SECTION 5.15 PUBLIC HEALTH
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5.15 PUBLIC HEALTH

This section contains the methodology and results of the human health risk assessment (HRA) for the Tesla Power Plant (TPP). The purpose of the HRA is to evaluate potential public health impacts from exposure to the pollutant emissions associated with the construction and routine operation of the TPP. Potential public exposure during upset conditions is addressed in Section 5.12 (Hazardous Materials).

5.15.1 Affected Environment

The TPP heat recovery steam generator (HRSG) stacks will exhaust combustion gases at 200 feet (60.96 meters) above grade elevation. The TPP site is located in the Altamont Hills. To the south and west, Topographical features within a 10-mile radius of the TPP site that are of greater elevation than the stack exhaust exit point are shown in Figure 5.15-1a and 5.15-1b. To the north and east, the elevations generally decrease and are lower than the stack exhaust exit point elevation.

A health status report has been prepared about the residents of Alameda County by the Alameda County Public Health Department. This status report concluded Alameda County meets or exceeds the national Healthy People 2000 objectives for many of the indicators. During the last ten years, the population of Alameda County has made notable gains in reducing deaths due to coronary heart disease, overall cancer, and lung and breast cancer. The infant mortality rate has also decreased markedly. Alameda County has not met the national Healthy People 2000 goals for key maternal, child and adolescent health indicators such as the percent of babies with low birth weights. In addition, Alameda County falls severely short of the national objectives in relation to stroke deaths, tuberculosis, and chlamydia incidence.

Sensitive receptors are defined as groups of individuals that may be more susceptible to the health risks associated with chemical exposure. Schools (public and private), day care facilities, convalescent homes, and hospitals are of particular concern. There are no potential sensitive receptor sites located within a 3-mile radius of the site; however, the HRA approach used in this analysis treats all receptors as sensitive receptors. Figure 5.15-2 shows the census tracts within a 3-mile radius of the TPP. Table 5.15-1 shows the population density within each census tract shown on Figure 5.15-2.

Table 5.15-1. Population Density for Census Tracts Within 3 Miles of TPP

Census Tract	Population Density (persons per sq. mile)
005203-3	39.96
005500-3	6.64
451100-2	5.04
451100-4	6.03

5.15.2 Laws, Ordinances, Regulations, and Standards

The applicable laws, ordinances, regulations, and standards (LORS) related to the public health impacts from the TPP are as follows:

- **California Health and Safety Code §§ 25500 to 25542; 10 CCR §§ 2720–2734.** This authority establishes inventory, reporting, business, and area planning requirements with respect to hazardous and acutely hazardous materials in accordance with the federal Emergency Planning and Community Right-to-Know Act of 1986. It requires preparation of risk management and prevention plans where acutely hazardous materials are used, and requires development and implementation of a business plan for emergency responses to a release or threatened release of a hazardous material or mixture. The administering agencies for this authority is the Alameda County Public Health Department.
- **California Clean Air Act, California Health and Safety Code § 39650 et seq.** This authority requires that the California Air Resources Board (CARB) and the state establish safe exposure limits for toxic air contaminants and identify pertinent best available methods for their control. This authority also requires that the new source review (NSR) rule for each air pollution control district include regulations that require new or modified procedures for controlling the emissions of toxic air contaminants (TACs). According to this authority, CARB has developed cancer potency estimates for several carcinogenic pollutants to use in assessing the carcinogenic risk associated with exposure to these pollutants. The administering agencies for this authority are CARB and the Bay Area Air Quality Management District (BAAQMD).
- **California Health and Safety Code, Part 6, § 44300 et seq.** This law requires facilities that emit large quantities of a criteria pollutant and that emit any quantity of a toxic contaminant provide the local air pollution control district an inventory of toxic emissions. Such facilities may also be required to prepare a quantitative HRA. The administering agency for this law is BAAQMD.
- **Regulation 2, Rule 2, "New Source Review," (Amended 5/00):** Section 2-2-317 of this rule, *Maximum Achievable Control Technology (MACT) Requirement*, requires the implementation of Best Available Control Technology for Toxics (TBACT) for all facilities that emit greater than 10 tons per year of any HAP or greater than 25 tons per year of all HAPs combined. MACT for combustion gas turbines is currently decided on a case-by-case basis. Review of EPA, CARB, and AQMD documents indicate that an abatement device that reduces VOC emissions such as the oxidizing catalyst proposed for this project is consistent with current MACT and TBACT decisions.
- **Regulation 11, "Hazardous Pollutants", Rule 10. "Hexavalent Chromium Emissions from Cooling Towers" (Adopted 9/89):** The purpose of this rule is to reduce emissions of hexavalent chromium from cooling towers by eliminating chromium based circulating water treatment programs. Cooling towers shall not be operated unless the hexavalent chromium levels do not exceed 0.15 milligrams/liter of circulating water.

