



Air Pollution Control Board

Greg Cox	District 1
Dianne Jacob	District 2
Pam Slater-Price	District 3
Ron Roberts	District 4
Bill Horn	District 5

December 14, 2007

Mr. Douglas Ito, Manager
Goods Movement Strategies Section
California Air Resources Board
P.O. 2815
1001 I Street
Sacramento, CA 95812

Dear Mr. Ito:

Attached is the San Diego/Border Region's Proposal for Early Grant funding from the Proposition 1B Goods Movement Emission Reduction Program. This proposal represents a collaboration of several entities in the San Diego/Border Region: San Diego County Air Pollution Control District; San Diego Association of Governments; Port of San Diego, San Diego County Regional Airport Authority; Imperial County Air Pollution Control District; and Imperial Valley Association of Governments.

If you have any questions on this proposal, please contact Chuck Spagnola, Program Coordinator, at (858) 586-2643.

Sincerely,

ROSA MARIA S. ABREU, Assistant Director
Air Pollution Control District

RMA:CS:nt

Attachment



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PROPOSAL
GOODS MOVEMENT EMISSION REDUCTION PROGRAM

SUBMITTED BY
SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT
FOR THE SAN DIEGO/BORDER REGION

IN PARTNERSHIP WITH

SAN DIEGO ASSOCIATION OF GOVERNMENTS
PORT OF SAN DIEGO
SAN DIEGO REGIONAL AIRPORT AUTHORITY
IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT
IMPERIAL VALLEY ASSOCIATION OF GOVERNMENTS

DECEMBER 7, 2007

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San Diego/Border Region Proposal Goods Movement Emission Reduction Program

Summary

The San Diego Association of Governments (SANDAG), Port of San Diego (Port), San Diego County Regional Airport Authority, Imperial County Air Pollution Control District (Imperial County APCD), and the Imperial Valley Association of Governments (IVAG) collectively known as the Partners in the San Diego/Border Region (Border Region) are pleased to submit this proposal to the California Air Resources Board (ARB) seeking funds for emission reduction projects as part of the Goods Movement Emission Reduction Program (GMERP) on behalf of all goods movement-related operators in the corridor.

Overview of the Border Region

The San Diego/Border Region represents nearly the entire southern border of the state, encompassing all of San Diego and a large portion of Imperial County and the Consolidated Port of San Diego. The San Diego/Border Region has a number of international land ports of entry (POE); however, only two are identified in the Goods Movement Action Plan for goods movement purposes. In San Diego, it is the Otay Mesa crossing, while in the Imperial County, it is Calexico East. Goods movement across the California-Mexico border is dominated by trucks. The Otay Mesa POE is the busiest commercial POE in California and also handles the second largest volume of trucks among all POEs in the southern border. In 2006, nearly 1.5 million trucks crossed at this POE in both directions. The Calexico East POE is the second largest POE in California and accommodated more than 610,000 trucks in both directions in 2006. Once across the border, those trucks may either continue on to destinations throughout the state and other states or will go to a transfer point within the border 20-mile trade zone. This second group operates mostly like port drayage trucks making short trips across the border dropping cargo and returning across the border. Cargo that is delivered to the transfer center is loaded across the dock to another truck that completes the journey.

The San Diego/Border Region also includes a sea port, the Port of San Diego. The Port's primary goods movement is through its two marine terminals: the Tenth-Avenue Marine Terminal (TAMT) in Barrio Logan in the City of San Diego and the National City Marine Terminal which is adjacent to the community of Old Town National City. Major types of cargo at the National City Marine Terminal include cars and lumber. At the Tenth-Avenue Marine Terminal, ships unload fruit, fertilizer, soda ash and sand, newsprint, and energy-generating windmills. The Port of San Diego cargo tonnage has nearly tripled in the past 15 years growing from 1.2 million tons and 10,000 containers to 3.5 million tons and over 100,000 containers. The San Diego/Border Region also includes an airport, Lindbergh Field operated by the San Diego Regional Airport Authority. It is the primary destination for international and domestic passenger and cargo flights into the Border Region.

