BAY AREA AIR QUALITY MANAGEMENT DISTRICT

APPENDIX A—Permitting Processes and Land Use Considerations

April 2021

OTHER PERMITTING PROCESSES AND LAND USE CONSIDERATIONS

Permitting rules and regulations vary by entity. This document provides a discussion of permitting rules at the Bay Area Air Quality Management District and at several other large California air districts—the South Coast Air Quality Management District, the San Diego Air Pollution Control District, and the San Joaquin Valley Air Pollution Control District. The summaries of relevant permitting processes at other large air districts in California is intended to provide readers with some context for how other air district permitting processes work.

This document also describes elements of other permitting programs in different places outside of California that try to pay special attention to permitting in overburdened communities or require analyses that may be of interest to the Air District in evaluating changes to its permitting program.

Staff also included a brief discussion on the California Environmental Quality Act and an overview of land use considerations and the Air District's role in assisting local jurisdictions as they make zoning and siting determinations.

I. Air District Permitting Regulations

The sections below discuss permitting rules and regulations at the Bay Area Air Quality Management District as well as at other large California air districts. The document also provides an overview of relevant environmental permitting processes in Minnesota and New Jersey that seek to address air permitting issues in overburdened communities. This information is presented to contextualize how the permitting process operates at agencies similar to the Air District, as well as how some government agencies outside of California approach permitting in overburdened communities and cumulative impacts permitting.

A. *Brief Overview of Bay Area Air Quality Management District Regulation 2: Permits*

The Bay Area Air Quality Management District aims to create a healthy breathing environment for every Bay Area resident while protecting and improving public health, air quality, and the global climate. In pursuit of that goal, the Air District's permitting regulation (Regulation 2) is designed to ensure that any operation that produces and/or emits air pollutants is evaluated and controlled in a way that limits air pollution as required by federal, state, and local air quality laws. This document provides a high-level overview of the Air District's permitting process.

The Air District evaluates permit applications by calculating emissions from the specific "source" of air pollutants. A source is that produces or emits air pollutants—such as a machine, operation, or a piece of equipment. More than one source may be included in a permit application, which constitutes a "project." Examples include emergency backup power generators, commercial and industrial boilers, gas stations, and gasoline storage tanks. The Air District does not permit motorized vehicles such as cars and trucks; it regulates stationary sources of air pollution.[1] In California, state law through the California Health and Safety Code provides the Air District with permitting authority.[2]

[1] See California Health and Safety Code, Section 40000.
[2] See California Health and Safety Code, Section 42300, et seq.

Permits are required for stationary sources that emit air pollutants unless the source is excluded or exempted under the regulation. When someone plans to install a new source (or alter the type or quantity of emitted pollutants by modifying an existing source), they must apply for an air quality permit (Authority to Construct/Permit to Operate) with the Air District. The Air District then determines whether the proper steps are being taken to reduce the potentially harmful pollutants that the source or sources would emit. This can apply to a new site that will be installing potential sources of air emissions, or to an existing site that is either adding new sources or modifying existing ones.

Not every stationary source needs an Air District permit. The Air District's regulations generally exempt very small sources from needing to obtain a permit. For example, if you install a gas stove in your home, you would not need to apply for a permit because the Air District does not require a permit for a gas stove. But, in general, if you are a facility that wants to add a piece of equipment that will emit air pollutants, you will need to submit a permit application to the Air District unless an exemption applies.

The permitting regulation only applies to new and modified sources of air pollution. When the Air District reviews a permit application at an existing facility that wants to add or change something, it reviews expected emissions from the source(s) included in the application and all related changes that have been implemented at those emissions sources over the past three years. It does not necessarily review emissions from the entire facility. For example, instead of looking at an entire factory, the Air District focuses on the boilers or generators at the factory's site that are proposed in the factory's permit application. In the case of a totally new facility, the permit analysis will examine each emission source on the site, because each emission source would be a new and therefore subject to the permitting regulation.

The Air District is not a land use agency. This means it does not have the discretionary authority to decide where a facility or source may or may not be built. That discretionary authority is usually held by the city or county. The Air District's role is limited to denying permit applications that do not meet its permitting standards and imposing permit conditions to ensure that the equipment will meet air quality regulations. The Air District's focus is reviewing and analyzing impacts on air quality from proposed new or modified stationary sources of emissions.

The process of determining whether an application qualifies for a permit relies on the rules laid out in the Air District's Regulation 2, which are listed below. In these permitting criteria, there are different rules depending on the type of pollutants that would be emitted, the facility that the source is based in, and the source of emissions for these pollutants:

- Regulation 2: Permits, Rule 1: General Requirements;
- Regulation 2: Permits, Rule 2: Requirements for Criteria Pollutant Emissions (Rule 2-2);
- Regulation 2: Permits, Rule 3: Requirements for Power Plants (Rule 2-3);
- Regulation 2: Permits, Rule 4: Requirements for Emission Banking (Rule 2-4);
- Regulation 2: Permits, Rule 5: Requirements for Toxic Air Contaminants (Rule 2-5);
- Regulation 2: Permits, Rule 6: Requirements for Major Facilities (Rule 2-6);
- Other permitting rules:
    - Acid Rain (Rule 2-7),
    - Interchangeable Emission Reduction Credits (Rule 2-9), and
    - Large Confined Animal Feeding Operations (Rule 2-10).

