

Neighborhood Truck Traffic

Background

The Inland Empire, including San Bernardino County, plays an important role in the goods movement industry, serving as a gateway between the Southern California ports and the rest of the continental United States.¹ The community of San Bernardino and Muscoy is home to an intermodal railyard, which includes the operation of locomotives, off-road equipment and heavy-duty trucks that contribute to the air pollution in the community. Warehouses near the Interstate-10 freeway just south of this community also attract truck traffic, which passes through the San Bernardino and Muscoy community. Trucks are used to deliver goods to and from railyards, warehouses, and retail stores.

It is important to note that many of the industries in this community rely heavily on regional and local truck transportation,² not only to receive goods, but also as a source of income for those who are hired to transport, store, and distribute these goods. The large volume of trucks adversely impacts the members of this community by creating diesel air pollution, congestion, accelerated deterioration of the local infrastructure (e.g. roads), and noise pollution.² Trucks often travel near and through local neighborhoods to reach their destinations, thus exposing residents to harmful air pollutants.

Community Air Quality Priorities – Idling Trucks, Enhanced Enforcement of Existing Regulations and City Ordinances, Air Pollution from High Volume of Trucks, and Cleaner Technology Options

Diesel air pollution from trucks is an air quality priority for the San Bernardino and Muscoy community. Heavy-duty diesel trucks and vehicles that operate in the community include, heavy-duty trucks, trash trucks, transport refrigeration units, and other commercial vehicles. CSC members vocalized their desire to have regulations and incentives that result in the adoption of zero-emission trucks on the road as soon as possible. CSC members noted that there were many trucks driving through and idling in this community, and also noted that some trucks park for long periods of time on neighborhood streets.³ CSC members recognize the limited resources of the City of San Bernardino, which impacts the City's ability to enforce local ordinances and designated truck routes. The County's policy plan is currently available for public review, which includes designating truck routes as a focus for one of its measures.⁴ The CSC has requested that

¹ County of San Bernardino, General Plan, *County of San Bernardino Land Use Services Division*, 2007, <http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf>, Accessed May 1, 2019.

² City of San Bernardino, General Plan, November 1, 2005, <http://www.ci.san-bernardino.ca.us/pdf/DevSvcs/General%20Plan%20Document.pdf>, Accessed May 1, 2019.

³ Muscoy Community Action Guide, Countywide Plan, County of San Bernardino, May 2019, http://countywideplan.com/wp-content/uploads/2019/05/01_Muscoy_CAG_2019.pdf, Accessed May 1, 2019.

⁴ Policy Plan, Countywide Plan, County of San Bernardino, May 2019, http://countywideplan.com/wp-content/uploads/2019/05/CWP_PolicyPlan_PubReviewDraft_20190515.pdf, Accessed May 1, 2019.

the AB 617 program increase enforcement of truck⁵ and anti-idling⁶ regulations, and utilize existing traffic information and available technology (e.g. Automatic License Plate Readers (ALPRs⁷)) to gather data to help identify potential truck routes.

To address this source, the CSC identified ways to reduce emissions from trucks, such as:

- Regulations and incentives for zero-emission trucks on the road, when commercially available
- Increased enforcement of idling rules to reduce diesel emissions (including during off-hours)
- Gather existing traffic information from local authorities (e.g. Caltrans) and from available databases, and implement new technology such as ALPR to collect data on truck traffic and assess the potential impact of truck emissions near schools. Provide data to local land use agencies to help prioritize truck routes that need to be reclassified in the general plan^{1,2} or the community plan³
- Additional and new incentive and financing opportunities, especially for small businesses and independent truck drivers, for truck replacements with zero-emission technologies once they become feasible, and near-zero emission technologies until that time
- Working with the City and County of San Bernardino on efforts to design or redesign truck routes in the community
- Improving the complaints and response system to report truck idling or a violation of City or County ordinance regarding air quality
- Enhancing outreach to commercial fleets, warehouses, and other facilities that operate heavy-duty diesel trucks in the community and provide them with information on the availability of zero-emission vehicles and incentive funding opportunities that are available

Ongoing Efforts

CARB's Airborne Toxic Control Measure (ATCM) places limits on idling of diesel-fueled trucks.⁶ This regulation is enforced by CARB and South Coast AQMD, and will be a focal point of the enforcement activities in AB 617 communities. CARB continues to address truck diesel emissions reductions through existing and upcoming regulations, such as the Drayage Truck Regulation⁸

⁵ California Air Resources Board, Truck and Bus Rule: <https://arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>, Accessed June 7, 2019

⁶ California Air Resources Board, "CARB Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling", January 2005, <https://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>, Accessed April 10, 2019.

