



Air Toxics Program Annual Report

August 2019



Air Toxics Program Annual Report

I. Purpose

This report will describe the status of Air Toxics “Hot Spots” Program and other toxic emissions related programs implemented within the Monterey Bay Air Resources District (MBARD), which includes Monterey, Santa Cruz, and San Benito Counties. This annual report has been prepared in accordance with HSC Section 44363.

II. Air Toxics “Hot Spots” Program

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987, and requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to estimate health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels. In accordance with the California Health and Safety Code (HSC) Section 44300, et seq., MBARD adopted Rules 305 and 1003 to administer the Hot Spots program.

Hots Spots Program Process

In the early 1990s, MBARD completed a full review of the facilities that existed at that time following the process described below. Based upon the methodology used in the 1990s, none of the sources evaluated triggered the notification or risk reduction requirements. In 2018, MBARD re-started this process to review existing sources within Monterey, San Benito, and Santa Cruz counties. Updated in 2015, California Environmental Protection Agency’s (EPA) Office of Environmental Health Hazard Assessment (OEHHA) risk assessment methodology incorporates childhood exposure to air toxics. Evaluations based on the updated OEHHA methodology for the same level of emissions and conditions are anticipated to show an increase in potential cancer risk. For example, the estimated residential potential inhalation cancer risk using the new OEHHA methodology may be approximately 1.5 to 3 times higher than was previously estimated.

The first step in the process is for facilities to submit a toxic emissions inventory plan which identifies the methods to be used for estimating toxics emissions used to develop a toxic emissions inventory. MBARD



The goal of the program is to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to an acceptable level.



reviews the inventory and uses prioritization guidelines¹ to categorize facilities as low, medium or high priority. In establishing priorities, MBARD considers the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, worksites, and residences, and any other factors that MBARD finds and determines may pose a significant risk to receptors. MBARD Rule 1003 establishes a cancer risk of 10 in one million as significant and a hazard index greater than 1 for non-cancer risk (acute or chronic) as significant. Sources with a prioritization score that exceeds the Rule 1003 limits are considered a high priority.

For facilities that are designated as high priority, the next step is conducting a detailed health risk assessment. The source can prepare and submit the risk assessment to MBARD or request MBARD to prepare the assessment. Once reviewed and approved by MBARD, the health risk assessment is submitted to the California Office of Environmental Health Hazard Assessment (OEHHA) for additional review of the risk assessment procedure.

Facilities identified as potentially causing a significant health risk must notify all exposed persons of the health risk assessment results and conduct a toxic risk reduction audit and develop a plan to implement measures to reduce that risk.

This process is streamlined for small business with similar characteristics such as: gas stations, dry cleaners, or auto body shops, due to the economic hardship individual reporting would cause. Industrywide risk assessments are performed for these source types which results in minimal data collection by each individual facility to assess risk.

Current Status

Toxic air emissions have decreased over time due to federal and state regulations, more stringent equipment emission standards, equipment retirement, and facility shutdowns. In 2017, MBARD adopted revisions to Rule 1003 to reflect the updated OEHHA Guidelines released in 2015² and the updated CAPCOA Prioritization Guidelines in 2016. In 2018, MBARD initiated evaluating existing sources in accordance with these updated guidelines by starting with toxic emissions inventories. In January 2018, MBARD notified stationary sources of our intention to re-evaluate all existing sources in accordance with these updated guidelines, commencing with facilities emitting 10 tons per year of total organic gases, particulate matter, nitrogen oxides, or sulfur oxides, or facilities listed in an MBARD air toxic emissions survey, inventory or report. This effort identified 26 sources to begin the re-evaluation. MBARD provided the sources the option to submit a toxic emissions inventory plan and report, or request MBARD to prepare the emissions inventory report. To date, 18 of the facilities have completed the toxic emissions inventory report, and eight facilities are still in the inventory review process. From the completed emissions inventory reports, MBARD calculated a prioritization score to assess the potential health risk from each of the facilities. Based upon the results of the prioritization scores, each facility was designated as either a high, intermediate or low risk, as defined by the following three risk categories:

¹ California Air Pollution Control Officers Association (CAPCOA). 2016. Air Toxic “Hot Spots” Program, Facility Prioritization Guidelines. <http://www.capcoa.org/wp-content/uploads/2016/08/CAPCOA%20Prioritization%20Guidelines%20-%20August%202016%20FINAL.pdf>

² Office of Environmental Health Hazard Assessment (OEHHA). 2015. Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. <https://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>



Category No. 1 (High Level Risk)

The following facilities have either:

- 1) an approved health risk assessment (HRA) showing an increased cancer risk exceeding 10 in a million or a total hazard index (THI) exceeding 1.0, or
- 2) a prioritization score greater than or equal to 10.0 (health risk assessment required).

