2008 EIGHT-HOUR OZONE REASONABLY AVAILABLE CONTROL TECHNOLOGY DEMONSTRATION FOR SAN DIEGO COUNTY

WORKSHOP DRAFT - AUGUST 2016

SAN DIEGO COUNTY
AIR POLLUTION CONTROL DISTRICT
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2008 EIGHT-HOUR OZONE REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) DEMONSTRATION FOR SAN DIEGO COUNTY

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EXECUTIVE SUMMARY

The Clean Air Act (CAA) requires Moderate ozone nonattainment areas to implement reasonably available control technology (RACT) for specific types of sources. San Diego County is subject to this requirement as a Moderate nonattainment area for the 2008 eight-hour ozone standard. Accordingly, the San Diego County Air Pollution Control District (District) is required to adopt RACT level controls for sources subject to a U.S. Environmental Protection Agency (EPA) Control Techniques Guidelines (CTG) document and for any other major sources of ozone forming emissions. This *2008 Eight-Hour Ozone Reasonably Available Control Technology (RACT) Demonstration for San Diego County* demonstrates that all RACT requirements are satisfied in San Diego County.

Concurrent to this RACT Demonstration, the District proposes to adopt the *2008 Eight-Hour Ozone Attainment Plan for San Diego County*, which addresses separate CAA requirements for Moderate ozone nonattainment areas. Upon adoption by the District, both documents will be submitted to the EPA through the California Air Resources Board (ARB) for approval as part of the San Diego County portion of the State Implementation Plan (SIP) for attaining and maintaining the 2008 eight-hour ozone standard.

Analysis of District rules concluded that some rules require submittal to (or redaction from) the San Diego County portion of the California State Implementation Plan (SIP). Submittal of these additional rules will be completed through standard state and federal processes separate to the RACT Demonstration. These rules include:

Existing Rules Being Submitted	
Rule Number	Rule Description
61.3.1	Transfer of Gasoline Into Stationary Underground Storage Tanks (Supplementing Rule 61.3)
67.21	Adhesive Materials Application Operations
69.3.1	Stationary Gas Turbine Engines – Best Available Retrofit Control Technology (Supplementing Rule 69.3)
Former Rules Being Redacted	
Rule Number	Rule Description
67.6	Solvent Cleaning Operations (Replaced by Existing Rules 67.6.1 & 67.6.2)
67.11.1	Large Coating Operations for Wood Products (Superseded by Rule 67.11)

1.0 INTRODUCTION, OVERVIEW, AND REQUIREMENTS

Ground-level ozone is a common air pollutant that poses a threat to public health and the environment. It is formed by the reaction of volatile organic compounds (VOC) and oxides of nitrogen (NOx) in the presence of sunlight and heat. States are required to adopt regulations to control VOC and NOx emissions pursuant to Section (§) 110(a) of the Clean Air Act (CAA). Moreover, Moderate ozone nonattainment areas are required to adopt rules implementing "reasonably available control technology" (RACT) pursuant to CAA §172(c)(1) and 182.

San Diego County falls under RACT requirements as a Moderate nonattainment area for the 2008 national ozone standard.[1] The region has fulfilled the requirements as fully demonstrated herein.

1.1 RACT REQUIREMENTS

1.1.1 RACT Defined

RACT is defined by the EPA as "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."[2] A RACT analysis should, therefore, take into account the technological and economic impacts of controls.

For example, if a certain type of emission control or emission limitation is determined to be too costly compared to the amount of emission reduction it achieves, that control might not be considered RACT. Also, as economic factors may vary by region, a control technology or emission limitation designated as meeting RACT in one location does not necessarily define RACT for another location.

1.1.2 VOC RACT

RACT level controls must be implemented for all VOC sources that are subject to a Control Techniques Guidelines (CTG) document and for all other "major sources"[3] of VOC emissions pursuant to CAA §182(b)(2). A CTG is a guideline document issued by the EPA that establishes a "presumptive norm" for the level of emissions control that represents RACT for a specific VOC source category.

1.1.3 NOx RACT

The RACT requirements are extended to major sources of NOx pursuant to CAA §182(f). The EPA did not issue CTGs for NOx sources but instead provided general guidance, Alternative Control Techniques (ACT) documents, indicating the levels of NOx control that represent RACT. Further, the preamble to EPA's 2005 eight-hour ozone implementation rule summarizes NOx RACT guidance as follows: "States should consider in their RACT determinations technologies that achieve 30 - 50%

[1] 81 FR 26697
[2] 44 FR 53762
[3] A major source in Moderate nonattainment areas is defined as a stationary source that emits, or has the potential to emit, at least 100 tons per year of VOC or NOx.

reduction within a cost range of $160 - $1,300 per ton of NOx removed."[4] This range was originally considered for RACT in 1994. Adjusting for inflation would result in a cost-effectiveness threshold range of $257 - $2,093 per ton of NOx removed. However, the District has used a more conservative cost-effectiveness threshold of $5,000, which is more than double EPA's inflation adjusted threshold.[5]

In addition to the EPA cost-effectiveness guidance, the District also considered a local cost-effectiveness threshold it uses when adopting measures to control NOx emissions. Provided the measures are technologically feasible, controls have been adopted at costs of up to $12,000 per ton of NOx reduced (i.e. $6 per pound). Use of this threshold provides for an even more definitive determination of compliance with RACT requirements.

1.1.4 RACT Source Size Thresholds

Per CAA §182, the emissions threshold that determines which stationary sources are considered major stationary sources depends upon the classification of the ozone nonattainment area. The District conducted a RACT analysis based on a Moderate ozone nonattainment classification. This classification defines a major source as a stationary source that emits, or has the potential to emit, at least 100 tons per year of VOC or NOx. To conduct a thorough analysis, all facilities with actual emissions within 50% (50 tons per year) of the 100 ton threshold for VOC or NOx were included for review.

Additionally, each CTG specifies a threshold size of sources that are subject to the CTG. For example, some of the early CTGs applied to sources emitting 25 tons or more of VOC per year, while some of the newer CTGs apply to sources emitting 15 pounds or more of VOC per day. Sources that meet the applicable size threshold specified in the CTG, and any major stationary sources with a potential to emit at least 100 tons per year of VOC or NOx not already covered by a CTG, are subject to RACT.

1.2 RACT ANALYSIS APPROACH

1.2.1 Considering the Latest Information

RACT can evolve over time as new technology becomes available or the cost of existing technology decreases. The RACT rules currently in the SIP were previously submitted to fulfill RACT requirements for the former one-hour ozone standard. However, EPA guidance states that rules previously approved as RACT for the one-hour ozone standard may not automatically be assumed to still represent RACT for the eight-hour ozone standard. Similarly, the EPA has indicated that a comparison of District rules against CTGs that are many years old, such as those issued before 2010, is not sufficient for a RACT demonstration. Rather, the RACT analyses must reflect the "latest

[4] 70 FR 71654

[5] Cost-effectiveness ($/ton) is the ratio of annualized cost ($/year) to annual emission reduction (tons/year). The annualized cost is calculated from the installed cost of control, annual operating and maintenance costs, and indirect costs such as insurance or overhead. Sources of cost information include other air districts, and product or equipment manufacturers and/or distributors. The emission reduction is the difference between baseline emissions and further control emissions. Emission reductions are calculated using rule emission limits, standard emission factors or source test data, and actual annual usage.

information."[6] It must be reevaluated in light of more recent developments in control technology. This includes a comparison of District rules against corresponding rules of other California air districts.

Accordingly, for source categories not covered by newer CTGs, District rule requirements were compared to the latest versions of comparable rules of other California air districts, including the South Coast Air Quality Management District (SCAQMD) and the San Joaquin Valley Air Pollution Control District (SJVAPCD). Both air districts are widely recognized as having the most stringent air quality rules in the nation to address substantial air quality concerns in those regions. The SCAQMD and SJVAPCD have adopted rules that are technology-forcing, i.e., that are designed to compel the development of new technologies to help meet their emission reduction goals. Control requirements in those regions often go well beyond RACT, representing best available control technology (BACT) or lowest achievable emission rate (LAER). Nevertheless, over time and as the new technology becomes commercially available and more cost-effective, eventually it could represent RACT for other nonattainment regions.

