# Chapter 4: Enforcement Plan

#### Introduction

This chapter describes the enforcement history and overall approach to enforcement by the South Coast AQMD and the California Air Resources Board (CARB). In addition, the Community Emissions Reduction includes Plan (CERP) focused enforcement actions, which are described within Chapter 5. It is important that enforcement actions are part of the overall AB 617 program actions, which enables the program to be more effective in addressing this community's air quality priorities.

### Overview of Air Quality Related Enforcement Program - Purpose and Jurisdiction

## Chapter 4 Highlights

- From 2016 to 2018, CARB has conducted over 1900 inspections and South Coast AQMD conducted approximately 99 inspections and responded to approximately 300 complaints in the San Bernardino, Muscoy community.
- Both CARB and South Coast AQMD will continue to design their programs to most effectively address sources within their respective jurisdictions.
- An enforcement approach that utilizes specialized program structures, outreach efforts in the community, use of technology, and interagency partnerships can lead to further emission reductions.

The primary goal of enforcement activities is for regulated entities to achieve compliance with air quality rules and regulations, and to protect public health. Part of this process involves consistently identifying and resolving violations, thereby ensuring a level playing field for all regulated entities and preventing unfair advantages for violators.

Both CARB and South Coast AQMD regulate and enforce air pollution regulations. Both agencies have the right to conduct inspections of air pollution sources, and the right to issue violations that can lead to penalties.<sup>i</sup>

An air pollution source can be a specific piece of equipment, a business, a government agency, or any other entity that creates air pollution. CARB is primarily responsible for enforcement of rules applying to trucks, buses, and other mobile sources, while South Coast AQMD is primarily responsible for enforcement of rules applying to facilities (e.g., stationary sources).<sup>ii</sup>

<sup>&</sup>lt;sup>i</sup> More information about penalties is provided in the Appendix 4.

<sup>&</sup>lt;sup>ii</sup> In some cases, CARB may have agreements that give local air districts delegated authority to enforce a particular CARB rule. Other regulations, such as CARB's truck idling regulation, expressly allow enforcement by local air quality regulators.

Air Pollution Source Category	Examples	Main Regulatory Agency
Mobile sources <sup>iii</sup>	Trucks, buses, ships, boats, cargo handling equipment	CARB
Stationary sources	Refineries, power plants, oil and gas facilities, manufacturing plants; indirect sources	South Coast AQMD
Area-wide sources	Paint used on buildings, dust	South Coast AQMD
Sources of greenhouse gases	Methane and volatile organic compound emissions from facilities	CARB and South Coast AQMD

Table 4-1: Overview of regulatory authority for South Coast AQMD and CARB

#### Enforcement History

Over the years, both CARB and South Coast AQMD enforcement staff have had a significant presence in the community of San Bernardino, Muscoy (SBM). This section provides the most recent 3-year enforcement history for each agency in this community.

#### South Coast AQMD Enforcement History in this Community

South Coast AQMD's enforcement presence includes many different compliance-related activities including, but not limited to, investigating complaints, responding to breakdowns, and performing facility inspections.

Responding to complaints is a crucial part of South Coast AQMD's enforcement program. By taking complaints directly from members of the public, inspectors can focus their efforts to identify and address air pollution problems that matter to the community. South Coast AQMD's enforcement team gives priority to complaints and attempts to respond to every air quality complaint received. The process of responding to a complaint can be unique for each complaint, depending on factors such as whether the air quality concern is ongoing, the type of source, the time of day, and the number of complaints for that air quality concern. For example, South Coast AQMD responds to off-hour complaints based on the number of complaints that are received for a particular air quality concern. Figure 4-1 shows the number and types of complaints received by South Coast AQMD in this community, for the 2016 to 2018 time period. A large portion of the complaints in the SBM community are due to dust and odor concerns.

<sup>&</sup>lt;sup>III</sup> Railroads operations are regulated at the federal level primarily by the Federal Railroad Administration and the Surface Transportation Board, and locomotive emissions are regulated by the U.S. EPA. These agencies' regulatory authority may preempt certain federal, state, and local regulatory authorities and actions.

