Background of Proposed Amended Rule 1210
(Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction)

The California Air Toxics "Hot Spots" Information and Assessment Act (Hot Spots Act), Assembly Bill 2588, was enacted in 1987 to address public concerns over toxic air contaminant emissions. The Hot Spots Act was amended in 1992 to require that the owners of "significant risk" facilities reduce their risks below the level of significance (which is set by each air district in California and is reflected in their individually adopted risk reduction thresholds). The Hot Spots Act requires local air pollution control districts to evaluate toxic air contaminant emissions from various businesses and determine which emissions present public health concerns. Facilities posing potential health risks above the district significance thresholds are required to develop and implement strategies to reduce those risks. The Air Toxics "Hot Spots" Program (Hot Spots Program) is implemented by the local air pollution control districts using guidance developed by the State Office of Environmental Health Hazard Assessment (OEHHA), the California Air Pollution Control Officers Association, and the California Air Resources Board.

Under the Hot Spots Program, facilities emitting toxic air contaminants are required to provide the San Diego County Air Pollution Control District (District) with information to update the facilities' toxic air contaminant emissions inventories at least once every four years. The District then reviews and verifies data submitted by facilities and compiles an inventory of emissions.

Rule 1210, adopted in 1996 to implement the Hot Spots Act, establishes thresholds and procedures for public notification and risk reduction. Rule 1210 regulates facilities for four types of public health risks: 1) cancer risk, 2) cancer burden, 3) chronic (long term) noncancer risk, and 4) acute (short term) noncancer risk.

- **Cancer risk** is a calculation of the probability that a person would develop cancer if exposed to a stationary source's emissions for 30 years, assuming that the emissions remain constant over that time period. It is expressed as the number of chances in one million of developing cancer. For example, a cancer risk of 100 in one million represents the probability that a person might develop cancer due to exposure to the facility's emissions, but it does not mean that if one million people were exposed to that risk level, that 100 people would necessarily develop cancer. Currently, Rule 1210 requires public notification when the cancer risk from the stationary source is equal to or greater than 10 in one million, and cancer risk reduction when the risk is equal to or greater than 100 in one million. Risk reduction generally entails reducing or controlling emissions of toxic air contaminants in order to reduce public exposure to them.

- **Total Acute and Chronic Noncancer Health Hazard Indices.** The noncancer health hazard index is calculated by dividing the estimated level of exposure to chemicals emitted from a stationary source to the level of exposure that is not expected to cause any adverse health effects. If the hazard index is below one, then the estimated level of exposure is not likely to result in adverse health effects for anyone, including sensitive individuals such as children and the elderly. A hazard index of equal to or greater than one indicates that there may be greater potential for adverse health impacts from exposure to the toxic air contaminants of concern. A hazard index is calculated for both acute (short-term or one

hour) and chronic (long-term, lasting years to a lifetime) exposures to air toxic contaminants from stationary sources. Rule 1210 requires public notification and risk reduction when any of the noncancer health hazard indices is equal to or greater than 1.

- **Cancer burden** estimates the number of potential excess cancer cases within the population that would be exposed to the toxic emissions for a lifetime (70 years). The cancer burden is calculated on the basis of lifetime (70-year) risks (whereas individual cancer risk is based on 30-year residential exposure). District Rule 1210 requires public notification and risk reduction when the cancer burden is equal to or greater than 1.[1]

Facilities that emit toxic air contaminants in amounts potentially posing a public health risk must submit a site-specific health risk assessment (HRA) to the District. The HRA examines the possible public health risks posed to the surrounding community that could be exposed to health risks at or above the significant risk thresholds. The HRA incorporates pollutant dispersion estimates, human exposure assumptions and health effects information. Each HRA is reviewed by the District and OEHHA to verify it is conducted in accordance with applicable regulations and established procedures.

Once an HRA has been approved, Rule 1210 requires public notification to all persons in the affected area if the facility-wide cancer risk is equal to or greater than 10 in one million. In addition, those facilities with significant cancer risks equal to or greater than 100 in one million are also required to reduce those risks within five years, under the current version of Rule 1210. However, the existing cancer risk reduction threshold of 100 in one million is ineffective since there are no facilities in San Diego County that create a cancer risk above that threshold.

Based on vast scientific data established by OEHHA, whose mission is to protect human health and the environment through scientific evaluation of risks posed by hazardous substances, the toxic air contaminants emitted by the facilities subject to Rule 1210 can contribute to an increased cancer risk in the region. The proposed amended rule can bring health benefits by reducing cancer risks from toxic emissions from facilities subject to the rule.

On May 22, 2019, in an effort to better protect public health, the former San Diego County Air Pollution Control Board (Board) directed the District to: 1) evaluate the cancer risk significance threshold of Rule 1210; 2) implement a regulatory process to amend Rule 1210, including obtaining input from the public and affected businesses, and 3) return to the Board with a proposed rule.

The District conducted two public workshops on August 15, 2019 and January 30, 2020 to discuss draft rule amendments proposed at that time. The District received comments at, and subsequent to, the public workshops, and prepared responses in two workshop reports.