1.2.2 EPA Guidance

The EPA issued guidance for preparing RACT SIPs on May 18, 2006.[7] Additionally, EPA Region IX issued a basic framework for RACT SIPs through correspondence with the ARB on March 9, 2006. The correspondence dictates the following requirements for an approvable RACT SIP:

- "Describe efforts to identify all source categories within the District requiring RACT, including CTG sources (i.e., covered by an EPA Control Techniques Guidelines document) and major non-CTG sources." (Section 2.0, Attachments A, B, C, D, and E))
- "Submit Negative Declarations where there are no facilities (major or minor) within the District subject to a CTG." (Section 1.2.2.2 and Attachment B)
- "For all categories needing RACT, list the state/local regulation that implements RACT. It may also be helpful to list the date EPA approved these regulations as fulfilling RACT." (Section 2.0, Attachments A and E)
- "Describe the basis for concluding that the regulations fulfill RACT. Documents useful in establishing RACT include CTG's, Alternative Control Techniques (ACT) guidance, Maximum Achievable Control Technology (MACT) standard, New Source Performance Standards (NSPS), California Suggested Control Measures (SCM) and RACT/Best Available Retrofit Control Technology (BARCT) determinations, and guidance and rules developed by other state and local agencies […]" (Section 2.0, Attachments A and E)

1.2.2.1 CTGs for Sources in San Diego County

Attachment A lists all CTGs for which there are applicable sources in San Diego County and the corresponding rule or rules adopted by the District. In all cases, the District has adopted at least one rule covering the applicable CTG. EPA has approved many of the corresponding District rules as part

[6] 70 FR 71655

[7] Harnett, William T. RACT Qs & As – Reasonably Available Control Technology (RACT): Questions and Answers. U.S. Environmental Protection Agency, 18 May 2006. Web. 13 Nov. 2015. https://www3.epa.gov/ttn/caaa/t1/memoranda/ractqanda.pdf.

of the SIP. In cases where the source category CTG was older, the District reevaluated rules and compared them to requirements found in other air districts (see Section 1.2.1).

1.2.2.2 CTGs with No Subject Sources in San Diego County ("Negative Declaration")

Attachment B identifies all CTGs for which there are no applicable sources in San Diego County. Accordingly, the District has either no corresponding rules relating to these CTGs, or may no longer be applicable to RACT because all source operations are under a CTG applicability threshold or are no longer considered a major source. For any CTGs for which the District has no corresponding RACT rule, the EPA requires that the RACT SIP submittal include a certification (also called a "Negative Declaration") that there are not, and are not expected to be, any sources in the nonattainment area that would be subject to those CTGs.[8] Attachment B lists the CTGs for which the District is certifying a negative declaration. Searches were performed within the District's permits and emission inventory databases, as well as the internet and yellow pages, to confirm there were no source types in San Diego County that would be subject to the CTGs. District staff also consulted with knowledgeable District inspectors and permit engineers to confirm there were no sources in any CTG category for which a negative declaration was claimed.

1.2.2.3 RACT for Major Stationary Sources

The District has adopted several rules to meet RACT requirements for major VOC and NOx sources within San Diego County that are not covered by a CTG. Attachment C specifies these local rules and their status with respect to submittal to EPA and approval as part of the SIP. Attachment D further specifies the major (and potentially major) VOC or NOx stationary sources found in San Diego County, and the prohibitory rules that apply to those facilities.

1.2.3 ACT Applicability

In some circumstances, air districts must also assess EPA's ACTs in determining RACT requirements.[9] ACTs are used primarily as a reference point for available control technology. However, the determination of cost-effectiveness is left to local air districts. This differs from a CTG, which requires local air districts to control emissions for an affected source category based on EPA's determination that the controls identified are technologically and economically feasible.

For the purposes of this RACT Demonstration, the District reviewed ACTs as one of the many methods for evaluating available control technologies for additional emission reductions (similar to MACT and NSPS documentation). Similar to CTGs, older ACTs were reviewed alongside more stringent rules adopted elsewhere in California to ensure District rules fulfill RACT requirements.

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[8] Harnett, William T. RACT Qs & As – Reasonably Available Control Technology (RACT): Questions and Answers. U.S. Environmental Protection Agency, 18 May 2006. Web. 13 Nov. 2015. https://www3.epa.gov/ttn/caaa/t1/memoranda/ractqanda.pdf.

[9] EPA guidance for preparing RACT SIPs confirms that a RACT analysis is needed for source categories for which an ACT document has been published. However, due to technological advancements, an ACT may not represent current levels of control compared to CTGs or other air district rules. Therefore, while ACTs provide a good starting point for analysis in some cases, the requirement to meet the minimum level of control recommended within them does not necessarily apply. Source categories for which there is an applicable ACT but no local major sources are not required to meet RACT requirements.

1.2.4 Feasibility Criteria

When new CTGs or other air district rules were found to contain provisions that were more stringent than the District's current rule, the District evaluated the more stringent provisions to determine if they were feasible for implementation in San Diego County. The more stringent provisions were determined to be feasible if both of the following conditions were met:

1) The provisions would provide VOC or NOx emission reductions if implemented on applicable RACT sources[10] in San Diego County; and
2) The provisions would be technologically and economically feasible for implementation on sources in San Diego County.

For the more stringent provisions that were determined feasible, the District amended its rules accordingly to represent current RACT. These updated RACT rules are consequently being submitted for approval as part of the SIP concurrent with this RACT SIP submittal, and can be found as referenced within Section 2.0, Attachment A, and Attachment E.

The majority of District rules already in the SIP were reevaluated and reaffirmed to represent RACT. Accordingly, these rules require no amendments or additional action at this time. RACT findings were reaffirmed when either:

1) District rule requirements were at least as stringent as the relevant newer CTG or other air districts' rules; or
2) The District demonstrated that the more stringent requirements of a newer CTG or other air district rules were not feasible for implementation in San Diego County, because either:
    a) The provisions would <u>not</u> provide VOC or NOx emission reductions if applied to the sources in San Diego County; or
    b) The provisions would <u>not</u> be technologically or economically feasible for sources in San Diego County.

District rules that are subject to a CTG, or apply to a major source, but had not previously been submitted into the SIP, have also been evaluated for current RACT by comparing them to applicable new CTGs or other district rules. These rules, as specified throughout this Demonstration, are also being submitted into the SIP as applicable.

[10] Subject to CAA §182(b) and (f).

2.0 RACT ANALYSIS RESULTS

The following section describes all District rules regulating VOC and NOx sources, summarizes the RACT analysis findings, and explains the SIP submittal/approval status for each rule. For completeness, Attachment E identifies all District rules that regulate VOC and NOx sources, including both RACT rules and non-RACT rules.

Several of the rules discussed below are not subject to RACT requirements and thus were not evaluated. As explained below, these rules either do not require emission control at a specific source category, or they apply to source categories that are neither covered by a CTG nor located at a major source. Discussion of these rules has been included for informational purposes to clarify why they do not apply to RACT.

2.1 VOC RULES

2.1.1 Rule 59

District Rule 59 (Control of Waste Disposal Site Emissions, effective November 3, 1987) regulates VOC emissions from waste disposal sites other than the municipal solid waste landfills that are subject to Rule 59.1. EPA has not issued a CTG for the source category. Rule 59 was adopted prior to EPA's New Source Performance Standards (NSPS) Subpart WWW requirements for landfills, but is more stringent than the NSPS conditions. Specifically, the rule prohibits gas leaks along the landfill gas transfer path and leachate or condensate reaching any surface where it could be a source of non-methane organic compound emissions. It also requires flares to be equipped with automatic shutoff mechanisms. Consequently, Rule 59 goes beyond RACT requirements, since it is considered to be more stringent than federal requirements.

Most landfills within San Diego County are subject to Rule 59, including two major sources.[11] On August 27, 2015, EPA proposed rulemaking that would replace Subpart Cc – Emission Guidelines, with new Subpart Cf.[12] The EPA finalized the rulemaking on July 15, 2016, and anticipates publishing it in the Federal Register in late 2016. The new Emission Guidelines will apply to existing landfills that received waste after November 8, 1987, and that commenced construction, modification, or reconstruction on or before July 17, 2014. This latter change will affect various local facilities, and in particular the two major sources currently subject to Rule 59.

Because the revised federal Subpart Cf provisions have been finalized, the District is now required to amend Rule 59.1 (Municipal Solid Waste Landfills) to incorporate them. The District is now preparing applicable amendments to Rule 59.1 for District Board consideration by June 2017. Once these amendments are adopted, the two major sources subject to Rule 59 today will become subject exclusively to Rule 59.1. Consequently, there will soon be no major sources subject to Rule 59; submittal of Rule 59 into the SIP is therefore unwarranted.

[11] The two facilities were subject to Rule 59.1, but due to permit modifications, the sites are now treated as "new" landfills under Subpart WWW requirements, and thus are currently subject to Rule 59 and Subpart WWW.
[12] 80 FR 52099

2.1.2 Rule 59.1

District Rule 59.1 (Municipal Solid Waste Landfills, adopted June 17, 1998) regulates VOC emissions from municipal solid waste landfills. Rule 59.1 was adopted to incorporate by reference the control requirements of Subpart WWW outlined in Subpart Cc – Emission Guidelines. It was determined that a separate rule would avoid confusion and provide consistency in regulatory requirements for affected facilities. Many facilities previously subject to Rule 59 became subject to Rule 59.1, and a small number are subject to both.

The District submitted Rule 59.1 into the SIP on September 23, 1999.[13] The rule, along with other comparable California air district landfill rules, comprised California's *State Plan for Municipal Solid Waste Landfills*, which satisfied the requirements of CAA §110 and 111(d). (For context, the region was classified as a Serious nonattainment area for the 1979 one-hour ozone standard at the time.)