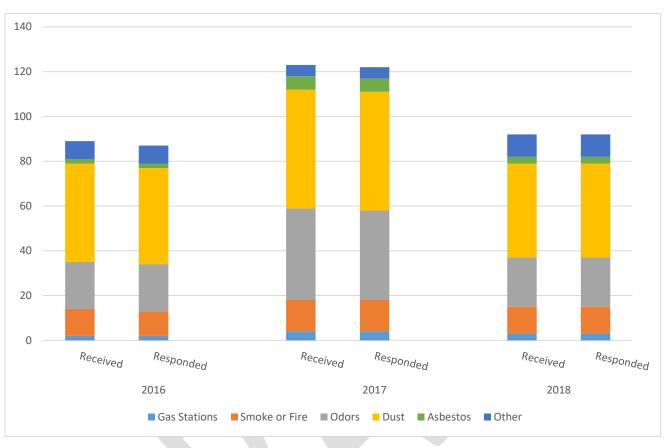


Figure 4-1: Number of complaints (by type) in the San Bernardino, Muscoy community.

Additionally, South Coast AQMD's enforcement staff perform inspection activities at facilities and other air pollution sources. These activities can include onsite inspections for permitted and non-permitted equipment, leaks, and compliance with rules, as well as surveillance activities in the community, such as to trace the source of an odor. As of May 2019, there are approximately 154 facilities permitted by the South Coast AQMD in this community.

Enforcement actions typically involve issuing one of two types of notices:

- Notice to Comply (NC) requiring a facility to quickly correct a minor violation or to provide specified records; or
- *Notice of Violation* (NOV) formally identifying a violation of particular rules or regulations, which may result in civil penalties or, in some cases, referral for criminal prosecution.

Between 2016 and 2018, South Coast AQMD conducted approximately 99 facility inspections and issued 34 NOVs in the San Bernardino, Muscoy community. Figure 4-2 shows the number of NCs and NOVs in this community during 2016 and 2018. A list of these compliance actions is available in the Appendix 4.

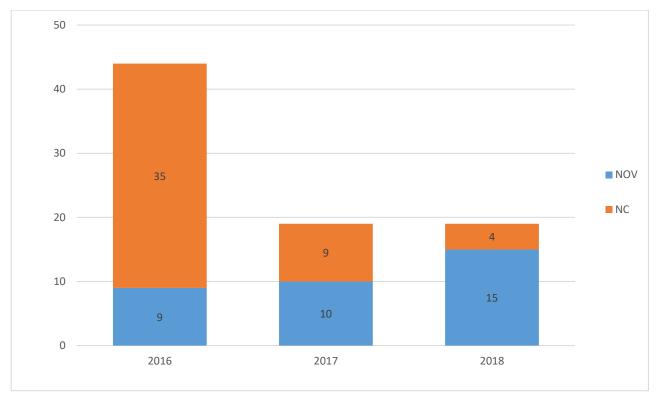


Figure 4-2: Number of Notices to Comply (NCs) and Notices of Violation (NOVs) issued in the San Bernardino and Muscoy community

### CARB Enforcement History in this Community

CARB's enforcement process is two-pronged, including conducting field inspections and fleet-wide audits. For field inspections, the focus has been on enforcing heavy-duty diesel vehicle (HDDV) regulations, such as the statewide truck and bus rule, off-road rule, and the heavy-duty vehicle inspection program (HDVIP); at the refineries and fueling stations enforcing fuel formulation regulations; and in the ports enforcing regulations related to shore power, ocean-going vessels, commercial harbor craft and cargo handling equipment. As Figure 4-3 shows, of the vehicles inspected in the San Bernardino, Muscoy community, compliance with CARB's regulations overall appears high, but has varied (see Appendix 4 for CARB's 2016 - 2018 Three-Year Enforcement History) annually. This is potentially dependent on a few factors, including the number of vehicles inspected, the method of selecting vehicles for inspection (e.g., targeting vehicles that might fail inspection), and a number of other factors outside the scope of this analysis. CARB's enforcement has been focused on HDDV regulations, such as the Drayage Truck and the Statewide Truck and Bus rules, as well as the Heavy-duty Vehicle Inspection Program (HDVIP) in this area, with over 1900 inspections conducted in the community in the past three years. Of those vehicles inspected, less than 90 were not in compliance with CARB's regulations. Specifically, over 1000 inspections were conducted at the railyards in 2018. Of the 1066 inspections conducted at BNSF's railyards in SBM in 2018, there were 32 violations, of which 27 were non-emissions violations (e.g., lack of labeling or reporting).