5.15.3 Environmental Consequences

This section describes the potential public health risks associated with the construction phase and the operations and maintenance phase of the TPP, the methodology for the HRA, and the results of the HRA. Also, uncertainties in the HRA are discussed and other potential health impacts are described.

5.15.3.1 Construction Phase Emissions

Due to the relatively short duration of the construction of the TPP (i.e., approximately 23 months), no significant long-term public health effects are expected. To ensure worker health and safety during actual construction, safe work practices will be followed.

An analysis of long-term health risks associated with particulate matter from diesel exhaust was conducted. Increased cancer risk and chronic hazard index were estimated based on the diesel exhaust cancer unit risk factor and chronic hazard index shown in Table 5.15-2. The increased cancer risk and chronic hazard index were estimated based on the average of the two modeled years (1997 and 1999) of construction equipment PM_{10} impacts of 0.91 $\mu g/m^3$. Because the impacts were not near a residential area and the construction lasts only two years, an exposure duration of eight hours per day, 240 days per year for two years was used to estimate the cancer risk. The estimated cancer risk is 1.7 in one million. The estimated chronic hazard index is 0.18.

A detailed analysis of the potential environmental impacts due to criteria pollutant emissions during construction and control of these emissions is discussed in Section 5.2.4 (Air Quality). Requirements for safe construction practices are addressed in Section 5.14 (Worker Safety). Handling and management of hazardous wastes that may be generated during construction are addressed in Sections 5.12 and 5.13, respectively.

5.15.3.2 Operations and Maintenance Phase Emissions

Facility operations were evaluated to determine whether particular substances will be used or generated that may cause adverse health effects if released to the air. The primary sources of emissions from facility operations are the natural gas–fired combustion turbine generators (CTG) and the aqueous ammonia slip stream from the selective catalytic reduction (SCR) control system located in the HRSG. The cooling tower is a secondary source of emissions from the facility. The compounds with potential toxicological impacts that will be emitted from TPP operations are shown in Table 5.15-2.

These potential air toxic compounds were identified in the California Air Toxics Emission Factor (CATEF) Version 1.2 database (CARB, 1996). All air toxic species associated with Source Classification Code (SCC) 20200203 (natural gas cogeneration turbines with SCR) for which cancer Unit Risk Factors (URFs) and/or chronic or acute Reference Exposure Levels (RELs) have been established are included in Table 5.15-2. In addition, ammonia emissions, which are associated with potential ammonia slip from the SCR system, are also included. These air toxic compounds are anticipated during typical TPP operations.