In November 2000, the EPA informed the ARB that the rules included in the *State Plan* were inappropriate for inclusion in the SIP. The two reasons cited were: (1) the rules were adopted to implement requirements of CAA §111(d) and 40 CFR Part 60, Subpart Cc rather than §110, and (2) the rules were made federally enforceable by the EPA's approval of the §111(d) *State Plan*. The EPA further recommended that affected districts request withdrawal of their respective rules from the SIP. Accordingly, Rule 59.1was withdrawn from SIP consideration in March 2001.[14]

As mentioned in Section 2.1.1, federal rulemaking now underway would replace Subpart Cc with new Subpart Cf. The two major sources that render the source category applicable to RACT will be subject to Rule 59.1, once the federal provisions have been incorporated in Rule 59.1. Proposed amendments to Rule 59.1 are anticipated to be finalized by June 2017.

Per previous EPA guidance, Rule 59.1 will not be submitted into the SIP. Nevertheless, when Rule 59.1 is amended by June 2017, the District will be one of the first California air districts to incorporate the more stringent federal provisions into an existing rule. The amended rule, coupled with an already stringent Rule 59, will result in San Diego County having among the most stringent controls for landfills in California.

2.1.3 Rule 61.0

District Rule 61.0 (Definitions Pertaining to the Storage and Handling of Organic Compounds) does not in itself regulate sources of emissions. Instead, it simply contains definitions pertaining to Rules 61.1 through 61.8. Rule 61.0 was approved into the SIP on September 13, 1993.[15]

[13] 68 FR 51447

[14] Letter from Andrew Steckel, EPA, Chief – Rulemaking Office to Harry Metzger, ARB, Chief – Rule Evaluation Section. November 27, 2000. Letter from Richard J. Smith, District Assistant Director to Harry Metzger, ARB Chief – Rules. March 26, 2001. Letter from Michael H. Scheible, ARB Deputy Executive Officer to Laura Yoshii, Acting Administrator, EPA Region IX. April 24, 2001.

[15] 58 FR 47831

2.1.4 Rule 61.1

District Rule 61.1 (Receiving and Storing Volatile Organic Compounds at Bulk Plants and Bulk Terminals) regulates VOC emissions from large storage tanks for gasoline and other high volatility motor vehicle fuels. Rule 61.1 has standards for fittings in internal floating roof tanks, external floating roof tanks, and fixed roof tanks, and requires Best Available Control Technology (BACT) for new or replacement rim seals in external and internal floating roof tanks. The EPA approved Rule 61.1 into the SIP on August 8, 1995.[16]

The applicable CTGs[17] date from the 1970s. RACT was therefore evaluated by comparing Rule 61.1 to two related SCAQMD rules. Rule 463 (Organic Liquid Storage, November 4, 2011) and Rule 1178 (Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities, April 7, 2006). As the title "Further Reductions" implies, Rule 1178 represents a level of control beyond RACT. It applies to aboveground storage tanks at petroleum facilities emitting more than 20 tons per year of VOC. The rule specifies rim seal types and fittings for external and internal floating roof tanks and fixed roof tanks, and also requires all external floating roof tanks subject to the rule be domed.

The control requirements of District Rule 61.1 are comparable to SCAQMD Rule 463; thus it still represents RACT. Review of relevant rules of other districts indicates that SCAQMD is the only air district with requirements for installing domes in all external roof tanks; thus, this requirement cannot be considered widely implemented by other air districts at this time. Adopting the more stringent standards of Rule 1178 would not be technologically and economically feasible and not represent RACT. For these reasons, the District determines that Rule 61.1, as approved into the SIP on August 8, 1995, continues to represent RACT for the 2008 eight-hour ozone standard.

In consideration of potential future rulemaking, SCAQMD Rule 1178 includes more stringent requirements for roof fittings and the aforementioned doming of external floating roof tanks and requires inspections to document fugitive vapor or liquid leaks above 500 ppm. While District Rule 61.1 advises facilities to prevent fugitive vapor leaks, no specific limit is enumerated. In addition, District Rule 61.1, like similar rules of California air districts, does not requiring doming of external floating roof tanks. If the more stringent requirements of Rule 1178 for roof fittings and doming were to be adopted in the future, emission reductions would be approximately 12 tons of VOC per year, or 0.03 tons per day.

2.1.5 Rule 61.2

District Rule 61.2 (Transfer of Organic Compounds into Mobile Transport Tanks) regulates VOC vapors displaced by loading mobile transport tanks with gasoline and other high volatility fuels from bulk terminals, and from vapor and liquid leaks during the loading process. The EPA approved Rule 61.2 into the SIP on August 26, 2003.[18]

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[16] 60 FR 40285

[17] Control of Volatile Organic Emissions from Bulk Gasoline Plants, EPA-450/2-77-035, December 1977. Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks, EPA-450/2-77-036, December 1977. Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks, EPA-450/2-78-047, December 1978.

[18] 68 FR 51186

The primary standard of Rule 61.2 requires a 90% emission reduction for displacement of VOC. All systems installed in San Diego County require ARB certification, which requires at least 90% control efficiency. In addition, Rule 61.2 requires the emission rate of all displaced vapors at bulk plants and terminals to not exceed 0.29 pounds of non-methane organic compound per 1,000 gallons of liquid displacing the VOC vapor-air mixtures. This equates to approximately 96% control efficiency. The three local facilities subject to Rule 61.2 comply with the rule; their estimated VOC emissions due to vapor displacement total about 12 tons per year.

The applicable CTGs (*Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals*, EPA-450/2-77-026, October 1977, and *Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems*, EPA-450/2-78-051, December 1978) are older but remain in effect. To evaluate RACT, the District compared the emission reductions being achieved under the existing rule, to what the District requires under the CTG. RACT was also evaluated by comparing Rule 61.2 to SJVAPCD Rule 4621 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants, December 19, 2013), which requires a 95% emission reduction for displaced VOC vapors.

Since Rule 61.2 requires both ARB certification control efficiency (90%) and 96% control during transfer, the existing rule is as stringent as SJVAPCD Rule 4621, which requires 95% control efficiency. Consequently, the District determines that existing Rule 61.2, as approved into the SIP on August 26, 2003, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.6 Rules 61.3 and 61.3.1

District Rule 61.3 (Transfer of Volatile Organic Compounds into Stationary Storage Tanks) regulates VOC vapors displaced by the transfer of gasoline and other high volatility fuels from mobile transport tanks into stationary storage tanks at vehicle refueling stations, and from vapor and liquid leaks during the transfer process (Stage I Vapor Recovery). The applicable CTG, which Rule 61.3 meets, is *Design Criteria for Stage I Vapor Control Systems - Gasoline Service Stations* (EPA-450/R-75-102, November 1975). The EPA approved Rule 61.3 into the SIP on June 30, 1993.[19]

Subsequently, the ARB adopted California's Enhanced Vapor Recovery program regulations to implement advanced state-of-the-art vapor control technology. In response, the District adopted Rule 61.3.1 (Transfer of Gasoline into Stationary Underground Storage Tanks) on March 1, 2006. While Rule 61.3 applies to both aboveground and underground storage tanks, Rule 61.3.1 applies only to underground storage tanks. Consequently, Rule 61.3.1 supplements, but does not replace Rule 61.3, as RACT for Stage I vapor recovery, and is being submitted to the EPA with this RACT SIP submittal.

2.1.7 Rules 61.4 and 61.4.1

District Rule 61.4 (Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks) and Rule 61.4.1 (Transfer of Gasoline from Stationary Underground Storage Tanks into Vehicle Fuel Tanks) regulate

[19] 58 FR 34906

VOC vapors displaced by the filling of vehicle gasoline tanks at vehicle refueling stations, and from vapor and liquid leaks during the transfer process (Stage II Vapor Recovery). The EPA has not issued a CTG for Stage II vapor recovery, and vehicle refueling stations are not major VOC sources. Stage II vapor recovery is instead subject to the separate gasoline vapor recovery requirements of CAA §182(b)(3). The EPA originally approved Rule 61.4 into the SIP on May 13, 1993,[20] fulfilling the requirements of CAA §182(b)(3). Subsequently, to incorporate On-Board Vehicle Refueling Vapor Recovery (ORVR) requirements, the District amended Rule 61.4 on March 26, 2008, which was approved into the SIP on January 7, 2013,[21] further fulfilling these requirements.

Concurrently, the ARB adopted California's Enhanced Vapor Recovery program regulations to implement advanced state-of-the-art vapor control technology. These regulations were adopted by the District as Rule 61.4.1 on March 1, 2006. However, because Stage II Vapor Recovery is not subject to RACT requirements, Rule 61.4.1 is not being submitted to the EPA with this RACT SIP submittal.

2.1.8 Rules 61.5 through 61.8

District Rules 61.5 through 61.8 do not represent RACT for separate source categories. Instead, they contain supplemental non-RACT requirements pertaining to the sources subject to Rules 61.1 through 61.4.1. Rule 61.5 (Visible Emission Standards for Vapor Control Systems) was approved into the SIP on April 14, 1981.[22] Rule 61.7 (Spillage and Leakage of Volatile Organic Compounds) and Rule 61.8 (Certification Requirements for Vapor Control Equipment) were approved into the SIP on March 11, 1998.[23] Rules 61.5, 61.7 and 61.8 will remain in the SIP. Rule 61.6 (NSPS Requirements for Storage of Volatile Organic Compounds) is not being submitted to the EPA with this RACT SIP submittal.

