



980 Ninth Street, 16<sup>th</sup> Floor  
Sacramento, CA 95814  
(916) 449-9603 (916) 449-9604 FAX  
www.capcoa.org

November 18, 2008

**PRESIDENT**

Terry Dressler  
*Santa Barbara County APCD*

**VICE PRESIDENT**

Mat Ehrhardt  
*Yolo-Solano AQMD*

**PAST PRESIDENT**

Barbara Lee  
*N. Sonoma County APCD*

**SECRETARY/CHIEF  
FINANCIAL OFFICER**

Thomas Christofk  
*Placer County APCD*

**DIRECTORS**

Alan Abbs  
*Tehama County APCD*

Larry Allen  
*San Luis Obispo APCD*

Jack Broadbent  
*Bay Area AQMD*

Larry F. Greene  
*Sacramento Metro AQMD*

Robert Kard  
*San Diego County APCD*

Rick Martin  
*North Coast AQMD*

Brad Poiriez  
*Imperial County APCD*

Seyed Sadredin  
*San Joaquin Valley APCD*

Mike Villegas  
*Ventura County APCD*

Barry Wallerstein  
*South Coast AQMD*

**EXEC. DIRECTOR**

Melvin D. Zeldin  
*melz@capcoa.org*

Ms. Mary Nichols  
Chairman  
California Air Resources Board  
1001 I Street  
P.O. Box 2815  
Sacramento, CA 95812

**RE: CAPCOA Proposal for Joint ARB/Air District Implementation of  
Stationary Source Measures in the Climate Change Proposed Scoping  
Plan with Comments on Specific Measures**

Dear Chairman Nichols:

The Climate Change Proposed Scoping Plan (Plan) released by the Air Resources Board (ARB) on October 15, 2008 presents a broad series of measures designed to reduce greenhouse gas emissions (GHG) from nearly every sector of society and the economy. The California Air Pollution Control Officers Association (CAPCOA) commends ARB for its vision and commitment in tackling the pressing and complex issue of climate change in such a comprehensive manner. CAPCOA has performed a thorough review of all proposed measures and implementing mechanisms in the Plan and appreciates the opportunity to offer comments. Attachment A to this letter provides detailed comments and recommendations on specific measures where we believe improvements in emission reductions and implementation effectiveness can be achieved.

Implementation of the Plan will present many challenges and require significant staff and funding resources statewide to ensure the proposed measures achieve their projected greenhouse gas emission reductions. The expertise and resources of local districts that regulate stationary sources and interact daily with local governments affected by the proposed measures can and must be an important tool in ensuring efficient and effective implementation and enforcement of the measures. We were pleased to hear the substantial discussion on this topic by the ARB Board at their September 2008 meeting where they expressed a strong intent to define a significant implementation role for air districts.

In that context, this letter provides specific recommendations for utilizing existing air district program infrastructure and staff resources for implementation of the stationary source measures. Following the recommendations is a detailed description of the numerous linkages between district programs and the Scoping

Plan measures that show the logical interface points to ensure implementation is efficient, cost-effective and capable of achieving the needed emission reductions.

### RECOMMENDATIONS

To maximize implementation efficiency and effectiveness, provide a level of certainty to affected stationary sources on the upcoming regulatory structure, and facilitate forward planning for compliance, CAPCOA recommends the following:

1. That ARB include in the Scoping Plan, and in the adopting resolution, the clear intent and direction to develop rules for sources under local air district permitting and/or compliance programs that enable the implementation of those rules by the local air districts.
2. That ARB work with CAPCOA, perhaps through a reconstituted Technical Review Group (TRG), to develop standard permit conditions/requirements and a prototype permit for each stationary source type subject to regulation under the Scoping Plan.
3. That ARB work with the CAPCOA Enforcement Managers Committee in developing the compliance requirements for the stationary source measures to facilitate the most efficient and cost-effective approach by dovetailing them with existing criteria pollutant compliance requirements on those sources.
4. That ARB specifically acknowledge in the Scoping Plan that local districts are among the organizations that can issue certificates for GHG emission reduction credits provided they follow approved protocols and requirements.
5. That ARB devote resources to work with CAPCOA on development of additional emission quantification protocols and commit to timely review and approval of the protocols.
6. That ARB establish specific criteria for evaluating if GHG reductions are “Additional” to ensure statewide consistency in those evaluations.
7. That ARB dedicate resources to timely and affordable certification of air district staff as GHG emission verifiers and consider broader integration of air districts into the mandatory reporting program.
8. That ARB work with air districts to evaluate and develop a list of appropriate GHG reduction projects that can be used as Supplemental Environmental Projects (SEP) to resolve some types of enforcement actions taken against violators of district regulations.
9. That ARB work with air districts and other stakeholders to evaluate the potential for some state funded incentive programs to fund projects that achieve GHG reduction benefits without adversely impacting progress toward attainment or public exposure to air toxics.

10. That ARB identify in the Scoping Plan, and incorporate into subsequent rules, a mechanism for local district recovery of implementation costs, either through collection of fees by districts for rules they are implementing, or through upstream funding provided by the state to implementing agencies.

## **AIR DISTRICT PROGRAM CONNECTIONS TO SCOPING PLAN MEASURES**

Air quality programs implemented at the local level by air districts address most of the same sources and contain numerous elements common to the regulatory measures proposed in this Plan. Attachment B to this letter provides a matrix showing the current criteria pollutant regulatory structure for the stationary source categories affected by AB 32. Attachment C provides a matrix comparing the comprehensive list of proposed measures in Table 32 of the Scoping Plan with existing and potential future linkages to air district programs. As shown in these tables, there are multiple intersections between air district operations and the sources proposed for regulation under the Scoping Plan. In fact, 15 of the 18 stationary source categories listed in Attachment B are currently under district regulation. The discussion below provides a more detailed examination of some of the key linkages and recommendations on how they can be used in implementing AB 32.

### **District Stationary Source Permit and Compliance Programs**

#### ***Permit System and Infrastructure***

Local air districts are responsible for implementing and enforcing criteria pollutant regulations on stationary sources. A key element of this program is a comprehensive permit system developed and maintained by the districts that contains detailed facility information and regulatory requirements for stationary sources statewide, including those likely to be regulated under the Proposed Plan. Modifications to equipment and facilities under district permit to achieve GHG reductions needed to meet declining cap allowances would require changes to those permits and are likely to also affect criteria or toxic emissions; as such, they will be subject to district review. An important aspect of this review will be to examine potential tradeoffs between criteria pollutants and GHGs for specific source applications, such as combined heat and power, to ensure that the public health protection afforded by traditional air quality programs is not compromised, that the benefits of both programs are maximized, and that localized impacts of the project are appropriately addressed.