For fleet-wide audits, generally fewer heavy-duty vehicle enforcement inspections have occurred in the area during this time-frame, however beginning in 2018, CARB added the Streamlined Truck Enforcement Program (STEP) to enhance its ability to enforce the Statewide Truck and Bus regulation. Between January 2018 and May 2019, CARB audited 176 fleets in SBM. Of the 353 vehicles in the audit, CARB placed California Department of Motor Vehicles (DMV) registration holds on 198 of those vehicles. This represents a compliance rate of 44 percent with the Statewide Truck and Bus rule. The STEP and CARB's roadside inspection program complement each other. In CARB's roadside inspections, which represent a snapshot of heavy duty vehicle activity, the overall compliance rate from 2016 – 2018 was 93 percent (based on inspecting 112 vehicles). As of May 2019, owners have brought 17 of those vehicles audited in STEP into compliance. While the STEP process can assess more trucks quicker than in-person roadside inspections, CARB believes that compliance with the Statewide Truck and Bus regulation will continue to improve next year as compliance is tied to California DMV vehicle registration<sup>iv</sup>.

For some of CARB's regulations, enforcement staff have not yet conducted extensive enforcement activities on the concerns that the CSC has raised. However, CARB's enforcement efforts are being enhanced in this community to address community concerns.

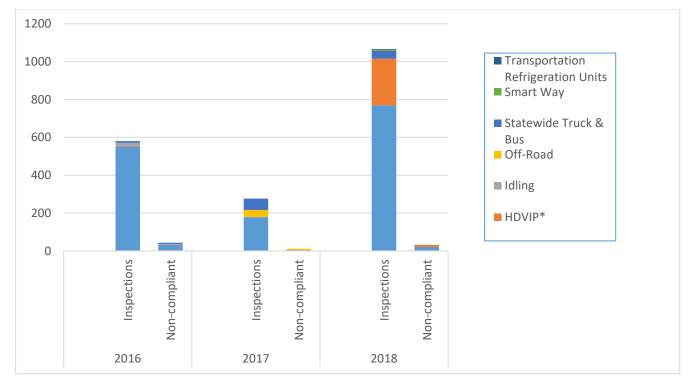


Figure 4-3: CARB Heavy-duty Diesel Vehicle Enforcement History by Program Type in the San Bernardino and Muscoy Community.

In summary, between 2016 and 2018, both CARB and South Coast AQMD have conducted a range of compliance activities in the community including more than 1900 inspections from CARB enforcement

<sup>&</sup>lt;sup>iv</sup> State Bill 1 (<u>https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\_id=201720180SB1</u>)

staff related to heavy-duty diesel vehicles. Of those inspections, the vast majority of vehicles were in compliance, with less than 90 not in compliance. South Coast AQMD enforcement staff conducted approximately 100 facility inspections, responded to approximately 300 complaints, and conducted numerous other investigation activities in SBM. South Coast AQMD issued 34 Notices of Violation. Considering that a portion of these compliance actions are focused on the same facilities, the compliance rate may not be an effective indicator of overall compliance within the area.

Due to the air pollution concerns in this community, an enforcement approach by both agencies that fully utilizes their specialized program structures, outreach efforts in the community, use of technology, and interagency partnerships can lead to further reductions in non-compliance and emissions. Both South Coast AQMD and CARB will continue to work closely with the CSC to identify and investigate air quality issues within the community.

## Enforcement Approach - Program Structures

Both CARB and South Coast AQMD have designed their programs to most effectively address sources under their respective jurisdictions.