1. Brief Overview of Rule 2-1: General Requirements

The first rule of Regulation 2 describes the general requirements of the permit process. It lays out what a permit is, as well as who does and does not need to apply for a permit.

For certain sources to operate in the Bay Area, the applicant would first need to submit to a pre-construction review for the Air District to okay their project. If the proposal meets the applicable requirements in the Regulation, they are issued an Authority to Construct the equipment or operation. In addition to this, they would also need a permit to operate the equipment or operation, meaning the Air District must approve the operation of sources once construction is complete. This process allows the Air District to evaluate the types of sources that are being installed and how they will impact the air quality in the Bay Area.

2. Brief Overview of Rule 2-2: New Source Review Requirements for Criteria Pollutant Emissions

This rule deals with the following regional air pollutants for which there are air quality standards:[3] precursor organic compounds ("POC"), non-precursor organic compounds ("NPOC"), oxides of nitrogen ("NO_x"), sulfur dioxide ("SO_2"), particulate matter less than 10 micrometers in diameter ("PM_{10}"), particulate matter less than 2.5 micrometers in diameter ("$PM_{2.5}$"), and carbon dioxide ("CO_2"). The goals of Rule 2-2 include limiting ozone formation, particulate matter emissions, and emissions of other regional pollutants so that the levels of these pollutants for the entire Bay Area fall below the health protective standards set by federal and state authorities.

Rule 2-2 looks at limiting pollutants by their type or category under what is called "New Source Review." A facility must obtain a permit before it can install a new source of emissions or modify an existing source of emissions. The process that reviews these planned sources and determines their emissions is called "New Source Review." Using the lists of pollutants laid out by federal and state standards, the Air District will determine if a project's source emits those pollutants, and then how much of that pollutant is being emitted. If a new source or a modification to an existing source would emit any of those pollutants above a regionally significant level, then the project applicant would need to adjust their operation and/or install technology to minimize the amount of pollution. This is a requirement called "Best Available Control Technology," or "BACT." The Air District routinely processes over one thousand applications per year.[4]

In addition, sources that will emit large quantities of pollutants regulated by Rule 2-2 sometimes need to offset those emissions. This means that the applicant will need to find a way to reduce emissions so that criteria pollutants in the Bay Area do not increase as a result of the new or modified source's emissions. These emissions can be reduced either at the existing facility or elsewhere within the nine-county jurisdiction of the Air District. Offsets provide a net benefit to regional air quality because a facility must reduce overall emissions to receive offsets.

[3] The California Air Resources Board maintains the updated state and federal air standards, which are available on this website: https://ww2.arb.ca.gov/resources/background-air-quality-standards. The Air District also makes public its attainment status in meeting these standards, available on this website: https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status.

[4] BAAQMD, Annual Reports webpage, available: https://www.baaqmd.gov/publications/annual-reports

3. Brief Overview of Rule 2-4: Emissions Banking

Rule 2-4 sets up the Air District's emissions banking program. This rule ties in with rule 2-2 because it helps implement the New Source Review program by laying out the "banking" procedure for emission reductions. When a source is shut down or curtailed, reductions in emissions can potentially be used as a credit for future emissions. This procedure helps make sure that there is no net emission increase from all sources at the site, even when a new source is installed or modified, which results in an overall benefit for Bay Area air quality. The emissions banking process involves a rigorous analysis by Air District staff to ensure that there is a net air quality benefit. The Air District's analysis ensures that applicants cannot simply shut down dirty pieces of equipment to get credit.

4. Brief Overview of Rule 2-5: New Source Review of Toxic Air Contaminants

This rule deals with specific Toxic Air Contaminants, or "TACs." Toxic air contaminants are pollutants that have been identified by the State of California as contaminants that may cause or contribute to an increase in mortality, serious illness, or pose a present or potential hazard to human health. Rule 2-5 is essentially a checklist of specific contaminant emissions that could be harmful if too much is released into the air. The exact list of contaminants is found in Table 2-5-1 in Rule 2-5. Rule 2-5 is one component of the Air District's Air Toxics New Source Review Program, which is also codified in the Air District Manual of Procedures, Volume II, Part 4: New and Modified Sources of Toxic Air Contaminants,[5] and in the Bay Area Air Quality Management District Health Risk Assessment Guidelines.[6]

If a project applicant wants to install or modify a source that will emit any of these toxic air contaminants, the Air District will determine whether these emissions would be at levels that would require the applicant to modify its operation or install pollution control technology to reduce toxic air contaminant emissions. This is a requirement called "Best Available Control Technology for Toxics," or "TBACT."

If an applicant installs this technology and is still not able to reduce the level of contaminant emissions below the project health risk standards, they do not qualify for a permit.

[5] The Air District Manual of Procedures is a collection of laboratory techniques, source test procedures, instrument specifications, monitoring requirements, enforcement procedures, and other relevant information to determine the basis for enforcement action by the Air District. The Manual of Procedures is available on the Air District website at: https://www.baaqmd.gov/publications/manual-of-procedures

[6] The Air District Health Risk Assessment Guidelines are referenced in the Manual of Procedures. The Guidelines state the procedures for conducting health risk assessments required pursuant to Rules 2-1 and 2-5. See BAAQMD, 2016. Air Toxics NSR Program Health Risk Assessment Guidelines. December.

