

**SACRAMENTO METROPOLITAN  
AIR QUALITY MANAGEMENT DISTRICT**

**STAFF REPORT**

**AMENDMENTS TO:**

**RULE 202, NEW SOURCE REVIEW**

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## INTRODUCTION

Rule 202 sets the requirements for reviewing permit applications for new and modified sources and the requirements for Best Available Control Technology (BACT) and offsets. The rule also sets the calculation procedures for emission increases and reductions associated with new and modified stationary sources and/or emission units. The rule was first adopted on September 20, 1976 and was last amended on January 24, 2002.

Staff is proposing the following changes to Rule 202:

1. Lower the NO<sub>x</sub> and ROC offset trigger levels for stationary sources in order to comply with the transport mitigation control requirements.
2. Set an emission offset ratio for non-major stationary sources with cumulative emission increases of 5000 lbs/quarter but less than 7500 lbs/quarter to 1.0 to 1.0.

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## BACKGROUND

The proposed rule amendments are intended to make the rule consistent with California Air Resources Board (ARB) Transport Mitigation Control Requirements which were amended in 2003.

The amendments to the ozone transport mitigation regulations required districts within the Broader Sacramento Nonattainment Area to adopt a no net increase in emissions from ozone precursors at or above 10 tons per year. Rule 202 currently has a no net increase in ozone precursor emissions at or above 15 tons per year.

**Federal Mandate:** The District is designated severe nonattainment for the federal one-hour ozone standards and serious for the 8-hour ozone standard by the United States Environmental Protection Agency (EPA). Section 173 of Title I of the Federal Clean Air Act Amendments of 1990 requires permitting authorities to establish a permitting program for reviewing applications for construction of new sources or modification of existing sources of air pollutants. A New Source Review, or Preconstruction Review, is required as part of the SIP under 40 Code of Federal Regulations (CFR) Part 51 Subpart 1 to ensure that the construction or modification of a source will not cause violations of the State's control strategy or interfere with attainment or maintenance of ambient air quality standards. 40 CFR Part 51 also requires the District to adopt a permitting program that requires the application of BACT for any net increase in emissions at a major stationary source, and Lowest Achievable Emission Rate for a new major stationary source or modification to an existing stationary source that result in significant emission increases. Proposed Rule 202 currently complies with these requirements.

**State Mandates:** The California Clean Air Act, Health and Safety Code Section 40919, requires that the District's permitting program be designed to achieve no net increase in emissions from stationary sources with emissions greater than 15 tons per year of reactive organic compounds (ROC) or nitrogen oxides (NO<sub>x</sub>) as

precursors to ozone. The California Clean Air Act also requires the permitting program to require the use of BACT for any new or modified stationary source which has the potential to emit 10 pounds per day or more of ROC or NOx.

**Transport Mitigation Emission Control Requirements:** Upwind districts in a transport couple, as identified in California Code of Regulations Section 70500(c), are required to include sufficient emission control measures in their state ozone attainment plans to mitigate their impacts on ozone concentrations in downwind areas. An upwind district is required to comply with the transport mitigation planning and implementation requirements set forth in California Code of Regulations Section 70600 regardless of its attainment status, unless it complies with the requirements of Section 70601. The 2003 amended ozone transport mitigation regulation requires districts to implement by December 31, 2004, a stationary source permitting program designed to achieve no net increase in the emissions of ozone precursors from new or modified stationary sources that emit or have the potential to emit 10 tons or greater per year of an ozone precursor. Proposed Rule 202 will comply with the 10 tons per year no net increase requirements.

**Chapter 4.5, Protect California Air Act of 2003 Requirements:** On December 31, 2002, the U.S.E.P.A., under direction of the President of the United States, promulgated regulations that substantially weaken the basic federal new source review program (67 Fed. Reg. 80186-80289) (Dec. 31, 2002)). In an effort to minimize the impact of this regulation, the state legislature passed the Protect California Air Act in 2003. The Act is intended to minimize the impact of the relaxation of the federal new source review program on air quality in California. The Act prohibits districts from making revisions to their SIP approved NSR rules (in existence prior to December 30, 2002) that would result in weakening their rules. These revisions include but are not limited to, revisions to rule applicability, changing the definition of modification so that NSR is not triggered or triggered at a higher level of emission increases, or relaxing BACT, air quality analysis, and public participation requirements. The Act does permit districts to deviate from these requirements under specified condition.

