

## **SECTION 3: IMPLEMENTATION STRATEGIES**

To implement the CAAP, several strategies are being utilized to maximize the reduction of public health risk and criteria pollutant mass emission reductions, and to meet CAAP goals. The implementation approach continues to evolve so that strategies may be added, changed, or superseded based on the accumulated experience as the CAAP moves forward.

This chapter provides a general overview of these implementation strategies. Specific implementation strategies by control measure are detailed in the measure narratives provided in Section 4.

### **3.1 Overview of Implementation Strategies**

Since adoption of the CAAP, the ports evaluated numerous implementation strategies and options. The strategies that have proven to be most effective include:

- Lease Requirements
- Tariff Changes
- Port Funded Incentives
- Grants
- Voluntary Measures and Recognition Programs
- Requirements Imposed by Regulatory Agencies

Each of the above strategies requires sound monitoring, recordkeeping, and reporting. Procedures and recordkeeping requirements are developed to monitor and review participation levels at a frequent interval to determine the effectiveness of the implemented strategy.

#### **3.1.1 Lease Requirements**

##### *Facilities Required by Lease to Meet Emissions Reduction Requirements*

This strategy offers the opportunity for control measures to be negotiated and required in a terminal's lease that would reduce emissions, increase performance on voluntary or incentive-based measures, or require customers to implement specific emission reduction measures.

This opportunity exists for renegotiated, amended, and new leases.

All new significant development projects or modifications to existing facilities require a detailed CEQA and/or NEPA review prior to project approval. Along with these reviews comes an affirmative duty to mitigate significant environmental impacts.

Through the Environmental Impact Review (EIR) process, air emissions and health risk levels are assessed and applicable mitigations included in a project (on a project by project basis).

These mitigations are then incorporated as provisions in any lease or permit for the project.

One benefit of the lease strategy is that placing a requirement in a lease provides a legally binding mechanism for ensuring that the desired action is achieved and provides remedies for noncompliance (because noncompliance would constitute a breach of the lease terms). Another benefit is that, since leases are negotiated on a terminal-by-terminal basis, the mix of requirements can be tailored to terminal-specific considerations. For example, break bulk terminals might be less able to employ shore power (cold ironing) than a container terminal having vessels that call repeatedly throughout the year, so a break bulk terminal's lease may contain an alternative emission reduction requirement. A limitation of this strategy is that all leases have different renewal dates and terms, so the implementation is phased over time as leases come due or are renegotiated. However, all terminals will indeed be considered for renewal so this is a strategy that will reach far beyond the initial five-year CAAP.

Most facility leases are issued for long periods (e.g., 20 years). It is expected that new emission reduction technologies will emerge over the course of a lease and it is important to incorporate these new technologies into tenant operations in order to meet the San Pedro Bay-wide Standards. To achieve this objective, both ports are requiring in new leases a protocol of periodic review of new technologies. At prescribed intervals (e.g., five years for POLB and seven years for POLA), the tenant and responsible port will conduct a comprehensive feasibility review of emission-reduction technologies, assessing cost, technical and operational feasibility. New air quality technological advances that are identified shall be implemented by the tenant, subject to mutual agreement on operational feasibility and cost sharing. If a tenant requests future project changes that would require environmental clearance and a lease amendment, all control technologies deemed by the ports to be feasible, available, and effective at reducing emissions would be incorporated into the new lease terms.

### **3.1.2 Tariff Changes**

#### *Tariffs Changed to Influence Activity*

A port tariff is the published set of rates, charges, rules and regulations for those doing business with a port. Each port publishes its own tariffs. A tariff is generally applicable to all tenants. However, individual operating leases may set requirements to a specific version of the tariff (i.e., later changes don't apply). All potential tariff changes undergo legal evaluation prior to being enacted.

This strategy could be used to implement uniform rules affecting most or all port users. A potential scenario for this strategy could be a tariff item that sets discounted rates to activities that provide an air quality benefit (like discounted dockage for vessel speed reduction). Alternatively, a tariff item might prohibit certain kinds of activities (such as a prohibition from dumping into harbor waters). In general, a tariff could allow more uniform application of resources to customers of a port. However, application of the tariff approach to implementation can only be used in selected instances and, as ordinances, must be developed following specific procedures.

