(3)** states that the Facility VSP Score does not apply to the assessment of penalties under Chapter 22. Chapter 22, establishes a regulatory program for the inspection of hazardous waste facilities and for the imposition of administrative penalties for violation of hazardous waste statutes, regulations, permits, or other hazardous waste management requirements. Because both Chapter 22 and this article address similar or overlapping subjects—DTSC action in the wake of violations of hazardous waste requirements-- DTSC is clarifying that the Facility VSP Score does not apply to DTSC actions taken under Chapter 22. Chapter 22 is a stand-alone body of rules that applies to the imposition of monetary penalties for violations of hazardous waste management requirements. The purpose and scope of Article 3 concern permitting decisions in light of a facility’s compliance history, not the imposition of penalties. This provision is necessary to clarify the fact that these provisions do not apply to DTSC actions under Chapter 22, including, but not limited to, the imposition of administrative penalties under that Chapter.

**Section 66271.50(e)** provides that DTSC will use the VSP to assess the compliance history of the facility as part of DTSC’s decision-making whether to issue, deny, modify, suspend, or revoke a hazardous waste facility permit. This provision clarifies that DTSC will employ the VSP processes and criteria in making permit decision covered by Article 3. This is necessary to prevent any confusion about the criteria or procedures that apply to DTSC’s permitting decision making.

**Section 66271.50(f)** specifies that this article does not limit or modify DTSC’s existing authority. Existing law found in Health & Safety Code, sections 25186, 25186.05, 25186.2, 25186.2.5, 25189.3, 25200.8, and others, already gives DTSC the authority to take actions on existing or proposed permit decisions. Under existing statutes and regulations, a permit may be jeopardized if an owner or operator of a hazardous waste facility has done any of the following:

- engaged in specified activities in violation of the Hazardous Waste Control Law or other laws. (Health & Saf. Code § 25186, Cal. Code Regs., tit.22, §66270.43)
- created a significant risk of harm to the public health or safety or the environment (Health & Saf. Code § 25186.05)
- has been found to have three or more incidents of Class I violations within a five-year period (Health & Saf. Code § 25186.05)
- created an imminent and substantial danger to the public health or safety or the environment. (Health & Saf. Code § 25186.2)
- operated under an expired permit that poses a risk to the public health or safety or the environment (Health & Saf. Code § 25186.2.5)
- submitted an application and has failed to respond adequately to three or more of notices of deficiency regarding incomplete or unsatisfactory information regarding the application (Health & Saf. Code § 25200.8).

This provision is necessary to make it clear that Article 3, in general, and VSP, in particular, are not the only mechanisms that can trigger a denial, suspension, or revocation of a grant of authority from DTSC.

#### **§ 66271.51 Determining the Initial Score for Each Class I Violation**

**Section 66271.51** specifies how DTSC will determine an initial score for each Class I violation. It sets out a step-wise procedure that DTSC will follow to arrive at an initial score for the violations being evaluated. It should be noted that this provision is based on, and largely mirrors, parallel provisions in Title 22, California Code of Regulations, Division 4.5, Chapter 22, Article 3 (Chapter 22) (commencing with Section 66272.60). DTSC chose to base this provision on existing provisions applicable to DTSC's assessment and imposition of administrative penalties because the subject of the two exercises is the same. That is, in both instances DTSC is undertaking an evaluation of the significance and seriousness of violations of hazardous waste requirements at hazardous waste facilities. 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.

More specifically, in both Chapter 22 and in these regulations, DTSC is looking at the same violations by the same violators to determine the seriousness and significance of the events to take the most appropriate regulatory response to the conduct. The only difference is that in the enforcement context the outcome is a financial penalty. In the context of this article, DTSC conducts the evaluation to inform its thinking regarding permit decision-making. Because the focus of the two inquiries is the same, and the concerns are the same—appropriate regulatory response by DTSC—DTSC has selected the provisions in Chapter 22 as the logical starting point for these regulations.

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 serve as the essential basis of a facility's compliance history. It is also necessary to be drafted as it was to remain consistent with existing regulations examining the same conduct and concerned with the same outcomes, protection of public health and

the environment. For all of these reasons, this section is necessary for DTSC to specify the appropriate criteria and procedures for determining an initial score.

**Section 66271.51(a)** sets out the requirement that DTSC make an initial determination for each Class I violation based on a time frame and two factors. Only Class I violations that occurred during the preceding ten (ten) years will be scored for purposes of the Facility VSP Score. The two factors for scoring each violation are (1) the potential harm stemming from the violation and (2) the extent of deviation from hazardous waste management requirements. 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, or factors, be the same as those set out in Chapter 22 for all 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 based on ten (10) years of inspections.

**Section 66271.51(b)** specifies that the evaluation of potential harm to public health and safety or the environment is to be categorized as “major,” “moderate,” or “minimal” in determining the initial VSP score. This is the same terminology and approach as DTSC took in drafting the penalty regulations in Chapter 22. More specifically, Section 66272.62(b) is part of Chapter 22, Article 3, as discussed above. That section employs the “major,” “moderate,” and “minimal” classifications for categorizing the potential for harm attributable to a given violation. Here, too, this results in a similar approach and outcome as was the case for scoring violations for the assessment of monetary penalties. This symmetry is highly desirable; indeed, it is necessary for internal consistency and to have a rational approach to examining the same conduct. 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 potential harm.

**Section 66271.51(b)(1)(A)** The category “major” potential for harm is defined 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. This provision is necessary to establish a fair and specific usage for this term throughout the application of the VSP concepts.

**Section 66271.51(b)(1)(B)** The category “moderate” degree of harm is defined 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 out 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)** The category “minimal” is defined 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 related concepts in defining “major” and “moderate” potential for harm. As such, this provision is necessary to complete the classification of violations in a rational manner.

**Section 66271.51(b)(2)** delineates what factors will be taken into consideration when determining the degree of potential harm. These factors, listed in subsections (b)(2)(A) through (b)(2)(F) of that section, take into account the characteristics and amount of the substance involved; the extent to which human or animal life or the environment is threatened; and the extent to which potable water supplies are threatened. This provision is necessary to specify the factors that will be considered when determining the degree of potential harm and to keep the two regulatory evaluations—one conducted in the context of DTSC’s enforcement program and one in the context of the permitting program—consistent.

**Section 66271.51(b)(2)(A)** states that DTSC will consider “the characteristics of the substance involved” as a factor in determining the degree of potential harm. 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 dictates, to a large extent, the degree of harm the substance may pose. Therefore, this provision is necessary to have the regulations reflect these differing potentials for harm based on the inherent qualities of the substances involved in the evaluation.

**Section 66271.51(b)(2)(B)** states that DTSC will consider “the amount of the substance involved” as a factor in determining the degree of potential harm. Generally speaking, the greater the amount of a substance present that poses a potential for harm, the greater the amount of 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 of hazardous waste management requirements.

**Section 66271.51(b)(2)(C)** states that DTSC will consider “the extent to which human life or health is threatened” as a factor in determining the degree of potential harm. It is rather self-explanatory that DTSC chose to include extent of threat to human life or health as a factor in determining the overall potential harm of a given violation of hazardous waste management standards. This is after all, the very essence of the inquiry of the potential for harm stemming from violation of a hazardous waste management requirement.

**Section 66271.51(b)(2)(D)** states that DTSC will consider “the extent to which animal life is threatened” as a factor in determining the degree of potential harm. 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 animals. Thus, this provision is necessary to help DTSC accomplish this goal.

**Section 66271.51(b)(2)(E)** states that DTSC will consider “the extent to which the environment is threatened” as a factor in determining the degree of potential harm. Again, prevention of harm to the environment is a central purpose of DTSC’s mission and its very existence. It is vital to the assessment of potential harm that DTSC consider potential effects on the environment.