Air districts will also be responsible for reviewing and mitigating the GHG emission impacts of new stationary sources under CEQA and the new significance thresholds proposed by ARB. CAPCOA is currently reviewing options for conducting this review through the district permit process. District permits provide an important mechanism to ensure new GHG-emitting equipment or projects at stationary sources meet state-of-the-art emissions or efficiency standards. We are evaluating how a “best available control technology” approach for GHGs (“G-BACT”) could be incorporated into the CEQA review through our permit process to help achieve the goals of the Scoping Plan. We will provide that analysis to your staff as part of the separate process initiated by ARB on CEQA significance thresholds.

CAPCOA recognizes the need for consistency in the permit process and the conditions applied to the same source types statewide. To that end, we believe it important to work with ARB to establish a process for developing standardized permit conditions/requirements and a prototype permit for each stationary source type subject to regulation under the Scoping Plan. CAPCOA has already developed a draft permit template for ARB review, provided as Attachment D. The draft template is designed to be appended to an existing district permit for the same source (such as a landfill), with a standardized structure and format for each source type.

The existing district permitting infrastructure and extensive stationary source expertise embodied in district engineering programs statewide represents a significant resource for California's climate protection efforts. This, combined with the strong linkage between district permit programs and stationary source GHG reduction requirements under the Scoping Plan and CEQA, provides a clear path for stationary source measure implementation.

### ***Compliance and Enforcement Programs***

The Proposed Plan appropriately recognizes that local air districts have an important role to play in enforcement of GHG requirements for stationary sources. Effective implementation of regulations requires a comprehensive compliance program that involves recordkeeping and reporting requirements for each facility, regular inspections and record review to determine compliance, and enforcement actions when compliance requirements are violated. Local district compliance staff have detailed knowledge and a thorough understanding of the operating characteristics of nearly every stationary source proposed for regulation under this Plan, as well as the current regulatory requirements applicable to them and their history of compliance. Collectively, we conduct over 100,000 inspections each year with nearly 400 field staff, as well as having hundreds of engineers, air quality specialists and attorneys dedicated to enforcement of air quality requirements. This existing level of on the ground expertise and infrastructure is a tremendous asset to the state and will help jump start the implementation of the stationary source measures in the Scoping Plan.

### ***Emission Reduction Credits, Banking and Trading Programs***

The Proposed Plan continues to place its primary focus on a Cap and Trade program, with 85% of the total projected reductions under the Cap. Air districts have considerable experience with similar programs for criteria pollutants, operating emissions trading banks and establishing detailed protocols for verifying emission reduction credits (ERCs). With that experience, districts gained firsthand knowledge that adequate safeguards are essential to an effective cap and trade program to ensure reductions are quantifiable and enforceable, and that the program will not lead to disparate localized impacts. The district permit system is the mechanism used to track and enforce ERC requirements. Similarly, the national Acid Rain program, frequently cited as a model emissions trading program, is implemented and enforced through the Title V permit program; local air districts implement this program in California. Stationary source permits are clearly a critical element in the implementation and enforcement of any cap and trade program, including the program described in the Proposed Plan.

## **Other Related Air District Programs**

### ***Emissions Quantification and Inventory Reporting***

Local air districts have the existing authority and responsibility under state and federal law to collect emissions information for any air contaminant, including GHGs. We have spent decades developing air emission assessment and reporting protocols and coordinating with ARB, EPA and other stakeholders to ensure consistent, high quality data. Each district annually surveys and develops 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. As a result, local air districts have established comprehensive point source emission inventories for regulated pollutants and have developed extensive databases to store, retrieve and report the data collected.

Districts have also developed comprehensive data collection and tracking mechanisms for ERC trading, including credit generation protocols and enhanced monitoring, reporting and recordkeeping requirements. These established programs include stringent requirements for pre-approval of emission credits, sophisticated tracking of credit use, and public review, thereby providing a strong foundation for GHG inventory reporting and credit trading.

As commenting or responsible agencies under CEQA, air districts have long performed evaluation and quantification of emissions and mitigations for urban development projects. We are currently developing emission factors and quantification methods for incorporating GHG emissions analysis into the commonly used urban emissions model called URBEMIS. Many districts have also provided extensive assistance to local governments in guiding the development of municipal and community GHG inventories using approved ICLEI or CCAR protocols. Technical assistance and advice is also given to local entities in developing and quantifying GHG reduction strategies for climate action plans.

This extensive experience of local air districts in emissions quantification, verification and reporting should be utilized and integrated into the mandatory reporting program once that system is fully developed and tested. In the interim, district staff are a valuable and highly cost-effective resource for the emissions verification system established under the mandatory reporting regulation. It is imperative that affordable verification training be provided soon to air district staff to ensure the number of qualified verifiers statewide is adequate to meet the demand when the reporting mandate is implemented next year. In addition, for those air districts that have or will modify their existing reporting systems to include simultaneous reporting of GHGs pursuant to ARB's mandatory reporting requirements, ARB must commit resources to check those systems to ensure all requirements are met and the data exchange occurs smoothly.

### ***Local Carbon Exchanges***

As described in our comments on the Draft Scoping Plan, several air districts are interested in and moving forward with establishing local carbon exchanges that can promote early local reductions in emissions. Some districts have existing regulations that allow for inclusion of GHG ERCs within their current banking programs; others have initiated rulemaking to do so. In coordination with ARB and the California Climate Action Registry (CCAR), districts have taken

the lead in developing emissions quantification protocols for a variety of source categories within their jurisdictions that are interested in receiving and/or banking credits for GHG reductions achieved or planned at their facilities. CAPCOA is committed to ensuring these local exchanges are fully compatible with adopted protocols and meet all requirements established by the ARB, including working with ARB to develop a “cohesive program with consistent technical standards” as mentioned in the Scoping Plan. To that end, it is critical that ARB establish specific criteria for evaluating the “Additionality” of GHG reductions to ensure statewide consistency in those evaluations and provide certainty to applicants seeking verification of emission reduction credits.

### ***CEQA and Other Local Government Interactions***

As mentioned above, local air districts have considerable expertise and experience in reviewing local land use, transportation and construction projects under CEQA. Through that long-standing relationship, local governments have come to rely on us as partners in assuring new development is appropriately mitigated, and for support in promoting development policies and strategies that will reduce dependence on private vehicles. That reliance has grown significantly over the past two years as local governments have looked to the air districts for guidance in addressing GHG emissions associated with land use. In response, CAPCOA prepared a resource document entitled, “*CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*” to assist local governments in this effort. ARB staff have also utilized the resource information provided in this document in developing their recommendations for appropriate CEQA significance thresholds for GHGs.