Table 5.15-2. Toxicity Values Used to Characterize Health Risks

Compound	Cancer Unit Risk Factor $(\mu g/m^3)^{-1}$	Acute REL $(\mu g/m^3)$	Chronic REL $(\mu g/m^3)$
Napthalene	--	--	9
Total PAHs[a]	1.10E-03	--	--
Ethylbenzene	--	--	2,000
1,3-Butadiene	1.70E-04	--	20
Acetaldehyde	2.70E-06	--	9
Benzene	2.90E-05	1,300	60
Formaldehyde	6.00E-06	94	3
N-Hexane	--	--	7,000
Propylene	--	--	3,000
Propylene Oxide	3.70E-06	3,100	30
Toluene	--	3.70E+04	300
Xylene	--	2.20E+04	700
Ammonia	--	3,200	200
Diesel Exhaust	3.00E-04	--	5
Arsenic	3.30E-03	0.19	3.00E-02
Bromine	--	--	1.70
Cadmium	4.20E-03	--	2.00E-02
Hexavalent Chromium	0.15	--	0.2
Copper	--	100	2.40
Fluoride	--	240	5.90
Manganese	--	--	0.20
Mercury	--	1.80	0.09
Nickel	2.60E-04	6	0.05
Sulfates	--	120	25
Zinc	--	--	35

[a] Polycyclic aromatic hydrocarbons, excluding naphthalene.

PAH = polycyclic aromatic hydrocarbon
REL = Reference Exposure Levels
$\mu g/m^3$ = micrograms per cubic meter

To evaluate potential human health risk, air toxic emissions from TPP operations were estimated on a maximum hourly and a maximum annual basis. To calculate the air toxic emissions resulting from the TPP, four components were considered: the combustion turbines, the cooling tower, the emergency generator, and the emergency fire water pump engine. Based on the project estimated capacity factor of 92%, each combustion turbine will operate 8,070 hours per year. The cooling tower will operate constantly. The annual turbine emissions were estimated by assuming that the turbine would operate 8,070 hours per year under full load conditions (100 percent load at 62° F annual average) with duct burner firing for 5,260 hours at maximum firing capacity. Emission factors for the natural gas–fired turbine were obtained from the CARB CATEF database (CARB, 1996) and from the Ventura County Air Pollution Control District (APCD) (VCAPCD, 1995). The maximum value for each species listed in these two references was used. The turbine emission factors (in pounds per million standard cubic feet of natural gas [lb/MMscf]) were multiplied by the amount of gas combusted per hour to obtain emissions in pounds per hour (lb/hr). For maximum hourly emissions, the maximum natural gas consumption rate of 1.88 million standard cubic feet (MMscf) per hour was used. For annual emissions, the annual average natural gas consumption rate of 1.57 MMscf per hour was used. The emission factors and the estimated maximum hourly and annual turbine emissions are summarized in Table 5.15-3. These assumptions reflect expected worst-case conditions.

Table 5.15-3. Estimated Air Toxic Emissions from the Natural Gas–Fired Combustion Turbines with SCR

Chemical Species	Emission Factor (lb/MMscf)[a]	Maximum Hourly Emissions (lb/hr)[b]	Annual Emissions (tons/yr)[b]	Total Annual Emissions from Four Turbines (tons/yr)
Naphthalene	7.88E-03	0.015	5.42E-02	2.17E-01
Total PAHS (w/out Naph.)	7.78E-04	0.001	5.35E-03	2.10E-02
Ethylbenzene	5.70E-02	0.107	3.92E-01	1.57E+00
1,3-Butadiene	1.33E-04	0.000	9.15E-04	0.40E-02
Acetaldehyde	5.11E-01	0.959	3.51E+00	14.06E+00
Acrolein	6.93E-02	0.130	4.77E-01	191E+00
Benzene	4.72E-02	0.089	3.25E-01	1.30E+00
Formaldehyde	9.17E-01	1.721	6.31E+00	25.22E+00
Hexane	3.82E-01	0.717	2.63E+00	10.51E+00
Propylene	2.00E+00	3.754	1.38E+01	55.01E+00
Propylene Oxide	5.87E-02	0.110	4.04E-01	1.62E+00
Toluene	1.68E-01	0.315	1.16E+00	4.62E+00
Xylene (Total)	6.26E-02	0.117	4.30E-01	1.72E+00
Ammonia [c]	5 ppm	14.503	51.983	207.93E+00