**Section 66271.51(b)(2)(F)** states that DTSC will consider “the extent to which potable water supplies are threatened” as a factor in determining the degree of potential harm. It is virtually self-evident that a threat to potable water supplies is a type of potential harm that is included in the umbrella term “potential harm” of concern to DTSC when evaluating a violation of hazardous waste requirements. It is necessary that DTSC be able to include this important type of threat when looking at the potential harm posed by a violation.

**Section 66271.51(b)(3)** states that a violation must involve the management of hazardous waste; or the absence of adequate financial assurance for closure, postclosure, corrective action or liability coverage; or the absence of a contingency plan, a waste analysis plan, or a closure plan to be classified as posing a major potential for harm.

The contingency plan, a waste analysis plan, and closure plan are substantive requirements for hazardous waste facilities. Facilities operating under interim status tend to be susceptible to this type of violation because their plans have not been approved by DTSC. Contingency plans detail procedures to ensure rapid and effective responses to emergencies to minimize any danger to off-site residents and the environment. A waste analysis plan allows owners or operators to tailor their waste analysis procedures to the type of wastes and techniques that the facility uses to manage these wastes safely and to comply with technical requirements of the regulations. Closure plans specify how facilities will be decontaminated or otherwise secured at closure and a disposal sites 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, mistakes and malfunctions at hazardous waste management facilities, which could affect people near the site will be reduced in number and in severity due to the implementation of these plans.

This provision specifies that not all violations are eligible to be classified as posing a major potential for harm. Those violations that are eligible for such classification are enumerated. 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 appropriately limit the types of violations that may be classified as posing a major potential for harm.

**Section 66271.51(b)(4)** states that a violation must: involve the management of hazardous waste; or the absence of adequate financial assurance for closure, postclosure, corrective action or liability coverage; or the absence of a contingency plan, a waste analysis plan, or a closure plan to be classified as posing a major potential for harm. This provision specifies that not all violations are eligible to be classified as posing a major potential for harm. Those violations that are eligible for such classification are enumerated. 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 appropriately limit the types of violations that may be classified as posing a major potential for harm.

**Section 66271.51(b)(5)** states that a financial assurance violation that is a documentation error or omission that does not affect actual functioning of adequate financial assurance for closure, postclosure, corrective action, or liability coverage 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 regime. 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 violations of groundwater monitoring documentation may be categorized as posing either major, moderate, or minimal potential for harm. The provision goes on to state that the classification of harm must 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 the owners and operators, and other interested parties of the types of groundwater monitoring 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)** provides that DTSC shall determine the extent of deviation from hazardous waste requirements using the classifications of “major,” “moderate,” and “minimal,” as is set out above in discussing potential for harm. This provision largely mirrors the categories used for extent of deviation from regulatory requirements as is set out in Chapter 22. This basic symmetry is highly desirable; in fact, it is necessary for a rational approach to evaluating the same types of behavior. This provision is necessary to have a clear specification of the various categories for ranking extent of deviation associated with a violation.

**Section 66271.51(c)(1)** introduces the categories for extent of deviation. The following subparagraphs define the categories of “extent of deviation” from requirements. These categories, “major,” “moderate,” and “minimal,” are defined in related subsections, (c)(1)(A) through (c)(1)(C), which are presented below. This language is necessary to make clear how to categorize the extent of deviation and to provide consistent definitions for the extent of deviation categories.

**Section 66271.51(c)(1)(A):** This subsection defines the “major” category of extent of deviation from 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 there are virtually none of the benefits offered by a given regulatory standard. This may result from one completely ignoring a requirement or otherwise rendering the requirement ineffective. 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 the “moderate” category of extent of deviation from 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 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 the “minimal” category of extent of deviation from 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—minimal—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 violation of a single requirement may be classified as major, moderate, or minimal depending on the extent of compliance with the requirement. This subsection 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 opposed to some inherent aspect of the requirement itself.

**Section 66271.51(d)** sets out a matrix that DTSC must use in determining the initial score for a Class I 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(d), with two notable exceptions. The first is the penalty amounts in that provision expressed in amounts ranging from \$2,000 to \$25,000 have been simplified by dropping the extra zeros and the dollar signs. The dollar signs are inapplicable here since DTSC is not using the matrix to assess monetary penalties here. Instead, DTSC is using the matrix to inform decision-making regarding permit actions. 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 the permit decision-making, and it would unduly complicate this exercise. But the numbers proposed in this matrix otherwise correspond to those in section 66272.62(d). Here, importantly, DTSC builds on its prior work and maintains consistency of approach and outcomes. This is necessary for a rational and internally

consistent program. The matrix captures the interaction of the two driving factors: potential harm and extent of deviation. For each violation, DTSC will select the appropriate category of the two parameters.

### § 66271.52 Adjustment to the Initial Score for Each Violation

**Section 66271.52** specifies the circumstances in which DTSC would adjust upward the initial score for a Class I violation.

**Section 66271.52(a)** specifies that DTSC will adjust repeat violations upward. This provision is necessary to have a final violation score that reflects the totality of circumstances related to the violation. It is fairly common in various regulatory regimes to treat a repeat offense more severely than an initial offense. DTSC has an adjustment factor in its penalty regulations, as well. However, due to the different context here, DTSC is not adopting identical adjustment criteria to that set out in Chapter 22, Article 3. DTSC is not including the “adjustment factor for violator’s intent” pursuant to section 66271.62 or the adjustment for “cooperation” pursuant to section 66271.68.

**Section 66271.52(b)** specifies the circumstances under which DTSC will make an upward adjustment based on there being one or more repeat violations. If the repeat violation has been preceded by at least one Notice to Comply or Notice of Violation at the same facility within the prior three years for the same requirement, then it will be considered a repeat violation for purposes of the VSP score.

This subsection provides that Notices of Violation or Notices to Comply that have been cancelled, retracted or withdrawn by DTSC or that have been the subject of a successful challenge in an administrative or judicial proceeding may not be counted as the basis for assessing 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 is of the opinion that it is appropriate to adjust the initial score based on an adverse and relevant history of non-compliance. This provision is necessary to accomplish that desired goal.

**Section 66271.52(c)** specifies that DTSC will adjust each initial Class I violation score based on the number of times the violation is repeated. It goes on to set out the criteria for upward adjustment. The upward adjustment is 25% for the second instance the same violation occurs (first time the violation is repeated); 50% for the third instance the same violation occurs (second time the violation is repeated); and 100% for the fourth or more instances the same violation occurs (violation is repeated three or more times). This provision carries out DTSC’s stated intent of capturing the full context of a facility’s compliance history. It results in a more level playing field than would otherwise be the case. This provision is necessary to have an equitable and comprehensive approach to scoring and evaluating violations in the context of permit decision-making.

### § 66271.53 Inspection Violation Score

**Section 66271.53** specifies how DTSC arrives at the inspection score, notification procedures for informing the facility of the score, and the requirement for DTSC to post the final inspection violation score on its website.

**Section 66271.53(a)** specifies that DTSC must take the initial score for a Class I violation and make any applicable adjustments for repeat violations under section 66271.52 to arrive at a score for each Class I violation. It is necessary for the score to reflect all the regulatory criteria that apply to this exercise, especially the upward adjustment, if applicable, for repeat violations.

**Section 66271.53(b)** specifies that the preliminary inspection violation score is the sum of the scores for all Class I violations found during a Compliance Inspection. It also clarifies that a Compliance Inspection may take place over the course of more than one day. This provision is necessary to specify how an Inspection-wide score is arrived at. That is, all Class I violations from a given inspection that have been adjusted, if applicable, are then added to arrive at a preliminary Inspection Violation Score for a facility.