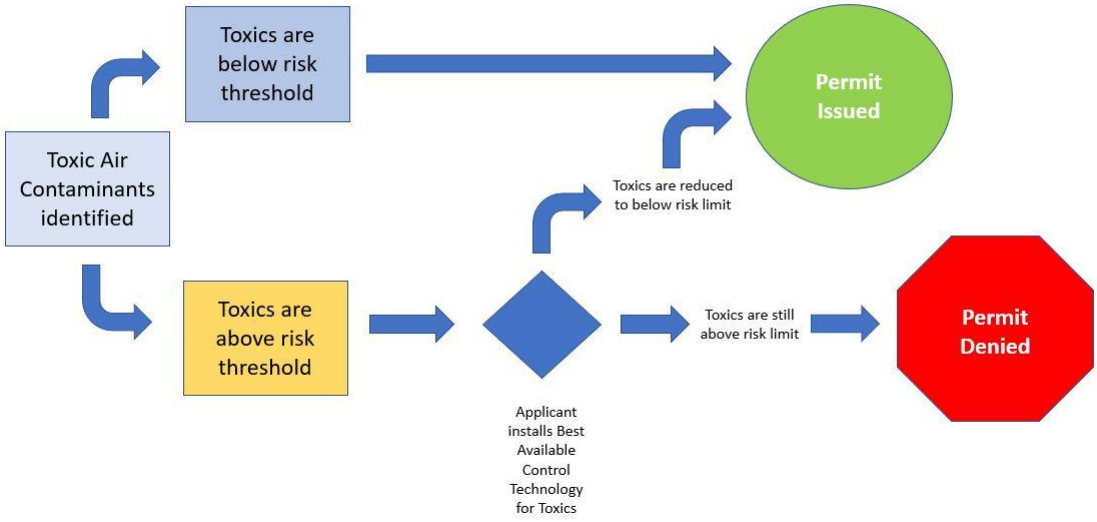

Figure 1 – Diagram for the Air District permit review for sources that emit toxic air contaminants.

Unlike Rule 2-2, Rule 2-5 does not include an option to balance or bank emissions of toxic air contaminants, although the rule includes a way to consider proposed modifications at old sources. Because Rule 2-5 aims to prevent harmful impacts on human health in the Air District, toxic air contaminants must be kept below the risk limits for sources and projects. If there is no way for a new or modified source or process to exist without violating the Air District's risk limit, they cannot be issued a permit.

The Air District processes about 300 toxic New Source Review permit applications that require Health Risk Assessments each year. Of those applications, the majority of recent projects are for backup diesel generators that supply electricity to facilities during a power outage and applications for increased quantities of gasoline throughput at gas stations (also known as gasoline dispensing facilities). Other applications are for projects such as removing contaminants from soil via vacuum pressure or blowers (called "soil vapor extraction" operations), natural-gas powered cogeneration engines, and projects at waste management facilities, concrete plants, paint booths, and crematories.

5. Brief Overview of Rule 2-6: Major Facility Permitting

This rule lays out specific requirements for "major facilities," which federal law defines to be facilities that emit large amounts of air pollutants. These facilities are sometimes called Title V ("Title Five") facilities, which is a reference to federal law under the federal Clean Air Act. Under Rule 2-6, the Air District incorporates the federal law into its rules.

Under Rule 2-6 and federal law, major facilities must obtain an operating permit which takes all of the applicable regulatory requirements from local, state and federal regulations and puts them into a single document. Combining permitting documents like this helps improve the enforceability and transparency of the requirements. Having all of the requirements in one place makes it easier for facility staff to understand what they must do to comply with the applicable regulations, and for inspectors to determine if the facility is complying. It also makes it easier for

members of the public to understand what emission sources a facility has, which regulatory requirements apply, and whether the facility is meeting those requirements. These requirements provide an opportunity to monitor emission sources to make sure they are compliant when other requirements may be inadequate. All Title V permits, forms, public notices, and renewal applications are available on the Air District's Title V permits website.[7]

6. Other Relevant Rules in Regulation 2

The rules discussed below provide specific permitting requirements for facilities and operations regulated by the Air District.

Regulation 2, Rule 3: Requirements for Constructing Power Plants (Rule 2-3)
This rule lays out specific requirements for power plants that apply for a permit through the Air District.

Regulation 2, Rule 7: Requirements for the Air District's Acid Rain Program (Rule 2-7)
This rule establishes standards regarding acid rain.

Regulation, 2 Rule 10: Requirements for Large Confined Animal Facilities (Rule 2-10)
Rule 2-10 deals with large confined animal facilities. This rule consolidates requirements for these specific sources of air pollution.

B. *Other Large California Air Districts*

Permitting rules at other large air districts are similar to those at the Bay Area Air Quality Management District: for criteria pollutant emissions (which includes fine particulate matter), permit applicants that want to install equipment that may emit more than a threshold quantity of emissions must install the Best Available Control Technology to control those emissions. Facilities may also be required to offset their emissions if emissions have the potential to exceed trigger levels. Best Available Control Technology and offset triggers may vary between air districts, depending on ambient air quality. Offset ratios may also vary between air districts (and even within air districts) based on ambient air pollution levels within the air basin. Offsets are not available for toxic air contaminant emissions but permit applicants that seek to install equipment that will emit toxic air contaminants above risk thresholds will be required to install Best Available Control Technology for Toxics and will be prevented from installing equipment that exceeds risk limits.