⁷ California Air Resources Board, "Improving On-road Vehicle Data: Automated License Plate Readers (ALPR) Portable Emission Acquisition System (PEAQS)," <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/san-bernardino/presentation-may-16-2019.pdf>, Accessed May 16, 2019

⁸ California Air Resources Board, Update on California Actions to Minimize Community Health Impacts from Freight, March 2019, https://www.arb.ca.gov/board/books/2019/032119/19-3-2pres.pdf?_ga=2.79278740.1419761847.1559951314-1545453421.1552083450, Accessed June 13, 2019.

and the Truck and Bus Regulation,^{9,10} which include emission standard requirements. CARB is also responsible for enforcing the Commercial Vehicle Idling Regulation, where commercial vehicles (gross vehicle weight rating greater than 10,000 pounds) are prohibited from idling for more than five minutes.¹¹ In addition, to help cities address idling, CARB has developed an “Options for Cities to Mitigate Heavy-Duty Vehicle Idling” guidance document.¹² CARB has many new requirements that are also being considered that would further reduce emissions from trucks. Table 5-1 below illustrates the key upcoming activities from U.S. EPA and CARB.

Table 5-1: Upcoming Rule Development/Activities from U.S. EPA and CARB

Agency	Proposed Action	Expected Decision	Expected Phase-in Period
U.S. EPA	<u>Cleaner Truck Initiative</u> ¹³ – In response to a petition from the South Coast AQMD, U.S. EPA has committed to updating its truck engine standard to reduce NOx emissions.	2020-2021	2024-?
CARB	<u>Drayage Truck Rule</u> ¹⁴ – Updated regulation to transition to zero-emission trucks.	2022	2026-?
CARB	<u>Advanced Clean Truck Rule</u> ¹⁵ – Mandate for truck manufacturers to sell zero-emission trucks. By 2030, zero-emission truck/chassis sales would need to be 50% of class 4 – 8 ‘straight’ trucks sales and 15% of all other truck sales. Also requires fleet reporting.	2019	2024-2030
CARB	<u>Zero-Emission Fleet Rule</u> ¹⁶ – Would require fleets to transition to zero-emissions.	2022	2024-?

⁹ California Air Resources Board, “Truck and Bus Regulation Compliance Requirement Overview,” <https://www.arb.ca.gov/msprog/onrdiesel/documents/FSRegSum.pdf>, Accessed June 3, 2019.

¹⁰ California Air Resources Board, “Truck and Bus Regulation On-Road Heavy Duty Diesel Vehicles (In-Use) Regulation,” <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>, Accessed June 3, 2019.

¹¹ California Air Resources Board, Idling Programs: Commercial Vehicle Idling, May 2019, <https://www.arb.ca.gov/enf/diesel.htm#cmvidling>, Accessed June 13, 2019.

¹² California Air Resources Board, “Options for Cities to Mitigate HDV Idling,” https://www.arb.ca.gov/enf/arb_options_cities_mitigate_idling.pdf, Accessed June 3, 2019.

¹³ U.S. EPA, Cleaner Trucks Initiative, <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-trucks-initiative>, Accessed June 13, 2019.

¹⁴ California Air Resources Board, Update on California Actions to Minimize Community Health Impacts from Freight, March 2019, https://www.arb.ca.gov/board/books/2019/032119/19-3-2pres.pdf?_ga=2.79278740.1419761847.1559951314-1545453421.1552083450, Accessed June 13, 2019.

¹⁵ California Air Resources Board, Advanced Clean Trucks, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/resources>, Accessed June 13, 2019.

¹⁶ California Air Resources Board, Zero-Emission Vehicle Fleet, <https://ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-fleet>, Accessed June 13, 2019.

Agency	Proposed Action	Expected Decision	Expected Phase-in Period
CARB	<u>Heavy Duty Low NOx Rule</u> ¹⁷ – Would set new statewide engine standards for trucks. 60-75% NOx reduction between 2024-2026. Additional reductions in 2027 and beyond.	2020	2024-?