**Section 66271.53(c)** specifies that for compliance inspections that occur after the effective date of these regulations, DTSC must send a preliminary inspection violation score to the facility owner or operator concurrently with the inspection report provided to the owner or operator pursuant to section 66272.1(c). DTSC determined that it was necessary to tie the delivery of these scores to the same time for providing a facility owner or operator with a copy of an inspection report for completed inspections. This provision is intended to ensure that a facility receives a prompt notification of its preliminary inspection score. This in turn is necessary to keep the VSP mechanism moving and to put facility owners or operator on notice of their status under this new program.

**Section 66271.53(d)** provides a mechanism for a facility owner or operator to dispute a preliminary inspection score. A facility owner or operator may do so by filing a "VSP Preliminary Inspection Score Dispute" document with DTSC. This subsection also specifies that a facility owner or operator has thirty (30) days from the date DTSC sent the preliminary inspection score to the facility pursuant to subsection (c) to file this Dispute Document. Finally, subsection (d) provides that the failure of an owner or operator to comply with the procedures or timelines in this section for pursuing a dispute constitutes a waiver of the right to further contest the disputed issue. That is, the failure to comply with these provisions is a failure to exhaust administrative remedies and closes off any further right to dispute or contest the disputed matter with DTSC in any forum. This provision is necessary to create a process for disputing contested matters early, thus providing owners or operators with due process. The 30-day time frame is typical of the time frame allowed for bringing disputes in similar circumstances. It is also necessary that an owner or operator pursue this avenue of dispute, as opposed to waiting and pursuing this matter in an outside administrative or judicial forum. That approach would be unduly time-consuming and wasteful of limited resources.

**Section 66271.53(e)** specifies the required contents of a VSP Preliminary Inspection Score Dispute Document (Dispute Document). The required elements are necessary in order for DTSC to have a sufficient basis for reviewing and evaluating the Dispute Document to determine if it has merit. The required elements are set out in paragraphs (1) through (4), which are discussed immediately below.

**Section 66271.53(e)(1)** requires the Dispute Document to include a statement that describes the basis of the dispute and the relief sought. This provision largely mirrors the analogous provision that DTSC adopted as part of the Dispute Resolution for matters pertaining to DTSC's Safer Consumer Products ("Green Chemistry" program). This very basic requirement is necessary to have a foundation for further evaluating the merits of the Dispute Document.

**Section 66271.53(e)(2)** requires the Dispute Document to include a recitation of any claimed erroneous facts, assumptions, approaches, or conclusions of law made by DTSC. Again, this provision is based on an analogous provision in DTSC's Safer Consumer Products regulations that provide for Dispute Resolution. These claims are very basic to any dispute and allow DTSC to conduct a thoughtful evaluation of the Dispute. As such, this provision is necessary in order for there to be an appropriate Dispute Resolution scheme.

**Section 66271.53(e)(3)** 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 a contextual understanding of what has already transpired regarding the dispute. This is also necessary to avoid duplication of work.

**Section 66271.53(e)(4)** requires the Dispute Document to include any photographs, documents, or any other material that supports the owner or operator's position regarding the disputed VSP Preliminary Inspection Score. Again, this provision has a parallel in DTSC's Safer Consumer Products regulations. This provision is necessary to ensure that DTSC has all the important and relevant information in front of it as it reviews the Dispute.

**Section 66271.53(f)** specifies that DTSC has forty-five (45) days from receipt of the Dispute Document to issue a written decision. This subsection also states that DTSC may grant or deny the relief sought in whole or in part. This provision is necessary to have the Dispute Resolution process move in a timely fashion, and to give DTSC the necessary flexibility to tailor its response to the dispute to achieve an appropriate outcome.

**Section 66271.53(g)** specifies that if DTSC denies the relief sought in whole or in part, it must provide a short and plain description of the basis of the denial of the relief sought. It goes on to provide that a decision under subsection (f) is DTSC's final decision, and is not subject to additional administrative dispute resolution. This provision is necessary to provide the owner or operator with an understanding of the basis of any adverse DTSC decision. It is also necessary to bring an appropriate and timely conclusion to administrative dispute resolution.

**Section 66271.53(h)** specifies that the preliminary inspection violation score becomes the final inspection violation score if no Preliminary Inspection Score Dispute Document is filed within thirty (30) days of the date DTSC sends the preliminary inspection violation score document.

This will apply for all compliance inspections that are finalized after the effective date of this regulation and to all compliance inspections that occur after the effective date. This provision is necessary to make clear when preliminary inspection violation scores become final.

**Section 66271.53(i)** specifies that for compliance inspections that occur before the effective date of these regulations, the preliminary inspection violation score is the final inspection violation score. This is necessary to make clear that any compliance inspections that were finalized before the effective date of this regulation are no longer subject to change and cannot be disputed.

**Section 66271.53(j)** requires DTSC to post the preliminary inspection score on DTSC's website within ninety (90) days of from the date the preliminary inspection score is sent to the facility. This provision is necessary to allow interested parties and the general public to stay apprised of DTSC's actions under this regulatory scheme. This is consistent with the direction of the legislative mandate to develop these regulations.

#### **§ 66271.54 Facility Violations Scoring Procedure (VSP) Score**

**Section 66271.54** specifies how DTSC arrives at a final score for a facility. This is called the Facility VSP Score. This provision is necessary to integrate all of the above provisions and actions into a final result that DTSC will use in decision-making regarding its permitting program.

**Section 66271.54(a)** provides that the facility score consists of the sum of all inspection violation scores for all compliance inspections conducted at the facility during the ten (10) year period. This total is then divided by the number of Compliance inspections that took place during that ten year period, provided that specified conditions are met.

These two conditions are set out in section 66271.54(a)(1) and (2), which are discussed below. This provision is intended to ensure that DTSC has a full and fair basis for the final derived score. This provision is necessary to ensure that DTSC has a sound basis for arriving at a final VSP score.

**Section 66271.54(a)(1)** is the first of the two conditions that must be satisfied in order for DTSC to use the score arrived at by application of subsection (a), discussed above, as the Facility VSP Score. Paragraph (1) provides that DTSC may not include an inspection score in the facility score for inspection reports finalized after the effective date of the regulations unless that inspection score was sent to the facility owner or operator in conformance with section 66271.53(c). This provision is intended to ensure that facility owners and operators have had ample time to be apprised of inspection scores, to dispute any contested scores, and otherwise respond to inspection scores. This provision is necessary so that facility owners and operators have notice of inspection scores and the due process rights accorded them in conjunction with inspection scores. None of that can happen if DTSC does not sent the inspection scores to facility owners or operators.

**Section 66271.54(a)(2)** specifies that the score for any Class I violation that has been cancelled, retracted, withdrawn or successfully challenged in an administrative or judicial proceeding may not be included in the Facility VSP Score. This provision is intended to, and is necessary to, prevent any

unfounded or otherwise unfair outcome from occurring by including violations in the facility scoring that have been rejected or should otherwise be disregarded.

**Section 66271.54(b)** defines the ranges and specifies the corresponding compliance tiers for the Facility VSP Scores to communicate a relative ranking of the facilities with the most problematic compliance histories. DTSC has determined that it is appropriate to provide such distinctions between compliance tiers because it more accurately reflects the compliance history of a facility that may need additional review. The use of tiers will simplify how each facility ranks and will be more meaningful in comparison to other facilities.

**Section 66271.54(b)(1)** defines “acceptable” as Facility VSP Score ranging from zero (0) to less than twenty (20). This is consistent with DTSC’s experience that most facilities have average or above average compliance histories. This tier accounts for almost 95% of the facilities. However, this range does not distinguish between average and above average because the intent to focus on the facilities that may be candidates for denial, suspension, or revocation.