Table 1. High Prioritization Facilities

Facility Name	Health Risk Assessment		Prioritization Score		
			Non-Cancer Health Effects		Cancer Health Effects
	Cancer	Non-Cancer	Acute Score	Chronic Score	Cancer Score
City of Santa Cruz Water Pollution Control District	Revised HRA due by 8/30/2019		>10	<10	>10
Constellation Brands U.S. Operations, Inc. dba Gonzales Winery	HRA due by 10/22/2019		<10	<1	>10

The City of Santa Cruz Water Pollution Control District and Constellation Brands U.S. Operations, Inc. dba Gonzales Winery have submitted their toxic emissions inventories for 2017. Based on their toxic emissions, the cancer or non-cancer health effects are greater than 10. Accordingly, the facility has been deemed a “High Priority” facility, and is required to prepare an HRA. The HRA must be prepared in accordance with OEHHA *Air Toxic Hot Spots Program Risk Assessment Guidelines*, version February 2015.

Category No. 2 (Intermediate Level Risk)

The following facilities have either:

- 1) an approved HRA showing increased cancer risk is less than 10 in a million and a THI less than 1.0, or
- 2) a prioritization score less than 10, but more than 1.0 (HRA not required).

Table 2. Intermediate Prioritization Facilities

Facility Name	Health Risk Assessment		Prioritization Score		
			Non-Cancer Health Effects		Cancer Health Effects
	Cancer	Non-Cancer	Acute Score	Chronic Score	Cancer Score
Ameresco Santa Cruz Energy LLC: Buena Vista Landfill	HRA Not Required		<1	<1	<10



Facility Name	Health Risk Assessment		Prioritization Score		
			Non-Cancer Health Effects		Cancer Health Effects
	Cancer	Non-Cancer	Acute Score	Chronic Score	Cancer Score
Ameresco Santa Cruz Energy LLC: Johnson Canyon Landfill	HRA Not Required		<10	<1	<10
Big Creek Lumber	HRA Not Required		<1	<1	<10
ExxonMobil Pipeline Company	HRA Not Required		<1	<1	<10
Franciscan Vineyards, Inc. dba Gonzales Winery	HRA Not Required		<1	<10	<10
Monterey One Water	HRA Not Required		<1	<1	<10
Olive Springs Quarry	HRA Not Required		<1	<1	<10
Stevens Creek Quarry	HRA Not Required		<1	<1	<10
University of California, Santa Cruz	HRA Not Required		<1	<1	<10

Category No. 3 (Low Level Risk)

The following facilities have either:

- 1) an approved HRA showing less than 1 in a million increased cancer risk and THI less than 0.1 for each toxicological endpoint, or
- 2) a prioritization score equal to or less than 1.0 for both cancer and non-cancer health effects.

Table 3. Low Prioritization Facilities

Facility Name	Health Risk Assessment		Prioritization Score		
			Non-Cancer Health Effects		Cancer Health Effects
	Cancer	Non-Cancer	Acute Score	Chronic Score	Cancer Score
Aera Energy, LLC	HRA Not Required		<1	<1	<1
Chevron Power Holding, Inc. dba Salinas River Cogeneration	HRA Not Required		<1	<1	<1
Chevron Power Holding, Inc. dba Sargent Canyon Cogeneration	HRA Not Required		<1	<1	<1
Kendall-Jackson Wine Estates, Ltd. dba Jackson Family Wines	HRA Not Required		<1	<1	<1
Santa Cruz Energy	HRA Not Required		<1	<1	<1
The Don Chapin Company	HRA Not Required		<1	<1	<1
The Wine Group – Golden State Vintners Winery	HRA Not Required		<1	<1	<1

A fourth category has been included to provide a status of the facilities whose TEIRs are still in development or under MBARD review.



Category No. 4 (In Progress)

The following facilities have either:

- 1) submitted a Toxic Emissions Inventory Plan (TEIP) and the District is currently reviewing the plan,
- 2) an approved TEIP and the District is awaiting the Toxic Emissions Inventory Report (TEIR), or
- 3) received TEIR and is conducting a Prioritization Score Assessment.