1. South Coast Air Quality Management District Permitting Program

The South Coast Air Quality Management District (South Coast or SCAQMD) is considerably larger than the Bay Area, in terms of the number of permitted facilities, the number of permit applications processed, and number people living in the air basin—17 million.[8] In 2019, there were a total of 10,900 total permitted facilities in the Bay Area,[9] whereas there were 26,218 active facilities in South Coast.[10] South Coast processed 6,727 permit applications,[11] compared

[7] BAAQMD, Title V Permits webpage: https://www.baaqmd.gov/permits/major-facility-review-title-v/title-v-permits
[8] SCAQMD website: http://www.aqmd.gov/nav/about
[9] BAAQMD, 2020. 2019 Annual Report. Page 9.
[10] SCAQMD, 2020. 2019 Annual Report. Page 10.
[11] BAAQMD, 2020. 2019 Annual Report. Page 9.

to 1,157 in the Bay Area.[12] South Coast operates a similar permitting program to the Bay Area's, with some important differences, some of which are described here.

As in the Bay Area, South Coast's permitting program includes requirements for New Source Review of sources that emit criteria pollutants and air toxics, as well as for facility-wide permits required of facilities subject to regulation under Title V of the federal Clean Air Act. South Coast requires permit applicants to install emission controls on equipment subject to New Source Review that exceeds thresholds emissions limitations for criteria pollutants and for toxic air contaminants.[13] There are three air basins within South Coast's regulatory jurisdiction, each with differing air quality attainment statuses for criteria pollutants—resulting in different trigger levels for control technology requirements depending upon the air basin for large facilities.[14] This differs from the Bay Area's New Source Review program for criteria pollutants, which is uniform throughout the region. In South Coast, facilities are required to install Best Available Control Technology when sources subject to New Source Review will emit equal to or more than 1.0 pounds per day in criteria pollutant emissions.[15] The Best Available Control Technology trigger in the Bay Area, in contrast, is 10.0 or more pounds per day.[16] However, Best Available Control Technology requirements differ in the South Coast versus the Bay Area. In the Bay Area, any time that there is Best Available Control Technology that is installed somewhere and operating reliably, it is required to be installed on the source if the source will exceed a trigger level. In South Coast, Best Available Control Technology is split into "major source" Best Available Control Technology and "minor source" Best Available Control Technology. Major source Best Available Control Technology, which is for large sources, requires Best Available Control Technology to be installed if the control technology is operating somewhere. In contrast, minor source Best Available Control Technology considers cost—so if a minor source triggers a Best Available Control Technology requirement but Best Available Control Technology would be too costly, no air pollution control may be required. As in the Bay Area, offsets are required in the South Coast for projects with potential to emit above an emissions threshold.

Regarding toxic air contaminants, the New Source Review process in South Coast contains risk thresholds that, if exceeded, will require permit applicants to install pollution abatement controls. If risks exceed risk limits, permit applicants will not be allowed to install the equipment. As in the Bay Area, air toxics permitting requirements are uniform throughout South Coast's jurisdiction; there are not subregional requirements. Also like the Bay Area's permitting program, South Coast's inclusion of risk thresholds and limits enables the permitting process to take into account local impacts, in terms of risk posed by a proposed project to a nearby resident or worker. South Coast will not issue permits to proposed projects that will exceed cancer risk, acute hazard index, and chronic hazard index values to the maximally exposed individual. The risk limits in South Coast's air toxics New Source Review rule are the same as those in the Bay Area.[17] In addition to the requirements just listed, South Coast also includes a cancer burden limit.[18] South Coast defines cancer burden to mean "the estimated increase in the occurrence of cancer cases in a population subject to a [maximum individual cancer risk] of greater than or equal to one in one million resulting from exposure to toxic air contaminants."[19] South Coast's

[12] SCAQMD, 2020. 2019 Annual Report. Page 10.
[13] See SCAQMD Rule 1303: Requirements (for New Source Review for criteria pollutants); see also SCAQMD Rule 1401: New Source Review of Toxic Air Contaminants.
[14] SCAQMD, 2021. BACT Guidelines—Overview. February.
[15] See SCAQMD Rule 1303(a)(2). See also SCAQMD, 2021. BACT Guidelines. February. See page 12.
[16] See BAAQMD Rule 2-2, Section 301.
[17] See SCAQMD Rule 1401(d)(1)-(3). Compare with BAAQMD Rule 2-5.
[18] SCAQMD Rule 1401(d)(1)(C).
[19] SCAQMD Rule 1401(c)(3).

procedures present the instructions for how the agency calculates cancer burden for the purpose of satisfying the permitting rule.[20]