[a] Air toxic emission factors from CATEF database, Version 1.2 (CARB, 1996) and Ventura County APCD (VCAPCD, 1995).
[b] See Appendix K-12 for detailed emissions calculations, each turbine.
[c] Based on estimated ammonia slip from NO_x control (5 ppmvd at 15% oxygen).

lb/MMscf = pounds per million standard cubic feet
lb/hr = pounds per hour
NA = not applicable
NO_x = nitrogen oxides
PAH = polycyclic aromatic hydrocarbon
ppmvd = parts per million by volume, dry basis
SCR = selective catalytic reduction

The annual air toxic emissions for the cooling tower were estimated by assuming that the cooling tower will operate under full load conditions for the entire year at the times when the combustion turbine is operating. These emissions assume expected cooling tower make-up water quality, a closed-loop cooling water system, and a proposed drift rate of 0.0005% for the cooling tower. The estimated maximum hourly and annual cooling tower air toxic emissions are summarized in Table 5.15-4.

Table 5.15-4. Estimated Air Toxic Emissions from Cooling Tower[a]

Chemical Species	Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)
Arsenic	2.96E-05	0.26
Bromide	3.11E-03	27.3
Cadmium	5.93E-05	0.52
Chromium (hexavalent)[b]	3.71E-05	0.32
Copper	7.41E-05	0.65
Fluoride	1.33E-03	11.7
Manganese	1.04E-04	0.91
Mercury	1.19E-05	0.10
Nickel	2.96E-05	0.26
Sulfate	6.37E-01	5583
Zinc	1.33E-04	1.17

lb/hr = pounds per hour

(a) The emissions are based on cooling water measurements from reservoir analysis. Concentration in cooling tower is conservatively assumed to be 20 times the concentrations found in water sampled.

(b) Chromium is conservatively assumed to be in the hexavalent oxidation state.

5.15.3.3 Approach to Assessing Public Health Impacts

The potential human health risks posed by the TPP's combustion turbine emissions were assessed using procedures generally consistent with *Air Toxics "Hot Spots" Program: Revised 1992 Risk Assessment Guidelines* (CAPCOA, 1993). These guidelines (referred to as the California Air Pollution Control Officers Association [CAPCOA] guidelines) were developed to provide risk assessment procedures as required under the Air Toxics Hot Spots Information and Assessment Act of 1987 (Assembly Bill [AB] 2588 [Health and Safety Code Section 44360 et seq.]). This law established a statewide program for the inventory of air toxic emissions from individual facilities as well as requirements for risk assessment and public notification of potential health risks.

The HRA was conducted in four steps:

- Hazard identification;
- Dose-response relationship definition;
- Exposure assessment; and
- Risk characterization.

First, hazard identification was performed to determine the potential health effects that may be associated with TPP operational emissions. The purpose was to identify whether the pollutants emitted could be characterized as potential human carcinogens or associated with other types of adverse health effects. The CAPCOA guidelines and the Office of Environmental Health Hazard Assessment (OEHHA) website provide lists of pollutants with potential cancer and noncancer health effects (CAPCOA, 1993; OEHHA, 2000). The pollutants relevant to the TPP are listed in Table 5.15-2.

Second, the dose-response relationship was defined. The dose-response values characterize the relationship between pollutant exposure and the incidence of an adverse health effect in exposed populations. The dose-response relationship is expressed in terms of potency values (i.e., URFs) for cancer risk and RELs for acute and chronic noncancer risks. The CAPCOA and OEHHA guidelines also provide URFs and RELs for the identified toxicants. The URFs and RELs that are relevant to the TPP are shown in Table 5.15-2.

Third, an exposure assessment was conducted to estimate the extent of public exposure to TPP operational emissions. Public exposure depends on the short- and long-term ground-level concentrations resulting from emissions, the route of exposure, and the duration of exposure to those emissions. Dispersion modeling was performed using the USEPA-approved ISCST3 model to estimate the ground-level concentrations near the TPP site. The methods used in the dispersion modeling were consistent with the approach described in Section 5.2 (Air Quality). The ISCST3 model outputs are provided in Appendix K-8.