The proposed amendments will not result in a relaxation of the requirements of the SIP approved version of Rule 202 since these amendments will:

- a. lower the offset trigger levels for stationary sources, and
- b. set offset requirements for emissions increases where there wasn't one before.

Therefore, the proposed rule amendments do not trigger requirements of the Act.

**Best Available Control Technology Requirements:** Section 40919 of the California Health and Safety Code requires each district with serious air pollution to adopt BACT for any new or modified stationary source which has the potential to emit 10 pounds per day or more of any nonattainment pollutant or its precursors.

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## SUMMARY OF RULE CHANGES

Staff is proposing to amend the rule to:

1. Lower the NO<sub>x</sub> and ROC offset trigger levels for stationary sources in order to comply with the transport mitigation control requirements. The rule currently requires offsetting of NO<sub>x</sub> and ROC emissions if they exceed 15 tons per year (7500 pounds per quarter). The proposed changes will lower the offset trigger levels to 10 tons per year (5000 pounds per quarter).
2. Set an emission offset ratio for non-major stationary sources with cumulative emission increases of 5000 lbs/quarter but less than 7500 lbs/quarter to 1.0 to 1.0. This change sets an offset requirement where there wasn't one before.

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## COST IMPACTS

Section 40703 of the California Health and Safety Code requires that the District consider and make public its findings relating to the cost effectiveness of implementing an emission control measure.

**Impact on Businesses in Sacramento:** Proposed amendments to Rule 202 will require offsets for all cumulative increases in NO<sub>x</sub> and ROC emissions at or above 10 tons per year. The cost of emission credits for offsets vary depending on the supply and demand for the credits. Currently, the cost of one ton of ROCs ranges from \$21,000 - \$28,000 and the cost of one ton of NO<sub>x</sub> ranges from \$23,000 - \$32,000 per one ton (Based on the weighted average for most recent emission reduction credit transactions in the District). Additional cost to businesses is the cost of processing the permit modification to issue the emission reduction credits. There are currently 253 sources with potential emissions greater than 10 tons per year of either NO<sub>x</sub> or ROCs. These include auto body paint and repair shops, graphic arts operations, manufacturing operations, hospitals, prisons, universities, and some county facilities. The actual impact to businesses in the District is not known and will depend on the number of businesses that will modify their operations in the future and trigger the offset requirements. (See impact on employment below for further details.)

**Cost to District:** Staff does not anticipate an additional need for staff resources due to the lowering of the offset trigger levels.

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## SOCIOECONOMIC IMPACT ANALYSIS

The provisions of Section 40728.5 of the California Health and Safety Code require, in part, that:

*"Whenever a district intends to propose the adoption, amendment, or repeal of a rule or regulation that will significantly affect air quality or emissions limitations, that agency shall, to the extent that data are available, perform an assessment of*

*the socioeconomic impacts of the adoption, amendment, or repeal of the rule or regulation.”*

Staff prepared a socioeconomic analysis for Rule 202 pursuant to California Health and Safety Code Section 40728.5. The six separate elements are defined in Section 40728.5 and are discussed below.

**Type of industry or businesses, including small business affected by the proposed amendments:** Rule 202 applies to any stationary source that installs or modifies emission units. These include auto body paint and repair shops, graphic arts operations (some auto body paint and repair shops and graphic arts operations could be small businesses), manufacturing operations, hospitals, prisons, universities, and some county facilities.

**Impact on employment and economy in the District of the proposed amendments:** The amendments to Rule 202 may impose additional offset costs for greater than 10 tons per year NOx and ROC sources that modify their operations. They have the potential for increasing the number of permitting actions that need offsets from about 15 per year to about 80 per year (based on prior years permitting actions) out of 500-550 permitting actions. Many of these sources will choose to take a 10-ton per year limitation rather than provide emission offsets. Staff does not know how many of these facilities will take a permit limit below the offset trigger levels and how many will require offset credits. Staff does not anticipate a significant impact on the employment and economy in Sacramento.

**Range of probable costs, including costs to industry or business, including small business of the proposed rule amendments:** The cost can vary depending on the amount of emission credits needed. The cost of the credits also fluctuates depending on market demand. The cost for one ton of NOx credits is \$23,000 - \$32,500 and \$21,000 - \$28,000 for one ton of ROCs (based on the transactions that occurred in this district during 2002 and 2003).