San Diego Air Quality and Health Impacts

San Diego County is in attainment of all of the National Ambient Air Quality Standards except the 8-hour ozone standard. However, the County is a non-attainment area for the California 1-hour ozone, 8-hour ozone, annual PM_{2.5}, and annual PM₁₀ California Ambient Air Quality Standards.

San Diego/Border Region Proposal Goods Movement Emission Reduction Program

Most criteria pollutants in San Diego are emitted from mobile sources which include cars, ships, trains, and cargo handling equipment. Attainment of ambient air quality standards is a regional effort and many regional emissions sources impact air quality.

Air quality and health impacts have been estimated by the San Diego Air Pollution Control District (SDAPCD) and ARB from current and historical ambient air monitoring data at two locations in the San Diego area. In addition, the ARB Community Health Study characterized the health risks from a single monitoring location in the Barrio Logan neighborhood near the Port's TAMT over a seventeen month period from October 1999 to February 2001. This study, designed by ARB in conjunction with SDAPCD and the Environmental Health Coalition (EHC), evaluated health risks from monitoring data and air dispersion modeling of local emission sources (e.g., local facilities, shipyards, and vehicles on roadways). Based on the monitoring data, air dispersion modeling results, and information from the 2001 California Almanac of Emissions and Air Quality, most of the risk from air toxics in the Barrio Logan area is due to diesel particulate matter.

In order to evaluate the relative magnitude of health risks due to air pollution in the San Diego area, the average cancer risk in the San Diego area was compared to the average cancer risk in other major urban areas of California. The average cancer risk due to air pollution in San Diego County (612 in one million) was significantly lower than the average cancer risk in the Los Angeles Basin (995 in one million), approximately the same as the cancer risk in the San Francisco Bay Area (619 in one million), and higher than the cancer risk in Sacramento (494 in one million).

Imperial County Air Quality and Health Impacts

Imperial County is in attainment of all of the National Ambient Air Quality Standards except the 8-hour ozone and the PM 10 standards. Under the California Ambient Air Quality Standards, Imperial County is a non-attainment area for the California 1-hour ozone, 8-hour ozone, 24-hour PM 10, and 24-hour PM 2.5 (Calexico only) standards. Most criteria pollutants in Imperial County are emitted from mobile sources which include cars, trains, cargo handling equipment, and fugitive windblown dust. Attainment of ambient air quality standards is a regional effort and many regional emissions impact air quality.

Imperial County has one of the states highest asthma rates. Cancer and health risks associated with air pollution are a major concern of all residents and health-related agencies in Imperial County. The Southern California Ozone Study (SCOS) identified Imperial County as being heavily impacted by transport of air pollutants from the South Coast Air District and from Mexico.

Imperial County has three International ports of entry with Mexico. The border city of Calexico in Imperial County has an International port of entry located in the center of this city. Mobile emissions from these three International ports contribute considerably to the poor air quality in Imperial County. These International ports of entry are considered a vital access and trade corridor with Mexico.

**San Diego/Border Region Proposal
Goods Movement Emission Reduction Program**

Project Types

The Border Region is impacted by all the modes of goods transport: truck, marine, rail, and air. For the purpose of the Early Grant Proposal, however, the Border Region proposes to focus on reducing emissions from truck activity by proposing a program for retrofitting and/or replacing trucks. The Partners believe such a truck-focused program can produce the largest return for each dollar invested, be implemented quickly, and be expanded into a larger retrofit/repower/replacement program for trucks, harbor craft, and locomotives overtime.

Highway Corridors in the Border Region

The proposed program will primarily affect several interstate highways including I-5, I-8, I-15, I-805, and state routes including SR-94, SR-125, SR-905, and the future SR-11 in San Diego County and the I-8, SR-7, SR-78, SR-86, and SR-111 in Imperial County. Both the I-5 and I-15 from San Diego County extend into and through the Los Angeles/Inland Empire Corridor, I-5 extends beyond into the Central Valley Region, and SR-86 in Imperial County connects with the I-10 into the Los Angeles/Inland Empire. Additionally, the impacted local roads serving the Port of San Diego include Tenth-Avenue Marine Terminal Overpass, Cesar Chavez Parkway, Harbor Drive, and the 32nd Street/Harbor Drive overpass.