Cancer burden is a way to quantify the magnitude of cancer risk of a proposed project; it is a way to account for the number of excess cancer cases that could occur in a population.[21] According to the California Office of Environmental Health Hazard Assessment in the February 2015 Air Toxics Hot Spots Guidance Manual, the cancer burden value is "a single number that is intended to estimate the number of potential cancer cases within the population that was exposed to the emissions for a lifetime," which is assumed to be 70 years.[22] Figures 2 and 3 below provide visual examples of a portion of the cancer burden analysis, as currently required by South Coast. The cancer risk isopleths (i.e., boundaries shown as the "1/M" and "10/M" colored areas) show the regions that would be subject to a one in a million (1/M) cancer risk increase because of a proposed project that requires a permit and a ten in a million (10/M) cancer risk because of that proposed project. The cancer burden would be calculated by multiplying the number of people who live or work in the shaded area by the cancer risk to the maximally impacted receptor in that area. Figure 2 shows an example project that has a maximum cancer risk of ten in a million but a larger area of cancer risk due to operational or design features than the example in Figure 3.

Figure 2 – Illustration of the magnitude of risk from an example project with a higher cancer burden. *Note: This figure is not based on any specific project; it is a hypothetical illustration of the cancer burden concept.*

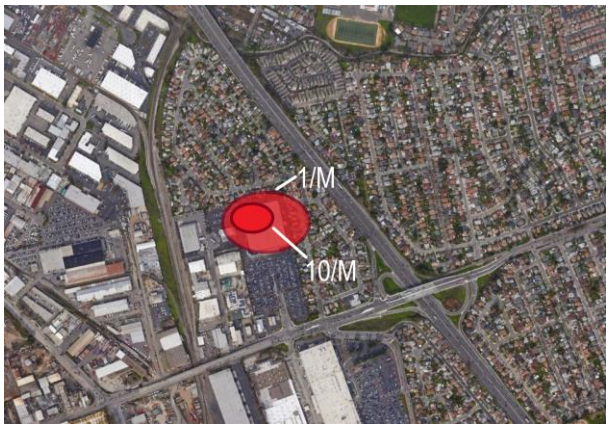

Figure 3 – Illustration of the magnitude of risk from an example project with a lower cancer burden. *Note: This figure is not based on any specific project; it is a hypothetical illustration of the cancer burden concept.*

"1/M": one in a million cancer risk
"10/M: ten in a million cancer risk

New source review is project specific, and oftentimes projects consist of single sources (such as backup generator installations). Even if cancer risk is high, it could be because there is a single nearby resident or worker, whereas cancer burden might still be low if there are not many

[20] SCAQMD, 2017. Risk Assessment Procedures for Rules 1401, 1401.1 and 212. Version 8.1. September.
[21] California Office of Environmental Health Hazard Assessment, 2015. Air Toxics Hot Spots Program—Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. February. See page 8/16.
[22] California Office of Environmental Health Hazard Assessment, 2015. Air Toxics Hot Spots Program—Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. February. See page 8/16.

people in the immediate vicinity of the stationary source emissions plume. South Coast also includes cancer burden in its facility-wide risk reduction rule,[23] which is how the agency implements the California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588).[24] A review of South Coast's 2019 AB 2588 Annual Report showed that many facilities listed in South Coast's AB 2588 program had facility-wide cancer burden levels that were less than the New Source Review cancer burden limit of 0.5, indicating that it is likely that the cancer burden limit is oftentimes not exceeded in South Coast.[25]

On a related note, South Coast considers facility-wide risk reduction as separate from air permitting, which concerns new and modified sources of air pollution, but the two are closely related.[26] South Coast's existing facility risk reduction rule is similar in purpose to the Bay Area's Regulation 11, Rule 18: Reduction of Risk from Air Toxic Emissions at Existing Facilities (Rule 11-18). Like South Coast's facility risk reduction rule, the Bay Area Air District's Rule 11-18 is separate from the agency's permitting program.

2. San Diego Air Pollution Control District

Permitting by the San Diego Air Pollution Control District (San Diego) is also similar to permitting in the Bay Area. Permitting rules apply throughout the San Diego's permitting jurisdiction; there are not subregional emissions limitations that differ from one another. For criteria pollutants, San Diego requires applicants to install control technology when emissions exceed the criteria pollutant emissions trigger. Applicants may also be required to provide offsets when emissions exceed offsets triggers. In terms of toxic air pollutants, San Diego, like South Coast, includes a cancer burden requirement in its new source review rule for sources that emit toxic air contaminants.[27] But for the purpose of New Source Review, San Diego only requires an analysis of cancer burden if the cancer risk to the maximally exposed individual exceeds the limit with best available control technology for toxics applied and the permit applicant can demonstrate, among other things, that the cancer burden falls below the limit.[28] Thus, compliance with the cancer burden limit is only required for exceptional circumstances under the air toxics New Source Review program. Like South Coast, San Diego utilizes the cancer burden limit in its facility-wide risk reduction rule.[29] Also like South Coast, facility-wide cancer burden values were less than the cancer burden limit of 1 that is included in San Diego's New Source Review rule.[30]

3. San Joaquin Valley Air Pollution Control District

San Joaquin Valley Air Pollution Control District (San Joaquin) has similar permitting requirements for criteria pollutant New Source Review as those in the Bay Area, South Coast, and San Diego—namely, permit applicants must comply with requirements to control criteria pollutant emissions using Best Available Control Technology if the proposed new or modified