#### South Coast AQMD's Office of Compliance and Enforcement

The structure of this group is based on teams that focus on source type, and inspectors are also assigned by geographic region. The organizational structure based on source type enables inspectors to become technical specialists on the air pollution regulations that apply to the types of industries or facilities assigned to that team. In addition, assigning inspectors by geographic area improves the agency's ability to respond in a timely manner to complaints or compliance issues in that area.

For example, an office building may have a diesel backup generator that would be inspected by the Industrial team. This team has the broad knowledge to inspect a wide variety of source types and equipment. A wastewater treatment plant may also have a diesel backup generator, but these are inspected by the Toxics & Waste Management team which has the training and personal protective equipment (PPE) to conduct inspections at facilities with Toxic Air Contaminants. However, certain facilities may be inspected by multiple teams to ensure that the approach is focused enough to address a variety of sources, yet flexible enough to handle complex facilities.

For most teams, the inspectors conduct regular inspections at their assigned facilities or within their assigned geographic regions. The frequency of regular inspections depends on the type of facility. For example, a chrome plating facility is inspected more frequently than an auto body shop. It is important to consider that there are approximately 110 chrome plating facilities in the South Coast Air Basin, compared to over 1,500 auto body facilities in the region. When considering limited resources, inspection priority is typically given to higher risk pollution sources – that is, those facilities that emit the more toxic air pollutants and/or are close to schools, hospitals, and residential areas. The following teams operate in the SBM community:

#### Figure 4-5: South Coast AQMD Enforcement Program teams



The **Industrial team** focuses on the widest variety of sources, ranging from dry cleaners to large manufacturing facilities to idling truck sweeps. Inspectors in this team are assigned a geographic region and normally spend much of their time in the field. From this team, 2 inspectors regularly conduct compliance activities in SBM.



The **Major Sources team** focuses on sources that are in the REgional CLean Air Incentives Market (RECLAIM)\* program. Examples of these sources include power plants, oil production sites, and large manufacturing facilities. Inspectors in this team are assigned by facility, with each inspector assigned a set of facilities, some of which are in SBM.



The **Service Station team** Focuses on gasoline service stations that serve the public, which can emit volatile organic compounds (VOCs). Inspectors in this team are assigned a geographic region. From this team, 2 inspectors regularly conduct compliance activities in SBM.



The **Toxics team** focuses on facilities that emit Toxic Air Contaminants, including hexavalent chromium, lead, and other toxic metals. Examples of these facilities include landfills, waste treatment facilities, water treatment facilities, lead acid battery manufacturers, and chromium plating and anodizing shops. Inspectors in this team are assigned a geographic region, and 1 inspector regularly conducts compliance activities in SBM.

The following teams are a part of OCE, but do not regularly conduct compliance activities in SBM:



The **Energy team** focuses on crude oil production, energy storage sites, and bulk petroleum terminals. Inspectors in this team usually work in pairs for safety, as well as the need to operate portable equipment. Inspectors in this team are assigned by facility, with each inspector assigned a set of facilities.



The **Refinery team** focuses on all the refineries, auxiliary hydrogen plants, and marine terminals in the South Coast Air Basin. Inspectors in this team are assigned by facility, with each inspector dedicated to a refinery and auxiliary plants. This team is based full-time in the Long Beach Field Office to ensure close proximity to the refinery sources that it regulates.

\*RECLAIM, for REgional CLean Air Incentives Market, is a program that requires participating facilities to manage their total nitrogen oxides (NOx) and/or sulfur oxides (SOx) emissions (which reduce over time) by adding pollution controls, changing their equipment or processes, or buying credits from other RECLAIM facilities that have lower emissions than their cap. The program is currently being transitioned to a command-and-control regulatory program.

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#### CARB Enforcement's Program Structure

Through targeted enforcement or public complaints, CARB identifies a potential violation. CARB then contacts the responsible party to explain the enforcement process and to obtain additional information. Enforcement staff evaluates the information collected and works with CARB's Legal Office to determine violations of statutory and/or regulatory requirements. When violations are substantiated, CARB can take enforcement action, at which point the responsible party is provided an opportunity to respond to the violation.