The South Coast AQMD also funds projects to help develop zero-emission technologies for heavy-duty Class 7-8 trucks (e.g. battery electric, fuel cell). These projects are in the design and demonstration phase and the technologies are not yet commercially available. Additionally, the South Coast AQMD administers incentive programs for truck owners and operators to replace older polluting trucks with ones that are cleaner than required.¹⁸ For example, South Coast AQMD’s Voucher Incentive Program (VIP) is designed for smaller businesses with fleets of 10 or fewer vehicles that primarily operate within California¹⁹. VIP helps truck owners with older trucks reach current emissions standards. Also, the Carl Moyer Program²⁰ is another resource for truck owners to obtain trucks that are cleaner than required.

Another strategy could be the use of automated license plate readers (ALPRs), which is currently being explored by South Coast AQMD staff. These are high-speed, computer-controlled camera systems that can capture license plate numbers that come into their view. ALPR data, when cross-referenced with DMV data, can provide more information about vehicles (e.g., the chassis model-year and weight class for trucks) which can help build a picture of the fleet makeup that pass a specific location over time. Assumptions for relating chassis model year and engines installed on a chassis can be used to estimate emissions from heavy-duty diesel trucks. South Coast AQMD staff is exploring the possibility of using this information to notify heavy-duty diesel truck owners that may qualify for incentive programs to replace their truck with newer cleaner models. The use of an ALPR system would require the development of a policy to ensure any data collected using an ALPR system protects the privacy of the registered truck owners.²¹

South Coast AQMD is actively looking into the feasibility of utilizing the ALPR system to address this community’s concerns but must first understand any possible issues or limitations.

¹⁷ California Air Resources Board, Heavy-Duty Low NOx, April 2019,

<https://www.arb.ca.gov/msprog/hdlownox/hdlownox.htm>, Accessed June 13, 2019.

¹⁸ South Coast AQMD, On-Road Vehicles, [http://www.aqmd.gov/home/programs/business/carl-moyer-memorial-air-quality-standards-attainment-\(carl-moyer\)-program/on-road-vehicles](http://www.aqmd.gov/home/programs/business/carl-moyer-memorial-air-quality-standards-attainment-(carl-moyer)-program/on-road-vehicles), Accessed June 3, 2019.

¹⁹ South Coast AQMD, Voucher Incentive Program, <http://www.aqmd.gov/home/programs/business/business-detail?title=voucher-incentive-program&parent=vehicle-engine-upgrades>, Accessed June 3, 2019.

²⁰ South Coast AQMD, Carl Moyer Program, <http://www.aqmd.gov/home/programs/business/business-detail?title=heavy-duty-engines&parent=vehicle-engine-upgrades>, Accessed June 3, 2019.

²¹ California Air Resources Board, “Improving On-road Vehicle Data: Automated License Plate Readers (ALPR) Portable Emission Acquisition System (PEAQS),”

<https://www.facebook.com/southcoastaqmd/videos/1248687388632139/>, Accessed May 23, 2019.

Opportunities for Action

The CSC’s strategy to reduce the community’s exposure to air pollution from trucks is described in the actions below.

Action 1: Reduce Emissions from Illegal Heavy-Duty Truck Idling in the Community	
Course of Action:	
<ul style="list-style-type: none"> • Conduct focused enforcement for idling trucks in high traffic areas with the highest priority for areas near schools and residential. Other areas prioritized by the CSC include locations near distribution centers and high traffic corridors (e.g., on Juana Street and Cabrera Street, on both streets between Fourth Street and Fifth Street, Kingman Street between Tia Juana Street and Mt. Vernon Avenue, etc.) • Collaborate with the CSC to inform community members on how to report idling trucks • Provide community outreach on existing complaints/response systems on reporting idling trucks. If existing complaint/response system is determined to be ineffective, assess where improvements are feasible for the existing complaint/response system and improve, as needed. 	
Strategies:	
<ul style="list-style-type: none"> • Enforcement • Collaboration • Public Information and Outreach 	
Goals:	
<ul style="list-style-type: none"> • Conduct [<i>X amount of</i>] focused inspections and targeted sweeps within a [<i>insert proposed timeframe</i>] • Organize [<i>X amount of</i>] outreach events within a [<i>insert proposed timeframe</i>] to inform community members how to report idling trucks 	
Estimated Timeline:	
<ul style="list-style-type: none"> • Beginning fall of 2019, with quarterly updates to the CSC 	
Implementing Agency, Organization, Business or Other Entity:	
Name:	Responsibilities:
South Coast AQMD	<ul style="list-style-type: none"> • Conduct idling sweeps. • Conduct outreach to local law enforcement about opportunities to reduce illegal heavy-duty truck idling • Organize outreach events in collaboration with local entities
California Air Resources Board (CARB)	Coordinate idling truck inspections with the California Highway Patrol