Table 4. Facilities Under Review

Facility Name	Status
Calpine King City Cogen, LLC	Must submit TEIR by 10/22/2019
Chevron U.S.A. Inc.	Currently reviewing revised TEIP
Dynegy Moss Landing, LLC	Must submit TEIR by 10/21/2019
Granite Rock Company – Aromas Quarry	Awaiting revised TEIP
Lhoist North America of Arizona – Natividad Plant	Currently reviewing revised TEIP
Monterey Regional Waste Management District	Must submit TEIR by 9/16/2019
Pacific Scientific Energetic Materials Company	Conducting prioritization score assessment
Trical	Must submit TEIR by 1/15/2020

III. California Air Toxics Mandates

The California Air Resources Board has been developing a number of Air Toxic Control Measures (ATCMs) to reduce emissions of air toxics. Most of these requirements are aimed at reducing diesel particulate emissions through implementation of newer, cleaner diesel engines and alternative fuel technologies. Many of the diesel engine measures have achieved their phase in period such that a newly installed diesel engine today must meet the most stringent Tier 4 standards.

In addition, California has stringent standards for vapor recovery systems to reduce vapors while fueling vehicles at service stations. Most gasoline stations have now installed monitoring equipment to help owners more rapidly determine when nozzles, hoses, and pumps need to be repaired. This was required by the In-Station Diagnostic (ISD) Program.

Finally, a program to phase out perchloroethylene emissions from dry cleaning equipment began in 2007. By the year 2023, the carcinogen perchloroethylene will no longer be allowed for use in dry cleaning. As of July 2019, there are no dry cleaners operating in MBARD which use perchloroethylene as a dry cleaning solvent.



These and other recently enacted State programs have resulted in fewer toxic emissions impacting the public residing in Monterey, San Benito, and Santa Cruz Counties.

IV. Federal Air Toxics Mandates

The Environmental Protection Agency (EPA) has also been developing toxic emission reduction measures. Generally, these requirements apply to facilities much larger than those permitted within MBARD or have previously been complied with due to California's more restrictive emission limitations. EPA develops Maximum Achievable Control Technology (MACT) standards to reduce hazardous air pollutant (HAP) emissions from certain industry source categories. MACT requirements apply to major sources of HAPs (10 tons per year of any individual HAP or 25 tons per year of any combination of HAPs).

V. MBARD New Source Review

New or modified stationary sources of emissions require an MBARD permit to operate. To obtain a permit, a source must determine potential emissions and assess the associated health risk in accordance with MBARD Rule 1000. MBARD updated Rule 1000 in 2017 to incorporate the updated OEHHA risk assessment guidelines.

In 1974, the District Board of Directors adopted Rule 207 (Review of New or Modified Sources), last revised in February of 2017. Rule 207 requires all new and modifies sources to utilize Best Available Control Technology (BACT). BACT is applied to criteria pollutant emission such as Volatile Organic Compounds, oxides of Nitrogen (NOx), Particulate Matter (PM), etc. Implementation of this rule has been instrumental in minimizing toxic emissions from new and modified sources. Through the implementation of Rule 207 and Rule 1000, potential significant risk sources in MBARD's jurisdiction have been reducing toxic air contaminant (TAC) emissions.

VI. California Environmental Quality Act

Air quality impacts from new facilities and developments must assess whether sensitive receptors will be exposed to substantial pollutant concentrations. MBARD reviews environmental documents from local cities, counties, and other agencies and will provide comments if the analysis of sensitive receptor exposure is inadequate.

VII. AB2588 Program Fees

Program costs may be recovered by assessing a fee to subject facilities pursuant to District [Rule 305, AB2588 Implementation Fees](#). MBARD is required to collect and pay fees to the State to cover CARB's cost. CARB is currently in the process of updating their AB2588 fee rule. MBARD is also authorized by Rule 305 to assess fees to cover local costs.

VIII. AB2588 Future Activities

In fiscal year 2019/2020 (FY19/20), staff will notify the following source categories to prepare a TEIP and TEIR: hospitals, asphalt batch plants, chemical processing plants, waste water treatment facilities, military installations, and landfills. In addition, MBARD will conduct the TEIR's on behalf of the following source categories: gas stations, crematories, fumigation chambers, and fiberglass facilities. Staff expects to review and prioritize approximately 520 facilities in FY19/20 pending the completion of the industrywide gas station guidelines which applies to approximately 400 facilities.