**Section 66271.54(b)(2)** defines “conditionally acceptable” as Facility VSP Score ranging from twenty (20) to less than forty (40). This tier accounts for about 2% to 3% of the facilities. This definition is necessary to set the appropriate bar for facilities that require further attention from DTSC, but that do not warrant being evaluated right away for possible permit denial or revocation.

**Section 66271.54(b)(3)** defines “unacceptable” as Facility VSP Score above forty (40). This tier accounts for about 2% to 3% of the facilities. This definition is necessary to complete the range of tiers into which facilities may fall based on their compliance histories.

**Section 66271.54(c)** specifies that DTSC will provide in writing the Facility VSP Scores and the assigned compliance tiers to all facility owners and operators. It is necessary to specify and make clear that when a Facility VSP Score will be provided to the owner or operator. This provision is necessary because this written VSP notification starts the clock on requirements for facilities that receive a Facility VSP Score that is either conditionally acceptable or unacceptable.

**Section 66271.54(d)** specifies that on or before December 31 of each year, DTSC will post to its website the Facility VSP Scores and the assigned compliance tiers for the public. This section is necessary to clarify what are reasonable time frames for accomplishing the work.

## § 66271.55 Permit Decisions

**Section 66271.55(a)** specifies that DTSC will conduct a complete review of the facility’s compliance history when making a permit decision. Subsection (b) and (c) detail what criteria will be reviewed as part of the compliance history. These additional provisions are necessary because the Facility VSP Score is intended to screen for significant noncompliers. Once a Facility VSP Score has been identified either as unacceptable or conditionally acceptable, a more thorough review of their compliance history is necessary.

For example, the Facility VSP Score is based on class I violations, which include a range of violations that pose varying degrees of potential harm, intent, recalcitrance, and deviation from regulations. There are other factors, such as an owner's or operator's behavior that may lessen or increase the impact or the severity of a class I violation. DTSC must review and consider compliance matters, other than VSP, to get a more accurate compliance history. It is important to make clear the Facility VSP Score is only one component of DTSC's permit decision making process.

**Section 66271.55(b)** provides the specific details in subparagraphs (1) through (8) to be included in DTSC's review. This section is necessary to make clear the criteria when DTSC must use when making permit decisions.

**Section 66271.55(b)(1)** specifies that DTSC will review the compliance tier based on the Facility VSP Score as the first step to ensure that it accurately reflects the facility's material compliance record. The Facility VSP Score is based on class I violations, which include a range of violations that pose varying degrees of potential harm, intent, recalcitrance, and deviation from regulations. This is necessary to allow DTSC to review the entire record of compliance inspections and each class I violations to ensure that each is sufficiently significant to influence a DTSC permit determination. DTSC may evaluate other factors that are not included in the VSP, such as changes in ownership or owner and operator's intent or cooperation.

**Section 66271.55(b)(2)** specifies that DTSC must review prior violations not quantified as part of the Facility VSP Score, which only includes Class I violations. Class II and minor violations are not included in the VSP scores. It is important to allow DTSC the discretion to evaluate the facility's hazardous waste compliance history in totality.

**Section 66271.55(b)(3)** specifies that DTSC will evaluate the owner and operator's compliance with any orders, stipulations, or decrees, whether unilateral or consensual, settlements, or judgments addressing compliance matters, including corrective action.

The Hazardous Waste Control Laws gives DTSC the authority to issue an administrative order, stipulation, or decree to a facility. Administrative orders can be issued unilaterally or on consent. Unilateral administrative orders demand compliance with permit requirements and hazardous waste regulations.

Imposition of these orders, stipulations, or decrees are important tools for ensuring the protection of human health and the environment. Noncompliance allows an owner or operator to remain outside the scope of the regulatory program and ignore important protective measures. Similarly, compliance with these enforcement mechanisms should be equally considered to assess the aggregate compliance history for the facility.

**Section 66271.55(b)(4)** specifies that DTSC will evaluate the owner and operator's disclosure statement. Disclosure statements are required for all applicants of a hazardous waste facility permit. The Disclosure statements require a five year record of all criminal cases, civil cases, administrative actions, permits, licenses, and registrations relating to environmental laws or hazardous waste. This is

necessary to expand the evaluation of the facility's compliance history and ensure a more comprehensive review.

**Section 66271.55(b)(5)** specifies that DTSC will evaluate the owner and operator's safety record. The owner or operator must document in the facility operating record events that required the implementation of the contingency plan, such as an accident. DTSC will review all reports that are required to be submitted to DTSC describing these types of incidents and any follow up inspections in response to such incidents.

**Section 66271.55(b)(6)** specifies that DTSC will evaluate the owner and operator's compliance with financial responsibility, such as financial assurance for closure, postclosure, corrective action and financial liability. 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. The financial assurance requirements establish several mechanisms for facility owners to demonstrate these resources will be available when needed. It is necessary when DTSC makes permit decisions to ensure that the facility owners and operators can pay for all cleanup costs rather than the California taxpayers.

**Section 66271.55(b)(7)** specifies that DTSC will use information in audit reports. An audit report is required when a Facility's VSP Score is deemed "conditionally acceptable." DTSC has determined the best means for addressing and preventing a pattern of serious violations is to require the involvement of an independent, third party auditor. It is necessary to allow DTSC the discretion to use the findings and the information gathered in audit reports to help assess an owner's or operator's compliance history and to support its permit decisions. Audit reports provide objective evidence that the owner or operator has or has not implemented and complied with hazardous waste regulations.

**Section 66271.55(b)(8)** specifies that DTSC will use any other information allowed by law. When making permit decisions, DTSC may consider other information that may impact public health or the environment. For example, this information may include facility siting, mandatory reporting data, and the 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 distances 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 due to normal operations and especially if there is an accidental release of a 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, this may require a new or modified conditional use permit.

Various mandatory environmental reports provide additional information that may show a reduction or increase of emissions, releases, or hazardous waste generation or disposal. These reports include Toxics Release Inventory (TRI) reports, hazardous waste annual facility reports, air emissions

inventory reports, greenhouse gas (GHG) emissions reports, Cal OSHA notifications<sup>53</sup>, and hazardous material release reporting, inventory, and response plans.<sup>54</sup>

The operation of the facility may be dependent on equipment that may not be the best available technology for hazardous waste treatment. Awareness of improved technology or equipment can provide an opportunity for facilities to improve hazardous waste treatment, reduce disposal, and, more importantly, reduce health and environmental impacts. It is important to provide DTSC the authority to evaluate other factors to ensure an environmentally sound operation of the facility when making permit decisions.

**Section 66271.55(c)** provides the specific details in subparagraphs (1) through (4) to be included in DTSC's review to the extent the information is known. This section is necessary to make clear the criteria when DTSC must use when making permit decisions when such information is readily available to DTSC.

**Section 66271.55(c)(1)** specifies that DTSC must review the owner and operator's knowledge or intent in the commission of any violation. DTSC must evaluate facts that show a facility owner or operator committed any class I violations consciously with either an intentional disregard of, or plain indifference to hazardous waste regulations, statutes or permit conditions. This can include committing any act to mislead, misrepresent, or conceal facts or making false or misleading statements. This is necessary to ensure that permits are not issued to violators that intentionally handle hazardous waste in an unlawful manner. This provision is necessary to allow DTSC the discretion to consider the nature and circumstances of the violations and to ensure that permits are issued with appropriate permit conditions or are suspended, revoked or denied.

**Section 66271.55(c)(2)** specifies that DTSC must review complaints lodged against the facility that have been resolved, if available. Complaints can be filed based odors, noise, traffic, or civil rights. Too many complaints may indicate a need for DTSC to investigate and evaluate community concerns and determine what mitigation measure or permit conditions may be needed to add to a permit.