CSC	Work with the South Coast AQMD, and other local entities to disseminate information on how to report idling trucks in the community (e.g., outreach events, flyers)
References:	
<p>For more information regarding requirements for idling trucks: 13 CCR § 2485; https://www.arb.ca.gov/enf/diesel.htm</p> <p>Vehicle pollution complaint lines for CARB and South Coast AQMD are available as follows:</p> <ul style="list-style-type: none"> • CARB – https://ww2.arb.ca.gov/our-work/programs/environmental-complaints, and (800) END SMOG or (800) 363-7664 • South Coast AQMD – (800) CUT-SMOG or (800) -288-7664 	

Action 2: Reduce Emissions from Heavy-Duty Trucks Transiting the Community	
Course of Action:	
<ul style="list-style-type: none"> • Work with the city or the county to develop enforceable truck routes and establish designated truck parking areas • Collaborate with local businesses, agencies, and organizations to conduct outreach to truck owners and operators in this community to provide information about community ordinances, restricted truck routes, trucking regulations, and available incentive programs • Identify South Coast AQMD and other additional incentive funding opportunities to accelerate adoption of cleaner equipment and trucks • Target incentive funds for local small businesses and independent owner/operator (e.g., Voucher Incentive Program) • Participate in CARB’s rule development as an advocate for the community for future amendments to their truck regulations • Continue to develop Facility Based Mobile Source Measures (see Warehouse and Rail) • Conduct targeted enforcement of CARB’s Drayage Truck Rule and Truck and Bus Rule • Provide training on complaint reporting for trucks transiting the community 	
Strategies:	
<ul style="list-style-type: none"> • Incentives • Public Information and Outreach • Collaboration • Regulation • Enforcement 	
Goals:	

Neighborhood Truck Traffic 5-6

<ul style="list-style-type: none"> Organize <i>[insert number]</i> of incentive outreach events per year and provide biannual updates to the CSC Provide biannual updates on CARB’s and South Coast AQMD’s rule development for truck regulations, and seek community input on progress <i>[CARB – CSC, please provide input to CARB regarding where enhanced enforcement should occur]</i> 	
Estimated Timeline:	
<ul style="list-style-type: none"> 2020, when incentive programs are available, begin conducting incentive outreach events and provide quarterly or biannual updates to the CSC CARB’s New Regulations phase in: 2024-2030 [CARB Enforcement timeline] 	
Implementing Agency, Organization, Business or Other Entity:	
Name:	Responsibilities:
South Coast AQMD	<ul style="list-style-type: none"> Provide targeted outreach for truck incentive programs in this community Provide status updates to the CSC about applications that are submitted for truck incentives that could reduce emissions in the community Provide training to community leaders or organizations that provide application assistance for incentive programs Continue development of Facility Based Mobile Source Measures Provide training for effectively reporting complaints about heavy-duty trucks with excessive exhaust emissions
CARB	<ul style="list-style-type: none"> Continue rule development for amendments to regulations affecting trucks Conduct enforcement of existing Drayage Truck and Truck and Bus Rules Provide training for effectively reporting complaints about heavy-duty trucks with excessive exhaust emissions
County of San Bernardino	<ul style="list-style-type: none"> Work with South Coast AQMD to provide the community with information about local truck routes, air pollution requirements for trucks, and incentives for cleaner trucks Conduct outreach to local law enforcement about opportunities to enforce truck routes and reduce illegal heavy-duty truck idling
CSC members (including businesses, community organizations, and agencies)	Work with South Coast AQMD to conduct outreach to truck owners and operators. Provide application assistance to potential applicants for incentive programs. Seek funding support to provide this service, e.g. through CARB Community Air Grants. Participate