Costs

Based on a preliminary estimate that will be detailed later in the proposal, the cost of the Border Regions Early Grant Proposal will be \$5,227,500, including matching funds and administrative costs. The Partners believe this proposal will have a significant impact on air emissions from trucks within the Border Region and have designed the program so that it can be successfully implemented if more or less funding is awarded by ARB. A significant amount of outreach is planned as part of the Early Grant program. This outreach will not only inform truckers and other potential contractors as to the funding program but also help to educate them on upcoming ARB rules that will affect them and how the funding program can assist them in meeting those rules. The Partners believe this outreach program is such an integral element of the program that we request ARB consider costs related to the outreach as matching funds.

Implementation Schedule

In order to facilitate implementation of the Early Grant Program the Partners have already begun discussions with potential applicants. This outreach will continue throughout the program and, in addition to educating truckers about the program, it will also educate them about upcoming regulations, including the on-road, in-use rule. Based on a preliminary estimate of commitment, the following timeline is anticipated.

<u>Date</u>	<u>Milestone</u>
January 24, 2008	Funding Award
February 2008	SDAPCD Board Accepts Funds

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March 2008	Request for Proposals issued
April 2008	Sign contracts with truckers and begin installations
June 30, 2008	All contracts signed. 80% installations complete
December 31, 2008	All installations complete

The Partners are confident that contracts for all of the funding can be executed by the June 30, 2008, date and that a number of the retrofit installations and replacements can be completed by that time. This is possible due to the early outreach work that is currently being done and the experience of SDAPCD staff and others working on truck projects at the border and throughout the corridor.

**SAN DIEGO/BORDER REGION
GOODS MOVEMENT EMISSION REDUCTION PROGRAM
EARLY GRANT PROPOSAL**

The San Diego/Border Region (Border Region) encompasses the entire southern border of San Diego County and the majority of the southern border of Imperial County (Calexico East Port of Entry westward). These two counties contain the only land-based international Ports of Entry (POE) in California. While many border crossings exist, only two are identified as specifically relating to goods movement: Otay Mesa in San Diego County and Calexico East in Imperial County. Additionally, The Port of San Diego (Port) is the fifth largest seaport in the state and accounts for nearly 3.5 million tons of cargo and over 100,000 containers per year. Finally, Lindbergh Field, operated by the San Diego Regional Airport Authority is the primary destination for international and domestic passenger and cargo flights into the Border Region.

Trade flows into California through the two POEs and the seaport and then onto the transportation network. The primary routes through the Border Region are Interstate-5 (I-5) and I-15 in San Diego and State Route (SR) 86 in Imperial County. Within the region, these routes are accessed and interconnected by I-8, I-805, SR-94, SR-125, and SR-905, and the future SR-11 in San Diego County and I-8, SR-7, SR-78, and SR-111 in Imperial County. This entire network is impacted by goods movement.

Impacted Communities

While all the highways and communities adjacent to them are impacted by goods movement-related emissions in the Border Region, two in particular have been identified as impacted. They are Barrio Logan in the City of San Diego which is bordered on the West by the Port's Tenth-Avenue Marine Terminal and the Burlington Northern and Santa Fe (BNSF) rail yard and on the East by I-5 (and has been identified as a Federal Environmental Justice area) and more recently the Old Town neighborhood in National City which is east of the Port's 28th Street Terminal, the San Diego and Imperial Valley short line railroad and I-5.

Outreach

The Partners believe outreach must be a significant component of the proposed program and that an effective outreach and education program is pivotal to a successful Goods Movement Emission Reduction Program (GMERP) in the Border Region. Bilingual outreach and education is necessary not only to inform the regional carriers about the opportunities provided by the program but also the requirements of the upcoming on-road, in-use fleet rule and how this proposed program can assist them. To that end, the Port has been in contact with its tenants and has entered an ongoing dialogue regarding the issues. Preliminary contact has been made with Caltrans regarding coordination with the California Highway Patrol to utilize the three weight stations in the Border Region: San Onofre (I-5), Rainbow Valley (I-15), and Calexico East (SR-7) to provide targeted information to truckers on both the proposed program and the impending rule change.