2.1.9 Rule 64

District Rule 64 (Reduction of Animal Matter) regulates VOC emissions from the rendering, cooking, drying, dehydrating, digesting, evaporating and protein concentrating of animal matter. EPA approved Rule 64 into the SIP on July 6, 1982.[24] Rule 64 is not subject to the RACT requirements of CAA §182(b)(2) because the EPA has not issued a CTG for the source category, and the facilities performing such operations in San Diego County are not major VOC sources.

2.1.10 Former Rule 66 and New Rule 66.1

Former District Rule 66 (Organic Solvents, repealed effective February 24, 2011) and new Rule 66.1 (Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds, adopted February 24, 2010, to replace Rule 66), regulate VOC emissions from miscellaneous surface coating operations and industrial solvent uses that are not regulated by other District rules. The EPA approved former Rule 66 into the SIP on August 11, 1998,[25] but the rule was

[20] 58 FR 28354
[21] 78 FR 898
[22] 46 FR 21757
[23] 63 FR 11831
[24] 47 FR 29233
[25] 63 FR 42724

redacted once new Rule 66.1 was adopted. The EPA approved Rule 66.1 into the SIP on August 9, 2012.[26]

Two recently issued CTGs (*Control Techniques Guidelines for Industrial Cleaning Solvents*, EPA-453/R-06-001, September 2006, and *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*, EPA-453/R-08-003, September 2008), apply to source categories subject to Rule 66.1. Thus, Rule 66.1 is subject to RACT requirements. Rule 66.1 requires the use of cleaning solvents with a VOC content not exceeding 50 grams per liter as recommended in the CTG for Industrial Cleaning Solvents. Because plastic parts coating sources in San Diego County emit less than the applicability threshold for the Plastic Parts Coatings CTG, the plastic parts coating VOC content limits in the CTG are not incorporated in Rule 66.1.

The District revised Rule 66.1 on May 11, 2016, to modify exemption thresholds and add new categories for previously exempt operations. As a result, the amended version of Rule 66.1 is determined to replace former Rule 66 as RACT. New Rule 66.1 has been submitted to the EPA for inclusion in the SIP and is currently awaiting approval.

2.1.11 Former Rule 67.0 and Rule 67.0.1

Architectural coatings include a variety of residential, commercial and industrial paints, primers, sealers and other coatings which, when applied, emit VOCs. Architectural coatings were previously regulated under former District Rule 67.0 (Architectural Coatings, repealed January 1, 2016). The EPA approved former Rule 67.0 into the SIP on June 20, 2013.[27] However, the District now regulates architectural coatings under new Rule 67.0.1, adopted on June 24, 2015, to replace former Rule 67.0. New Rule 67.0.1 incorporated the tighter VOC limits of the ARB's 2007 Suggested Control Measures (SCM) and added new coating, sealer, membrane, and primer categories. Rule 67.0.1 was submitted to the EPA for inclusion into the SIP and is currently awaiting approval. Rule 67.0.1 is not subject to the RACT requirements of CAA §182(b)(2), because the EPA has not issued a CTG for the source category. Instead, the EPA issued a national rule pursuant to CAA §183. Furthermore, architectural coating operations are considered area sources, not major VOC sources.

2.1.12 Rule 67.1

District Rule 67.1 (Alternative Emission Control Plans) does not represent RACT for a separate source category. Instead, it provides an alternative method for demonstrating compliance with the requirements of Rules 67.3, 67.4, 67.5, 67.9, 67.11, 67.16, and 67.18. Rule 67.1 was approved into the SIP on March 27, 1997.[28]

2.1.13 Rule 67.2

District Rule 67.2 (Dry Cleaning Equipment Using Petroleum-Based Solvent) regulates VOC emissions from dry cleaning operations using petroleum-based solvents. The EPA approved Rule 67.2

[26] 77 FR 47536
[27] 78 FR 37130
[28] 62 FR 14639

into the SIP on March 27, 1997.[29] Because the applicable CTG (*Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners*, EPA-450/3-82-009, September 1982) is older, RACT was evaluated by comparing Rule 67.2 to SCAQMD Rule 1102 (Dry Cleaners Using Solvent Other Than Perchloroethylene, November 17, 2000). The analysis concluded that District Rule 67.2 is as stringent as SCAQMD Rule 1102.

Due to state requirements phasing out perchloroethylene, no facilities in San Diego County meet the applicability threshold of 123,000 liters of perchloroethylene use per year established in the CTG. Many dry cleaning operations have switched to more environmentally friendly products that are not petroleum-based. Any new petroleum solvent dry cleaning operation with significant potential emissions will be subject to New Source Review (NSR), which requires BACT. Consequently, the District determines that the County has no applicable sources meeting the CTG criteria, and is no longer required to meet RACT requirements for the source category. Nonetheless, the District will retain Rule 67.2 in the SIP, as approved on March 27, 1997, to continue progress towards attaining the 2008 eight-hour ozone standard.

2.1.14 Rule 67.3

District Rule 67.3 (Metal Parts and Products Coating Operations) regulates VOC emissions from metal parts and products coating operations. The EPA approved Rule 67.3 into the SIP on November 14, 2003.[30] Because the applicable CTG (*Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*, EPA-453/R-08-003, September 2008) was recently issued, RACT was evaluated by comparing Rule 67.3 to the CTG. Rule 67.3 is as stringent as the metal parts coating recommendations in the CTG. Consequently, the District determines that Rule 67.3, as approved into the SIP on November 14, 2003, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.15 Rule 67.4

District Rule 67.4 (Metal Container, Metal Closure and Metal Coil Coating Operations) regulates VOC emissions from coating of cans and coils. Because the applicable CTG (*Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks*, EPA-450/2-77-008, May 1977) is older, RACT was evaluated by comparing Rule 67.4 to SJVAPCD Rule 4604 (Can and Coil Coating Operations, September 20, 2007). All coating VOC content limits in Rule 67.4 are at least as stringent as those found in the SJVAPCD rule.

SJVAPCD Rule 4604 also limits the VOC content of cleaning solvents to 25 grams per liter. There are only two facilities subject to District Rule 67.4 in San Diego County, and both use only acetone or water as cleaning solvents. Thus, there are no VOC cleaning solvents used, and both facilities are determined to meet RACT. Nevertheless, to make the use of low or no VOC cleaning solvents enforceable as RACT, the District amended Rule 67.4 on November 9, 2011, to incorporate the tighter VOC cleaning solvent limits of SJVAPCD Rule 4604. The EPA approved amended Rule 67.4 into

[29] 62 FR 14639
[30] 68 FR 64538

the SIP on September 20, 2012.[31] Consequently, the District determines that amended Rule 67.4 continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.16 Rule 67.5

District Rule 67.5 (Paper, Film and Fabric Coating Operations) regulates VOC emissions from paper, film and fabric coating operations. The EPA approved Rule 67.5 into the SIP on March 27, 1997.[32] Because the applicable CTG (*Control Techniques Guidelines for Paper, Film, and Foil Coatings*, EPA-453/R-07-003, September 2007) was recently issued, RACT was evaluated by comparing Rule 67.5 to the CTG, in addition to SCAQMD Rule 1128 (Paper, Fabric, and Film Coating Operations, March 8, 1996) and SJVAPCD Rule 4607 (Graphic Arts and Paper, Film, Foil, and Fabric Coatings, December 18, 2008).

Rule 67.5's control efficiency (at least 90% overall) is as stringent as the recommendations in the CTG, which states that its recommendations for control efficiency are based on the San Diego Air District's rule. The 90% control efficiency requirement is also found in SCAQMD Rule 1128 and SJVAPCD Rule 4607. As stated in the CTG, control efficiency beyond 90% is not recommended since it is not considered reasonable or feasible to install and operate a permanent total enclosure in conjunction with a control device that reduces emissions by 95%. Therefore, any control efficiencies installed at facilities in San Diego County beyond 90% control efficiency are considered to exceed RACT. Three facilities are currently subject to Rule 67.5 and each complies with the CTG limits. The largest facility in San Diego County meets BACT, and the two other, smaller facilities emit VOC amounts well under the CTG applicability threshold. Existing Rule 67.5 remains as stringent as comparable SCAQMD and SJVAPCD rules and the CTG requirement for control efficiency. Thus, Rule 67.5, as approved into the SIP on March 27, 1997, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.17 Former Rule 67.6 and Rules 67.6.1 & 67.6.2

The EPA approved former Rule 67.6 (Solvent Cleaning Operations), regulating VOC emissions from solvent cleaning operations, into the SIP on December 13, 1994.[33] However, new District Rule 67.6.1 (Cold Solvent Cleaning and Stripping Operations) and Rule 67.6.2 (Vapor Degreasing Operations) were adopted on May 23, 2007, to replace former Rule 67.6 which was repealed effective May 23, 2008. The EPA approved Rules 67.6.1 and 67.6.2 into the SIP on October 13, 2009, and specified that the rules meet RACT requirements.[34]

The EPA's approval notice for Rules 67.6.1 and 67.6.2 indicated that the applicable CTG is the recently issued *Control Techniques Guidelines for Industrial Cleaning Solvents* (EPA-453/R-06-001, September 2006). Taken together, the rules are as stringent as the CTG, and go beyond other air districts' requirements by mandating that cold solvent cleaning operations using solvents containing exempt compounds (such as acetone) meet the stringent equipment operating requirements of the rules. Thus, facilities using exempt compounds still require a permit to operate. These requirements

[31] 77 FR 58313
[32] 62 FR 14639
[33] 59 FR 64132
[34] 74 FR 52427

include, but are not limited to, a cover for batch loaded cold solvent cleaning operations, and compliance with California Health and Safety Code hazardous waste protocol for waste or recycled solvent. Because the EPA approval of Rules 67.6.1 and 67.6.2 was relatively recent, and because the rules are at least as stringent as the CTG, the District determines that Rules 67.6.1 and 67.6.2 continue to represent RACT for the 2008 eight-hour ozone standard, and replace former Rule 67.6 as RACT in the SIP.