Neighborhood Truck Traffic 5-7

	<p>in CARB and South Coast AQMD rulemaking efforts (e.g., attending working group meetings, providing comments on draft rule materials, etc.) for regulations affecting trucks.</p>
<p>References:</p>	
<p>For more information regarding the CARB Drayage Truck Regulation: www.arb.ca.gov/drayagetruck</p> <p>For more information regarding the CARB Community Air Grants: https://ww2.arb.ca.gov/our-work/programs/community-air-protection-program/community-air-grants</p> <p>For more information regarding CARB Truck and Bus Regulation: https://arb.ca.gov/msprog/onrdiesel/onrdiesel.htm</p> <p>For more information regarding restricted truck routes in the general plans for this community:</p> <ul style="list-style-type: none"> • City of San Bernardino: http://www.ci.san-bernardino.ca.us/pdf/DevSvcs/General%20Plan%20Document.pdf • San Bernardino County: http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf • Countywide Plan: http://countywideplan.com/wp-content/uploads/2019/05/CWP_PolicyPlan_PubReviewDraft_20190515.pdf • Community of Muscoy: http://countywideplan.com/wp-content/uploads/2019/05/01_Muscoy_CAG_2019.pdf <p>Vehicle pollution complaint lines for CARB and South Coast AQMD are available as follows:</p> <ul style="list-style-type: none"> • CARB – https://ww2.arb.ca.gov/our-work/programs/environmental-complaints, and (800) END SMOG or (800) 363-7664 • South Coast AQMD – (800) CUT-SMOG or (800) -288-7664 	

Action 3: Utilize Existing Traffic Information and New Technology to Identify Older Trucks for Incentive Programs

<p>Course of Action:</p>
<ul style="list-style-type: none"> • Gather existing traffic information from local authorities and other available databases, implement new technology (e.g. ALPR) to collect useful data on truck traffic, and assess the potential impact of truck emissions near schools and residences <i>[Ask CSC to prioritize specific locations, understanding that there may be some restrictions in terms of where such a system can be placed].</i> • Explore the possibility of using ALPR system along with DMV data to identify trucks that frequently travel through the community that may be older and more polluting than

newer trucks, and contact the owner to provide information about incentive funding programs for truck replacement	
Strategies:	
<ul style="list-style-type: none"> • Monitoring • Incentives • Public Information and Outreach • Collaboration 	
Goals:	
<ul style="list-style-type: none"> • Explore the possibility of using ALPR systems in this community and prioritize locations for deployment based on community input • Once ALPR systems have been deployed, work with City and County to provide information about the overall results • Provide quarterly or biannual updates to the CSC on progress made to collect and use data from these systems [CARB – CSC, please provide input to CARB regarding what it would like CARB to do based on this data] 	
Estimated Timeline:	
<ul style="list-style-type: none"> • 2020, work with CARB and community to prioritize locations for these systems • 2021, begin implementation of ALPR systems at priority community locations, compile data and provide quarterly or biannual updates to the CSC • Once data is available, review data obtained and begin targeted outreach to owners with older dirtier trucks and dirty trucks that frequently travel through this community to provide information on incentive programs 	
Implementing Agency, Organization, Business or Other Entity:	
Name:	Responsibilities:
South Coast AQMD	<ul style="list-style-type: none"> • Work with CSC to explore the feasibility of using ALPR systems and prioritize locations for implementation. Once data are received, provide incentives and targeted outreach to truck owners for incentive programs in this community • Provide updates to the CSC on implementation of the ALPR system
CARB	Continue testing of ALPR systems to improve accuracy. Provide technical assistance to South Coast AQMD to implement these systems.
City of San Bernardino and County of San Bernardino (Muscoy)	Work with South Coast AQMD to obtain necessary approvals to install cameras for ALPR system.
CSC members	Work with South Coast AQMD and CARB to prioritize locations for the ALPR systems.
References:	
For more information regarding the CARB ALPR system:	

Neighborhood Truck Traffic 5-9

- Presentation: <http://www.aqmd.gov/docs/default-source/ab-617-ab-134/steering-committees/san-bernardino/presentation-may-16-2019.pdf>
- CARB's ALPR Privacy and Usage Policy is available at:
https://www.arb.ca.gov/enf/arb_alpr_privacy_usage_policy_050317.pdf
- Facebook Live presentation:
<https://www.facebook.com/southcoastaqmd/videos/1248687388632139/>

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