Air district coordination with local government is expected to increase considerably over the next several years with the implementation of SB 375 and the GHG reduction goals assigned to local government in the Scoping Plan. Under SB 375, GHG reduction targets will be established for specified regions throughout the state. It is important that air districts be included in the process to establish those targets to ensure criteria pollutant co-benefits and localized impacts are considered in the deliberations. Local districts will also be an important resource for regional agencies to call upon for assistance in developing and tracking GHG inventories and reduction strategies for the Sustainable Communities Strategies (SCS) required under SB 375.

### ***Value-Added District Programs to Enhance Scoping Plan Implementation***

Air districts implement a variety of other programs that could be utilized to help achieve the GHG reduction goals of the proposed measures in the Scoping Plan. For instance, Supplemental Environmental Projects (SEPs) are a common tool used by districts to achieve partial or full settlement of some violations by allowing the violator to implement or fund an emission reduction project appropriate to the violation. As such, SEPs provide an opportunity to help achieve the emission reduction goals of specific measures, such as the enhanced Renewable Portfolio Standard: the violator could agree to install a solar system at their facility or fund installation of solar systems at other facilities as settlement for their violation.

District grant and incentive programs funded through local mitigation fees could also be modified to include GHG reduction projects that support implementation of Scoping Plan measures, especially in the transportation sector. Ongoing funding streams would be needed to achieve substantial reductions. ARB, air districts and other stakeholders should work together to

evaluate potential funding sources, including allocating some state incentive funds for projects that can achieve GHG reduction benefits without adversely impacting progress toward attainment or increasing public exposure to air toxics.

## **SUMMARY**

As demonstrated above, the existing expertise, program infrastructure and staff resources of the local air districts are a substantial and vital resource for Scoping Plan implementation, particularly as related to stationary source regulation. The recommendations we have provided on how to best utilize these resources are intended to maximize the efficiency and effectiveness of the regulatory program, enhance the ability of the State to achieve the 2020 reduction goals, and lay a strong foundation for the enormous work that lies ahead to reach the 2050 target.

CAPCOA and the individual air districts stand ready to partner with ARB, as we have throughout the years, to ensure that California is successful in this monumental endeavor and to continue the important legacy of environmental leadership essential to spurring similar action throughout the nation.

Sincerely,

A handwritten signature in black ink, appearing to read "Terry Dressler". The signature is fluid and cursive, with a large initial "T" and "D".

Terry Dressler,  
President

Attachment A: CAPCOA Comments on Specific Scoping Plan Measures

Attachment B: Matrix: Criteria Pollutant vs. GHG Regulatory Structure for Stationary Sources

Attachment C: Matrix: Linkage Between Air District Programs and Scoping Plan Measures

Attachment D: Draft: GHG Permitting Format for Stationary Sources (Draft Template)

## ATTACHMENT A

### CAPCOA Comments on Specific Scoping Plan Measures

#### **Cap and Trade Program**

The Proposed Plan continues to place its primary focus on a Cap and Trade program, with 85% of the total projected reductions under the Cap. ARB proposes to link California's cap-and-trade program with the Western Climate Initiative (WCI) Partnership to create a regional trading program. The proposal would allow up to 49% of a state's reductions each year to be met by purchasing allowances from another participating WCI area and/or use of offsets. Offsets must meet specific criteria, but can be from outside the WCI partners, including international offsets from CDM projects in developing countries. ARB proposes a 3-year compliance period before caps and allowances are rectified and adjusted, beginning in 2012.

CAPCOA supports ARB's stated policy objective that inclusion under cap does not excuse compliance with command and control requirements. CAPCOA strongly believes an effective cap and trade program must have adequate safeguards to ensure reductions are quantifiable and enforceable, and that the program will not lead to disparate localized impacts. In that context, we have the following comments and recommendations:

- Ensuring the viability and enforceability of allowances and credits generated outside California will be challenging, and we are concerned about exporting the important co-benefits from GHG reductions for progress toward criteria pollutant attainment and reducing exposure to toxics. Thus, we recommend ARB consider near term trading restrictions in environmental justice and nonattainment areas, or consider reducing the percentage of allowances and offsets allowed to be purchased from outside California. This will some retain flexibility and still provide cost containment while keeping a higher percentage of crucial co-benefits in the state.
- The recommended 3-year compliance period for WCI also presents some concerns. This, in conjunction with unlimited banking, makes it more difficult to ensure projected reductions are achieved within the needed timeframes. Reconciling allowances to emissions every three years makes it more challenging to pursue enforcement efforts; it will be difficult to review records and validate data that is potentially 4-5 years old before a violation is discovered. Three years is also a long reaction time for sending clear market signals regarding the availability and price of allowances.
- It is important to design a program that strikes a balance between market protection and incentives for innovation. Safeguards will be needed to prevent market speculation, such as establishing price triggers to allow increased offsets outside California or the WCI when prices reach a certain dollar per ton. ARB should also consider establishing set-asides for small business, essential public services, local governments and other vulnerable sectors to reduce their exposure to market volatility and ensure continued viability of their operations.
- Any offsets used by affected entities to meet the cap must provide real and verifiable emission reductions. As you know, many variables can affect the quality and permanence of proposed emission reduction credits. Air districts have extensive expertise in ERC program



development and implementation and are willing to provide assistance in program design to help ensure effective implementation.

- Permits are a critical element of a viable and enforceable cap and trade program. The federal acid rain program is successful because it is implemented through the Title V permit process; it would not be enforceable otherwise. Air districts hold regulatory permits on all stationary sources that will be subject to the Cap and Trade program. As such, CAPCOA has developed some initial concepts on how such permits could be configured (see Attachment D).
- Air districts should be afforded the same opportunity as other organizations (CCAR, Chicago Climate Exchange) to issue GHG emission reduction certificates if we follow the same protocols and requirements as other approved organizations. As you are aware, current demand for banking of voluntary credits is such that several air districts are moving forward with establishing GHG banking programs in advance of State program implementation. Consistency between the State program and air district programs for banking GHGs will be critical to ensure the viability of those credits.
  - In that regard, specific criteria for evaluating “Additionality” for voluntary reductions is needed immediately to facilitate such reductions and ensure proper crediting.
- CAPCOA agrees with the Market Advisory Committee recommendation that any free allocation of allowances be based on environmental performance benchmarks, and that the auction process be designed to encourage voluntary early reductions by firms, municipalities, and individual consumers. CAPCOA also recommends consideration of funding co-benefits in environmental justice areas or non-attainment areas, such as support for local government implementation actions, transportation infrastructure and clean fleets, implementation of energy efficiency measures and other strategies. Funds generated from auctioned allowances should have a defined stream of expenditures to ensure their highest and best use in reducing emissions and funding adaptation measures for the most vulnerable and impacted communities. CAPCOA recommends ARB establish a process to involve stakeholders in the decision making process to ensure these goals are achieved.