On March 11, 2020, the District Advisory Committee (under the former Board) was asked to consider supporting the proposed amendments to Rule 1210, reflecting a proposed lowering of the cancer risk reduction threshold from 100 in one million to 10 in one million. The Advisory Committee voted to support aspirations to lower the cancer risk reduction threshold and reduce

[1] San Diego County Air Pollution Control District, 2019 & 2020 Air Toxics "Hot Spots" Annual Report

toxic air contaminant emissions. However, it found that additional data was needed in order to substantiate a specific threshold, and therefore, it recommended that the District conduct further analyses of the costs and benefits of different threshold levels based on the most recent emissions inventories and return to the former Board with proposed amendments to Rule 1210 in approximately one year.

On July 8, 2020, the District returned to the former Board and was given an 18-month extension to conduct additional analysis and was directed to provide progress reports every six months regarding the development of an amended rule.

The District conducted a public workshop via webinar on August 5, 2021, to discuss draft rule amendments proposed at that time. In consideration of the comments received at the workshop, the District is proposing additional amendments and clarifications to proposed amended Rule 1210. The District received comments at, and subsequent to, this public workshop, and prepared responses in a workshop report (Attachment E).

After conducting extensive evaluation and considering input from stakeholders, the District is proposing the following amendments to improve public health by reducing the cancer health risk in San Diego County: 1) lower the significant risk threshold for cancer from 100 in one million to 10 in one million; 2) enhance the public notification protocols and public meeting requirements; and 3) consider providing additional time for facilities where it is not feasible to reduce health risks within a 5-year timeframe. Proposed amended Rule 1210 may potentially affect up to 26 facilities in San Diego County classified as being in various sectors, including shipbuilding, mineral processing, and landfills.

The enhanced public notification protocols and public meeting requirements proposed in amended Rule 1210 include the following:

- Require that all initial public notifications contain clear and readable maps with isopleths.
- Require proof of distribution of public notification materials by a specified timeframe.
- Require that a public meeting be conducted for all initial public notifications, and for subsequent biennial notifications as determined and requested by the Air Pollution Control Officer.
- Require the Air Pollution Control Officer to provide a public notice within 30 days of receipt of risk reduction audit and plan and any extension request and make each document available for public review with a 30-day public comment period.
- Require the Air Pollution Control Officer to conduct a public meeting to discuss any proposed extension requests and obtain input from the public.

In order to address situations where it is not feasible for a facility to reduce health risks within a 5-year timeframe, the proposed amendments to Rule 1210 include a provision for a 3-year extension to reduce the cancer risk to below the proposed cancer risk reduction threshold. The

extension may be granted provided that the facility has installed Best Available Retrofit Control Technology for Toxics (T-BARCT) within the 5-year timeframe. The proposed amendments also provide the potential for additional 3-year extensions provided all technically feasible control measures have been implemented. As noted above, the proposed amendments include a requirement for a public meeting prior to granting any extension. This requirement will promote a transparent process by providing the District an opportunity to present its preliminary decision regarding the extension and solicit input from the public and other stakeholders.

The proposed amendments to Rule 1210 are necessary in order to establish an effective health protective threshold to the greatest extent feasible that brings benefits to the region and to align the risk reduction and public notification thresholds.

Socioeconomic Impact Assessment

State law requires the District to perform an assessment of the socioeconomic impacts when adopting, amending, or repealing a rule that will significantly affect air quality or emission limitations. A review conducted by District staff found that proposed amended Rule 1210 will not significantly affect air quality or emission limitations, and therefore a Socioeconomic Impact Assessment (SIA) is not required for this proposal per State law. However, an SIA (Attachment C) has been prepared to provide additional analysis for the proposed amended rule.

While the proposed amended rule will require that estimated cancer risk be reduced to below 10 in one million, the rule does not prescribe which risk reduction measures are to be implemented. A facility has various ways to reduce its risk, including but not limited to, installing emissions control equipment, reducing emissions, changing exhaust stack parameters to better disperse pollutants, relocating equipment away from people, and employing alternate processes that have fewer air pollutant emissions. The District determined low-cost and high-cost scenarios by assuming each affected facility within an industry type will install the same type of emissions control equipment or implement the same control measure currently available. The average annual compliance costs due to proposed amended Rule 1210 is estimated to be $10 to $16 million for the low-cost and high-cost scenario, respectively. The sectors of shipbuilding and mineral processing will incur the majority share of the estimated total annualized cost. Affected facilities will be required to submit a risk reduction audit and plan, for evaluation and approval by the Air Pollution Control Officer, and to reduce the cancer risk to below the proposed cancer risk reduction threshold.

To project the job impacts resulting from adopting the proposed amended Rule 1210, staff used a regional economic model built for the San Diego economy (IMPLAN Model). Based on this model, the proposed amended rule is expected to result in a net change of approximately 61 jobs forgone annually between the years 2022 and 2032. The projected job impacts represent about 0.003% of the total employment in San Diego County (about 2.2 million jobs) and assumes the high average annual compliance cost scenario of $16 million. The projected net change of 61 jobs forgone stems from additional compliance costs in the sectors of university, shipbuilding, and other concrete product manufacturing sectors and accounts for some job gains in the sectors of construction and manufacturing due to additional local spending associated with implementing risk reduction measures.

On the other hand, mitigating levels of air toxics can serve to reduce the inhalation or non-inhalation dose a resident or worker experiences, thus reducing excess estimated cancer risk. Although monetary benefits of reducing estimated cancer risks have not been specifically quantified, the value of morbidity incidence results from four components: 1) costs to reduce the risk of illness, 2) costs for treatments such as medical care and medication, 3) costs due to lost time from paid work or maintaining a home, and 4) costs resulting from pain and suffering.