Some of the measures pursued under the CAAP may be under-funded. As a result, the ports are continuously exploring various mechanisms to achieve the goals outlined in the CAAP. One mechanism that could alleviate potential funding shortfalls is the application of impact fees associated with the movement of cargo or sources (i.e., trucks, locomotives, vessels, etc.), which would be applied through a port tariff. Staff is committed to continue to evaluate the use of fees to accelerate emission reductions from all source categories. However, for fees to achieve the desired results, they must be structured appropriately. Outlined below are principles that the ports will consider when crafting any fee with the goal of reducing pollution.

1. The fee should target the source of pollution, not cargo in general, and the fee must be higher for those individual sources that cause the greatest impact, while bypassing those sources that meet clearly defined goals/standards. For instance, a truck that does not meet the tariff requirements of the Clean Truck Program could be assessed a fee based on how old and/or “dirty” that truck was; while a clean truck meeting the requirements could be assessed no fee or a small administrative fee necessary to cover the costs of monitoring compliance. Fees collected should be used to clean up the source that generated the fee (i.e., fees assessed against a “dirty” truck should fund a retrofit or replacement truck). Under the current CTP, starting in the fourth quarter of 2008, the Port of Los Angeles and the Port of Long Beach began collecting a cargo fee of \$35 for each loaded 20-foot container (\$70 for each 40-foot container). The two ports use different criteria to collect the fees. The criteria used are such that they encourage early introduction of cleaner trucks and private investments to replace older trucks with cleaner trucks. No fee is assessed if the cleaner trucks are privately funded.
2. Costs should ultimately be borne by those who benefit from goods movement. To the extent possible, fees should be shifted to the beneficial cargo owners (BCO). Under the CTP, the truck fee is collected from the BCO. Programs similar to the successful PierPass and CTP provide examples of how this can be done.
3. When a specific program achieves its goal, the fee must end. Broad-based fees that have no defined “conclusion” may fail to garner sufficient support to be successful. In addition, they undermine the goals of the program by not rewarding those who achieve the goals. Under the CTP the fees end in 2012 when all trucks meet the USEPA’s 2007+ emissions standards.

These principles establish a framework for the successful use of fees. They ensure success in two ways. First, the program generates the funding necessary to achieve the emission reduction goals. Second, it holds the BCO accountable for their shipping decisions, assessing the externalized costs for more polluting modes of shipping and financially encouraging them to make more environmentally sound shipping decisions. While these principles are not absolute, adherence to them will more likely result in reduced emissions and increase the chances of broad-based support.

### **3.1.3 Port Funded Incentives**

#### *Incentive Funding Targeted Toward Specific Sources to Accelerate Emissions Reductions*

Incentive-based measures provide a business incentive for the participant to reduce emissions beyond what is currently required by regulation or lease requirements. Incentive funding is targeted at “buying” emission reductions ahead of regulation milestones or lease renewals. Incentive funding can come from several sources including the ports, local and state regulatory programs, federal agency programs and grants, or an additional use fee that generates money to be used to incentivize emissions reductions. An incentive based approach makes the adoption of the various strategies cost-neutral for the participant, or provides just enough incentive for a participant to enter the program.

Several of the emission reduction measures implemented by the ports to date have been incentive-based and have utilized port and local/state funds. The advantages of this strategy are that it can accelerate implementation of control measures that will become lease requirements or proposed regulations, and it avoids regulatory authority control issues. The disadvantage is that there is not adequate funding to support all measures, either in the ports’ operating budgets or in regional, state, or federal grant programs.

Examples of successfully implemented incentive-based programs at the ports include: POLB’s Green Flag Program and POLA’s companion incentive program to encourage increasing levels of VSR compliance, and the Vessel Main Engine Fuel Incentive Program to encourage use of low-sulfur fuel in main engines.