### **Local Government and Regional Transportation-Related Greenhouse Gas Targets**

CAPCOA supports the framework established in this measure to use regional GHG targets and Sustainable Communities Strategies required under SB 375 as the foundation for reducing vehicle emissions associated with existing and projected future land use development patterns. We also agree that transportation related emission reductions resulting from effective regional blueprints and local general plan updates will play a much larger role in achieving the 2050 goal than the 2020 goal. This is particularly relevant given that much of focus in this measure is on reducing the rate of emissions growth from new development rather than curbing emissions from existing development.

CAPCOA supports the increase in the reduction goal for this measure from 2 MMTCO<sub>2</sub>E in the draft plan to 5 MMTCO<sub>2</sub>E in this Plan. Nonetheless, we believe even greater reductions are possible given the potential VMT reductions cited in the available literature from fostering efficient land use patterns and enhanced public transit to reduce vehicle travel. We understand the need for pragmatism, but believe that setting a high goal is important to encourage the strongest possible efforts in this area. Thus, we

recommend ARB establish an overall emission reduction goal of 10 MMTCO<sub>2</sub>E for this measure, but only take credit for 5 MMTCO<sub>2</sub>E in the Scoping Plan. This will provide a much stronger incentive to for local governments to aim for a higher goal, yet still provides a backstop if the goal is not achieved. In addition, we recommend the following elements be considered for inclusion in the final measure:

- Regional targets should support the VMT reduction goals contained in State Implementation Plans and local Clean Air Plans. Thus, air districts should be involved in the regional target setting process to ensure the resulting goals and implementation strategies don't conflict with attainment plans.
- Development and tracking of GHG emission inventories for all regional and local governments will be essential for the development of effective GHG reduction strategies to meet regional targets. Air districts currently track regional and local emissions of criteria pollutants and would be the likely agency to track progress toward achieving GHG reduction goals.
- Both VMT and per capita GHG emissions are appropriate metrics to use in setting reduction targets and measuring progress to achieve them, after taking into account projected differences in population growth patterns and economic output across the state.
- The Scoping Plan needs to better define how local climate action plans will integrate with regional blueprint plans and GHG reduction targets.
- We support ARB's challenge to local governments to adopt a goal for reducing municipal operations emissions 15 percent from current levels by 2020 and move toward establishing similar goals for community emissions. It will be important, however, to identify potential funding streams and technical resources to help fiscally strapped local governments to meet those goals.
- Development of better models and other quantification tools for local land use decisions is essential to the implementation of effective regional and local plans. The models must be capable of evaluating consider specific project impacts and mitigations within the context of how the project integrates with the local general plan and regional blueprint.
- Several of the other strategies recommended as supporting measures for regional planning may be important to the long-term success of this measure in many areas, including congestion pricing, indirect source rules, pay-as-you-drive insurance and public education. We recommend ARB conduct additional analysis of how these measures can be applied most effectively and make that information available to local governments to assist them in determining what GHG reduction strategies are most appropriate for their region. In addition, ARB should consider addition Parking Cash-Out to the list of recommended strategies. Parking cash-out is a proven, viable and effective strategy that is currently not being implemented or enforced. An implementation and enforcement strategy for this existing statutory requirement should be included in the Plan, with a requirement that it start at the top with state facilities and employees setting the example.

- A strong commitment to funding, incentives and assistance programs is needed to help cash-strapped local governments prepare inventories and implement action plans; this would be a good use of auction funds or carbon fees.
- Putting public transit, biking and pedestrian infrastructure as a top priority in future transportation funding decisions is essential to implementation of this measure.
- CEQA will play an important role in implementation of this measure, so development and adoption of a statewide GHG significance threshold is critical.
- Local jurisdictions that have already moved forward in adopting climate action plans and reducing GHG emissions in advance of AB 32 should be given credit for those reductions, as well as incentives for achieving additional reductions. This would likely occur after regional and local GHG targets are established. Implementation would likely require the following elements:
  - GHG inventories must be completed by every local jurisdiction within the state to define the baseline from which reductions will be counted in each region.
  - Reductions already achieved by any local jurisdiction through a formally adopted climate action plan would be added to the baseline inventory and then later subtracted as a reduction toward meeting the local/regional target.
  - An ARB-approved protocol must be developed to establish the mechanism for calculating and crediting GHG reductions from municipal and community sources.
  - Any local jurisdiction that has already exceeded the regional/local target level of reductions, or that wants to achieve additional reductions beyond their target share, would be allowed to bank the excess reduction credits using the established protocols.
  - Those credits could be sold or leased to other jurisdictions within their regional target area that are unable to achieve the full level of reductions required of them.
  - Credits banked by a local or regional jurisdiction could not be sold to any jurisdiction outside the regional target area in which they were generated.
  - The mechanism for credit trading among local jurisdictions should occur outside the formal Cap and Trade program. Any entities regulated under the formal Cap and Trade program would not be allowed to purchase credits generated by a local jurisdiction.
- Finally, control over land use decisions should remain with local government, subject to the regional GHG reduction targets and an effective regional planning process. Local planners and elected officials know the needs, goals and limitations of their individual jurisdictions and regions, and should remain empowered to implement programs that best meet their unique situations.

### **Energy Efficiency and Green Building**

CAPCOA strongly supports the overall goal to reduce projected 2020 energy demand by 32,000 GW-hours and 800 million therms through increased efficiency and more stringent building and appliance standards. Air districts already have a long history of supporting the use of energy efficiency and green building strategies through local CEQA review of development projects. Energy efficiency and conservation will be the most cost effective strategies by cutting infrastructure costs and providing economic benefits to local government, businesses and individuals. In addition, reductions from this sector can be readily measured and documented and provide co-benefits for criteria and toxic pollutants.

We also agree that increasing Combined Heat and Power use can provide GHG reduction benefits; however, it also presents the potential for adverse impacts that must be considered. We have a few specific recommendations for improving the effectiveness of this measure:

- Enforceable regulations will be important to ensure this program provides the reductions estimated in the plan, as well as a long term commitment to provide the funds needed for implementation.
- Improving the energy efficiency of existing residential and commercial buildings is an important mechanism for achieving real emission reductions below baseline levels compared to just reducing the projected rate of growth in emissions. Thus, we support development of an environmental performance rating system for existing residential and commercial buildings as well as a requirement that energy audits be performed for all existing buildings over the next 10 years and at time of sale.
  - Providing incentives for energy providers and local government to implement aggressive energy efficiency retrofit programs beyond the requirements of this measure will help ensure the reductions assumed for this strategy are realized and will be essential to meeting the 2050 reduction goal.
- Indoor air quality concerns will become more prominent as building envelopes get tighter. This should be evaluated with potential solutions proposed in the final Plan.
- Increased use of Combined Heat and Power has the potential to create localized air quality impacts. Thus, all feasible steps must be taken to minimize any environmental tradeoffs, including offsets and CEQA review for criteria and toxic pollutant increases.