This is necessary to ensure that permits are protective of human health and the environmental in the surrounding community.

**Section 66271.55(c)(3)** specifies that DTSC must review violations of other environmental agencies. This requires DTSC to evaluate the compliance history with the following, if available:

- Health & Safety Code Chapters 6.5, 6.7, and Chapter 6.8;
- Porter-Cologne Water Quality Control Act (Water Code, Div. 7, Sec. 13000 et seq.);
- Resource Conservation and Recovery Act of 1976 (42 U.S.C. Sec. 6901 et seq.);
- Hazardous Materials Transportation Act (49 U.S.C. Sec. 5101 et seq.),
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. Sec. 9601 et seq.);

<sup>53</sup> Title 8, California Code of Regulations, section 342

<sup>54</sup> Title 19, California Code of Regulations, Division 2, Chapter 4

- Toxic Substances Control Act (15 U.S.C. Sec. 2601 et seq.); or
- Any other equivalent federal, state or local requirement or regulation adopted relating to the environment, such as the generation, transportation, treatment, storage, recycling, disposal, or handling of a hazardous waste.

The evaluation will provide insight into the overall environmental management practices of a facility. This is necessary to assess the aggregate compliance history for the facility before making a permit decision due to severity of an adverse decision.

**Section 66271.55(c)(4)** specifies that DTSC must review the facility's cooperation with regard to returning to compliance. 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 unnecessary obstacles to achieving compliance, or failing to submit adequate documentation, or refusing to cooperate by intentionally failing to return to compliance with the regulations.

It is important to review the intent element of Class I violations if the information is properly documented. This provision is necessary to allow DTSC the discretion to consider the nature and circumstances of the violations and to ensure that permits are issued with appropriate permit conditions or are suspended, revoked or denied.

### **§ 66271.56 Requirements for Facility VSP Score of "Conditionally Acceptable"**

**Section 66271.56(a)** specifies the requirements for a facility owner or operator that receives a VSP notification that has resulted in a conditionally acceptable Facility VSP Score. This section is necessary to provide hazardous waste facility owners and operators the standards required when the compliance history is considered conditionally acceptable.

**Section 66271.56(a)(1)** specifies that a facility owner or operator must prepare and provide a compliance audit to DTSC. A facility owner or operator must retain the services of an independent third party auditor who is qualified to conduct hazardous waste facility audits to determine its compliance with hazardous waste facility requirements.

This provision is necessary to provide owners and operators with an appropriate means and mechanism of correcting and preventing significant violations. Clearly, not all facilities that have violations need to have their operating permits revoked. But it also clear that some facilities have compliance histories that merit attention to prevent the pattern of violations from continuing. DTSC has determined the best means for addressing and preventing a pattern of serious violations is to require the involvement of an independent, third party auditor.

The objective is to bring in objectivity and additional knowledge to an audit. Third party auditors rely less on the facility's internal management and can focus their responsibility on the audit. Auditors

have the benefit of a conducting compliance audits in multiple environments. While initial results may uncover long-standing issues of noncompliance, these become an opportunities for improvement. The audits are designed to encourage greater compliance with laws and regulations that protect human health and the environment.

**Section 66271.56(a)(1)(A)** specifies the selection process for a third-party auditor in subparagraphs (A)1. and (A)2.

**Section 66271.56(a)(1)(A)1.** specifies that prior to selecting the auditor, within 60 days of the VSP notification in accordance with 66271.54, the owner or operator must provide the names and curriculum vitae or otherwise present the qualifications of at least three (3) auditors in order of preference to DTSC. The auditor is required to be qualified to conduct hazardous waste facility audits. They should be knowledgeable and experienced with hazardous waste facility requirements in California. And DTSC has further determined it is necessary to impose reasonable qualifications on the auditor to assure quality work.

It is necessary to require the name of three (3) auditors in order to keep the process moving. By requesting all three at once, DTSC is attempting to reduce the number of times an alternate auditor's name will be submitted for approval. The provisions that set time limits are necessary to provide certainty to owners and operators as to when their audit must begin and to ensure that DTSC provides necessary feedback within a reasonable time to select and retain an auditor's services.

**Section 66271.56(a)(1)(A)1.a. and b.** specify that the third-party auditor must have a college degree and five-years' experience at a professional level performing environmental audits. The education and experience requirements are similar to the requirements that existed for the former DTSC Registered Environmental Assessors before the program was discontinued in 2012. It is necessary to specify a minimum level of proficiency to ensure the rigor and credibility of an audit.

**Section 66271.56(a)(1)(A)2.** specifies that DTSC has fifteen (15) days from receipt of the third-party auditors' names and qualifications to accept or reject the initial selection or to choose an alternate. It is necessary for DTSC to provide timely feedback within a reasonable time to select and retain an auditor's services.

**Section 66271.56(a)(1)(A)3.** specifies that the owner or operator has ninety (90) days to complete the selection process. The provisions that set time limits are necessary to provide certainty to owners and operators as to when their audit must begin.

**Section 66271.56(a)(1)(B)** specifies all the necessary requirements for an audit report. The quality and integrity of an audit depends 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.

Collectively, these elements work to ensure that the audit report is meaningful and fruitful. It is necessary to have the most critical elements of an audit spelled out and made mandatory to ensure that DTSC and the facility owners and operators get what is most essential from the audit reports.

**Section 66271.56(a)(1)(B)1.** specifies that an audit report must 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 must be included. Providing a record of the work performed provides assurance that the auditor accomplishes the planned objectives and facilitates the review of the audit. 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. In addition, good audit documentation is very important because the auditors are not facility personnel engaged in the day to day operations of the facility and the audit report provides these details. This is necessary to ensure the audit meets its objectives, and that the conclusions are well documented.

**Section 66271.56(a)(1)(B)2.** specifies that the audit must include a complete inspection and review of all facility operations and all corresponding documentation necessary to determine facility compliance with the hazardous waste permit and all applicable hazardous waste laws and regulations. This provision is necessary to make specific what needs to be included in the report to be deemed complete.

**Section 66271.56(a)(1)(B)3.** specifies the auditor must conduct sampling and testing of potentially hazardous material to determine compliance with the hazardous waste permit and all applicable hazardous waste laws and regulations. This provision is necessary to ensure that all hazardous waste is being managed in compliance with all requirements.

**Section 66271.56(a)(1)(B)4.** specifies the audit report must provide a complete description of the inspection and a summary of all sampling and testing conducted and associated results. Furthermore, the audit should include a discussion of all the documentation reviewed.

**Section 66271.56(a)(1)(B)5.** specifies the audit report must include a review of all safety practices and identification of all accidents in the preceding one (1) year. The report must document any unsafe practices or conditions that could lead to accidents. It is necessary to include a discussion of safety to enhance safety prevention.

**Section 66271.56(a)(1)(B)6.** specifies the audit report must include any written consultations or violations directed to the facility by any federal, state, or local agency that identifies any violation of hazardous waste requirements. This is necessary to provide this summary to better understand how well the facility is operating in accordance with all environmental laws and regulations.

**Section 66271.56(a)(1)(B)7.** specifies the audit report must document all findings and deficiencies related to facility, including identification of noncompliance. This is necessary to allow DTSC to evaluate the facility to find effective improvements that will lessen noncompliance.

In order for DTSC to review the audits fairly, the reports must have sufficient information to determine the findings and deficiencies in each case. In general, DTSC is requiring this where the information contained in the audit report is not readily available elsewhere and where DTSC decides that the information is necessary to determine whether the terms and conditions of the audit have been met.

**Section 66271.56(a)(1)(C)** requires the auditor, selected under subsection (a)(1)(A) of this section to conduct at least two evaluations. Subparagraphs (C)1. and (C)2 together provide clarity as to the due dates for the audits. This provision imposes basic requirements on the number and frequency of audits. This is necessary to ensure that the auditor's work is meaningful and fruitful.