### **3.1.4 Grants**

#### *National Clean Diesel Funding Assistance Program, Carl Moyer Program and Air Quality Mitigation Improvement Program*

Grant programs can offer significant encouragement and can be used to spur early action by port operators to move forward with replacement, repower or retrofit projects in advance of regulatory or port requirements. The USEPA, through their National Clean Diesel Funding Assistance Program, has offered funding to local governments, including the ports, for diesel emissions reduction projects. Both ports have been successful in receiving funding from this program on behalf of their port operators for cargo handling equipment and harbor craft projects. The state Carl Moyer Program, dispersed by local air agencies like the SCAQMD, has been available since 1998, to provide grants for early emission reductions from diesel sources. Over the years, Carl Moyer Program funding has been used by port operators to replace, retrofit or repower cargo handling equipment, harbor craft and rail switcher locomotives.

In accordance with the 2004 Amended Stipulated Judgment between the Natural Resources Defense Council *et al.* and the City of Los Angeles, the POLA established the Air Quality Mitigation Incentive Program (AQMIP) and committed \$20 million over five years to pay for air quality mitigation projects that would: (1) reduce DPM and NO<sub>x</sub> emissions from port operations in the communities of San Pedro and Wilmington; or (2) develop emission reduction technologies that may be applied in the San Pedro Bay. Additional funding of approximately \$8 million was deposited into the AQMIP account as a result of container throughput overages at the China Shipping Terminal. To qualify for funding under the AQMIP, projects and/or programs were voluntary and not mandated by law. Since adoption of the CAAP in 2006, over \$14.5 million has been awarded for repower and retrofit of CHE and HC, resulting in an estimated reduction in 610 tons per year of NO<sub>x</sub> and PM combined. Over \$10 million has been awarded for new technology research and development.

### ***3.1.5 Voluntary Measures and Recognition Programs***

#### *Voluntarily Emission Reduction Actions Encouraged*

Voluntary measures are non-compensated actions agreed to and undertaken by operators, and are used or implemented by the participants without legal obligation. There are already many examples of voluntary actions taken by operators that have resulted in a decrease in emissions, including procedural efficiency increases, purchase of new lower-emitting equipment, and use of alternative fuels in equipment. This strategy is generally specific to measures that provide win-win situations for participants, which could include positive public relations press about the programs, regulatory agency or port recognition, environmental awards, etc. A notable example was the decision of Maersk Line to use low sulfur fuel in the engines of its vessels within 24 nm of California ports and while docked, thus paving the way for widespread use of cleaner fuels in vessel main and auxiliary engines and boilers, a highly significant emission reduction measure.

Both ports believe it's important to recognize efforts that go beyond existing federal, state, and local regulations and that meet both ports' definition of a "green" terminal or operation. To that end, the annual Clean Air Action Plan Air Quality Awards was developed to recognize industry efforts to reduce port-related air pollution consistent with CAAP goals. Since development, two awards ceremonies have been held, in 2008 and 2009, and a total of 13 companies received recognition.

### **3.1.6 Requirements Imposed by Regulatory Agencies**

#### *International Treaties, Federal and State Rules and Regulations*

As stated previously, the CAAP was developed by the ports to achieve the near-term emission reductions needed for the local communities and the region. Eventually, these local requirements should be overtaken by regulations from state, federal or international regulatory agencies, in order to level the playing field and minimize any competitive disadvantage experienced by operators doing business in the San Pedro Bay. Since the CAAP was adopted, several regulations have been promulgated that support the CAAP measures, including CARB's cargo handling equipment and vessel low sulfur fuel regulations. The ports work very closely with the regulatory agencies and will continue to provide comments and input into the regulatory process to ensure that regulatory requirements will be effective at reducing emissions and appropriate for port operations.

### **3.2 Implementation**

All control measures and implementation strategies are subject to ongoing legal analysis by the City Attorneys of the two ports. Encouragement of voluntary efforts and the recognition program strategy will be implemented as part of the CAAP independent of which additional strategies are used to implement the various measures.