### **Renewable Portfolio Standard (RPS)**

CAPCOA supports the goal of increasing the RPS to 33% by 2020. However, as proposed in the Plan, this measure accounts for 15% of the total reductions expected under the Cap and Trade program by assuming it will be 100% effective. Unfortunately, the current RPS requirement of 20% renewables by 2010 is far from achieving that goal: we currently have only 12% of qualifying renewables in the mix with only 18 months to go. Many barriers remain that must be overcome (e.g., transmission capacity and distribution, permitting issues, etc.) to achieve both goals, and there is no clear implementation mechanism in place to resolve those issues. Thus, though we strongly support the goal, CAPCOA believes the emission reductions allocated to this measure are overly optimistic. We believe a contingency plan containing specific measures and implementing mechanisms is necessary to ensure the reductions projected in the Plan are achieved.

### **Low Carbon Fuel Standard**

CAPCOA supports the goal of the Low Carbon Fuel Standard adopted by ARB to reduce the carbon intensity of transportation fuels. However, to ensure that local and regional air quality impacts are not exacerbated in the process and that energy reduction goals are actually realized, extensive analysis will be required prior to development of the implementing regulation, including the following:

- Evaluation of the toxic and criteria pollutant impacts of biofuels to ensure that public health is not compromised in implementing this measure.

- Analysis of the impact of biofuels on broader societal issues and how these might affect implementation effectiveness, such as the potential for the regulation to create “domino” effects on grains and crops that ultimately affect food availability and cost.
- Development of better tools to assess and audit land use implications of the various strategies, such as potential conversion of pastures, rainforests and other existing carbon sinks to fuel production and how that will affect the global carbon balance.
- Analysis of the potential to increase light-duty vehicle dieselization if a market-based, averaging mechanism for fuel carbon content is used to provide regulatory flexibility.

### **High GWP Gases**

CAPCOA strongly supports this strategy and believes that air districts will play an important role in its implementation. Our Enforcement Managers committee is currently working with your staff on implementation and enforcement mechanisms. We also believe there is an opportunity for early voluntary reductions in commercial & industrial systems for refrigerant switching, recovery and destruction and will work with your staff to further explore that potential. Finally, CAPCOA strongly supports a fee on high global warming potential compounds to serve as a further incentive to use less of these materials and to find suitable alternatives that have less potential environmental harm.

### **Sustainable Forests**

The forest sector may play a larger role in both sequestration opportunities and overall GHG emissions than indicated in the plan, depending on how our forests are managed in the future. For example, the amount of GHGs emitted by the recent fires in the northern part of the state equal the annual emissions of about 750,000 cars, while simultaneously destroying a substantial carbon sequestration resource. Advanced forest management practices could have a significant influence on California’s carbon balance through the potential to reduce wildfires and associated CO<sub>2</sub> emissions, as well as enhance carbon uptake and sequestration. As recognized in the Scoping Plan, one key strategy for enhanced forest management is the utilization of biomass to energy. CAPCOA recommends the associated emission reductions from this measure be accounted for within the Forestry Sector rather than the Energy Sector to allow quantification of the numerous co-benefits that result. These include avoided or reduced intensity wildfires, stimulated vegetation growth resulting in more rapid uptake of atmospheric carbon, and the emissions avoided by substituting biomass feed stocks for fossil fuels in energy production. Active scientific research and protocol development is currently underway to quantify these and other related benefits. CAPCOA also recommends that public, federally managed forest lands be included in the plan to enhance the effectiveness of this measure.

### **Vehicle Efficiency Measures**

CAPCOA supports this measure as a critical tool to reduce vehicle emissions. However, the mechanism for enforcing this measure is not specified. One method for enforcement and to enhance overall effectiveness is to require the Smog Check program be applied statewide to capture the GHG co-benefits that result from improved maintenance on a larger percentage of the statewide passenger vehicle fleet.

### **Goods Movement**

Goods movement is one of the most important emission source categories in the Scoping Plan due to its impacts on both climate change and local and regional air quality. Accordingly, strategies to reduce

GHG emissions from this sector create opportunities for substantial air quality co-benefits by also reducing emissions of toxics and criteria pollutants, such as diesel particulate (PM), nitrogen oxides (NOx) and reactive organic compounds (VOC). However, the discussion in the Scoping Plan highlights only two existing rules and energy efficiency as recommended measures. Several additional strategies should be considered that would reduce greenhouse gas impacts and have significant toxic and criteria emissions co-benefits in existing impacted communities, including:

- Reducing carbon black emissions: climate change benefits may be difficult to quantify but are considered significant, and would further enhance PM reductions, particularly diesel PM; ports, railyards and associated facilities cause some of the highest cancer risks in the state.
- Requiring substitution of alternative fuels to replace a defined portion of diesel use to reduce both GHGs and diesel PM (e.g. - GHG emissions from LNG are 20% less than diesel)
- Setting idling restrictions for cargo handling equipment to reduce fuel use as well as toxic and criteria pollutant emissions.
- Requiring electrification where possible for rail transport, drayage trucks and other equipment such as cranes.
- Requiring additional emission controls for marine vessels; only shore power is included in this measure now.
- Enhancing appropriate infrastructure, such as on-dock electric rail, to reduce truck drayage use and associated emissions.
- Increasing the fuel efficiency requirements for marine vessels.
- Trade corridors need to be specifically defined.

### **Heavy/Medium-Duty Vehicles**

CAPCOA supports the strategies in this measure to achieve more fuel efficiency from medium- and heavy-duty vehicles. However, we believe these efficiencies could be significantly enhanced through the development of a fuel efficiency protocol. Once such a protocol is established, standards could be set and mandated, requiring vehicle manufacturers to respond with appropriate technologies. Thus, CAPCOA recommends this measure include the development and adoption of fuel efficiency protocols.