This outcome includes taking appropriate enforcement action within the scope of CARB's enforcement authority, which may include issuing cease and desist orders, Notices of Violation, mitigation, or pollution prevention actions. Cases can be resolved via civil and criminal litigation. In lieu of litigation, cases typically are settled through CARB's mutual settlement program. Penalties are sought that provide adequate deterrence to future non-compliance or public nuisance.

For example, in 2017, settlement agreements were made with Union Pacific Railroad Company (UP) and BNSF Railway regarding drayage truck regulations. Under CARB's Drayage Truck Regulation, California ports and Class I rail terminals must report non-compliant heavy-duty diesel trucks entering their facilities. For years, BNSF and UP failed to accurately report to CARB information on non-compliant trucks entering their facilities, which hampered CARB's ability to enforce the regulatory requirements. The settlements resulted in UP turning away non-compliant trucks from their facilities and BNSF accurately reporting truck data to CARB for enforcement, resulting in reduced diesel emissions from heavy-duty diesel trucks around both UP and BNSF facilities.<sup>8</sup>

During the settlement process, violators have the opportunity to allocate up to 50% of their penalties to a supplemental environmental project (SEP)<sup>v</sup>. Community-proposed projects are funded by the violators to help improve public health, reduce pollution, increase environmental compliance and bring public awareness to air pollution issues. Additional SEPS are possible in the SBM community through the proposal process.<sup>9</sup> CARB has over 50 enforcement programs that focus on specific source types.

A few of the programs that are relevant to enforcement activity in SBM community are:

<sup>&</sup>lt;sup>v</sup> Other examples of enforcement settlement cases can be found in CARB's Annual Enforcement Reports (<u>https://www.arb.ca.gov/enf/reports/reports.htm</u>).

#### Figure 4-6: CARB Enforcement Program teams relevant to the SBM community



CARB conducts idling sweeps to ensure regulatory truck and bus idling limits are not exceeded.



**Drayage** vehicles move goods by certified heavy-duty vehicles (HDV). HDV that enter the port or intermodal facility are required to be certified to meet clean emission standards.



Regulations aimed at cleaning up **'off-road'** construction equipment such as bulldozers, graders, and backhoes. These requirements are in place to help ensure that diesel soot filters are installed on off-road equipment.



**SmartWay**: The Tractor-Trailer Greenhouse Gas Regulation requires 53-foot or longer dry van or refrigerated van trailers and the tractors that pull them on California highways to use certain equipment that meets US EPA efficiency standards.



**Transport Refrigeration Units (TRUs)**: Inspect secondary engines to ensure TRUs meet labeling and clean air requirements.



**Cargo handling equipment** investigations are led by CARB to identify opportunities to reduce emissions from idling at ports and intermodal rail yards.



For the Heavy-Duty Vehicle Inspection Program, CARB regularly conduct inspections for:

Diesel Emission Fluid (DEF): a liquid used as a reductant in heavy duty diesel engines to reduce NOx emissions.
Emission Control Label (ECL): Engine certification labeling requirements

• Smoke/Tampering: Requires heavy duty trucks/buses to be inspected



**Statewide Truck and Bus** program requires all vehicles with 2009 or older engines weighing over 14,000 pounds to reduce exhaust emissions by upgrading to 2010 or newer engines by 2023. Non-compliant vehicles will be denied DMV registrations.

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### How the Public Helps Reduce Air Pollution

Members of the public play an important role in communicating air quality concerns to both South Coast AQMD and CARB. The complaint process helps both agencies identify issues that are directly affecting the SBM community. The most effective way to contact the agencies is through the complaint hotlines. In addition to South Coast AQMD's mobile application, both agencies can be contacted by phone and online:

CARB - Mobile Sources Automobiles, Trucks, Off-road Equipment, or other Vehicles Phone: 1-800-END-SMOG Online: calepa.ca.gov/enforcement/complaints South Coast AQMD - Stationary Sources Odors, Smoke, Dust, or other Air Contaminants Phone: 1-800-CUT-SMOG Online: https://www.aqmd.gov/home/air-quality/complaints

Both CARB and South Coast AQMD value input from those who live and work every day in the community, and communicating air quality issues directly to the agencies with the information below is the best way to address an air pollution concern. Letting us know of an issue when it is occurring rather than after the fact helps South Coast AQMD's and CARB's ability to find the source of the problem.