2.1.18 Rule 67.7

District Rule 67.7 (Cutback and Emulsified Asphalts) regulates VOC emissions from cutback and emulsified asphalts applied on pavements. The EPA approved Rule 67.7 into the SIP on March 27, 1997.[35] Because the applicable CTG (*Control of Volatile Organic Compounds from Use of Cutback Asphalt*, EPA-450/2-77-037, December 1977) is older, RACT was evaluated by comparing Rule 67.7 to SJVAPCD Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations, December 17, 1992). Rule 67.7 is as stringent as SJVAPCD Rule 4641. Consequently, the District determines that Rule 67.7, as approved into the SIP on March 27, 1997, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.19 Rule 67.9

District Rule 67.9 (Aerospace Coating Operations) regulates VOC emissions from coating of aerospace components. Rule 67.9 was approved into the SIP on August 17, 1998.[36] Rule 67.9 has generally analogous coating limitations with SCAQMD Rule 1124 (Aerospace Assembly and Component Manufacturing Operations, September 21, 2001), with a few variations in limits for specialty coatings or adhesives. For example, SCAQMD Rule 1124 includes limits for new commercial aircraft adhesive bonding primers; no such limit in San Diego County is necessary because local aerospace manufacturing operations have ceased. All existing operations now primarily involve maintenance and rework.

Emissions in this source category have greatly declined in San Diego County since 1990 due to three factors: the implementation of Rule 67.9, the decline in government funding for aerospace operations, and in particular, the closing of one large facility. No major sources in the County utilize aerospace coatings.

The applicable CTG for this source category is *Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations* (EPA-453/R-97-004, December 1997). The CTG applicability language states that it "has been developed for affected sources in areas of Moderate or above […] nonattainment that have the potential to emit greater than or equal to 25 tons per year of VOC's." Therefore, if the District determines that all permitted sources have a potential to emit (PTE) less than 25 tons per year of VOC emissions, the CTG does not apply. The District determines PTE either through specific permit conditions, or through a federally enforceable definition of PTE found in existing District Rule 20.1, approved into the SIP on April 14, 1981.[37]

[35] 62 FR 14639
[36] 63 FR 43884
[37] 46 FR 21757

A total of 29 sites are permitted to utilize aerospace coatings in San Diego County. All sites except one (97%) were determined to have permitted aerospace coating usage limits (PTE) lower than 18 tons per year of VOC. This is significantly more stringent than the CTG applicability threshold requirement, which is less than 25 tons per year. Sites were determined to be sources of emissions based on standard District protocol or through other EPA Guidance, as applicable.[38] For the last site (Facility A), the District utilized the District's federally enforceable definition of PTE found in SIP-approved Rule 20.1. The definition relies on historical usage data within a five-year period preceding the most recent emission inventory data available, to determine PTE. Under this definition, Facility A has emitted no more than 4.5 tons per year of aerospace-related VOC emissions since 2007 (a range of approximately nine years, well over the required five year analysis period[39]). As such, the District determined that the single remaining site has a federally enforceable PTE limit under the CTG applicability threshold.

Since all facilities in the County have federally enforceable PTE limits less than the CTG applicability threshold of 25 tons per year, the CTG does not apply. Furthermore, any new aerospace coating operation with significant potential emissions would be subject to NSR, which will require BACT.

Since the District has no sources meeting the CTG applicability threshold, the District determines that it is no longer required to meet RACT requirements for the source category. Though the rule is no longer applicable to RACT, the District will retain Rule 67.9 in the SIP to continue progress towards attaining the 2008 eight-hour ozone standard.

2.1.20 Rule 67.10

District Rule 67.10 (Kelp Processing and Bio-Polymer Manufacturing Operations) regulates VOC emissions from kelp processing and bio-polymer manufacturing operations. Rule 67.10 was adopted to apply RACT requirements (at least 81% VOC emissions reduction) to one unique facility that, at the time, was a major source for VOC. The EPA approved Rule 67.10 into the SIP on June 22, 1998.[40] At the time of rule adoption, the facility consisted of two primary operations, which included: (1) processing kelp, and (2) manufacturing bio-polymers for nutraceutical use. Shortly after rule adoption, the kelp processing operation ceased as a result of the company restructuring. The bio-polymer manufacturing, which remains operational today, has significantly lowered VOC emissions; recent emission inventory data confirms the facility emitted less than 39 tons of VOC or NOx per year since 2011. Because Rule 67.10 and the source it regulates is unique, there are no comparable rules at other districts to compare it to. Consequently, the District determines that Rule 67.10, as approved into the SIP on June 22, 1998, continues to represent RACT for the eight-hour ozone standard.

[38] Seitz, John S. "Memorandum - Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act (Act)." U.S. Environmental Protection Agency. OAQPS, 2 Aug. 1996. Web. 23 Feb. 2016. https://www.epa.gov/sites/production/files/2015-08/documents/dodguid.pdf.

[39] For reference, Facility A has never exceeded the CTG applicability threshold of 25 tons per year of aerospace coating use, based on all available emission inventory data.

[40] 63 FR 33854

2.1.21 Rules 67.11 and 67.11.1

Wood coatings include a variety of primers, stains, sealers, and varnishes which, when applied to wood products such as cabinets and furniture, release VOC emissions. Historically, this source category was regulated under District Rule 67.11 (Wood Products Coating Operations) and Rule 67.11.1 (Large Coating Operations for Wood Products). When Rule 67.11 was originally adopted in 1989, there were no wood coating major sources in San Diego County. After the EPA issued the applicable CTG - *Control of Volatile Organic Compound Emissions from Wood Furniture Manufacturing Operations* (EPA-453/R-96-007, April 1996; see also 61 FR 25223, May 20, 1996, and 61 FR 50823, September 27, 1996) with an applicability threshold of 25 tons per year, the District discovered one wood coating facility subject to the CTG. Consequently, Rule 67.11.1 was adopted in 2002 to apply RACT to any subject source. The EPA approved Rule 67.11.1 into the SIP on June 5, 2003.[41] Today, there are no wood-coating major sources in San Diego County.

RACT was evaluated for Rule 67.11 by comparing the rule to SCAQMD Rule 1136 (Wood Products Coatings). In 1996, SCAQMD amended Rule 1136 to enact technology-forcing VOC content limits in several coating categories. The limits were lower than those found in most other California air districts. Rule 67.11 was updated on June 27, 2012, to incorporate the tighter VOC limits found in SCAQMD Rule 1136. Large wood coating operations were also incorporated into amended Rule 67.11 for ease of implementation. Rule 67.11.1 was subsequently no longer necessary, and was repealed on June 27, 2013. The EPA approved the amended Rule 67.11 into the SIP on April 11, 2013.[42] All requirements of the applicable CTG, and tighter emission limits found in other air district counterpart rules, are now incorporated in amended Rule 67.11.

Because the EPA approval was so recent, amended Rule 67.11 is determined to represent RACT for the 2008 eight-hour ozone standard. In addition, the District is requesting to remove Rule 67.11.1 from the SIP since all RACT requirements have been fulfilled through amended Rule 67.11, rendering Rule 67.11.1 duplicative and no longer necessary.

2.1.22 Rule 67.12 and Rule 67.12.1

Polyester resin materials are gel coats, resins, and cleaning solvents used in the manufacture of aerospace components, synthetic marble products, surfboards, boats and other products. Polyester resin operations release VOC emissions and are currently regulated under former District Rule 67.12 (Polyester Resin Operations, to be repealed effective May 11, 2017). Rule 67.12 was approved into the SIP on March 27, 1997,[43] and determined to represent RACT at the time. RACT was evaluated by comparing Rule 67.12 to both the *Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials* (EPA-453/R-08-004, September 2008), and SCAQMD Rule 1162 (Polyester Resins Operations, July 8, 2005) for operations producing products other than boats. Slightly lower monomer content limits were found in South Coast AQMD Rule 1162 in several categories. Rule 1162 also regulates several new materials.

[41] 68 FR 33635
[42] 78 FR 21538
[43] 62 FR 14639

Consequently, the District incorporated the tighter VOC limits found in SCAQMD Rule 1162 into new District Rule 67.12.1 on May 11, 2016, which is replacing Rule 67.12. Consequently, the District determines that replacement Rule 67.12.1 represents RACT for the source category. Rule 67.12.1 has been submitted to the EPA for inclusion in the SIP and is currently awaiting approval.