### **Million Solar Roofs**

CAPCOA supports inclusion of this measure in the plan as one of several strategies to reduce reliance on fossil fuel power generation. However, the measure assumes the CEC goal of installing 3,000 megawatts of new, solar capacity by 2017 will be met and will achieve the full level of GHG reduction estimated. There is no discussion of the effectiveness of the program to date, nor any discussion of what program adjustments might be needed to ensure success. An evaluation of the progress of this program toward achieving that goal should be performed to gauge its effectiveness and determine if additional funding or other strategies are needed to achieve the goal. In addition, we believe the success of the program could be enhanced by incorporating the following requirements:

- Increase the funding eligibility criteria to require existing homes to meet Title 24 energy efficiency requirements and new construction to be at least 10% more efficient than Title 24 to receive funding. Doing so would require less solar to meet the same energy load and thus stretch limited public dollars further and allow more installations.
- Require utilities to purchase excess power from rooftop solar installations to provide an additional incentive to the public to install additional capacity where feasible. Many homeowners have the capability and desire to install solar systems that could generate excess power beyond their requirements, but the current cap on net metering is a significant disincentive. Removing that cap would remove the disincentive.
- Allow homes off the grid to participate in the program and take advantage of tax incentives. Many rural properties off the grid use propane and even diesel to generate electricity and heat, but are currently excluded from the program.

### **High Speed Rail**

CAPCOA strongly supports efforts to improve public transportation in California and reduce our dependence on the automobile for travel. However, the information provided in Scoping Plan on this measure is very general, with little information on its cost-effectiveness, quantification of emission reduction benefits or potential environmental impacts. These issues need to be thoroughly analyzed and discussed in the final plan to identify the potential benefits and impacts of this measure.

### **Recycling and Waste**

This measure is primarily directed at landfill methane control; it does not include any of the other recommendations from ARB's Economic and Technology Advancement Advisory Committee (ETAAC) report. Landfill methane controls are currently in place and regulated by air districts at most of the larger landfills in the state. While CAPCOA agrees these controls are an important means of reducing GHGs, the potential negative impacts on criteria pollutant emissions have not been analyzed in the scoping plan. Many landfill gas destruction techniques generate significant quantities of NO<sub>x</sub>, which can impede progress toward attainment of state and federal ozone standards. Thus, we have the following recommendations for this measure:

- The potential increase in NO<sub>x</sub> and other criteria pollutant emissions from this control strategy need to be analyzed and identified in the scoping plan, with appropriate mitigations proposed.
- The recommendations on Waste Reduction, Recycling and Resource Management contained in Section 4. IV of the ETAAC report should be considered for inclusion in the final report, including:
  - Developing a suite of emission reduction protocols for recycling
  - Increase commercial-sector recycling
  - Remove barriers to composting
  - Phase out diversion credit for green waste alternative daily cover credit
  - Reduce agricultural emissions through composting

## **Agriculture**

This measure proposes voluntary controls of methane from manure digester systems; it also mentions a few potential future strategies that could reduce N<sub>2</sub>O emissions from nitrogen fertilizers and CO<sub>2</sub> emissions from farm efficiency improvements. Agriculture in California is a large source of GHG emissions, and CAPCOA supports measures to reduce their impact. However, no discussion is provided on the potential negative impacts on criteria pollutant emissions from digester controls, which could involve uncontrolled combustion if the emissions are flared. The Scoping Plan should identify these potential impacts and provide preferential treatment to control methods that do not increase NO<sub>x</sub> and other criteria pollutants. We have the following recommendations:

- The potential increase in NO<sub>x</sub> and other criteria pollutant emissions from this control strategy need to be analyzed and identified in the scoping plan, with appropriate mitigations proposed.
- No-NO<sub>x</sub> control methods for digesters, such injection of dairy gas into natural gas pipeline system, should be evaluated and recommended as the preferred implementation method.
- Utilization of agricultural biogas for electricity generation using low-NO<sub>x</sub> microturbines and fuel cells in the future should also be recommended as preferred.
- The potential for additional carbon sequestration from agricultural growing practices should be evaluated and discussed.

## **Carbon Fees**

The discussion of carbon fees in the Draft Plan has been removed from this Proposed Plan. CAPCOA believes carbon fees are an important strategy for consideration due to their ability to affect consumer choices and drive consumption and investment toward more efficient and less GHG-intensive products. Upstream fees in particular are important because they would cover a very broad segment of emissions sources. However, the \$10 to \$50 per metric ton of MMTCO<sub>2</sub>E range of potential upstream fees discussed in the Draft Plan are likely to primarily influence the investment decisions and fuel choices made by suppliers of goods; they appear to be too low to significantly influence consumer buying patterns. Thus, a hybrid approach combining both upstream and downstream fees may be needed over the long term. Regarding appropriate use of the fees generated, CAPCOA believes a defined list of proposed expenditure categories must be included in the measure. As previously mentioned, such a list should include funding support for of local government to implement the requirements of the final Scoping Plan.



**ATTACHMENT B**

Stationary Source Categories	Current Regulatory Structure for Criteria Pollutants				Changes to comply with AB32 Require local permits (1)	CAPCOA Recommendation AB32 Implementation	
	Air District Permits	Air District Inspections	Air District Emissions Inventory	Air District Monitoring, Recordkeeping, Reporting		Air District Permits	Air District Enforcement
Nat. Gas Efficiency	√	√	√	√	√	√	√
High GWP Consum. Prod.			√				√
Landfill Methane Capture	√	√	√	√	√	√	√
Semiconductor Manuf.	√	√	√	√	√	√	√
Ship Electrification	√	√	√	√	√	√	√
SF6 – Non-Electrical(2)	√	√	√	√	√	√	√
Cap-and-Trade	√	√	√	√	√	√	√
Combined Heat & Power	√	√	√	√	√	√	√
Goods Movement			√				
Vehicle Hybridization			√				
Stationary Sorce High GWP	√	√	√	√	√	√	√
Oil & Gas Extraction	√	√	√	√	√	√	√
Oil & Gas Transmission	√	√	√	√	√	√	√
Refinery Flares	√	√	√	√	√	√	√
Refinery Methane	√	√	√	√	√	√	√
Industrial Sources (3)	√	√	√	√	√	√	√
Commercial Sources (4)	√	√	√	√	√	√	√
Power Generation	√	√	√	√	√	√	√
Cement Plants	√	√	√	√	√	√	√

(1) Physical or operational changes that result in changes to emissions require permit modifications.

(2) For magnesium sand and die casting.

(3) This category affects primarily combustion sources and includes a diverse range of facilities such as food processing, glass container manufacturers, oil and gas production, and mineral processing.

(4) This category is composed of a very diverse range of facilities that use boilers for space heating, space cooling or hot water.