An effective complaint should contain information with specific details. This information helps inspectors conduct a thorough investigation and take appropriate enforcement action. The following information is valuable to a thorough complaint investigation:

- Type of air quality concern (odor, smoke, dust, etc.)
  - Odors: description of odor
  - Smoke: color of smoke; does the smoke disappear or hang in the air?
  - Dust: type of dust
- Location of air pollution concern
- Name or address of potential source
- Time of day that the air quality issue began, and is the concern still occurring?
- Has the concern occurred before, and do other people in your community experience it as well?
- Contact information for the person reporting the complaint<sup>vi</sup>

#### Technology

Both South Coast AQMD and CARB enforcement staff have embraced the use of technology as a means for more efficient and effective inspections. South Coast AQMD inspectors have access to advanced

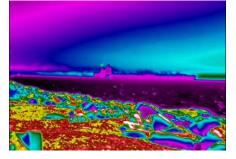
<sup>&</sup>lt;sup>vi</sup> Although anonymous complaints are accepted, staff have found that having contact information helps with getting additional information to help with the investigation.

instruments to help identify air pollution issues in real-time. The following portable instruments are available to inspectors:

Figure 4-7: Portable instruments used by South Coast AQMD inspectors in the field

*Toxic Vapor Analyzers (TVA):* Inspectors can use TVAs to provide information about the level of certain gases in a specific area. This includes methane and volatile organic compounds (VOCs), which are emitted by petroleum sources and other types of sources.





*Infrared Cameras:* Inspectors can use specialized infrared cameras to view emissions of gases (including methane and VOCs) that would otherwise be invisible to the naked eye. This equipment enables inspectors to scan areas for emissions and quickly check for any large leaks at a facility.

X-Ray Fluorescence (XRF): Inspectors can use this handheld instrument to identify the types of chemicals that are on a surface or in a dust pile. This tool helps identify potential pollutants that are particles. For example, an XRF can be used to scan surfaces at a facility to identify which specific toxic metals may be deposited in that location, and which locations have the highest levels of those toxic metals.





 $H_2S$  Analyzers (Jerome Meters): Inspectors can use this handheld instrument to measure hydrogen sulfide gas levels in the air. This information can be used to identify a potential source of rotten egg type odors.

In addition, inspectors are trained on how to collect field samples, including air samples, liquid samples, or bulk material samples. These samples can then be provided to the South Coast AQMD laboratory or contract laboratories for analysis. The results of these analyses can be used as evidence to support investigations and/or Notices of Violation issued to air pollution sources.

South Coast AQMD regulates over 25,000 facilities, receives approximately 10,000 public complaints per year, and operates a vast air quality monitoring network; and CARB regulates a significant number of mobile sources throughout the state. Analyzing the data that results from these efforts can provide

San Bernardino, Muscoy Draft, version 07.31.19 insight into the trends and sources of air pollution as well as new enforcement opportunities. Both agencies use information technology to enhance the ability to conduct investigations and enforce regulations. As an example, for CARB's truck fleet enforcement program, the traditional approach was to inspect several thousand trucks annually through fleet-based inspections. Starting in January 2018, CARB began the Streamlined Truck Enforcement Process (STEP), and is now able to conduct 20,000 to 25,000 inspections per year through the use of a data-driven approach, non-compliance letters, and a scheduled settlement process. South Coast AQMD's investigation of crude oil tankers is another example of using information technology in enforcement activities. Inspectors used mapping software, weather data, and ship databases to help identify an oil tanker as a potential source of emissions. The oil tanker was later issued a Notice of Violation when it berthed at a port. These multi-faceted approaches can be applied to address other air pollution concerns in SBM. Providing transparent access to the information that both agencies possess will lead to a stronger partnership with the community.

