CAPCOA

CALIFORNIA AIR POLLUTION CONTROL OFFICER'S ASSOCIATION

CALIFORNIA AIR POLLUTION CONTROL OFFICERS ASSOCIATION

RELATIONSHIP BETWEEN AIR DISTRICTS' PROGRAMS AND AB 32:

Maximizing Efficiency and Minimizing Cost

May 2007

(Approved for Release by the CAPCOA Board of Directors, May 10, 2007)

INTRODUCTION

The purpose of this document is to show the efficiencies that can be realized by using air districts' expertise in the implementation of AB 32 as it relates to stationary sources. The absence of air district involvement will likely result in increased costs to public agencies and private companies and lead to confusion and delays. CAPCOA sees the importance of successful implementation of AB 32 for the state, the nation, and the globe and believes that air district partnership with the California Air Resources Board is the most efficient and effective approach.

Stationary sources of air pollution are currently regulated by the 35 California air districts. The current goals of the regulatory programs are to meet state and federal health-based ambient air quality standards for criteria pollutants (e.g. ground-level ozone, particulate matter), to reduce exposure to toxic air contaminants, and to reduce public nuisance conditions. Adding a goal to reduce pollutants that contribute to global warming is complementary to the air districts' existing goals. The air districts currently have extensive regulatory programs in place to meet the existing goals, including but not limited to, emission inventories, permitting, and enforcement. Adding greenhouse gas emissions to this existing regulatory program structure is efficient and effective.

The stationary sources likely to be regulated by the California Air Resources Board as sources of greenhouse gases are sources the air districts already regulate to control other pollutants. For example, major sources of greenhouse gases are often sources of oxides of nitrogen, an ozone and particulate matter precursor pollutant that fall under the air districts' current regulatory programs. Over 300 facilities are likely to be subject to ARB's initial greenhouse gas regulations as well as air districts' regulatory programs. For these facilities, the air districts conducted approximately 7000 inspections and took 2400 enforcement actions during 2004 – 2006 (see Attachment A). Only the air districts have the field staff needed to conduct field verification, which is essential to the implementation of a credible program. Local air districts have the regulatory infrastructure in place to effectively and efficiently regulate stationary sources of greenhouse gases, and can provide an efficient means of implementing AB 32 for stationary sources.

The following sections provide more detail on the air districts' current permitting and inventory programs and discuss the similarities between existing air district programs and the programs needed to reduce greenhouse gases. Also discussed is the issue of duplicative regulatory systems.

DESCRIPTION OF EXISTING AIR DISTRICT PROGRAMS

AIR QUALITY PERMITS

Air quality agencies in California issue, and annually renew, air quality permits for equipment that emits air pollutants or equipment used to reduce air pollution. Both large and small businesses may be required to obtain an air quality permit. Typical large businesses that hold permits include oil refineries, power plants, landfills, oil and gas distribution/production facilities, cement manufacturing facilities, and agricultural sources. Typical small businesses include dry cleaners, gasoline service stations, auto body shops, coating operations, printers, and facilities with boilers or back-up generators.

Air quality permits serve as a repository for local, state and federal requirements. They are documents that state the requirements under which equipment or a process is allowed to operate. The requirements ensure compliance with all applicable air pollution laws and regulations. California air quality agencies typically require two types of permits:

- Authority to Construct – Obtained before building or installing a new emissions unit or modifying an existing emissions unit that requires a permit. The Authority to Construct is granted after fully evaluating the application and determining that the project, as conditionally approved, will meet all applicable requirements.

- Permit to Operate – Issued after all work is completed and there is verification that the equipment has been constructed, installed or modified as proposed and in accordance with the Authority to Construct. An inspection and testing verifies that the equipment is capable of operating in compliance with all applicable rules and regulations.

ON-GOING COMPLIANCE VERIFICATION

All facilities that hold a Permit to Operate are inspected periodically by air district staff to verify compliance with all applicable requirements. When deviations are found, air district officials take the measures necessary to ensure that the deviation is corrected and to discourage its reoccurrence.

EMISSIONS INVENTORY

Local air districts have decades of experience preparing instructions, forms, and databases to support collection of criteria and toxic pollutant data. This is done through computer programs developed at the local district level or through standardized state reporting programs. It would be more efficient to use the existing reporting system than to create a new, duplicative system.

Emissions data for stationary sources are submitted to ARB in a standardized format via the California Emission Inventory Development and Reporting System (CEIDARS). This enables the collection of statewide inventory data from permitted facilities. However, if ARB creates a new reporting system for GHGs, the air districts have the expertise to learn and implement the new system. The inventory reporting relationship between ARB and the air districts and the reporting systems employed have evolved over time and can continue to evolve.