**Availability and cost effectiveness of alternatives to the proposed amendments:** Staff is amending the rule to lower NOx and ROC trigger levels in order to comply with the amended Transport Mitigation Regulations. The only other option is not to comply with ARB regulations. This may result in ARB establishing a program or exercising any of the powers of the district to achieve and maintain the ambient air quality standards (California Health and Safety Code, Section 41504 and 41505).

**Emission Reduction Potential of the proposed rule amendments:** Staff cannot estimate additional emission reductions because staff cannot predict how many sources will be required to comply nor how much mitigating offset credits would be required. Staff evaluated previous modifications that resulted in offset being required of sources and also other modifications that resulted in net increase in emissions above 10 tons per year. Staff estimated the total emission offsets that would be required of these sources if the 10 ton per year offset level was set in the rule. The analysis shows that the proposed amendments will result in overall benefit to air quality in the District.

**Necessity of amending the rule:** Staff is proposing amendments to the rule to comply with state law and the Transport Mitigation Requirements.

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## **PUBLIC COMMENTS**

Staff held a public workshop on January 20, 2005. The rule and the staff report were mailed to affected sources, ARB, EPA, and others who requested it. Staff received comments on the proposed changes from ARB and affected businesses. The comments and their responses are included as Attachment C to the Staff Report.

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## **ENVIRONMENTAL REVIEW AND COMPLIANCE**

Proposed amendments to Rule 202 include the following changes:

- Lowering the offset trigger levels from 15 tons per year to 10 tons per year.
- Setting an emission offset ratio for non-major stationary sources with cumulative emission increases of 5000 lbs/quarter but less than 7500 lbs/quarter to 1.0:1.0. This change sets a lower offset ratio than currently in the rule.

Staff compared the impact of the amendments of the rule with the existing rule. The proposed rule sets lower offset trigger levels at 10 tpy for NOx and ROC.

The analysis concludes that the amendments to Rule 202 will result in an emissions benefit and therefore will not impact air quality in the District.

The proposed amendments to Rule 202 qualify for a Class 8 categorical exemption as an action by a regulatory agency for the protection of the environment (Section 15308 of the state CEQA Guidelines). The exceptions to categorical exemptions for sensitive locations, cumulative impact, significant effect, scenic resources, toxic sites and historical resources do not apply to the proposed amendments to Rule 202.

California Public Resources Code (Section 21159) requires an environmental analysis of the reasonably foreseeable methods of compliance. The environmental coordinator has concluded that no reasonably foreseeable environmental impacts will be caused by adoption of the amendments of the proposed rule.

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**TABLE OF FINDINGS**

Six required findings: According to Section 40727(a) of the California Health and Safety Code, prior to adopting or amending a rule or regulation, an air district's board must make findings of necessity, authority, clarity, consistency, nonduplication, and reference. The findings must be based on the following:

1. Information presented in the District's written analysis, prepared pursuant to Health and Safety Code Section 40727.2;
2. Information contained in the rulemaking records pursuant to Section 40728 of the California Health and Safety Code; and
3. Relevant information presented at the Board's hearing for the rule.

The table below sets the finding and the basis for making the finding.