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Early Grant Proposal**

The Partners also anticipate an education campaign to be developed with the receiving warehouses within the 20 mile zone north of the border where Mexican truckers must drop their northbound loads. The warehousing network in the 20 mile zones can serve as information and education conduit to the California-based truck operators who move cross border goods on to final destinations. These secondary truck carriers are more likely to qualify for the GMERP retrofits and are also more likely to supply the necessary matching funds.

Heavy-duty truck dealer networks are also being considered as an information source to inform fleets about truck replacement projects; presentations will be made to dealers, industry groups, and retrofit vendors. SDAPCD has an ongoing outreach program at the border to support its U.S. Environmental Protection Agency (EPA) funded demonstration program retrofitting Mexican trucks. That outreach effort, conducted by bilingual staff, will be expanded to attempt to capture those California-based trucks that pick up cargo from Mexican drayage trucks at distribution centers in the Otay Mesa area and move the cargo north.

Target Equipment

Eligibility of equipment to be funded through the program will be based on the equipment project information tables in the staff draft concept paper or as modified by ARB. This initial phase of the program is proposed to target the trucking sector for retrofits and replacements only. However, the Partners are flexible and the program can be modified as necessary. The number of vehicles targeted is based on inventories and preliminary discussions with the partners and warehouse and fleet operators. These early discussions resulted in 330 trucks targeted for the program with 310 retrofits and 20 replacements. As more detailed information about the individual truck operations is gathered during the outreach and education effort, the number of retrofits/replacements may change; however, the Partners are committed to maximize the emission reductions obtained from the funds granted.

Port of San Diego

The Port is currently proactively developing a Clean Air Plan (CAP) and is actively in discussions with its tenants to identify emission reduction opportunities. A key stakeholder group working with the Port in the development of the CAP is the EHC. EHC is a community group dedicated to representing the interests of low income and people of color. In San Diego, EHC's efforts are focused on the Barrio Logan Community which abuts the Port's TAMT and Burlington Northern and Santa Fe (BNSF) rail yard on the West and the I-5 freeway on the East, a major goods movement artery through San Diego. Several Port operations include short-haul truck routes from the marine terminals to local destinations that have been identified as good candidates for the early grant proposal. For example:

- bulk sand and cement are hauled to local cement batch plants,
- bulk fertilizer is hauled to nearby warehouses and to Southern California agricultural facilities,
- newsprint is hauled to nearby newspaper printing press facilities.

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The economics of these short-haul routes attracts trucks near the end of their useful life. This is reflected in the age of this truck fleet.

Pre-1995	20 trucks	120,000 annual miles
1995-2006	40 trucks	120,000 annual miles

The trucks' age combined with their frequent cycling, as many as four times per day, exacerbates their impact on the community surrounding the port. Efforts have been made to reduce this impact with truck routing changes. However, the replacement of the short-haul truck fleet is needed to reduce the air pollution impact on this sensitive residential community surrounding the marine terminal.

Airport Authority

The airport has a robust cargo operation that is growing. The Environmental Impact Report (EIR) for the Airport Master Plan projects nearly 300 percent growth in cargo-related ground traffic over the next fifteen years. National carriers United Parcel Service (UPS) and Federal Express (FedEx), as well as the U.S. Postal Service, operate at the airport. These firms have participated in advanced technology demonstrations at previous locations and the airport is looking forward to their cooperation. Since these trucks are relatively new, retrofitting is the most likely approach; however, the airport is expanding and developing a Master Plan in which alternative fuels are being actively considered. Consequently, retrofitting to natural gas is a possibility.

1995-2006	20 Trucks	100,000 annual miles
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Border

The border-related trucks are the most restricted within the GMERP. The Draft Concepts prohibit funding of trucks crossing the border so the Border Region partners must identify those trucks that pick up the goods from the cross-border trucks and complete the journey; therefore, the outreach and education efforts must be undertaken on several fronts. The Partners believe that a special outreach and education focus at the California Highway Patrol Stations and at the warehousing operations in the 20-mile zone may be the most productive sites to promote the benefits of the GMER Program especially for the North American Free Trade Agreement cargo moving through the San Diego/Border Region.