Fourth, risk characterization was performed to integrate the health effects and public exposure information and provide qualitative estimates of health risks from TPP operational emissions. Exposures were estimated initially for inhalation only to identify locations of maximum impact. Subsequent to identifying these locations, a multipathway analysis was performed at these locations and other identified sensitive receptor locations for the following exposure pathways: inhalation, soil ingestion, plant ingestion, dermal exposure, and mother's milk. The multipathway risk modeling was performed using the ACE2588 model (CAPCOA, 1993). The ACE2588 model utilizes CAPCOA equations and algorithms to calculate health risks based on input parameters, such as emissions, "unit" ground-level concentrations, and toxicological data. The duration of exposure to TPP operational emissions was assumed to be 24 hours per day, 365 days per year, for 70 years. The ACE2588 model outputs are provided in Appendix K-13.

A detailed description of the model input parameters, and the results of the HRA are described below.

5.15.3.4 Model Input Parameters

Maximum hourly and annual air toxic emission estimates for the natural gas–fired combustion turbine and the cooling tower were input to the HRA model. Cancer and chronic noncancer health effects were estimated using the annual air toxic emission estimates. Acute noncancer health effects were estimated using the worst-case maximum hourly air toxic emission estimates.

Dispersion modeling was performed using the ISCST3 model and methods consistent with the approach described in Section 5.2 (Air Quality) (e.g., building downwash, receptor grids, meteorological data, etc.). The initial dispersion modeling analysis was performed to identify the locations of the highest health impacts from exposures through the inhalation pathway only. To estimate cancer risk, the sum of the annual emissions for each pollutant (g/s) multiplied by its pollutant-specific cancer unit risk factor was used in the ISCST3 model. This provides results in terms of inhalation cancer risk, not ground-level concentration, for all emitted pollutants. For the non-cancer health effects (both chronic and acute), the ISCST3 model input was the sum of the ratios of annual emissions (g/s) to pollutant-specific RELs. The model results then are in terms of inhalation chronic and acute hazard indices. Cancer risk and noncancer hazard indices are described in Section 5.15.3.5.

As prescribed by the ACE2588 model, dispersion modeling was conducted to produce "unit" ground-level concentrations for those receptors at the locations of maximum impact identified by the ISCST3 modeling. The unit ground-level concentrations were input to the ACE2588 model. The ACE2588 model used the unit ground-level concentrations and the annual air toxic emission rates to calculate ground-level concentrations for each chemical species.

URFs and RELs were obtained from the latest CAPCOA and OEHHA guidelines (CAPCOA, 1993; Cal-EPA, 1999a, 1999b, 2000). The pollutant-specific URFs and RELs used in the HRA are listed in Table 5.15-2. The ACE2588 model uses these data, together with the dispersion modeling output and the air toxic emission estimates for each source, to estimate health risk based on CAPCOA equations and algorithms.

5.15.3.5 Calculation of Health Effects

Adverse health effects are expressed as cancer or noncancer health risks. Cancer risk is typically reported as "lifetime cancer risk." Lifetime cancer risk is the maximum estimated increased risk of contracting cancer cause by long-term exposure to a pollutant suspected of being a carcinogen. Cancer risk is calculated by assuming an individual is exposed continuously to pollutants for 24 hours per day for 70 years. Although continuous lifetime exposure is unlikely, the goal of the approach is to produce a standardized worst-case estimate of potential cancer risk.

Noncancer risk is typically reported as a "total hazard index" (THI). The THI is calculated for each target organ as the calculated dose of a pollutant divided by the maximum acceptable exposure level. The acceptable exposure level is generally the level at (or below) which no adverse health effects are expected. The THI is calculated for short-term (acute) and long-term (chronic) exposures.

Both the cancer and the noncancer risk estimates provided in the HRA represent incremental project risks (i.e., risks due to TPP sources only) and do not include the potential health risks posed by existing background concentrations. The ACE2588 model performs all of the necessary calculations to estimate the potential lifetime cancer risk and THI posed by TPP emissions.