**ATTACHMENT C**

<b>Scoping Plan Table 32: Source Category</b>	<b>Air District Interactions With Listed AB 32 Sources</b>				<b>Explanatory Notes</b>
	Regulated by Air Districts	Potential Air District Regulation	Air District Grant Program	Potential Air District Assistance	
Light Duty Vehicles			√	√	Light duty vehicle scrap programs
Renewable Portfolio				√	Could help state achieve RPS goals by including Supplemental Env Programs (SEP) oriented to renewable energy projects for violation settlements
Solar Hot Water Heaters					
Million Solar Roofs					
High Speed Rail					
Electricity Efficiency				√	Could implement SEP program to assist goals
Nat. Gas Efficiency	√	√	√	√	Districts hold permits on NG processing facilities
Sustainable Forests	√	√		√	Burn permits, smoke management plans, sequestration credits through CEQA
Low Carbon Fuel Standard		√		√	Could require District permit for facility changes needed to comply with LCFS
High GWP Consumer Prod.				√	ARB staff request for district compliance assistance
Smartways					
Landfill Methane Capture	√	√	√	√	Landfill gas capture and disposal systems require air district permits and some combustion technologies may qualify for grant funding
Semiconductor Manufacturing	√	√		√	Semiconductor manufacturing requires district permit
Ship Electrification	√	√	√	√	If on-shore power is generated by ICE or turbine, air district permits required. Grant funding may be applicable.
SF6 – Non-Electrical				√	ARB staff request for district compliance assistance
Mobile AC Repair				√	ARB staff request for district compliance assistance
Tire Pressure Program					
Cap-and-Trade	√	√		√	Modifications at stationary sources that would increase or decrease criteria pollutants require air district permits. Districts GHG ERC programs.



**ATTACHMENT D**

**PRELIMINARY DRAFT**

**Greenhouse Gas Permitting Format  
For Stationary Sources**

**October 23, 2008  
Revised November 14, 2008**

**Prepared by**

**CAPCOA Engineering Managers Committee**

## **BACKGROUND**

The CAPCOA Board has asked the CAPCOA Engineering Managers Committee to evaluate the options and propose a format for incorporating the requirements of the Greenhouse Gas Emissions Program (AB 32) into the air permits presently issued to the regulated stationary sources of air pollution. In California there are 35 local air pollution control or air quality management districts that are responsible and authorized to issue permits to stationary sources of air contaminants. Since the vast majority of stationary sources which will be subject to the AB32 requirements for the control of greenhouse gas emissions are already subject to local air district permits, the CAPCOA Board has asked the Engineering Managers Committee to explore and recommend a potential format for incorporating such requirements into the existing air permits.

## **TYPES OF AIR PERMITS**

Presently local air districts issue air permits to stationary sources of both criteria pollutants and air toxics. Aside from pre-construction permits, or “Permit to Construct” (PC), and operational permits, or “Permit to Operate” (PO), in general the local air districts issue two types of air permits. These include “*equipment based permits*” and “*facility permits*”.

The *equipment based permits* are typically issued to individual emission units or processes operated at non-major sources of criteria or toxic emissions. These permits generally include description of the equipment or process and the air quality related requirements associated with the construction and operation of the emission unit.

The *facility permits* are issued to major sources of criteria or toxic emissions and are often referred to as “*Title V permits*”. These facility permits generally include a consolidation of individual equipment based permits and their individual specific construction and operational requirements, in addition to requirements that apply to the whole facility. The facility wide requirements include both administrative and emissions related requirements.

In at least one district, SCAQMD, a facility permit is also issued to certain stationary sources subject to a market based program called Regional Clean Air Incentives Market, or “*RECLAIM*”. The RECLAIM facility permit is similar to the Title V permit where it has both equipment/process specific requirements, as well as facility wide requirements.

## **DISCUSSION**

The CAPCOA Engineering Managers Committee evaluated various options relative to the format in which the AB32 requirements can be imposed on stationary sources. In doing so, a few options were considered. These options are briefly discussed below:

### **Option 1: A Separate Greenhouse Gas Permit**

This option provides that a totally separate permit be issued to the equipment, process or stationary source to implement the AB32 greenhouse gas emissions controls and other requirements. This option would require development of a whole new type of permit specific to greenhouse gas emissions and requirements. This would result in redundant permits for the same sources of air pollution and would most likely be more resource intensive, costly and confusing with potential redundant and impractical implications.

### **Option 2: Inclusion into the Existing Air Permit**

This option provides that the existing air permits (equipment based or facility permits) be revised to include the greenhouse gas emissions and control requirements directly into the permit conditions presently imposed on the permit for criteria and toxic emissions. This approach would require amending the existing permit conditions and/or adding additional conditions in the body of existing permits to reflect the greenhouse gas requirements.

Although this approach is feasible, it is not the preferred approach. The reason is that presently the air permits issued by various local air districts do not all adhere to the same format due to specific districts’ operational requirements. Therefore, trying to incorporate the greenhouse gas emissions control requirements into different permit formats may result in inconsistencies. In addition, if these requirements are in the body of the existing air permits, every change to the greenhouse gas emissions program would potentially require changes to permit conditions related to criteria and toxic emissions within the body of each permit and require additional resources to amend the permits.

### **Option 3: Addition of a Separate Section to the Existing Air Permit**

This option provides that a separate section be prepared which would include all the greenhouse gas emission controls and other requirements. This section will then be included as an addendum to either the equipment based permit, or most likely to the facility permit. This is the preferred option since by having a separate greenhouse gas section, the local air districts can develop and utilize a set of consistent emissions control requirements that can be then incorporated as an addendum to each stationary source permit. This section of the permit could then be updated as new regulations and requirements are adopted (both at the state and federal levels, as well as any local greenhouse gas requirements). This approach should be less resource intensive and less costly compared to the other two options.

### **RECOMMENDATIONS**

The Engineering Managers Committee recommends that Option 3 be used for implementation of the AB32 requirements associated with stationary sources. Under this approach a separate greenhouse gas emissions control section will be prepared for each permit and incorporated as an addendum into the air permit. Appendix 1 is a preliminary draft format and example of such an addendum that could be used for implementation of the AB32 requirements for stationary sources. All information included in the preliminary draft permit format is intended to be just an example, and the permit format, contents of the permit addendum or conditions can be revised as CARB adopts the applicable regulations for implementation of AB32.

**APPENDIX 1**

**Preliminary Draft Permit Format  
Section for Greenhouse Gas Emissions Control Requirements**

**AIR QUALITY MANAGEMENT DISTRICT**  
21865 Unknown Drive, Somewhere, CA 90000

Permit No.  
F53664  
A/N 703798

**SAMPLE PERMIT TO OPERATE**

*This permit may be updated ANNUALLY and is void if the equipment or facility is moved, or changes ownership.*

**LEGAL OWNER  
OR OPERATOR:** ABC CALIFORNIA INC.  
136 FIGUEROA  
LOS ANGELES, CA 90051

**FACILITY ID: 110096**

**Facility Location:** 136 FIGUEROA, LOS ANGELES, CA 90051

**I. Equipment Description:**

(This section would include descriptions of any specific equipment related to compliance with greenhouse gas regulations that are not part of the standard equipment description in an equipment-based permit or facility permit.)