IX. Conclusion

As required by state law, this report provides an update on MBARD's AB 2588 Air Toxics "Hot Spots" Program. This past year, toxics emissions from 18 facilities were evaluated for potential health risks using completed emissions inventories and CAPCOA's most recent Prioritization Guidelines. The following facilities were determined to be high priority and must complete an HRA using OEHHA new risk assessment methodology: City of Santa Cruz Wastewater Treatment Plant and Constellation Winery. There are eight facilities still in progress toward completing their toxic emissions inventories.

This report will be presented to MBARD's Advisory Committee and Board of Directors for review.

Attachment A. Summary of Facilities Reviewed under AB2588

Facility Name	Acute Score	Chronic Score	Cancer Score	Priority	Status*
AERA ENERGY, LLC	0.24	0.10	0.96	LOW	Exempt
AMERESCO SANTA CRUZ ENERGY LLC: BUENA VISTA LANDFILL	0.97	0.10	6.49	INTERMEDIATE	Next TEIR due in 2022
AMERESCO SANTA CRUZ ENERGY LLC: JOHNSON CANYON LANDFILL	1.98	0.17	8.36	INTERMEDIATE	Next TEIR due in 2022
BIG CREEK LUMBER	0.01	0.00	1.22	INTERMEDIATE	Next TEIR due in 2022
CALPINE KING CITY COGEN, LLC	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	TEIR due 10/22/2019
CHEVRON POWER HOLDING, INC. DBA SALINAS RIVER COGEN	1.56E-03	2.11E-04	6.64E-04	LOW	Exempt
CHEVRON POWER HOLDING, INC. DBA SARGENT CANYON COGEN	3.35E-03	5.31E-04	6.58E-04	LOW	Exempt
CHEVRON U.S.A. INC.	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	Waiting for revised TEIP
CITY OF SANTA CRUZ - WWTP	15.29	1.18	67.91	HIGH	Revised HRA due by 8/30/2019
CONSTELLATION BRANDS U.S. OPERATIONS, INC. DBA GONZALES WINERY	3.54	0.64	38.22	HIGH	Submit HRA by 10/22/2019
DYNEGY MOSS LANDING, LLC	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	TEIR due 10/21/2019
EXXON MOBIL CORP	5.66E-01	5.89E-02	2.41	INTERMEDIATE	Next TEIR due in



Attachment A. Summary of Facilities Reviewed under AB2588

Facility Name	Acute Score	Chronic Score	Cancer Score	Priority	Status*
					2022
FRANCISCAN VINEYARDS, INC. DBA ESTANCIA ESTATES	0.30	3.43	1.71	INTERMEDIATE	Next TEIR due in 2022
GRANITE ROCK COMPANY - AROMAS QUARRY	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	Reviewing revised TEIP
KENDALL-JACKSON WINE ESTATES, LTD DBA JACKSON FAMILY WINES	3.62E-02	5.74E-03	1.39E-01	LOW	Exempt
LHOIST NORTH AMERICA OF ARIZONA - NATIVIDAD PLANT	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	Reviewing revised TEIP
MONTEREY ONE WATER	0.23	0.02	1.05	INTERMEDIATE	Next TEIR due in 2022
MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	TEIR due on 9/16/2019
OLIVE SPRINGS QUARRY	9.54E-01	1.60E-01	2.06E+00	INTERMEDIATE	Next TEIR due in 2022
PACIFIC SCIENTIFIC ENERGETIC MATERIALS COMPANY	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	Need to conduct Prioritization Score Assessment
SANTA CRUZ ENERGY, LLC	1.88E-03	1.72E-03	1.12E-01	LOW	Exempt
STEVENS CREEK QUARRY	0.41	0.14	5.34	INTERMEDIATE	Next TEIR due in 2022
THE DON CHAPIN COMPANY	9.40E-02	1.71E-04	8.41E-01	LOW	Exempt



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Facility Name	Acute Score	Chronic Score	Cancer Score	Priority	Status*
THE WINE GROUP - GOLDEN STATE VINTNERS WINERY	1.11E-01	1.13E-02	1.24E-01	LOW	Exempt
TRICAL	IN PROGRESS	IN PROGRESS	IN PROGRESS	IN PROGRESS	TEIR due on 1/15/2020
UCSC	0.76	0.07	9.09	INTERMEDIATE	Next TEIR due in 2022

*TEIR = Toxic Emission Inventory Report, HRA = Health Risk Assessment