5.15.3.6 Significance Criteria for Health Effects

Various state and local agencies provide different significance criteria for cancer and noncancer health effects. For the TPP, the CEC guidelines provide the significance criteria for potential cancer and noncancer health effects from project-related emissions. For carcinogenic health effects, an exposure is considered potentially significant when the predicted lifetime cancer risk exceeds ten in one million (10×10^{-6}). For noncarcinogenic health effects, an exposure that affects each target organ is considered potentially significant when the THI exceeds a value of one. These criteria are equivalent to the significant levels established by the Bay Area AQMD (Air Toxic Risk Evaluation Procedure and Risk Management Policy, 3/2000).

5.15.3.7 Estimated Lifetime Cancer Risk

The maximum incremental cancer risk resulting from the proposed TPP was estimated to be 6.85 in one million. The maximum cancer risk was located on the northeast side of the facility boundary. Table 5.15-5 presents the estimated increased cancer risk for TPP operations. Figure 5.15-3 shows the point of maximum cancer impact. Applicable excerpts of the ACE2588 model output can be found in Appendix K-13.

The estimated cancer risks are below the significance criterion of ten in one million. Thus, the TPP emissions pose no significant carcinogenic health effects relative to the most stringent established significance criteria.

5.15.3.8 Estimated Chronic and Acute Total Hazard Indices

The maximum chronic THI resulting from the proposed TPP was estimated to be 0.0211. The maximum chronic THI was located near the northeast boundary of the TPP. The maximum acute THI was estimated to be 0.0739. The maximum acute THI was located 3 miles west southwest of the facility boundary. Figure 5.15-3 shows the points of maximum chronic and acute risk impacts. Table 5.15-5 presents the results of the HRA for proposed TPP operations.

Table 5.15-5. Estimated Cancer Risk and Acute and Chronic Total Hazard Indices (THIs)

	Maximum Cancer Risk	Maximum Chronic THI	Maximum Acute THI
TPP	6.85×10^{-6}	0.0211	0.0739
Significance Criteria	10×10^{-6}	1.0	1.0
Significance Determination	Insignificant	Insignificant	Insignificant

Each of the estimated chronic and acute THIs are well below the significance criteria of one (for both THIs). Thus, the TPP emissions pose no significant noncarcinogenic health effects relative to the most stringent established significance criteria.

5.15.3.9 Conservative Assumptions Used in the Public Health Impact Assessment

Uncertainties in HRAs arise from the limitations of methodologies used in estimating model inputs and assumptions regarding the toxicity of the emissions evaluated. Compensation for uncertainty is provided by use of worst-case, conservative values for each model input parameter and toxicity significance level. The compounding effect of use of conservative data can result in risk assessments that significantly overestimate the actual health risk. The conservative assumptions, and resulting risk assessments, are designed to provide sufficient health protection to avoid underestimation of risk to the public. The assumptions are discussed below.

The models used for the dispersion modeling contain assumptions that tend to over-predict ground-level concentrations. For example, the modeling performed in the HRA assumed a conservation of mass (i.e., all the pollutants emitted from the sources remained in the atmosphere while being transported downwind). During the transport of pollutants from sources to receptors, none of the material was assumed to be removed through chemical reaction or lost at the ground surface through reaction, gravitational settling, or turbulent impaction. In reality, these mechanisms work to reduce the level of pollutants remaining in the atmosphere.

The exposure characteristics are also worst-case estimates. The HRA included the assumption that residents were exposed to turbine emissions continuously at the same location for 24 hours per day, 365 days per year, for 70 years. It is extremely unlikely that any resident would meet this condition. The conservative exposure assumption overpredicts risk estimates in the HRA process.

The toxicity data used in the HRA contains uncertainties due to the extrapolation of data from animals to humans. Typically, safety factors are applied when doing the extrapolation. Furthermore, the human population is much more diverse both genetically and culturally than bred experimental animals. The intraspecies variability among humans is expected to be much greater than in laboratory animals. With all of the uncertainty in the assumptions used to extrapolate toxicity data, significant measures are taken to ensure that there is sufficient health protection built into the available health effects data.