SIMILARITIES BETWEEN EXISTING AIR QUALITY PROGRAMS AND AB 32

Air districts have the expertise and experience necessary to ensure that emission reductions are real, permanent and quantifiable, and that data collection and reporting is enforceable. The sections below describe the robust and comprehensive infrastructure that already exists within the local air quality districts and which can be used to implement AB 32 with minimal disruption to existing programs.

Local Emissions Inventory Programs

1. Data Collection:
   ARB requires each district to annually survey and develop an emissions inventory for all sources that emit 10 tons per year or more of any criteria pollutant, with sources under 10 tons/year required to report their emissions every 3 years. Many districts require annual reporting for all sources. Facilities in the Air Toxics "Hot Spots" Program are required to report all the above criteria, ozone depleting pollutants and all AB2588 toxics (171 compounds) once every four years. Some districts have more restrictive reporting thresholds, depending on the severity of the local air quality problem; for instance, the SCAQMD requires sources that emit 4 tons or more of most criteria pollutants to annually report their emissions.

   Tens of thousands of facilities are currently reporting annual emissions data to local districts, including the largest pollution sources in the state and those likely to be included in any mandatory GHG inventory process. Such data already includes the same process and throughput data needed to calculate GHG emissions, such as fuel use.

2. Quality Assurance/Quality Control (QA/QC) and Audit Procedures:
   Some or all of the data submitted is subjected, depending on the district, to a rigorous QA/QC program that entails an engineering review of the reported emissions parameters using in-house tools (e.g., permitting database, inspection and/or rule compliance reports, hearing board variance records, accounts receivable), contacting the facility for further information, evaluating the veracity of the reported usage/throughput and emissions, reviewing all supporting documentation (i.e., Material Safety Data Sheets (MSDS), waste manifests,

An effective GHG Cap-and-Trade Program has a similar objective – to attain a pre-designed emissions level – and it will use similar tools to achieve this goal.

2. Emission Reduction Credits (ERCs):
ERCs can be generated from a process change, an addition of control equipment, or from an equipment or facility shutdown. ERCs are granted only after verifying that the claimed emission reductions are real, quantifiable, permanent, and surplus to emission reductions required to attain air quality standards. Existing programs track and analyze the generation, use, availability and cost of ERCs.

An effective GHG Cap-and-Trade Program will include an emission reduction accounting and verification system similar to the system currently in use by the air districts.

ISSUES WITH DUPLICATIVE SYSTEMS

As described above, the expertise and infrastructure necessary to implement many of the elements in AB32 already exist within the local air districts. If AB32 is implemented at the state level without giving consideration to existing local programs or the expertise already in place, the following problems may arise:

- **Time** – Developing a reporting system for Greenhouse Gas reporting will take significant time to develop. Local districts can effectively modify existing systems to include combustion-related GHG emissions. If desired, air districts could add mobile sources and electricity use.
- **Money** - It will be much less expensive to augment the existing inventory collection process than to develop a new system. Facilities will save money by avoiding duplicative reporting of combustion sources. It will be much less expensive for facilities to add processes and pollutants within the existing mechanism. Local districts can effectively modify existing systems to include combustion-related GHG emissions, and if desired could add mobile sources and electricity use.
- **Conflicting Data** – There will inevitably be differences in reporting for combustion equipment if facilities report the same data to local districts and ARB or another entity.
- **Permits** – Duplicative permitting systems are confusing and costly for both industry and regulators. To introduce an additional permit process for GHGs at the state level will add confusion. Without a proper and comprehensive evaluation, it will be very difficult to determine which changes at a facility may affect pollutants regulated by the local air districts, which may affect pollutants regulated by the state, and which may affect pollutants regulated by both. Additional care will be necessary to ensure that facilities do not commence modifications after receiving approval from one air quality agency when approval from another air quality agency is also required.

source test reports, invoices, etc), and ensuring compliance through field verification.

The expertise and infrastructure already in place at the local level will be of great help in the implementation of AB32.

3. Data Submittal to ARB and US EPA:
After the reported emissions are updated, the data is submitted to ARB in a specified format by facility, by equipment, and/or process. ARB loads the data into the California Emission Inventory Development and Reporting System (CEIDARS), a database that stores the statewide criteria pollutant and air toxic emission inventory. ARB then converts the data to the National Inventory Format (NIF) before submitting the information to U.S. EPA.

4. Reconciliation of Top-Down and Bottom-up Inventories:
One of ARB's challenges will be to ensure that the 1990 emissions inventory, which will become the 2020 emission level, is as robust as possible. This inventory will be built from the top down using available information for major sectors of the inventory as a whole. Facility-specific inventories are built from the bottom up, using very specific information by process or equipment. It is very important that these two inventories match relatively closely to ensure program integrity and credibility.