#### The Interagency Approach

CARB and South Coast AQMD are committed to working with other agencies on joint initiatives that will directly result in cleaner air. The combined resources, expertise, and legal authorities of different agencies can create a well-rounded approach to the regulatory process that leverages their respective strengths to address issues that cumulatively impact public health. For example, San Bernardino County Fire Department partnered with South Coast AQMD to conduct targeted inspections of spray booths with the Industrial team and inspections of gas stations with the Service Station team.



Figure 4-8: Examples of agencies that collaborate with South Coast AQMD and CARB

CARB partners with local agencies to create memoranda of understanding (MOUs), such as an agreement with South Coast AQMD to enforce CARB's greenhouse gas standards at certain facility types. In addition, CARB has already established partnerships with California DMV working on implementing registration holds for non-compliant trucks and buses, California Highway Patrol (CHP) to conduct roadside inspections, and other state and regional agencies to ensure we are supporting each other's enforcement efforts. Both South Coast AQMD and CARB have demonstrated experience working in close

collaboration with other regulatory agencies, cities and counties, public health agencies, and local police and fire departments to conduct investigations and provide public information about local air pollution sources.

# **Enforcement Considerations**

An effective enforcement program must be flexible and adaptable to address the needs of the communities. Part of being adaptable is the ability to identify and address gaps in the enforcement process, such as previously unknown facilities or new pollutants of concern. As revealed over the course of the public process for CERP development, one such gap has been a lack of communication with members of the community, who have firsthand experience with local emissions sources and whose input can be quite valuable to enforcement efforts. South Coast AQMD has therefore prioritized outreach and added new positions to interact directly with the AB 617 communities, including dedicated compliance staff assigned in those communities. Because South Coast AQMD organizes its enforcement division both by source type for technical specialization and by geographic region, there is not a single dedicated team for AB 617; rather, the effort is spread across multiple existing teams so that a larger number of complaints and potential violations of air quality rules can be identified and addressed.

In addition, both CARB and South Coast AQMD currently maintain extensive records of compliancerelated activities through the use of databases and other digital resources. OCE uses these resources to track metrics such as complaints, inspections, and enforcement actions. The data provided in this chapter and Appendix 4 are derived from those databases. The particular statistics being tracked are also routinely reevaluated. For example, OCE recently added an Agency Technical Assistance metric for instances where South Coast AQMD was asked by another agency to assist in that agency's efforts, often by way of collecting samples or providing ambient air monitoring. CARB and South Coast AQMD will both continue to evaluate new metrics that may help to track and analyze inspectors' efforts in the AB 617 communities in order to attempt to identify more effective allocations of resources and/or potential solutions to air quality issues.

Finally, enforcement mechanisms exist that are designed to promote, and, if necessary, compel, compliance by regulated sources. As discussed above, after South Coast AQMD inspectors investigate complaints and/or conduct facility inspections, they can issue notices to comply or notices of violations. While notices to comply will generally require further action by a source, notices of violation are referred to the Office of the General Counsel, where penalties are negotiated. If no settlement is reached, a civil lawsuit can ultimately be filed in superior court. Ongoing non-compliance, however, may lead to a petition for an order of abatement before the Hearing Board, which would have the authority to require a facility to take certain actions to achieve compliance. CARB and South Coast AQMD have each had a presence in this community that has led to various enforcement actions against local facilities.<sup>vii</sup>

In sum, the compliance process seeks to ensure that all rules and regulations are followed through a fair and robust enforcement program, resulting in reduced air pollution emissions. Adaptability is crucial,

vii Additional detail on South Coast AQMD and CARB enforcement actions can be found in Appendix 4.

whether in the programs overall, or in day-to-day operations, to ensure that community concerns are addressed quickly and that enforcement action is taken when violations are identified. Both CARB and South Coast AQMD enforcement teams will continue to search for innovative strategies, lead in community transparency, and take swift action to address non-compliance.