FINDING	FINDING DETERMINATION
<b>Authority:</b> The District must find that a provision of law or of a state or federal regulation permits or requires the District to adopt, amend, or repeal the rule.	The District is authorized to adopt rules and regulations by Health & Safety Code Sections 40001, 40702, 40716, 41010, 40919, 41013, and 42300. (Health & Safety Code Section 40727(b)(2)).
<b>Necessity:</b> The District must find that the rulemaking demonstrates a need exists for the rule, or for its amendment or repeal.	It is necessary for the District to adopt amendments to this rule to comply with the Transport Mitigation Requirements which were amended in May 2003 (title 17, California Code of Regulations, sections 70600 and 70601).
<b>Clarity:</b> The District must find that the rule is written or displayed so that its meaning can be easily understood by the persons directly affected by it.	The District has reviewed the rule and determined that it can be easily understood by the affected industry. In addition, the record contains no evidence that the persons directly affected by the rule cannot understand the rule. (Health & Safety Code Section 40727(b)(3)).
<b>Consistency:</b> The rule is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.	The proposed rule amendments do not conflict with and are not contradictory to existing statutes, court decisions, or state or federal regulations. (Health & Safety Code Section 40727(b)(4)).
<b>Non-Duplication:</b> The District must find that either: 1) The rule does not impose the same requirements as an existing site or federal regulation; or 2) that the duplicative requirements are necessary or proper to execute the powers and duties granted to, and imposed upon the District.	The proposed rule duplicates state or federal rules or regulations for permitting programs. The duplicative requirements are necessary in order to execute the powers and duties imposed upon the District. (Health & Safety Code Section 40727(b)(5))
<b>Reference:</b> The District must refer to any statute, court decision, or other provision of law that the District implements, interprets, or makes specific by adopting, amending or repealing the rule.	The amendments implement ARB Transport Mitigation Regulations as amended in May 2003. (Title 17, California Code of Regulations, sections 70600 and 70601)
<b>Additional Informational Requirements (Health &amp; Safety Code Section 40727):</b> In complying with HSC Section 40727, the District must identify all federal requirements and District rules that apply to the same equipment or source type as the proposed rule or amendments.	The matrix attached (Attachment B) contains a comparison of Rule 202 to federal requirements.

**ATTACHMENT A  
 SUMMARY OF PROPOSED AMENDMENTS**

**Rule 202, New Source Review**

<b>NEW SECTION NUMBER</b>	<b>EXISTING SECTION NUMBER</b>	<b>PROPOSED CHANGES</b>
NA	112	The current levels were established to facilitate public participation in permitting actions triggering use of offset credits. Staff has clarified this section and will trigger notification at new lower thresholds consistent with offset trigger levels in Section 302. In addition, public notification will be required for any new or modification to an emissions unit that results in an emission offset requirement pursuant to Section 302.
NA	231	Change the title of the definition to clarify that it applies to Peaking Power Plants.
	302	Revised this section to lower offset trigger levels for NOx and ROCs as required by ARB Transport Mitigation Regulations which were amended in May 2003.  Revised Subsection 302.4 by adding Subsection (b) since subsections (a) or (b) apply.
NA	303	Revised Subsection 303.1(a)(2) to describe what the existing offset ratios apply.  The transport mitigation rules require "no net increase" in emissions from sources with emissions of 10 tons per year or more. Therefore, the appropriate offset ratio for offsets between existing and new offset trigger levels is 1.0:1.  Clarified the table heading for major stationary source and non-major stationary source offsets to ensure that the proper offset ratio is used for major modifications and minor modifications at major stationary sources.  Added new Subsection 303.1(a)(3) to include an offset ratio of 1.0 to 1.0 for non-major stationary sources regardless of the location of emission credits that are used for offset. This offset ratio only applies to emissions of ROCs or NOx at or above 5,000 pounds per quarter to less than 7500 pounds per quarter.

**Attachment B**

**40727.2 Matrix for Proposed Amendments to Rule 202, New Source Review**

<b>Elements of Comparison</b>	<b>Specific Provisions</b>	<b>Rule 202, New Source Review</b>	<b>40 CFR Part 51 Subpart 1</b>
Exemptions	Offset Requirements	1. Emergency Equipment 2. Temporary Equipment 3. Experimental and research options	1. Replacement equipment 2. Change of ownership 3. Routine repair and Maintenance 4. Non-major sources
Averaging Provisions		Averaging provisions will be specified in the Permit depending on the emissions from the emissions unit.	Averaging provisions will be specified in the permit depending on the emissions from the emissions unit.
Units		lbs/day; lbs/quarter, ppm, grams/liter	Tons/year
Emissions Limits	Emissions Reduction	BACT and Emissions offset	Lowest Achievable Emissions Level & Offsets
	Compliance Alternatives	Interpollutant Emission Offsets; Air Quality Modeling for CO	Innovative Control Technology; Air Quality Modeling
Operating Parameters		Not Applicable – Required under other rules (Rule 201, General Permit Requirements)	Monitor emissions; record-keeping for hours of operations, throughput, and emissions.
Work Practice Requirements		Not Applicable – Required under other rules (Rule 201, General Permit Requirements)	Monitor emissions; record-keeping for hours of operations throughput, and emissions.
Monitoring/ Records	Recordkeeping	Not Applicable – Required under other rules (Rule 201, General Permit Requirements)	Monitor emissions; record-keeping for hours of operations, throughput, and emissions.
	Frequency	Not Applicable	Annual
Monitoring/ Testing	Test Methods	Monitoring and testing provisions and their frequencies will be specified in the permit.	Continuous emission monitoring (CEM); testing to verify compliance with emission limits.
	Frequency		Continuous for CEM; Annual or more frequent for source testing.