**Section 66271.56(a)(1)(C)1. and 2.** specify that the owner or operator must submit the first audit report no later than 270 days after the facility has received the VSP Notification in accordance with 66271.54. The second audit report must be submitted no earlier than 180 days after the first evaluation and no later than one (1) year after the first audit. These provisions impose basic requirements on the number and frequency of audits. This is necessary to ensure that the facility owner and operator understand the required audit schedule.

**Section 66271.56(a)(2)** specifies that the owner or operator must submit a compliance implementation plan within thirty (30) days following the submittal of each audit report. Once the third-party auditor has completed an audit report and has identified deficiencies or recommendations. Subparagraphs (2)(A) through (2)(C) specify the contents and timing of the compliance implementation plan.

This requirement is necessary to enable DTSC to ensure that the regulated facility will be accountable for its commitments. This may require permit modifications, binding written agreements, orders or consent decrees where necessary.

**Section 66271.56(a)(2)(A)** specifies that the compliance implementation plan must describe all actions for fixing these deficiencies or addressing all findings within a reasonable time. It is necessary to make clear how the owner or operator will be fixing deficiencies. It is necessary to document how the facility owner or operation plans to implement corrections or improvements to their operations to prevent recurrence of violations and to remedy any environmental harm that may have occurred.

**Section 66271.56(a)(2)(B)** specifies that the compliance implementation plan must identify all permits or permit modifications to implement corrections if they depend on DTSC, local, State, or Federal authorities. For example, permit modifications may be required if technological issues are a factor. It is necessary to know this because these authorizations may take time to acquire and may impact the implementation schedule. This requirement will alert DTSC to anticipate this permit modification application and make reasonable efforts to secure timely review of the application.

**Section 66271.56(a)(2)(C)** specifies that the compliance implementation plan must include deadlines for corrections and permit or permit modifications for submittal to DTSC to implement corrections. This is necessary to ensure that the facility owner or operator will do the most possible to achieve or return to compliance as expeditiously as possible.

**Section 66271.56(b)** specifies that DTSC may require the facility owner and operator to revise its compliance implementation plan. Once DTSC approves the plan, all 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 become binding.

**Section 66271.56(c)** specifies that DTSC may rely on audit reports for purposes of enforcement and calculations of inspection violation scores or Facility VSP Scores.

This requirement is necessary to ensure a level playing field with law-abiding facilities that comply with all hazardous waste requirements. In this manner, violations that are documented are not waived for those facilities that fail to prevent violations. For example, violations such as repeat violations or violations that result in serious actual harm to the environment or which may have presented an imminent and substantial endangerment to public health or the environment would not be excluded from this article.

**Section 66271.56(d)** authorizes DTSC to take one or more specified actions in response to a facility that DTSC has authority to impose reasonable operating restrictions on a facility with a significant history of noncompliance in addition to the audit requirements discussed above. This authority is necessary to give DTSC the ability to compel facilities with troublesome compliance histories to make changes to their operations in a manner that is responsive to the problems noted.

If DTSC imposes one of these actions, the owner or operator may be required to initiate a permit modification. A permit modification required to meet a new regulation<sup>55</sup>, may be done as a Class 1 permit modification.<sup>56</sup> These actions include the following paragraphs (1) through (4) of subsection 66271.56(d).

**Section 66271.56(d)(1)** specifies that DTSC may impose a shorter operating period for the facility's permit than that specified in the permit. Shortening the time period for a permit allows DTSC an opportunity to reevaluate the facility's operations with greater frequency.

Under hazardous waste laws and regulations, facilities managing hazardous waste must be authorized by obtaining a permit from DTSC. The purpose of the permit is to detail how a facility must comply with the regulations to ensure that hazardous waste management activities are conducted so as to prevent and address releases that could threaten public health and the environment and lead to potential cleanup obligations. 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.

**Section 66271.56(d)(2)** specifies that DTSC may restrict or prohibit hazardous waste management activities at the facility that are authorized in the permit. Permits establish the waste management activities a facility may conduct, as well as the conditions under which it can conduct them.

A 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

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<sup>55</sup> Title 22, California Code of Regulations, Section 66270.4

<sup>56</sup> Title 22, California Code of Regulations, Chapter 20, Appendix I

human health and the environment from the risks posed by hazardous waste. Hazardous waste management units include the following:

- Containers
- Tanks
- Drip Pads
- Containment Buildings
- Incinerators
- Boilers and Industrial Furnaces
- Landfills
- Waste Piles
- Land Treatment Units
- Injection Wells
- Miscellaneous and Other Units
- Thermal treatment units other than incinerators, boilers or industrial furnaces

The compliance history of a facility may indicate when a facility owner or operator is unable to properly operate a specific waste management unit or is unable to properly maintain the unit. This provision is necessary because it give DTSC the discretion to restrict the operating parameter or disallow a portion of the hazardous waste facility operations that may be a contributing factor to the facility's noncompliance.

**Section 66271.56(d)(3)** specifies that DTSC may impose additional conditions on hazardous waste management activities beyond those or different from those specified in the permit. This provision allows DTSC to impose additional conditions on how each unit is operated to meet hazardous waste requirements.

**Section 66271.56(d)(4)** specifies that DTSC may impose requirements designed to mitigate potential harm associated with noncompliant activities. These requirements may include 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.

A Community Benefits Agreement is a contract that requires a proponent of project, such as a permit, to provide mitigations to the local community or neighborhood. Site-specific community benefits agreements ensure that particular projects create opportunities for communities. The Community Benefits Agreement can be negotiated to devote resources toward mitigating the environmental impacts of a project. For example, it can be used to fund studies on environmental quality and community health.

This provision is necessary to make clear that DTSC can enter into an agreement that mitigate potential harm associated with its 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.

## § 66271.57 Requirements for Facility VSP Score of “Unacceptable”

**Section 66271.57(a)** allows DTSC to issue a proposed decision to deny, suspend, or revoke a permit or permit modification based on criteria specified in paragraphs (1) through (4) for any facility with an unacceptable Facility VSP Score. A denial, suspension, or revocation is appropriate when there are many factors that provide compelling evidence that the facility noncompliance is chronic.

**Section 66271.57(a)(1)** specifies that if DTSC finds that current conditions at the facility present an imminent or substantial endangerment to the public, that a denial, suspension, or revocation may be issued. Under the RCRA statute, imminent and substantial endangerment addresses not only current threats, but also potential threats. An endangerment is substantial if it is "serious" or "if there is some reasonable cause for concern that someone or something may be exposed to a risk of harm...if remedial action is not taken." An endangerment is "imminent" if it "threatens to occur immediately," even "though the harm may not be realized for years." A finding of imminent does not require a showing that actual harm will occur immediately as long as the risk of threatened harm is present. In evaluating imminent and substantial endangerment posed by a facility, DTSC considers whether it presents an imminent and/or substantial endangerment of: 1) exposure; 2) migration that may result in air, soil, or water contamination by hazardous substances; or 3) fire or explosion.

When events of such a consequential nature occur, a facility should be ineligible for hazardous waste facility permit. It is necessary to make clear what type of evidence is required to deny, suspend, or revoke a facility owner or operator's permit.

**Section 66271.57(a)(2)** specifies that DTSC may deny, suspend, or revoke a permit if DTSC finds one or more of the conditions specified in subparagraphs (A) through (D). DTSC must evaluate whether an owner or operator has been recalcitrant, has refused to return to compliance, or has created unnecessary obstacles to achieve compliance. This is necessary to ensure that that permits are not issued to owners or operators that are not responsive and take competitive advantage of noncompliance.