[23] SCAQMD Rule 1402.
[24] SCAQMD, 2020. 2019 Annual Report on AB 2588 Air Toxics "Hot Spots" Program. October.
[25] SCAQMD, 2020. 2019 Annual Report on AB 2588 Air Toxics "Hot Spots" Program. October. See Table C-1.
[26] SCAQMD, 2020. 2019 Annual Report on AB 2588 Air Toxics "Hot Spots" Program. October.
[27] San Diego Air Pollution Control District, Rule 1200: Toxic Air Contaminants – New Source Review.
[28] San Diego Rule 1200(d)(1)(iii)(B)(9).
[29] San Diego Rule 1210: Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction.
[30] San Diego, 2019. California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588): 2018 Air Toxics "Hot Spots" Program Report for San Diego County. October. Page 6.

source will emit more than a threshold quantity of emissions. San Joaquin also requires implementation of Best Available Control Technology, which is triggered when a source has the potential to emit more than 2.0 pounds per day.[31] Both San Joaquin and the Bay Area require permit applicants to install Best Available Control Technology when it is determined that the technology exists and operates reliably somewhere and the type of business (class of source) where the emissions units are utilized is the same. In the Bay Area, the achieved in practice requirement must be under similar conditions, but it does not need to be the same. Also, San Joaquin requires that certain pollutants be offset at higher ratios depending on the distance from the new or modified source.[32]

San Joaquin's air toxics permitting program differs from the other large air districts mentioned above in that it does not have air toxics permitting requirements stated in its New Source Review rule. Instead, San Joaquin uses a policy statement to provide the requirements for air toxics permitting.[33] San Joaquin's risk assessment methodology also differs from that in the Bay Area and other air districts in that it uses different exposure periods to assess health risk, and it in turn uses a different maximum cancer risk limit than what is used in the Bay Area.[34]

C. *Other Jurisdictions*

Staff also presents information about permitting programs in other jurisdictions that attempt to address differences in air quality and other environmental stressors, with the caveat that both examples below involve government agencies that have considerably more regulatory authority than the Air District. While the Air District can only evaluate permit applications based on air pollutants emitted, the state agencies below have additional decision making authority that the Air District lacks. Nevertheless, the examples below show some of the ways in which other air permitting authorities are evaluating permit applications in overburdened communities.

1. Minnesota

In Minnesota, the Minnesota Pollution Control Agency (Minnesota) oversees the Cumulative Levels and Effects analysis in a specific part of South Minneapolis, which is a state-mandated permitting process that requires the state to consider the health and environmental impacts from a proposed projects that exceed screening thresholds in conjunction with existing environmental hazards affecting the community prior to issuing a permit.[35] To apply for an air permit, Minnesota requires applicants to fulfill the five steps of the Cumulative Levels and Effects Analysis.[36] An applicant must:

- Determine pollutants that would be emitted and their emission rates;
- Model air emissions of those pollutants;
- Determine the locations of impacts from the emitted pollutants;

[31] San Joaquin Valley APCD Rule 2201.
[32] Rule 2201, Section 4.8.
[33] See San Joaquin Valley APCD, 2015. APR – 1905: Risk Management Policy for Permitting New and Modified Sources. May. (The policy references Rule 2201, which is San Joaquin's New Source Review rule.)
[34] See San Joaquin Valley APCD, 2015. APR – 1905: Risk Management Policy for Permitting New and Modified Sources. May. See also San Joaquin Valley APCD, 2015. Final Draft Staff Report: Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document. March.
[35] Minnesota Pollution Control Agency, 2013. Fact Sheet: Cumulative Levels and Effects Analysis. January.
[36] Minnesota Pollution Control Agency, 2013. Fact Sheet: Cumulative Levels and Effects Analysis. January.

- Prepare environmental and health data for the affected area, including socioeconomic information, facility-specific air concentrations and risks, and potential contributions from nearby sources; and
- Prepare a report that describes the information above to be considered as part of the permit application.

Permit applicants are directed to use a continually-updated reference document maintained by Minnesota when describing the past and current environmental pollution from sources other than the proposed project.[37] The framework also includes expanded public outreach opportunities.[38] Regarding cumulative impacts, a scientific journal article by Minnesota Pollution Control Agency staff notes that the term "cumulative" is used in many different ways, and that in Minnesota's analysis the term refers to "combined risks from aggregate exposures to multiple agents and stressors" as defined in the US EPA Framework for Cumulative Risk Assessment.[39] The article also notes that the Minnesota state "statute requires a more comprehensive permit review, but does not create unique emissions limit for the area, set a threshold or estimated risks with respect to existing environmental health conditions, or establish a cumulative risk guideline."[40]

There are several important considerations in comparing the Minnesota Cumulative Levels and Effects Analysis to the Bay Area's permitting program. First, the Cumulative Levels and Effects Analysis only applies within the study area, which is much smaller geographically than the Bay Area's permitting jurisdiction. The Air District routinely processes over thousand permit applications per year and regulates operations at over ten thousand permitted facilities.[41] According to its website, Minnesota has issued two air permits with completed Cumulative Levels and Effects analyses since the implementation of the program over ten years ago.[42] Minnesota also has clear statutory authority to consider cumulative levels and effects of past and current environmental pollution from all sources in evaluating permit applications for this area.[43]