## Attachment C

### Comments and Responses

#### 1. California Air Resources Board (January 10, 2005)

**Comment** Section 112: The proposed changes to this Section are phrased such that sources less than the listed thresholds would be subject to the notification requirements and those above the thresholds would not – the opposite of the District’s intention. We recommend that this Section be modified as follows:

112 EXEMPTION: NOTIFICATION REQUIREMENTS: Except for applications reviewed under the Enhanced New Source Review process pursuant to Section 404, the requirements of Sections 405, 406, 407, and 409.2 relating to notification, publication, and public inspection of Preliminary Decisions; and notification, publication, and public inspection of Final Action shall not apply if the application is for any new or modified emissions unit where the combined potential to emit from all new or modified emissions units at the stationary source, which are covered by the application for such Authority to Construct(s), would have an increase in potential to emit as defined in Section 419 of less than those amounts listed below. This exemption does not apply if the application is for any new or modified emissions unit where emission offsets are required pursuant to Section 302.

**Response:** Staff revised this section as requested by ARB.

#### 2. Public Workshop Comments (January 20, 2005)

**Comment** Are sources required to offset back to zero if the emissions are increased above 10 tons per year?

**Response** If the source is a new major stationary source, then the source is required to offset back to zero. Also, major modifications are required to full offset their increase.

In the case of new non-major stationary sources or non-major modifications, the source is required to offset either the difference between the new facility potential to emit and 10 tons per year or the increase from the new or modified source, whichever is less.

**Comment** Are offsets required for existing sources?

**Response** This rule only applies to new sources or the modification of existing sources. Existing sources that do not add or modify their equipment are not required to obtain offsets due to the rule amendments.

**3. State of California Office of State Publishing (OSP) (Written Comment, January 19, 2005)**

**Comment** Reduction of offset trigger limits for reactive organic compounds from 7,500 pounds to 5,000 pounds per quarter will increase the financial burden on OSP to maintain regulatory compliance, and can be a prohibiting factor regarding future expansion or modification.

**Response** Past experience (1996 rule amendments), the drop in offset trigger levels did not drive up the cost of offsets. The average cost of ROC credits for the three years prior to 1996 rule amendments was approximately \$28,000 and \$18,000 for the three years after 1996 rule amendments. Most permitted sources in the District, even though they are permitted at their potential which is above 5000 pounds per quarter, have actual emissions below 10 tons per year. These sources may be able to add new emission units or expand their existing operations and at the same time limit their quarterly emissions below 5000 pounds per quarter. Sources with permitted emissions currently above 5000 pounds per quarter may be able to add new emission units or modify their existing operations and not trigger offset requirements if they are willing to take an emissions limit on their facility to keep their emissions at the current level. Additionally, sources can purchase ERCs from districts within the Sacramento Ozone Non-attainment area if they are required to provide offsets.

ARB analyzed the potential cost impacts to businesses as part of their proposed amendments to the ozone Transport Mitigation Regulations. They estimated, based on evaluations of district permitting activities, that approximately 30-50 businesses a year would be impacted in the Bay Area and Sacramento non-attainment area. They estimated a potential cost impact of \$11,000 - \$23,000 per affected business. These costs are speculative since prices are market driven and businesses may have options to reduce their costs. ARB found that California businesses should be able to absorb any costs of the proposed regulatory action without significant adverse impacts on their profitability.

**Comment** Will emission sources be required to retroactively obtain additional offsets to meet the proposed lower offset trigger limit if approved?

**Response** The proposed requirements are not retroactive. Sources currently emitting above 5000 pounds per quarter of ROCs or NOx will not be affected by the proposed requirements unless they modify their operations and increase their emissions. At that point, they will have to offset the net increase in emissions.