Estimates are that 3,500 northbound trucks cross the border each day in the Border Region. If each of those trucks has a U.S. counterpart, then the inventory of border-related trucks is 3,500 but the net inventory of truck operators who a) qualify for GMERP benefits, and b) will be financially able to supply the matching funds for GMERP subsidized retrofits is far smaller. Using the experience and contacts developed from the EPA Retrofit Demonstration Project, these fleets are being identified and outreach has begun. However, based on that same experience, these fleets tend to be very conservative and lack resources so a conservative estimate of participating vehicles is presented, all of which are assumed to be retrofits.

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Bond Funds	\$2,550,000
Match Funds	\$2,550,000
Admin Funds (5%)	\$ 127,500
 Program Total	 \$5,227,500

Matching funds will be obtained from several sources. The Port has identified several options for providing matching funds for truck retrofits and replacements from the Port's operating revenues and resources. SDAPCD anticipates receiving approximately \$200,000 in EPA border funds that may be eligible for use in matching. Imperial County APCD has vehicle registration fees that may be used and the Airport can consider funding within the scope of its Master Plan. Any remaining match will be provided by fleet management firms or by the truck operators themselves.

Schedule

<u>Date</u>	<u>Milestone</u>
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February 2008	SDAPCD Board Accepts Funds
March 2008	Request for Proposals issued
April 2008	Sign contracts with truckers begin installations
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December 31, 2008	All installations complete

Implementation

As primary sponsor of this Early Grant Proposal, SDAPCD will act as the program administrator. Contracts will be established with appropriate entities for each aspect of the regional program. As an example for the Port truck program, funds will be distributed to the Port through a contract with APCD. The Imperial County APCD is anticipated to be the conduit for funds. To ensure successful implementation, the funded entity will then establish contracts with truck owners servicing the marine terminals. Contracts will stipulate that all retrofitted or replaced trucks will commit to service for a specified time period. Additional provisions in these contracts may include installation of a vehicle tracking device, application of a clean air decal, annual updates on insurance and registration, and proof of proper maintenance.

In the case of the Port, it is in the process of developing a CAP that will provide a framework for the Port's commitment to reducing Port-related air emissions. The Port's development of a CAP indicates its willingness and ability to take an aggressive stance on reducing air emissions and implement an early grant project. Information collected as part of the CAP process on emission sources and emission reduction control measures is directly related to the proposed truck retrofit/replacement program. Work conducted to date on the CAP has quantified emissions generated by Port trucks and identified trucks eligible for replacement and/or retrofit. In

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Early Grant Proposal**

addition, discussions with Port tenants have already occurred as part of this process. The importance of the proposed truck retrofit/replacement program has also been identified by the CAP Stakeholder Work Group, as many port trucks travel through or adjacent to impacted communities including Barrio Logan within the City of San Diego and Old Town National City.

Project Selection

The Border Region would utilize an approach reflective of the criteria identified in Senate Bill 88 to rank and select among competing proposals. Such criteria include:

- (1) The magnitude of the emission reduction.
- (2) The public health benefits of the emission reduction.
- (3) The cost-effectiveness and sustainability of the emissions reductions.
- (4) The severity and magnitude of the source of emissions contributions to emissions.
- (5) Regulatory and State Implementation Plan requirements and the degree of surplus emissions to be reduced.
- (6) The reduction in greenhouse gases, consistent with and supportive of emission reduction goals, consistent with existing law.
- (7) The extent to which advanced emission reduction technologies are to be used.
- (8) The degree to which funds are leveraged from other sources.
- (9) The degree to which the project reduces air pollutants or air contaminants in furtherance of achieving state and federal ambient air quality standards and reducing toxic air contaminants.
- (10) The total emission reductions a project would achieve over its lifetime per state dollar invested.
- (11) Whether an emissions reduction is likely to occur in a location where emissions sources in the area expose individuals and population groups to elevated emissions that result in adverse health effects and contribute to cumulative human exposures to pollution.