**Section 66271.57(a)(2)(A)** requires DTSC to evaluate and review occurrences in which the facility owner or operator is unwilling or unable to comply with the permit, applicable orders, hazardous waste laws or regulations, or other environmental rules. Failure to return to compliance, or disregard for these environmental requirements would substantially confirm a significant non-complier.

Health and Safety Code section 66271.55(c)(4) sets out a partial list of statutes and other requirements or regulations relating to the generation, transportation, treatment, storage, recycling, disposal, or handling of a hazardous waste. Any of these requirements could serve as the basis for possible action under section 66271.57(a)(2)(A).

For orders, DTSC must evaluate the owner and operator's failure to comply with any orders, stipulations, or decrees, whether unilateral or consensual, settlements, or judgments addressing compliance matters. Imposition of these orders, stipulations, or decrees is an important tool for ensuring the protection of human health and the environment. Noncompliance allows an owner or

operator to remain outside the scope of the regulatory program and ignore important protective measures.

This section is necessary to make clear the criteria when DTSC should deny, suspend, or revoke permits for facilities with very troublesome compliance histories. It is important to assess the aggregate compliance history for the facility before denying, revoking or suspending a hazardous waste facility permit. When a facility owner or operator is in compliance with all environmental laws and regulations, it reduces pollution and risk of environmental harm.

**Section 66271.57(a)(2)(B)** requires DTSC to evaluate and review the facility to determine whether as constructed it can or cannot be operated in compliance with hazardous waste requirements. For example, an existing facility may not be able to maintain an impermeable secondary containment, and it may be cost prohibitive to invest significant capital to bring the hazardous waste management unit up to code. It is necessary for DTSC to consider a permit denial, suspension, or revocation when facilities cannot or do not retrofit existing hazardous waste management units to meet hazardous waste requirements.

**Section 66271.57(a)(2)(C)** requires DTSC to evaluate whether the facility is likely to result in significant adverse health. DTSC has revoked permits for facilities that have killed or injured employees or released chemicals that threaten harm to neighboring communities.

This provision is necessary to protect human health and the environment when immediate or direct threats have been identified and have not been adequately addressed. To apply these criteria, DTSC will not require a risk assessment, but will instead make a qualitative assessment to determine whether a significant threat or exposure has occurred.

**Section 66271.57(a)(2)(D)** requires DTSC to evaluate whether the facility does or does not have adequate financial assurance for closure, postclosure, corrective action, or financial liability. 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 the facility owners and operators can pay for all cleanup costs rather than the California taxpayers.

**Section 66271.57(a)(3)** specifies that if DTSC finds that the results of audit reports completed in accordance with this article show an ongoing pattern of noncompliance with hazardous waste requirements or failure to correct deficiencies then DTSC may deny, suspend, or revoke a permit. This provision is necessary because it allows DTSC to use the audit reports in making permit decisions.

**Section 66271.57(a)(4)** specifies that if DTSC finds that the compliance history in conjunction with a review of other environmental requirements shows one of the following conditions specified in subparagraphs (A) through (C) DTSC may deny, suspend, or revoke a permit. DTSC must evaluate whether an owner or operator has been recalcitrant, has refused to return to compliance, or has created unnecessary obstacles to achieve compliance. This is necessary to ensure that that permits are not issued to owners and operators that are not responsive to requirements imposed by regulators and that take competitive advantage of noncompliance.

**Section 66271.57(a)(4)(A)** requires DTSC, in conjunction with the facility's hazardous waste compliance history, to evaluate and review compliance with other environmental requirements. DTSC must evaluate whether or not the facility owner or operator is unwilling or unable to comply with the other environmental permits, applicable orders, other environmental laws or regulations.

See Section 66271.57(a)(2)(A) for the discussion regarding hazardous waste facility compliance history.

**Section 66271.57(a)(4)(B)** requires DTSC to evaluate , in conjunction with the facility's hazardous waste compliance history, and determine whether or not the facility as constructed can be operated in compliance with other environmental requirements. For example, an existing facility may be subject to stricter air permit requirements or water discharge requirements and may not be able to meet them for the facility as constructed. When facilities cannot retrofit existing pollution control devices, DTSC must consider a permit denial, suspension, or revocation.

See Section 66271.57(a)(2)(B) for the discussion regarding hazardous waste facility compliance history.

**Section 66271.57(a)(4)(C)** requires DTSC to evaluate, in conjunction with the facility's hazardous waste compliance history, whether the facility is likely to result in significant adverse health to workers or the public as a result of noncompliance with other environmental requirements.

See Section 66271.57(d)(2)(C) for the discussion regarding hazardous waste facility compliance history.

**Section 66271.57(b)** allows DTSC to require a facility to take actions to correct conditions that would otherwise result in a permit denial, revocation or suspension. This provision is similar to section 66271.57(d), but applies to all permit decisions.

It will be necessary in the initial phases of implementation of these regulations to provide a middle-ground for facilities that may receive an unacceptable Facility VSP Score when the consequences for noncompliance are high. This will allow for a transition period and still be protective of human health and the environment by imposing additional requirements that mitigate the causes of violations.

It is important to make clear that an owner or operator of an existing facility may be subject to additional requirements in lieu or in addition to permit decisions that may terminate or suspend their authorization. It is necessary that DTSC will take corrective steps beyond a denial, revocation, or suspension. DTSC has existing authority to impose any of the provisions specified in paragraphs (b)(1) through (b)(8) of this subsection below.

**Section 66271.57(b)(1)** makes clear that DTSC may require the facility owner or operator to conduct independent third-party compliance audits. This provision is necessary to provide owners and operators with an appropriate means and mechanism of correcting and preventing significant violations. DTSC has determined the best means for addressing a pattern of serious violations is to require the involvement of an independent, third party auditor.

See Initial Statement of Reasons for section 66271.56(a)(1) for additional discussion of the necessity for third-party compliance audits.

**Section 66271.57(b)(2)** makes clear that DTSC may require the facility owner or operator to implement facility improvements, 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 greatly. When units are in need of 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.

**Section 66271.57(b)(3)** makes clear that DTSC may 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. If the basis of ongoing compliance issues is caused by an owner or operator that cannot operate a hazardous waste management unit in compliance with existing standard, DTSC may take action. For example, this may entail restricting waste streams allowed, limiting the hours of operation, or lowering the permitted capacity for treatment or storage. DTSC may also require the owner or operator to cease operating the hazardous waste management unit.

This is necessary to make clear that, in addition to facility-wide actions, DTSC can take actions on specific hazardous waste management units.

**Section 66271.57(b)(4)** makes clear that DTSC may require the facility owner or operator 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 will provide important accountability and transparency.

**Section 66271.57(b)(5)** makes clear that DTSC may require the facility owner or operator 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 may be an import source of additional information that DTSC can review and determine if permit conditions may need to be revised or permit modifications may be necessary to make clear acceptable operating parameters.

**Section 66271.57(b)(6)** makes clear that DTSC may require the facility owner or operator to conduct additional and/or enhanced training to improve facility operations and compliance. If the pattern of

repeat violations indicate 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.

**Section 66271.57(b)(7)** makes clear that DTSC may require the facility owner or operator to increase by 25 percent the amount of financial assurance established and maintained by the owner or operator of the facility for closure of the facility or corrective action. The most recent estimates for closure and corrective action be the basis for the increase in financial assurance.

DTSC has determined that it is very important to have adequate financial assurance to close or clean up a facility when it closes. Facilities with unacceptable Facility VSP Score may be at risk for closure sooner than originally planned due to potential denial, revocation, or suspension of their permits. It is important for facilities to know that DTSC has the authority and the discretion to require increasing the amounts of financial assurance to ensure proper and timely closures and corrective action.