New Source Review (NSR)

1. Objective:
The primary objective of NSR is to ensure that any emission increases from regulated sources do not impede progress toward attainment of the National or State Ambient Air Quality Standards. To accomplish this goal, air pollution control districts conduct an engineering review of every new or modified emissions source prior to issuing an Authority to Construct and Permit to Operate (previously described) to determine the potential level of emissions, potential health impacts, and emission controls required to meet district, state or federal regulations. Through this process, air districts require Best Available Control Technology to minimize emissions increases, encourage voluntary emission reductions (generation of emission reduction credits), and require offsets to mitigate any residual emissions increases. This experience can readily transfer to AB32 programs.

For instance, through NSR, air districts will be the first point of contact for identifying potential new, significant sources of GHG emissions. Through the permit review process, it would be a logical and efficient extension of our existing procedures to quantify GHG emissions and evaluate potential control strategies at the same time we perform that required function for criteria pollutant emissions.

RESPONSE TO CONCERNS ABOUT LOCAL DISTRICTS IMPLEMENTING A GREENHOUSE GAS INVENTORY PROGRAM

In discussions with ARB and other stakeholders, some issues have been raised regarding the role of local districts in greenhouse gas reporting. The following section provides a brief discussion of the issues and CAPCOA's responses.

Issue: Consistency throughout the State.

Response: Local air districts will follow standardized protocols for greenhouse gas reporting. This will ensure statewide consistency. This is currently occurring with CEIDARS and can be applied to any new system that ARB may develop.

Issue: Reporting could be at a broader level than by facility.

Response: Even if there are multiple facilities within California, nationally, or internationally, emission information at the facility level is necessary to validate that the whole represents the sum of the parts. Local air districts will coordinate with ARB to aggregate multiple facilities within the State.

Issue: Local air districts currently do not collect information on electricity usage and on-site or off-site mobile emissions.

Response: These elements can be added to the existing infrastructure if desired. Standard protocols will enable each district to collect and verify information.

Issue: How will local districts handle collection of up- and down-stream emission information, such as electricity transmission?

Response: This will be an issue regardless of which entity collects such information. Local districts will follow standard protocols developed for AB32 and coordinate between districts (or with out-of-state agencies) to verify emission information.

Issue: ARB may use a different inventory system for collecting and aggregating GHG emissions than is used for criteria pollutant or toxic air contaminant emissions.

Response: Districts have been involved in emissions inventory for decades, and have continually adapted to changes. If ARB creates a new inventory system for GHGs, air districts can work with ARB to implement that system and make it consistent with existing systems for criteria pollutants and toxic

air contaminants. If ARB decides to use existing inventory systems for GHGs, air districts will make changes to existing programs to include green house gas emissions from combustion and other sources. CAPCOA believes it will be more efficient to modify existing systems than to create a new reporting system. Districts can and will evolve to meet the needs of green house gas mandatory reporting requirements.

ATTACHMENT A: CAPCOA SURVEY OF MAJOR FACILITIES LIKELY TO BE AFFECTED BY AB 32

CATEGORY [a]	# TITLE V PERMITS [b]	# OF INSPECTIONS [c]	# OF ENFORCEMENT ACTIONS [d]
Oil Refineries	21	4271	948
Powerplants	100	692	218
Landfills	34	202	87
Oil & Gas Distribution / Production	79	553	691
Industrial / Commercial Combustion	57	1005	221
Cement Manufacturing	11	165	79
All Other Categories	27	107	181
Totals	329	6995	2425

(a) For agriculture, San Joaquin Valley has identified 54 agricultural Title V sources, but these have not yet been issued permits, and so have not been inspected or have enforcement actions taken

(b) Based primarily on 100 t/y for NOx. (Districts with lower Title V thresholds may have used a lower NOx level)

(c) Inspections are on a facility basis (not permit basis). Data are from 2004-2006.

(d) Data are from 2004-2006.

Note: This includes: Amador County APCD, Antelope Valley APCD, Bay Area AQMD, Butte County AQMD, El Dorado County AQMD, Feather River AQMD, Kern County AQMD, Lassen County APCD, Mariposa County APCD, Mendocino County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, N. Sonoma County APCD, No. Sierra AQMD, Placer County APCD, Sacramento Metro AQMD, San Diego County APCD, San Luis Obispo County APCD, Santa Barbara County APCD, Shasta County AQMD, SJVUAPCD, South Coast AQMD, Tehama County APCD, Ventura County APCD, Yolo/Solano AQMD, Imperial County APCD