**Comment** A lower quarterly offset trigger could possibly create a situation where more sources are in competition for ERC loans. Since ERCs in the Community Bank are limited, increased demand could inflate the prices and availability of ERCs. A worst case scenario would see some emission

sources passing up lucrative business opportunities due to the cost or absence of ERCs. Some may even have to scale back resources or even go out of business.

**Response** The District's Community Bank administered under Rule 205, Community Bank and Priority Reserve Bank has 260 tons of ROCs for allocation. The average amount of ROC credits loaned per year from the Community Bank for NSR offsets for the 5-year period from 2000-2004 is around 5.4 tons per year. The cost of credit tradings ranged between \$21,000 - \$28,000 for one ton of ROCs (based on the transactions that occurred in this district during 2002 and 2003). Staff believes that there are enough credits in the Community Bank to offset any possible increase in demand for these credits. Staff also believes that there will not be a significant increase in the cost of these credits as a result of the proposed rule amendments.

**4. State of California Office of State Publishing (OSP) (E-mail Comment, January 19, 2005)**

**Comment** Is there any data quantifying the ozone or precursor migration from the Bay Area district to the Greater Sacramento area, and from the Sacramento area to the Mountain Counties? If so, how do I obtain it?

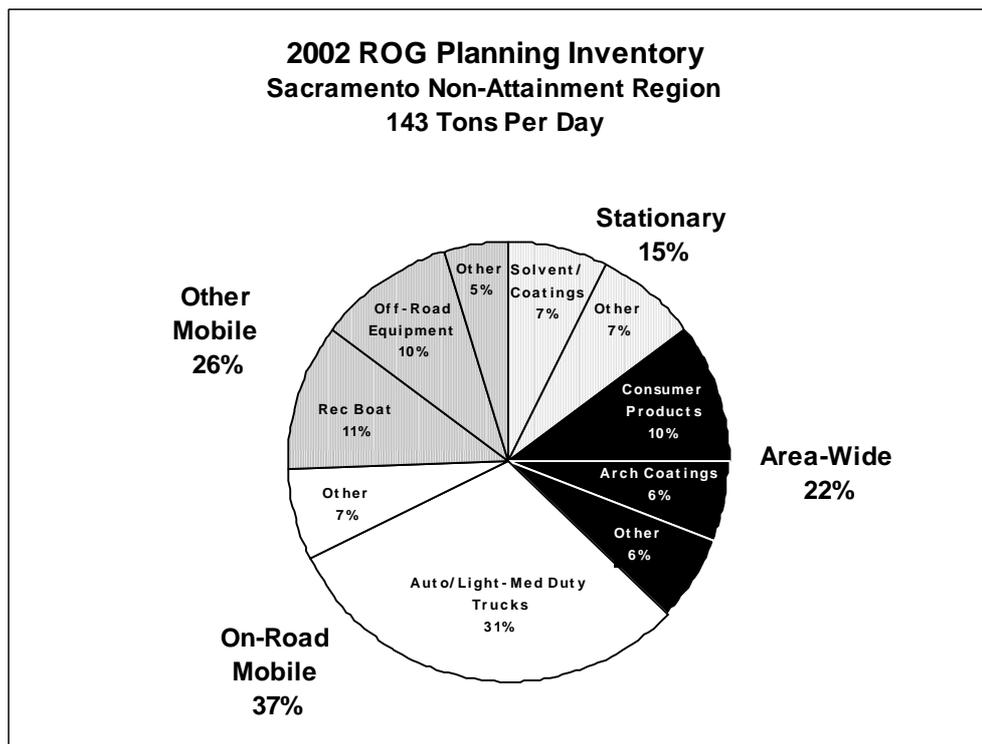
**Comment** What is the estimated proportion of ROC generation in the Greater Sacramento area attributed to stationary sources?