Example:

1. Installation of Solar Roof Panel consisting of 912 PV Modules (Mitsubishi 170 W), rated design capacity of 155 KW.
2. Replacement of 5 in-plant diesel forklifts with battery operated forklifts
3. Replacement of High-GWP Refrigerant with Ammonia Cooling System
4. Electrification of existing permitted Boiler NO.2, MIURA, MODEL LX-200DG, 81.5 MMBTU/HR, NATURAL GAS FIRED, Permit No. F454994.



**AIR QUALITY MANAGEMENT DISTRICT**  
21865 Unknown Drive, Somewhere, CA 90000

Permit No.  
F53664  
A/N 703798

**SAMPLE PERMIT TO OPERATE**

*This permit may be updated ANNUALLY and is void if the equipment or facility is moved, or changes ownership.*

**II. General Conditions:**

(This section describes the general applicable greenhouse gas regulations and requirements for the permit.)

1. This facility is subject to Regulation (XXX). The purpose of Regulation (XXX) is to reduce fluorinated gas emissions from the semiconductor industry pursuant to the California Global Warming Solutions Act of 2006 (Health & Safety Code, sections 38500 et.seq.).

**III. Greenhouse Gas -BACT Requirements:**

(This section includes any Greenhouse Gas Best Available Control Technology (G-BACT) requirements for the various permitted or un-permitted emission units.)

1. The operator may use process optimization, alternative chemistries, or equipment to reduce fluorinated gas emissions from semiconductor process provided the estimated emissions reductions in CO<sub>2</sub>e per square centimeter of wafer manufactured are reported.
2. The operator shall route the collected gas from this operation to an enclosed ground type flare that achieves a methane destruction efficiency of at least 99 percent by weight or to an energy recovery device(s) that achieve a methane destruction efficiency of at least 99 percent by weight or emits less than <X > ppmv of methane at the outlet, dry basis, corrected to 15 percent oxygen.

**AIR QUALITY MANAGEMENT DISTRICT**  
21865 Unknown Drive, Somewhere, CA 90000

Permit No.  
F53664  
A/N 703798

**SAMPLE PERMIT TO OPERATE**

*This permit may be updated ANNUALLY and is void if the equipment or facility is moved, or changes ownership.*

**IV. Greenhouse Gas Emission Reduction Requirements:**

(This section describes the greenhouse gas emission reduction requirements for the stationary source.)

The facility operator shall comply with the specific greenhouse gas emissions emission limits and control requirements of subsection (a) or the cap and trade requirements of subsection (b).

**(a) Greenhouse Gas Emission Limits:**

1. The total CO2 emissions from this facility shall be reduced to the following levels by the date specified below:

<b><u>Total CO2 Emissions</u></b> (MTons/Yr)	<b><u>Date</u></b>
300,000	12/31/10
275,000	12/31/11
250,000	12/31/12

2. CO2 emissions from the IC Engine shall be no greater than 500 g/kW-hr, averaged over any one hour.
3. The surface emissions from the landfill shall not exceed 200 ppmv of methane, measured on an integrated basis, or 500 ppmv of methane, measured on an instantaneous basis, pursuant to EPA method (XXX).

**SAMPLE PERMIT TO OPERATE**

*This permit may be updated ANNUALLY and is void if the equipment or facility is moved, or changes ownership.*

**(b) Greenhouse Gas Emissions Cap and Trade Requirements:**

(Specifics are to be determined by CARB)

1. The operator shall demonstrate to the satisfaction of the Executive Officer that by the end of each calendar year, the facility holds sufficient GHG Certified Emission Reduction (CER) to offset the annual CO<sub>2</sub> emissions of the facility to result in a net annual CO<sub>2</sub> emissions from the facility to the levels specified in condition No. (X).

**V. Monitoring, Record Keeping and Reporting (MRR) Requirements:**

(This section includes all the applicable monitoring, record keeping and reporting requirements for the stationary source.)

2. The operator shall calculate the fluorinated gas emissions from semiconductor manufacturing as expressed in CO<sub>2</sub>e units. The kilograms of fluorinated gas emissions shall be determined using the Tier 2b calculation method in the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, incorporated by reference herein.
3. The operator of a semiconductor operation must submit an initial emissions report pursuant to the requirements in Rule XXX no later than March 1, 2011. This report must quantify the monthly and annual emissions from semiconductor operations conducted during the 2010 calendar year.
4. The operator of a semiconductor operation must submit an annual report by March 1st of each calendar year that quantifies CO<sub>2</sub>e emissions occurring in the previous calendar year.

**AIR QUALITY MANAGEMENT DISTRICT**  
21865 Unknown Drive, Somewhere, CA 90000

Permit No.  
F53664  
A/N 703798

**SAMPLE PERMIT TO OPERATE**

*This permit may be updated ANNUALLY and is void if the equipment or facility is moved, or changes ownership.*

5. The operator of the landfill shall conduct monthly integrated and instantaneous surface monitoring. Monitoring shall be conducted with a portable gas analyzer and in accordance with EPA method (XXX).
6. The operator shall conduct annual source tests from any methane gas control devices to measure the methane and CO<sub>2</sub> emissions from each device. Such source tests shall be conducted by March 1<sup>st</sup> of each year and a test report submitted within 60 days of the testing.

**VI. General Greenhouse Gas Administrative Reporting Requirements:**

(This section includes the applicable provisions and administrative requirements of the mandatory reporting requirements of greenhouse gas emissions for the stationary source.)

1. The operators shall submit greenhouse gas emissions data reports pursuant to REGULATION FOR THE MANDATORY REPORTING OF GREENHOUSE GAS EMISSIONS (Subchapter 10, Article 2, sections 95100 to 95133, title 17, and California Code of Regulations specified below.
2. The operator shall submit a report for the calendar year 2008 that applies best available data and methods to develop emissions estimates. The operator shall submit the annual reports for 2009 and subsequent reporting years that meet all specifications of the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions as specified in Condition No. (XXX).

**AIR QUALITY MANAGEMENT DISTRICT**  
21865 Unknown Drive, Somewhere, CA 90000

**SAMPLE PERMIT TO OPERATE**

Permit No.  
F53664  
A/N 703798

*This permit may be updated ANNUALLY and is void if the equipment or facility is moved, or changes ownership.*

3. The operator shall identify, calculate, and report CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, SF<sub>6</sub>, HFC, and PFC emissions from stationary combustion, process, and fugitive sources at the facility as specified in CARB's Regulation for Mandatory Reporting of Greenhouse Gas Emissions, sections 95110 through 95115. The operator shall calculate and report each GHG separately for each fuel type used. The operator shall monitor and report fuel consumption for the facility and for each process unit or group of units where fuel use is separately metered.