2.1.23 Rule 67.15

District Rule 67.15 (Pharmaceutical and Cosmetic Manufacturing Operations) regulates VOC emissions from pharmaceutical and cosmetic manufacturing operations. The EPA approved Rule 67.15 into the SIP on March 27, 1997.[44] Because the applicable CTG (*Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products*, EPA-450/2-78-029, December 1978) is older, RACT was evaluated by comparing Rule 67.15 to SCAQMD Rule 1103 (Pharmaceuticals and Cosmetics Manufacturing Operations, March 12, 1999). Rule 67.15 is as stringent as SCAQMD Rule 1103. Consequently, the District determines that Rule 67.15, as approved into the SIP on March 27, 1997, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.24 Rule 67.16

Graphic arts operations involve the use of inks, cleaning solvents, and other materials in the printing and publishing industry. These operations are a source of VOC emissions and are regulated under District Rule 67.16 (Graphic Arts Operations). For RACT, Rule 67.16 was compared to *Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing* (EPA-453/R-06-002, September 2006) and *Control Techniques Guidelines for Flexible Package Printing* (EPA-453/R-06-003, September 2006). Rule 67.16 was updated on November 9, 2011 (effective May 9, 2012), to establish tighter VOC limits found in the CTGs. One such requirement included in the CTGs are limits for heatset web offset printing operations. Requirements for heatset web offset printing operations were not adopted in the amendment because San Diego County has no facilities that perform such operations. All facilities are sheet-fed offset operations. Furthermore, the EPA concluded in subsequent correspondence that the rule met RACT at the time of amendment. The EPA approved amended Rule 67.16 into the SIP on September 20, 2012,[45] and noted that the rule was acceptable for meeting RACT requirements. Consequently, the District determines that amended Rule 67.16 continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.25 Rule 67.17

District Rule 67.17 (Storage of Materials Containing Volatile Organic Compounds) does not regulate a separate source category. Instead, it supplements and supports the other RACT rules by requiring that any VOC-containing materials, including rags and wastes, be transferred and stored only in closed containers. Rule 67.17 was approved into the SIP on March 27, 1997.[46] Rule 67.17 fulfills the corresponding provisions included in the general house-keeping work practices recommendations of various CTGs. Accordingly, the District determines that Rule 67.17, as approved into the SIP on March 27, 1997, continues to represent RACT for the 2008 eight-hour ozone standard.

[44] 62 FR 14639
[45] 77 FR 58313
[46] 62 FR 14639

2.1.26 Rule 67.18

District Rule 67.18 (Marine Coating Operations) regulates VOC emissions from coating of marine vessels, ships and pleasure boats. Rule 67.18 was approved into the SIP on March 27, 1997.[47] For RACT, Rule 67.18 was compared to both *Control Techniques Guidelines for Shipbuilding and Ship Repair Operations (Surface Coating)* (published in 61 FR 44050 on August 27, 1996, along with EPA-453/R-94-032, April 1994), and the pleasure boat coating emission limits in the *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings*, (EPA-453/R-08-003, September 2008). The rule was also compared to SCAQMD Rule 1106 (Marine Coating Operations, January 13, 1995) for coating of ships. Rule 67.18 covers coating operations for both commercial and non-commercial (pleasure craft) ships.

For pleasure craft, the EPA recommends the Miscellaneous Metal and Plastic Parts Coating CTG be applied to "each miscellaneous metal product and plastic parts surface coating unit at a facility where the total actual VOC emission from all miscellaneous metal product and plastic parts surface coating operations, including related cleaning activities, at that facility are equal to or exceed 6.8 kg/day (15 pounds per day), or an equivalent level of 2.7 tons per 12-month rolling period, before consideration of controls."[48] Based on historical and recent emission inventory data, the District determined that eight facilities in San Diego County perform pleasure craft refinishing operations. Since 2010, six of the eight facilities have consistently demonstrated total solvent, coating, and cleaning material use of less than five pounds of VOC per day before controls. The remaining two facilities respectively have emitted 13.2 and 12.1 pounds of VOC per day before controls, based on recent inventory data. The two facilities have each emitted no more than 13.2 pounds of VOC per day since 2007, establishing a pattern of operational consistency.

For informational purposes only, the District also assessed coating limits found in the Miscellaneous Metal CTG. Virtually all coating limits already meet or are more stringent than the CTG's recommendations. Nonetheless, since all pleasure craft refinishing facilities in San Diego County have consistently demonstrated usage of less than 15 pounds of VOC per day since 2007, the District determines the Miscellaneous Metal and Plastic Parts Coating CTG does not apply for pleasure craft refinishing operations in San Diego County, and thus the District is not required to meet associated RACT requirements for Rule 67.18. Therefore, a RACT determination for the source category must only be demonstrated through review of the Shipbuilding and Ship Repair Operations (Surface Coating) CTG and comparable rules from other air districts.

The Shipbuilding and Ship Repair Operations (Surface Coating) CTG was adopted in 1994. Since the applicable CTG is older, the District evaluated Rule 67.18 against applicable CTG requirements and SCAQMD Rule 1106 (Marine Coating Operations). The source category remains subject to RACT since several non-pleasure craft refinishing facilities emit over the CTG applicability threshold. These facilities consist exclusively of commercial and military vessel refinishing, and do not perform pleasure craft operations. The District determined that VOC coating limits in Rule 67.18 were equivalent or more stringent than the Shipbuilding CTG.

[47] 62 FR 14639
[48] EPA 453/R-08-003, September 2008, Page 3.

Furthermore, coating limits found in SCAQMD Rule 1106 (Marine Coating Operations) were generally equal to the limits in Rule 67.18 in most coating categories. In fact, Rule 67.18 was found to be more stringent than the CTG or Rule 1106 in several coating categories, including antennas, antifoulants for aluminum substrates, high gloss (baked), pretreatment wash primers, and special markings. Since Rule 67.18 VOC emission limits are equivalent to those in the applicable CTG and SCAQMD Rule 1106, the District determines that existing Rule 67.18, as approved into the SIP on March 27, 1997, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.27 Rule 67.19

District Rule 67.19 (Coatings and Printing Inks Manufacturing Operations) regulates VOC emissions from coatings and printing inks manufacturing operations at one facility that was previously considered a major source at the time of rule adoption. The facility is no longer considered a major source, emitting less than 25 tons of VOC per year based on recent emission inventory data. The EPA approved Rule 67.19 into the SIP on May 26, 2000.[49] RACT was evaluated by comparing Rule 67.19 to SCAQMD Rule 1141.1 (Coatings and Ink Manufacturing, November 17, 2000). Rule 67.19 is as stringent as SCAQMD Rule 1141.1. Consequently, the District determines that Rule 67.19, as approved into the SIP on May 26, 2000, continues to represent RACT for the 2008 eight-hour ozone standard.

2.1.28 Former Rule 67.20 and Rule 67.20.1

Automotive coatings include a variety of primers, clear coatings, and color coatings used in motor vehicle or mobile equipment refinishing operations. These operations are a source of VOC emissions and were previously regulated under former District Rule 67.20 (Motor Vehicle and Mobile Equipment Refinishing Operations, repealed effective June 30, 2011). The source category is now regulated under District Rule 67.20.1 (Motor Vehicle and Mobile Equipment Coating Operations, adopted on June 30, 2010). Rule 67.20.1 includes the tighter VOC limits of ARB's 2005 SCM for Automotive Coatings.[50] Furthermore, Rule 67.20.1 remains as stringent as SCAQMD Rule 1151 (Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations).

There are no motor vehicle assembly plants in San Diego County. Thus, the *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings* (EPA-453/R-08-006, September 2008) does not apply. The District determined that motor vehicle coating operations in San Diego County are primarily vehicle refinishing operations that are not large enough to be major VOC sources. The largest permitted refinishing facility emitted under 4 tons per year of VOC in recent surveys, and is required to emit no more than 15 tons of VOC per year.

Since no CTG is applicable for the source category, and because there are no major sources in the region, the District determines that Rule 67.20.1 is not subject to RACT requirements of the CAA, and is not being submitted with this RACT SIP submittal.

[49] 65 FR 34101
[50] ARB SCM for Automotive Coating Operations, October 20, 2005.

2.1.29 Rule 67.21

District Rule 67.21 (Adhesive Materials Application Operations, effective November 14, 2008) regulates VOC emissions from the use of adhesives. For the RACT analysis, Rule 67.21 was compared to *Control Techniques Guidelines for Miscellaneous Industrial Adhesives* (EPA-453/R-08-005, September 2008).

Only two facilities in San Diego County emit above the CTG applicability threshold (three tons of VOC per year). One facility uses a PVC welding adhesive for which Rule 67.21 has a VOC content limit of 510 grams per liter. This is slightly higher than the CTG recommended limit of 500 grams per liter. The emissions that would be in excess of the CTG recommendation, calculated from this facility's annual adhesive usage data, would be 0.075 tons per year, a negligible amount.