As stated above, the ports have found that the most effective combination of implementation strategies includes a mix of lease requirements, tariff changes, incentives, grants, and voluntary efforts with an ultimate backstop of regulatory requirements. This combination provides redundancy in implementing the Source Specific Performance Standards should any one of the other specific strategies fail to be applied.

Tariff changes offer an opportunity to affect a broader range of tenants but have potential implementation issues. Lease requirements may be able to go further than tariffs, but requirements can generally only be negotiated when the lease is reopened, such as when:

- A redevelopment of an existing terminal results in the opening of a lease and a CEQA review
- A new lease is sought
- An existing lease comes up for renewal

Therefore, renegotiation of leases continues to be a key component in forecasting opportunities for implementation of CAAP control measures.

Table 3.1 presents the Port of Los Angeles' currently anticipated upcoming Board action dates related to Environmental Impact Reports and/or lease actions.

**Table 3.1: POLA Leases Status**

Land Use	Grantee	Anticipated Board Action
Container	POLA Container Terminal (berths 206-209)	After 2013
Container	Eagle Marine Services, Ltd.	4th Quarter of 2010
Container	APM Terminals Pacific, Ltd	After 2013
Container	China Shipping Holding Company, Ltd.	2nd Quarter of 2010
Container	Evergreen Marine Corporation, LTD.	After 2013
Container	TraPac	Completed
Container	Yang Ming Marine Transport Corporation, Ltd.	After 2013
Container	Yusen Terminals Inc.	After 2013
Passengers	Pacific Cruise Ship Terminals, LLC	2nd Quarter of 2010
Automobile	WWL	4th Quarter of 2011
General Cargo	Rio Doce Pasha Terminal, L.P. (berths 174-181)	After 2013
General Cargo	Stevedoring Services of America (berths 54-55)	After 2013
Dry Bulk	SA Recycling	After 2013
Dry Bulk	Former Los Angeles Export Terminal Corporation	After 2013
Liquid Bulk	Equilon (berths 167-169)	Not in 5 Yr Period
Liquid Bulk	Exxon Mobil Corporation (berths 238-240)	Not in 5 Yr Period
Liquid Bulk	Pacific Energy Marine Oil (pier 400)	2nd Quarter of 2010
Liquid Bulk	ConocoPhillips (berths 148-151)	Not in 5 Yr Period
Liquid Bulk	Ultramar Inc. (berth 164)	After 2013
Liquid Bulk	Vopak (berths 187-191)	Not in 5 Yr Period
Liquid Bulk	Former Westway Terminal Company, Inc. (berths 70-71)	After 2013
Liquid Bulk	GATX Tank Storage (berths 118-119)	After 2013
Liquid Bulk	Amerigas (berth 120)	After 2013
Liquid Bulk	Valero (berth 163)	Not in 5 Yr Period
Rail Yard	ICTF/JPA	After 2013

Table 3.2 presents the Port of Long Beach's currently anticipated upcoming Board action dates related to Environmental Impact Reports and/or lease actions.