2. New Jersey

New Jersey Senate Bill 232, which became law in 2020, requires the New Jersey Department of Environmental Protection (New Jersey) to prioritize assessment of environmental hazards in overburdened communities. The bill defines overburdened communities as census blocks in

[37] "The Reference Document is a compilation of data and descriptions from known informational sources to provide documentation of 'past and current environmental pollution from all sources on the environment and residents.' Use the information, text, and references included in this document as a basis for describing the facility-specific analysis in context with past and existing environmental health data." Minnesota Pollution Control Agency, 2013. Process Document for Minnesota Statute, § 116.07, Subdivision 4a. May.
[38] Minnesota Pollution Control Agency, 2013. Process Document for Minnesota Statute, § 116.07, Subdivision 4a. May.
[39] Ellickson, K. et al, 2011. Cumulative Risk Assessment and Environmental Equity in Air Permitting: Interpretation, Methods, Community Participation and Implementation of a Unique Statute. Int. J. Environ. Res. Public Health, 8(11), 4140-4159.
[40] Ellickson, K. et al. Cumulative Risk Assessment and Environmental Equity in Air Permitting: Interpretation, Methods, Community Participation and Implementation of a Unique Statute. 2011. Int. J. Environ. Res. Public Health, 8(11), 4140-4159.
[41] See Air District Annual Reports, 2015-2019.
[42] See Minnesota Air Pollution Control Agency: Issued Air Permits with Completed CL and E analyses. Webpage: https://www.pca.state.mn.us/air/air-permitting-south-minneapolis
[43] See 2020 Minnesota Statutes, Section 116.07, Subd. 4a(c).

which: (1) at least 35 percent of the households qualify as low-income households, (2) at least 40 percent of the residents identify as minority or as members of a tribal community, or (3) at least 40 percent of households have limited English language proficiency. In overburdened communities, permit applicants must prepare an environmental justice impact statement document that assesses the potential environmental and public health stressors associated with a proposed new or expanded facility or with an existing major source, including a mention of existing conditions and stressors that the overburdened community already experiences. The applicant must also hold a public hearing in the affected overburdened community to describe the impacts of the proposed project. The bill distinguishes applications between new and existing (or expanding) facilities. For new facility applications, New Jersey must base its decision on whether to grant or deny the permit upon whether the approval of the permit would cause or contribute to adverse cumulative environmental or public health stressors in the overburdened community that are higher than elsewhere, unless the new facility will serve a compelling public interest within the community. For an expanded facility or a facility that seeks to renew a major source permit, New Jersey is directed to apply permit conditions based on whether the permit approval would cause or contribute to adverse cumulative environmental or public health stressors in the overburdened community that are higher than elsewhere, unless the new facility will serve a compelling public interest in the community where it is to be located. The legislation requires the permit applicant to organize and conduct a public hearing in or near the area that would be impacted by the proposed project, although community support or opposition to the project is not a factor in New Jersey's evaluation of the permit application. The New Jersey Department of Environmental Protection is currently developing rules to implement Senate Bill 232; the text of the bill will not be implemented until New Jersey develops rules.[44]

II. The California Environmental Quality Act

The California Environmental Quality Act (CEQA) is a California state law that requires government agencies to consider and mitigate adverse environmental impacts for which they are ultimately responsible, provide information to the public, and enable public participation on environmental impacts of proposed projects. Under CEQA, government agencies are required to evaluate and disclose in public documents the environmental impacts that a proposed project would have on the surrounding environment. When a government agency that is the "lead agency" under CEQA determines that a proposed project will result in significant impacts to the environment, it must inform the public and it must plan to reduce those environmental impacts to the extent feasible.

Normally, agencies with general authority, such as the city or county, act as the lead agency under CEQA. The Air District acts as the lead agency when it has the primary authority to implement or approve a project, such as when it adopts air quality plans for the region. When the Air District has limited discretionary authority over a portion of the project, the Air District acts as a responsible agency to coordinate the environmental review process with the permitting process, provide comments regarding potential impacts, and recommend mitigation measures. Projects prepared in accordance with the Air District's permitting process are typically exempted from CEQA review unless the permit application falls outside the scope of standard "ministerial" or "categorical exemption" review methodology.

Because the Air District in theory has discretionary authority in granting permits, the permitting process is subject to CEQA requirements. However, permits prepared in accordance with the

[44] Regulatory activity can be followed on the New Jersey DEP's Environmental Justice Law, Policy and Regulation webpage: https://www.nj.gov/dep/ej/policy.html

Air District's Permit Handbook and BACT/TBACT Workbook are deemed ministerial under CEQA, and therefore agency decisions to approve permit applications for those ministerial permits are exempted from CEQA analysis.[45] Permit analyses that deviate from the procedures or sources that are not covered by the Permit Handbook or BACT/TBACT workbook are reviewed on a case-by-case basis under CEQA.[46]

The Air District works to protect public health through the CEQA process in several other ways when projects do not involve the Air District's regulatory jurisdiction. The Air District prepares and periodically updates CEQA Thresholds of Significance, which lead agencies that determine whether to approve or deny projects use to determine the degree of air quality impacts.[47] Projects that are determined to have cumulative impacts are required to disclose those impacts and seek to mitigate them.[48] The Air District provides tools for the preparation of environmental analyses required under CEQA, including an analysis of cumulative impacts,[49] which the CEQA Guidelines define to mean two or more individual effects which, when considered together, are considerable or which compound and increase other environmental impacts.[50]
When an applicant submits a permit application to the Air District for a project that is not deemed a ministerial or categorical exemption, the applicant will need to work with the lead agency to conduct a CEQA analysis. As required by CEQA, the lead agency's CEQA review should include an analysis of potential cumulative impacts. The Air District considers the lead agency's CEQA findings, including cumulative impacts, in evaluating a permit application. Only through this limited scope does the Air District evaluate cumulative impacts in the permitting process.