The second facility uses an elastomeric adhesive with a VOC content of 747 grams per liter (g/l) in order to meet specific performance and safety criteria for their product – life preserving equipment. This adhesive is essential in the bonding of rubber based materials. The CTG does not recommend a specific limit for elastomeric adhesives, other than to classify it as a "specialty adhesive" in Appendix B of the CTG. Thus, the Rule 67.21 limit can be considered more stringent than the recommended CTG limit. Furthermore, of the 14 air districts noted in the CTG, San Diego County is the only one with a VOC content limit for elastomeric adhesives. SJVAPCD Rule 4653 (Adhesives and Sealants, September 16, 2010) includes the same limit for elastomeric adhesives (750 g/l). The same adhesive is also being utilized in that region for life-preserving equipment, per the definition found in Rule 4653.

Rule 67.21 regulates a wider universe of sources than the CTG, including all sealants and sealant primers. Furthermore, the applicability threshold of Rule 67.21 is much lower, equivalent to 55 gallons per year (or a VOC emission threshold of 0.2 tons per year). Rule 67.21 also regulates architectural and other adhesives widely used outdoors (e.g., building construction and maintenance). These adhesives are responsible for the majority of VOC emissions from this source category and are typically not subject to a District permit. Their sale, and therefore use, is regulated by Rule 67.21. Amendments to Rule 67.21, adopted in 2008, achieved emission reductions of 390 tons per year, most of which emanate from sources not subject to a District permit, such as building construction and related activities. Although the estimated emission reductions are relatively large, the estimate does not account for penetration of low-VOC adhesive materials into the San Diego County market that are sold in SCAQMD. Information from adhesive suppliers indicates they typically supply the same products throughout Southern California.

These reductions, as well as the wider universe of products controlled under the rule, result in District Rule 67.21 being as stringent as the CTG. Consequently, Rule 67.21 is determined to represent RACT for the 2008 eight-hour ozone standard. Rule 67.21 is being submitted into the SIP with this RACT SIP submittal.

2.1.30 Rule 67.22

District Rule 67.22 (Expandable Polystyrene Foam Products Manufacturing Operations) regulates VOC emissions from expandable polystyrene foam products manufacturing operations. The EPA has

not issued a CTG for the source category. At the time the rule was developed, one facility in San Diego County with polystyrene foam products manufacturing operations was a major VOC source. However, that operation has ceased and there are no longer any sources in the area subject to Rule 67.22. Consequently, Rule 67.22 is not subject to the RACT requirements of the CAA §182(b)(2). Accordingly, Rule 67.22 is not being submitted with this RACT SIP submittal.

2.1.31 Rule 67.24

District Rule 67.24 (Bakery Ovens) regulates VOC emissions from bakery ovens at one facility that was historically a major VOC source at the time of rule adoption. The rule requires VOC emissions to be reduced by at least 90%, and was approved into the SIP on March 27, 1997.[51] There are no CTGs applicable to the source category. To evaluate whether the rule is still applicable to RACT requirements, an analysis was conducted on permitted facilities to determine if they emit VOC's above the major source threshold of 100 tons per year.

Two facilities are now subject to the rule, but both are limited by permit conditions to 50 tons of VOC during each consecutive 12-month period. Actual emission data from the two facilities confirms that both emit well below their permitted conditions (under 14 tons of VOC per year for each facility). Since no facilities meet the major source threshold applicable for RACT, and because no CTG exists for the source category, the District determines that Rule 67.24 is no longer subject to RACT requirements. To continue achieving additional emission reductions, the District will retain Rule 67.24 in the SIP, as approved on March 27, 1997.

2.1.32 Proposed Rule 67.25

Currently, the District does not specifically regulate emissions from commercial composting operations. These operations emit VOC through decomposition of organic materials (such as green and wood waste, animal manure, and food waste) during chipping and grinding, stockpiling, and composting activities. Moreover, commercial composting activities are expected to increase in the region in response to federal, state, and local mandates for waste diversion and waste reduction. Accordingly, the District is evaluating the feasibility of a proposed measure (preliminarily designated as Rule 67.25) to control VOC emissions from these sources. Nine facilities in San Diego County compost organic material according to recent estimates, all of which use a traditional "windrow" composting method, which involves piling organic matter in long rows and turning them as needed to optimize oxygen or moisture content.

CAA §182(b)(2)(c) requires RACT for "all other major stationary sources of VOC that are located in the area". CAA §302(j) further defines a major stationary source as "[…] any stationary facility or source of air pollutants which directly emits, or has the potential to emit, [100] tons per year or more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the [EPA] Administrator)." No federal rule defining sources of fugitive emissions has ever been adopted for RACT purposes, nor has the EPA issued a CTG for the source category. However, the EPA did issue a permitting rule[52] that enumerates 27 source categories where fugitive emissions must be included in the emissions calculations. Composting was not one of

[51] 62 FR 14639
[52] 40 CFR 51.165(c)

the 27 categories listed, signifying that emissions from typical windrow compost operations are not considered a major source. Thus, the source category is not subject to RACT requirements.

In the future, if new or existing operations were to install "engineered" systems to emit through a dedicated source, further analysis would be necessary to determine whether the facility would be considered a major source. However, since all current facilities operating in San Diego County use open windrows, they are not considered to be a major source. Consequently, should new Rule 67.25 be adopted as proposed, the rule will not be subject to RACT.

Several other public agencies in California are concurrently evaluating other composting-related directives that address other environmental objectives, such as landfill diversion and water quality. This has resulted in a dynamic regulatory environment that will require close coordination with other local and state agencies, and more importantly, with the affected composting facilities, to ensure that a possible District rule would be feasible, and consistent with other regulatory requirements. The possible proposed rule has not been adopted; therefore, a complete environmental review is deferred until the rule development process, including public review, can occur.

2.2 NOx RULES

2.2.1 Rule 68

District Rule 68 (Fuel-Burning Equipment - Oxides of Nitrogen) regulates NOx emissions from all non-vehicular fuel-burning equipment with rated heat input capacities of 50 million British Thermal Units per hour (BTU/hour) or more. Rule 68 was approved into the SIP on April 9, 1996.[53] Rule 68 is subject to the RACT requirements of CAA §182(f), because there is fuel-burning equipment at major NOx sources.

Rule 68, when adopted in 1971, was the District's only rule regulating NOx emissions. As NOx control technology improved over the years, the District adopted additional rules to regulate separate types of fuel-burning equipment, to supplement, but not entirely replace, Rule 68. Therefore, the District determines that Rule 68, as approved into the SIP on April 9, 1996, continues to represent RACT for the 2008 eight-hour ozone standard, in conjunction with the District's other NOx RACT rules (Rule 69 series, discussed below).

2.2.2 Rule 68.1

District Rule 68.1 (NSPS Requirements for Oxides of Nitrogen from Fuel Burning Equipment) is not a RACT rule. Instead, it simply requires compliance with New Source Performance Standards. Rule 68.1 is not being submitted into the SIP.

2.2.3 Rule 69

District Rule 69 (Electrical Generating Steam Boilers, Replacement Units and New Units, adopted January 18, 1994, and revised December 12, 1995) regulates NOx emissions from one specified power

[53] 61 FR 15719

plant, which is a major NOx source. Two other power plants specified as being subject to the rule have ceased operations. The applicable emissions limitation in Rule 69 (0.15 pounds of NOx per megawatt-hour, or approximately 10-12 parts per million by volume (ppmv)) resulted in utilization of selective catalytic reduction NOx control technology which represents Best Available Retrofit Control Technology (BARCT). All units on-site now meet the 0.15 pounds per megawatt-hour limitation. Consequently, existing Rule 69 represents RACT for the 2008 eight-hour ozone standard.

The remaining power plant subject to Rule 69 will be required to significantly modify operations because of policy codified into state law by the California State Water Resources Control Board (SWRCB).[54] The policy requires specific power plants to cease using seawater for once-through cooling. The remaining power plant subject to Rule 69 is one of the affected facilities, and is required by law to take action no later than December 31, 2017. In response, the owners have elected to install a new natural gas combined-cycle turbine power plant by the SWRCB deadline, and concurrently decommission the existing plant (including all steam boilers affected by Rule 69). The new power plant will be subject to NSR and District Rule(s) 69.3 and 69.3.1. Once the new plant becomes operational, (no later than January 1, 2018), no facilities in San Diego County will be subject to Rule 69.

Should a new facility subject to Rule 69 be proposed, it will be subject to NSR and BACT. Consequently, the District is not submitting Rule 69 with this RACT SIP submittal.

2.2.4 Rule 69.2

District Rule 69.2 (Industrial and Commercial Boilers, Process Heaters and Steam Generators) regulates NOx emissions from industrial and commercial boilers, process heaters, and steam generators with rated heat input capacities of five million BTU/hour or more. Rule 69.2 was approved into the SIP on February 9, 1996.[55] Rule 69.2 is subject to RACT, because there are industrial and commercial boilers at major NOx sources in the region.

Currently, Rule 69.2 exempts units from NOx emission standards with an annual heat input of less than 220,000 therms (22 x 10^9 BTU), and for units with a heat input rating of less than or equal to 50 million BTU/hour. These units are subject only to operational standards, such as unit maintenance, recordkeeping, and an annual boiler tune-up to minimize NOx emissions to the extent feasible. Facilities with annual heat inputs of 220,000 therms or more (or greater than 10% capacity factor for units with heat input ratings greater than 50 million BTU/hour) must comply with NOx emission standards of 30 ppmv for gas-fired units, and 40 ppmv for oil-fired units. Estimated NOx emissions from boilers five million BTU/hour and larger total about 69 tons per year, with over 99% of the emissions from gas-fired units.