**Section 66271.57(b)(8)** makes clear that DTSC may require the facility owner or operator to implement any other actions determined by the Department to be necessary to ensure the facility's compliance with its permit and/or any applicable orders, laws, and regulations. It is important for facilities to know that DTSC has the authority and the discretion to require any action necessary to ensure the proper and safe operation of facilities.

**Section 66271.57(c)** specifies that DTSC may issue a permit or permit modification to a facility with an unacceptable Facility VSP Score if DTSC finds that granting the permit or permit modification will not pose a threat and the facility meets at least one criterion specified in paragraphs (1) through (3). This provision is necessary to give DTSC the discretion to consider factors beyond the Facility VSP Score when making permit decisions. This provision is necessary because of the consequences of a negative permit decision.

**Section 66271.57(c)(1)** specifies that DTSC may find that the facility owner or operator has implemented enforceable improvements to its hazardous waste management processes. The improvements may be included in binding written agreements, orders, consent decrees, or permit modifications, where necessary. This is necessary to acknowledge when a facility has remedied the underlying causes of violations to prevent future noncompliance. This provision improves the protection of human health and the environment.

**Section 66271.57(c)(2)** specifies that DTSC may find upon further consideration that the Facility VSP Score does not provide an accurate characterization of the facility's compliance history. The Facility VSP Score is a metric that will be used to compare the compliance history of all facilities. It is a relative measurement but not an absolute. So, this provision allows for a more detailed evaluation. This is necessary to allow vetting of the Facility VSP Score to validate its usefulness and fairness.

**Section 66271.57(c)(3)** specifies that DTSC may find that there are substantial benefits to the people of California resulting from the continued operation of the facility in order to provide hazardous waste treatment capacity within the State for a particular waste stream. 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 lack of capacity may increase traffic along transportation corridors due to greater distances necessary to travel to other states to properly dispose of hazardous waste that can no longer be treated in California. This provision is necessary to allow DTSC the discretion to make a case for the overriding benefits to the people of the State and the need for the facility.

**Section 66271.57(d)** authorizes DTSC to issue a permit or permit modification to a facility with an unacceptable Facility VSP Score and requires that DTSC must impose all three actions specified in paragraphs (1) through (3) below. This provision confirms that DTSC has authority to impose reasonable restrictions on a facility with a significant history of noncompliance.

This provision is necessary to make clear that DTSC has the authority to compel facilities with troublesome compliance histories to mitigate potential harm associated with noncompliant activities and to ensure the response actions are progressive as long as this decision are in the best public interest.

**Section 66271.57(d)(1)** specifies that DTSC must issue the permit for five years instead of 10 years. This is necessary to shorten the permit authorization period and allow for more frequent review of the facility operation plan for hazardous waste management. For facility owners and operators that have troublesome compliance histories, to review and update permits more frequently enable the facility to effectively continue to operate treatment, storage, and disposal units and avoid future violations. See the discussion under section 66271.56(d)(1).

**Section 66271.57(d)(2)** specifies that DTSC must include enhanced compliance provisions in the permit or permit modification. 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.

Most likely, DTSC will require facility owners and operators to complete and submit annual compliance in accordance with section 66271.56(a)(1)(A) and (B). The submittal dates would be specified in the permit issued as a permit condition. This provision is necessary to ensure permits issued to facilities with known compliance problems will be protective of health and the environment.

**Section 66271.57(d)(3)** specifies that DTSC must include mitigation measures for potential harm associated with noncompliant activities for a facility that has caused or can potentially cause health or environmental impacts associated with its operations. 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 make clear that DTSC can enter into an order or agreement that mitigates potential harm associated with its 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.

### § 66271.58 Appeals for Reconsideration

**Section 66271.58(a)** allows a facility owner or operator to request an appeal of a proposed decision to deny, suspend or revoke a permit. This provision is necessary to provide an informal, practical mechanism of an appeal before DTSC takes actions that are very consequential to a facility owner or operator. It is also necessary that in order for this regimen to work effectively that there be very prescribed bases for overturning proposed decisions and that the facility owner or operator bear the burden of proof as to the issues that may lead to DTSC overturning a proposed decision announced by DTSC.

**Section 66271.58(b)** specifies that DTSC must review the decision and bear the burden of demonstrating that its decision is clearly erroneous or not. DTSC can meet this burden by demonstrating by that either of the criterion specified in paragraphs (1) through (2) have been satisfied.

The provisions of this section are necessary to allow a facility to contest a permit decision to deny an application or permit modification, or to suspend, or revoke a permit. This section provides for a transparent and efficient process for owner and operators seeking an appeal review of important DTSC actions under this article. By providing for an administrative process, the provision allows a relief valve before resorting to the general permit appeal process found in section 66271.18 or judicial intervention.

**Section 66271.58(b)(1)** allows DTSC to review and ensure that the Facility VSP Score has been calculated in a manner consistent with this article. This provision is necessary to provide an opportunity to contest DTSC's calculations of the scores and to allow vetting of the Facility VSP Score to validate usefulness and fairness.

**Section 66271.58(b)(2)** specifies a manifest injustice can be established by evidence of one or more of the criteria set out in subparagraphs (A) through (C) of subsection 66271.58(b).

**Section 66271.58(b)(2)(A)** specifies a criterion for establishing a manifest injustice would result from a denial, suspension, or revocation when the facility has implemented substantial improvements to its hazardous waste management processes, or equipment, or both that will substantively and effectively prevent future noncompliance. This provision is necessary to encourage compliance with

the regulations and stimulate improvements at the facility. The non-deterrent means provide additional flexibility in compliance enforcement.

**Section 66271.58 (b)(2)(B)** specifies a second alternative criterion for establishing a manifest injustice would result if a permit were denied, suspended, or revoked when a complete review of the facility's compliance history demonstrates by clear and convincing evidence that the Facility's VSP Score does not provide an accurate characterization of the facility's compliance record. Although DTSC created the VSP to be simple, objective, reproducible, and verifiable, it may not be representative of all facilities in all cases. There may be outliers due to situations or other factors that are not captured in the Facility VSP Score, such as change of ownership. This provision is necessary to allow vetting of the Facility VSP Score to validate usefulness and fairness.

**Section 66271.58(b)(2)(C)** specifies a third alternative criterion for establishing a manifest injustice would result if a permit were denied, suspended or revoked when there are substantial and overriding benefits to the people of the State of California resulting from 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 a specific hazardous waste. This provision is necessary to allow DTSC the discretion to consider the overriding benefits to the people of the State and the need for the facility.

**Section 66271.58 (c)** sets out the time frame for filing an appeal of a proposed decision with DTSC. That time frame is no later than thirty (30) days from the time the owner or operator was informed in writing by DTSC that it was proposing to deny, suspend or revoke a permit. This provision is necessary to have a clear, uniform, and reasonable time frame for an owner or operator to challenge a decision announced by DTSC.

**Section 66271.58(d)** sets out the time frame for DTSC to respond in writing to an appeal of a proposed decision to deny, suspend or revoke a permit. That time frame is sixty (60) days. DTSC is also required to provide a description of the basis of the denial of the appeal. This provision is necessary to give a clear, reasonable basis for the appeal decision, and predictable time frame for DTSC's response to an appeal, and to keep this process moving to a conclusion.

**Section 66271.58(e)** makes it clear that nothing in section 66271.58 is intended to limit a person's ability to invoke a permit appeal pursuant to Chapter 21. It is important to make specific that if an owner or operator appeals under this section, any person who has commented on a permit decision may appeal a decision to grant or deny a permit under section 66271.18. Likewise, a facility owner or operator may still initiate an appeal of a suspension or a revocation under section 66271.19. It is necessary to clarify that this subsection does not supersede other appeal procedures.