When projects fall outside of the Air District's regulatory scope, the Air District can act as a commenting agency to provide comments on the adequacy of the air quality and greenhouse gas analyses in the CEQA document and recommend measures to reduce impacts to the extent feasible. As discussed further in the subsection below, there are many projects that occur in the Bay Area over which the Air District lacks discretionary authority; the determination of whether to approve an application or undertake a project lies within the jurisdiction of another government agency, such as a city or a county. In cases where there will be air quality impacts from a project, the Air District will provide comments to the CEQA lead agency for its consideration. The comment letters are posted on the Air District's website for public review.[51]

A. *Land Use Considerations*

The Air District does not make land use decisions; it does not determine where facilities will be located nor does it create zoning ordinances that allow or constrain land uses. Besides providing comments on CEQA documents to inform public agencies of air quality impacts of projects under consideration, the Air District's research and planning documents provide tools

[45] See Rule 2-1, Section 311.
[46] See Rule 2-1, Section 314.
[47] See California Code of Regulations, Title 14, Section 15064.7(c): "When adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."
[48] See California Code of Regulations, Title 14, Section 15130. See also California Public Resources Code, Section 21083.
[49] BAAQMD, 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. May.
[50] See California Code of Regulations, Title 14, Section 15355.
[51] BAAQMD, Comment Letters webpage: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-comment-letters

for local governments to use when planning long term growth and in determining whether to approve land use permits. The Air District's Planning Healthy Places document provides tools for local jurisdictions to use when they consider how to reduce local exposures in the community.[52] The Planning Healthy Places document includes a list of best practices that local jurisdictions with land use authority can apply when placing sensitive land uses in areas with high levels of air pollution or near local sources of air pollution.

The Air District also assists local jurisdictions in implementing California Senate Bill 1000, which requires land use authorities to consider environmental justice in long-term planning and zoning decisions. Senate Bill 1000 requires local jurisdictions to include an environmental justice element in their general plans. One of the requirements of the environmental justice element is to "[i]dentify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollutant exposure, including the improvement of air quality…"[53] While the Air District does not determine siting locations for sources of air pollution that will likely require an air permit to operate, it creates tools to support local governments in minimizing local impacts, especially in overburdened communities.

REFERENCES

BAAQMD, 2020. 2019 Annual Report. Available: https://www.baaqmd.gov/~/media/files/communications-and-outreach/publications/annual-report/bay_report_2019-pdf.pdf?la=en

BAAQMD, 2016. Planning Healthy Places. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/planning-healthy-places/php_may20_2016-pdf.pdf?la=en

BAAQMD, 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en

Ellickson, K. et al, 2011. Cumulative Risk Assessment and Environmental Equity in Air Permitting: Interpretation, Methods, Community Participation and Implementation of a Unique Statute. Int. J. Environ. Res. Public Health, 8(11), 4140-4159.

Minnesota Pollution Control Agency, 2016. Reference Document for Minnesota Statute, § 116.07, Subdivision 4a. March. Available: https://www.pca.state.mn.us/sites/default/files/aq1-42.pdf

Minnesota Pollution Control Agency, 2013. Fact Sheet: Cumulative Levels and Effects Analysis. January. Available: https://www.pca.state.mn.us/sites/default/files/aq1-42b.pdf

San Diego APCD, 2019. California Air Toxics "Hot Spots" Information and Assessment Act (AB 2588): 2018 Air Toxics "Hot Spots" Program Report for San Diego County. October. Page 6. Available:

[52] BAAQMD, 2016. Planning Healthy Places. May.
[53] California Government Code, Section 65302(h)(1)(A).

https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics_Program/2018_THS_%20Rpt.pdf

San Joaquin Valley APCD, 2015. APR – 1905: Risk Management Policy for Permitting New and Modified Sources. May. Available: http://www.valleyair.org/policies_per/Policies/apr-1905.pdf

SCAQMD, 2021. BACT Guidelines—Overview. February. Available: http://www.aqmd.gov/docs/default-source/bact/bact-guidelines/bact-guidelines-2021-test/overview.pdf

SCAQMD, 2020. 2019 Annual Report on AB 2588 Air Toxics “Hot Spots” Program. October. Available: http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588_annual_report_2019.pdf?sfvrsn=30

SCAQMD, 2020. 2019 Annual Report. Available: https://www.aqmd.gov/docs/default-source/annual-reports/2019-annual-report.pdf?sfvrsn=9

SCAQMD, 2017. Risk Assessment Procedures for Rules 1401, 1401.1 and 212. Version 8.1. September. Available: http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12