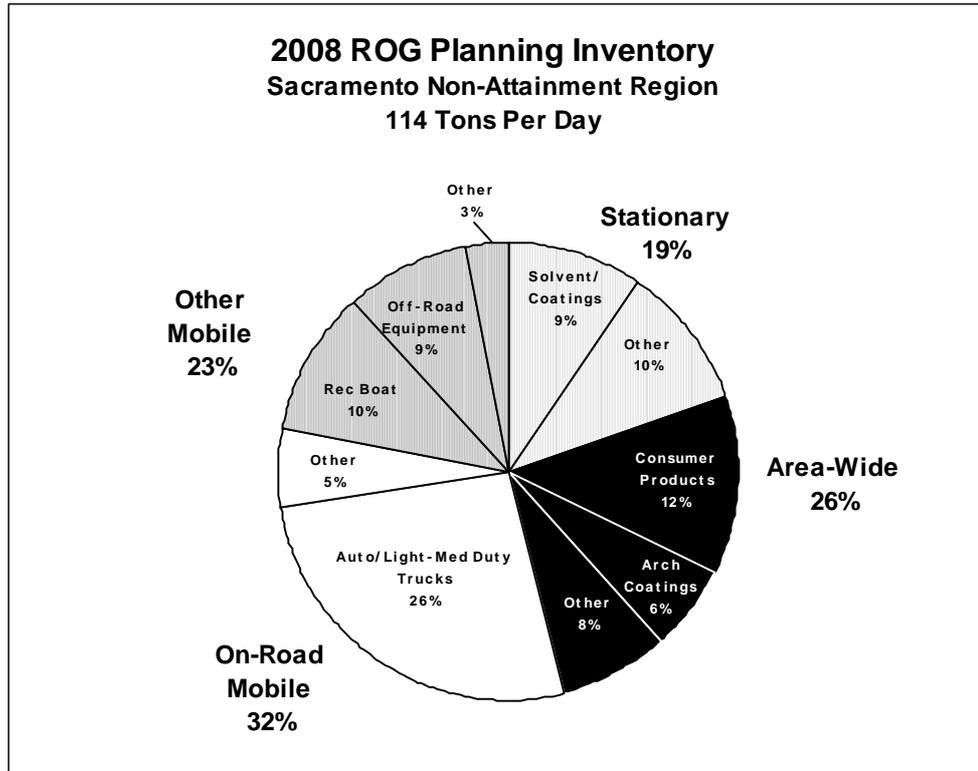
**Response** The following is a listing of the documents or websites references that will provide information on the questions. Note that the transport assessment responsibilities under the law belong to the Air Resources Board (ARB). ARB considers the extent of contribution when they established the mitigation requirements that apply to the downwind districts. Additional information on the mitigation requirements can be located at the ARB website: [<http://www.arb.ca.gov/aqd/transport/mitigation/mitigation.htm>]

**List of Documents**

1. ARB's staff status report on the transport mitigation regulations (April 2004).
2. ARB's final statement of reasons for the transport mitigation regulations (May 2003).
3. ARB's initial statement of reasons for the transport mitigation regulations (April 2003).
4. ARB's second triennial update report on Assessment of the Impacts of Transported Pollutants on Ozone Concentrations in California (November 1996), which contains some qualitative assessment of transport couples, including Bay Area transport to Sacramento region, and Sacramento transport to Mountain Counties. [Located at <http://www.arb.ca.gov/aqd/transport/assessments/assessments.htm>]

5. ARB's summary report on Ozone Transport: 2001 Review (April 2001), which contains some qualitative assessment of transport couples, including Bay Area transport to Sacramento region, and Sacramento transport to Mountain Counties. [Located at <http://www.arb.ca.gov/aqd/transport/assessments/assessments.htm>]
6. Desert Research Institute report on Data Analysis and Episode Selection for SIP Modeling (September 2003), which Chapter 4 contains some preliminary quantification of Bay Area precursor transport to the Sacramento region using a particle dispersion model for selected days. [Located at <http://www.airquality.org/cleanairplan/modeling.shtml>]
7. Desert Research Institute report on SIP Modeling (November 2004), which Chapter 5 contains some preliminary quantification of Bay Area ozone transport to the Sacramento region using photochemical modeling tools (i.e., Ozone Source Apportionment Technology) for selected days. [Located at <http://www.airquality.org/cleanairplan/modeling.shtml>]
8. Estimated ROG emissions inventory pie charts for 2002 and 2008 for the Sacramento ozone nonattainment region (See below).





5. **State of California Office of State Publishing (OSP) (E-mail Comment, February 2, 2005)**

**Comment** What happens after the rule amendments are adopted if an existing facility lowers its emissions below the current 7500 pounds per quarter limit after modification?

**Response** This rule is intended to only affect future offset obligations. Future modifications resulting in a net emissions increase will be assessed against the new offset triggers. Reduction in a facility's potential to emit alone for non-major sources would not trigger offsets.