**Table 3.2: POLB Leases Status**

Land Use	Grantee	Anticipated Board Action
Container	PCT	1st Quarter 2022
Container	SSAT - Pier C	Complete
Container	SSAT Long Beach - Pier A	4th Quarter 2027
Container	TTI	3rd Quarter 2027
Container	CUT (Middle Harbor)	Complete
Container	LBCT (Middle Harbor)	Complete
Container	ITS	Complete
Container	Pier S	1st Quarter 2013
Auto	Toyota	1st Quarter 2010
Break Bulk	Cooper/T. Smith	3rd Quarter 2010
Break Bulk	Crescent Terminals	1st Quarter 2017
Break Bulk	Fremont	1st Quarter 2036
Break Bulk	Crescent Warehouse	3rd Quarter 2009
Break Bulk	Pacific Coast Recycling	1st Quarter 2020
Break Bulk	Weyerhaeuser	1st Quarter 2011
Dry Bulk	BP West Coast Products	Not in 5 yr period
Dry Bulk	CEMEX Pacific Coast Cement	3rd Quarter 2021
Dry Bulk	Koch Carbon	4th Quarter 2027
Dry Bulk	MCC (Mitsubishi)	2nd Quarter 2022
Dry Bulk	Metropolitan Stevedore	1st Quarter 2016
Dry Bulk	Morton	4th Quarter 2010
Dry Bulk	NGC	4th Quarter 2024
Dry Bulk	Oxbow (East)	4th Quarter 2019
Dry Bulk	Oxbow (Pad 14)	2nd Quarter 2021
Dry Bulk	Oxbow (South)	2nd Quarter 2021
Dry Bulk	Oxbow (West)	4th Quarter 2027
Other	Sea Launch	1st Quarter 2013
Liquid Bulk	BP/ARCO	2nd Quarter 2023
Liquid Bulk	ATSC	4th Quarter 2014
Liquid Bulk	Chemoil	1st Quarter 2010
Liquid Bulk	Tosoro	1st Quarter of 2010
Liquid Bulk	Petro-Diamond	4th Quarter 2022

### 3.3 Tracking and Monitoring

To track, monitor, and demonstrate the progress of the CAAP, both ports enhanced their monitoring programs to encompass the breadth of actions encompassed in the CAAP. These include:

- A comprehensive expansion of the port-wide real-time air monitoring network to improve continued monitoring of actual air pollution concentrations in and around the two-port area.
- Updating port-wide air emissions inventories annually to track control measure compliance and emission reductions from the 2005 baseline year.
- The development and tracking of the San Pedro Bay Standard, which establishes long term goals for health risk and emission reductions, including development of a comprehensive emissions forecast and a port-wide health risk assessment in coordination with USEPA, CARB and SCAQMD, using the latest health risk assessment estimates.
- Tracking CAAP progress on implementation of programs and associated expenditures for each port.
- Reporting on overall progress of the CAAP to each port's Board annually and additionally as required.
- Posting progress reports prepared for each port's Board on the CAAP website.

Progress related to each of the source specific standards is tracked and monitored to determine CAAP implementation progress. Regular updates to each port's Board are made on the various elements of the program. Upgrades to the emissions inventory and implementation databases were completed in order to facilitate regular monitoring and updating of the Boards and public. The CAAP website<sup>17</sup> provides the public the status of the implementation progress, links to the ports' Annual Emissions Inventories, and other key elements including what is happening in the Technology Advancement Program. This website is also a clearinghouse for CAAP related documents, fact sheets, schedules, and provides links to Board meeting schedules and agendas.

For further specific details on monitoring and tracking on a per measure basis, are presented in Section 5.

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<sup>17</sup> [www.cleanairactionplan.org](http://www.cleanairactionplan.org)

### **3.4 Integration of New Technologies into Existing Operations**

New emission reduction technologies are constantly emerging. The Technology Advancement Program (see Section 4.7) seeks to support development of these new technologies in the port environment. Technologies available today can be incorporated into terminal leases as they are renegotiated or amended and at technology review milestones in recently approved leases. However, there may be opportunities to require or incentivize tenants to adopt these technologies through tariffs (i.e., requirements and/or fees), incentives or other mechanisms.

The ports will continue to work to identify and implement mechanisms to ensure implementation of needed control technologies that are identified through the Technology Advancement Program after execution of long-term leases. The technology review condition in new leases will allow the ports and the terminal operators an opportunity to identify how to incorporate these new technologies into existing operations prior to the end of the lease term. The ports will also consider fee mechanisms under the framework identified in Section 3.1 above. Under this structure, operations which have already adopted the new technologies would be exempt from the fee.

Through the Technology Advancement Program, staff will develop technical information detailing the status of various emissions control technologies, and make that information available on the CAAP website. This information will contain details such as links for verification status of various emissions control devices and results of demonstration of alternatively fueled equipment or other new technologies aimed at reducing emissions.

New technologies identified through this process would be evaluated for integration into existing operations based on the mechanisms identified by the ports described above.