5.15.3.10 Criteria Pollutants

The criteria pollutants nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), and particulate matter of less than 10 microns in diameter (PM_{10}) were modeled, and an evaluation of their impacts on air quality is conducted in Section 5.2 (Air Quality). The federal and state ambient air quality standards (AAQS) set limits on the allowable level of air pollutants in the ambient air necessary to protect public health. The results of the modeling show that project emissions of all the criteria pollutants will not cause or contribute to new violations of the state and federal AAQS. Because the results indicate that the project will not significantly worsen air quality as measured by the AAQS, no significant adverse health effects are anticipated from TPP criteria pollutant emissions.

5.15.4 Cumulative Impacts

Risks from the proposed project have been evaluated and then compared to the applicable significance criteria. A cumulative impact analysis for criteria pollutants was conducted and is discussed in Section 5.2. Results of the criteria pollutant cumulative impacts analysis do not show any significant increases in ambient concentrations above the impacts from the TPP alone. Additional modeling was not conducted to evaluate cumulative public health impacts. Based on the results of the criteria pollutant cumulative impacts analysis, no increased health impacts are expected due to the sources included in the cumulative analysis.

5.15.5 Mitigation

Since there are no significant adverse impacts anticipated from either construction or operation of the TPP, no additional mitigation measures are needed.

5.15.6 Unavoidable Significant Adverse Effects

There are no significant adverse effects expected from either construction or operation of the TPP.

5.15.7 Agency Contacts

Agency contacts regarding the public health assessment of the TPP are provided in Table 5.15-6.

Table 5.15-6. Involved Agencies and Agency Contacts

Agency/Address	Contact/Telephone	Permits/Reason for Involvement
Alameda County Department of Environmental Health 1131 Harbor Bay Parkway, #240 Alameda, CA 94502-6577	Mr. Tom Peacock (510) 567-6782	Public exposure to acutely hazardous air pollutants
Bay Area Air Quality Management District 939 Ellis Street San Francisco, CA 94109	Richard Wocasek (415) 771-6000	Determination of Compliance

5.15.8 Compliance with Laws, Ordinances, Regulations, and Standards

All applicable LORS and the administering agencies for the TPP are summarized in Section 10.0, Table 10-1. This section describes how the TPP will comply with all applicable LORS pertaining to public health impacts (Table 5.15-7).

Table 5.15-7. Summary of Compliance with Public Health LORS for the TPP

Authority	Administering Agency	Requirement	TPP Compliance
H&SC §§ 25500–25542; 10 CR §§ 2720–2734	State OES and Alameda County Environmental Health	Requires RMPs where acutely hazardous materials are stored.	A RMP for aqueous ammonia will be prepared.
H&SC § 39650, et seq.	CARB	Requires safe exposure limits for TACs, use of BACT, and NSR.	The TPP will not cause unsafe exposure to TACs (5.15.3.5) and has performed an NSR assessment, including BACT (5.2.3).
H&SC, Part 6, § 44300 et seq.	BAAQMD	Inventory of TACs and HRA.	After the first year of operation, TPP emissions will be inventoried as required by this regulation.
CCR 22, Division 2, Chapter 3	DTSC	Public notification in the event of public exposure	The TPP will comply with applicable notification requirements.
BAAQMD Regulation 11, Rule 10	BAAQMD	Limits amount of hexavalent chromium in cooling tower water.	The TPP cooling tower water will contain less than 0.15 mg/L of hexavalent chromium.

BACT= Best Available Control Technology
CARB = California Air Resources Board
DTSC = Department of Toxic Substances Control
H&SC = Health and Safety Code
HRA = Health Risk Assessment
NSR = New Source Review
OES = Office of Emergency Services
TPP = TeslaPower Plant
RMP = Risk Management Plan
BAAQMD = Bay Area Air Quality Management District
TAC = Toxic air contaminant

5.15.9 References

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