To evaluate RACT, Rule 69.2 was compared to SJVAPCD Rule 4306 (Boilers, Steam Generators and Process Heaters – Phase 3, October 16, 2008) and SCAQMD Rule 1146 (Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters, November 1, 2013). To determine local feasibility and whether the resulting emission reductions would be cost-effective, the District evaluated amending Rule 69.2 to reflect the more

[54] 23 CCR §2922, September 27, 2010.
[55] 61 FR 4887

stringent Rule 4306 emission limits, as well as lowering the exemption level to 90,000 therms per year for gas-fired boilers, per Rule 1146.

1. Lower Exemption Threshold/Retain Existing Emission Standards. Require that all boilers with annual heat input between 90,000 and 220,000 therms meet the 30-ppmv NOx standard of existing Rule 69.2, and retain the existing 30-ppmv NOx standard for higher usage boilers. This measure would apply to about 40 units with annual heat input between 90,000 and 220,000 therms, requiring installation of low NOx burners and/or flue gas recirculation to meet the 30-ppmv NOx standard.

2. Lower Exemption Threshold/Tighten Emission Standards. Require that all boilers with annual heat input of 90,000 therms or more meet more stringent standards of 15 ppmv NOx for units rated at less than or equal to 20 million BTU/hour heat input, and 9 ppmv NOx for units rated at greater than 20 million BTU/hour heat input. These NOx standards are consistent with those for SJVAPCD Rule 4306, and the exemption thresholds meet SCAQMD Rule 1146. This measure would require about 110 units with annual heat input of 90,000 therms or more to install emission controls such as ultra-low NOx burners and/or flue gas recirculation to meet the more stringent limits.

3. Retain Existing Exemption Threshold/Tighten Emission Standards. Require that boilers with annual heat input of 220,000 therms or more meet the more stringent (15 ppmv / 9 ppmv) NOx standards. Units with annual heat input rates of less than 220,000 therms would remain exempt. This measure would require approximately 70 units with annual heat input of 220,000 therms or more to install emission controls such as ultra-low NOx burners and/or flue gas recirculation to meet the more stringent limits.

For each case, cost-effectiveness values were estimated for each affected unit. The potential emission reductions (averaged over 365 days of operation per year) and cost-effectiveness values for each of the three cases are summarized in the table below.

Cost-Effectiveness Range (Rule 69.2)

Case	Potential NOx Emission Reductions (tons/day)	Cost-Effectiveness Range ($/ton NOx reduced)
1	0.03	$11,000 to $45,000
2	0.10	$15,000 to $1,670,000
3	0.05	$15,000 to $1,670,000

None of the proposed control measure combinations are within the EPA RACT threshold of $5,000 per ton of NOx reductions. For all three cases, the estimated overall control costs were determined not to represent a reasonably available level of control. An investigation of whether there is any subset of units for which further controls would be cost-effective determined that none of the further control

measures were cost-effective for almost every individual boiler. Furthermore, the District determined that adopting similar controls to the proposed measure combinations would exceed the District's recommended cost-effectiveness threshold of $12,000 per ton of NOx emissions reduced for local Board approval. Poor cost-effectiveness in Cases 1 and 2 results from around 50% of the existing boilers (if the 220,000 therm exemption limit was lowered) already having ultra-low NOx burners and/or flue gas recirculation.

To determine whether more stringent emission limits have been adopted (and found to be cost-effective) in other air districts, the District reviewed staff and technical reports in relation to SCAQMD Rule 1146 and SJVAPCD 4306.[56] According to an EPA technical report,[57] SJVAPCD's rule, adopted in 2003 (which was likely considered technology forcing at the time), ranged between $4,177 to $276,909 per ton of NOx depending on the type and size of the unit. A more recent proxy, SCAQMD's rule, estimated cost-effectiveness between $10,100 per ton to $32,800 per ton in a 2008 staff report.[58] Given that a majority of boilers could be controlled within relevant cost-effective thresholds, the air districts proceeded with rule amendments. This was not the case in San Diego County, where emission reductions consistent with the District's cost-effectiveness threshold ($12,000 per ton), were not available for the majority of units. This is further confirmed by Ventura County Air Pollution Control District (VCAPCD) Rule 74.15 (Boilers, Steam Generators and Process Heaters (5 MMBTUs and greater, November 8, 1994), which has retained a NOx limit of 40 ppmv since the mid-1990s. Importantly, Rule 69.2 can be considered more stringent than VCAPCD Rule 74.15, since Rule 69.2 requires gas-fired units to comply with a 30 ppmv NOx standard. According to District data, over 99% of emissions in this source category come from gas-fired units.

Based on the poor cost-effectiveness and small emission-reduction potential, none of the further control measure combinations found in South Coast or San Joaquin comparable rules is feasible or reasonably available at this time. Therefore, the District determines that Rule 69.2, as approved into the SIP on February 9, 1996, continues to represent RACT for the 2008 eight-hour ozone standard.

2.2.5 Rule 69.2.1

District Rule 69.2.1 (Small Boilers, Process Heaters, and Steam Generators) regulates NOx emissions from new small boilers, process heaters, and steam generators with a heat input rating from 600,000 BTU/hour to 2 million BTU/hour. Rule 69.2.1 is a point-of-sale rule that requires new and replacement units to be certified to NOx emission levels (30 ppmv when operated on a primary gaseous fuel, or 40 ppmv when operated on a primary liquid fuel). Rule 69.2.1 was adopted on March 25, 2009, and went into effect on March 25, 2010.

There are no known small boilers operating at major NOx sources in San Diego County. The largest source operating boilers in this size range is limited via permit conditions to not exceed 50 tons of

[56] For reference, BACT control measures thresholds for NOx in the respective regions evaluated were: 1) SCAQMD at $22,500 per ton, 2) SJVAPCD at $24,500 per ton, and 3) VCAPCD at $18,000 per ton.

[57] O'Connor, Karina et. al. EPA's Technical Support Document for the San Joaquin Valley, California, 2003 PM-10 Plan and 2003 PM-10 Plan Amendments. EPA, 27 January 2004. Web. https://www3.epa.gov/region9/air/sjvalleypm/tsd0104.pdf

[58] SCAQMD. Final Staff Report for Amending Rule 1146. 5 September 2008. Web. http://www3.aqmd.gov/hb/2008/September/080944a.htm

NOx in any 12-month period.[59] Additionally, there is no CTG applicable to the sources covered by Rule 69.2.1. Consequently, Rule 69.2.1 is not subject to RACT requirements, and is not being submitted with this RACT SIP submittal.

2.2.6 Proposed Rule 69.2.2

There are an estimated 500 boilers rated between 2-5 million BTU/hour in San Diego County, cumulatively emitting an estimated 200 tons per year of NOx. Proposed Rule 69.2.2 (Medium Boilers, Process Heaters, and Steam Generators) was previously being developed to apply to medium-sized new and replacement boilers rated between 2-5 million BTU/hour. Possible NOx control requirements (similar to those in Rule 69.2.1)[60] for boilers in this size range were evaluated in 2011-12 and determined infeasible due to poor cost-effectiveness. The District postponed adoption of the proposed rule at that time.

The District recently reviewed similar rules of other California air districts that regulate units in the same size range. Some air districts require a permit to operate such equipment,[61] while others require registration.[62] An analysis of cost-effectiveness ranges with comparable rules in the source category indicated that both rules exceeded the cost-effectiveness threshold for RACT (approximately $5,000 per ton of NOx reduced). Furthermore, the District determined that adopting similar controls for the comparable rules would result in cost-effectiveness around $17,500 per ton of NOx emissions reduced, which exceeds the District's recommended cost-effectiveness threshold of $12,000 per ton of NOx emissions reduced for local Board approval.

The District will further evaluate the feasibility of a possible rule to control NOx emissions from such boilers in San Diego County. This could include a possible requirement that boiler manufacturers certify new units as meeting a specified NOx emission limit (e.g. 30 ppmv) or that operators of existing units obtain a District permit. If the District determines that a proposed rule is cost-effective and feasible, the measure will be proposed for adoption by the Board. Since this has not yet occurred, there is no rule available for submittal into the SIP. A complete environmental review is deferred until the rule development process, including public review, can occur.

2.2.7 Rules 69.3 and 69.3.1

District Rule 69.3 (Stationary Gas Turbine Engines – Reasonably Available Control Technology) and Rule 69.3.1 (Stationary Gas Turbine Engines – Best Available Retrofit Control Technology) regulate NOx emissions from stationary gas turbine engines. Rule 69.3 was approved into the SIP on June 17,

[59] Emissions are reported to the ARB on an annual basis, which may cause small fluctuations compared to the permit condition limiting emissions over any 12-month period.

[60] 30 ppmv when operated on a primary gaseous fuel, or 40 ppmv when operated on a primary liquid fuel.

[61] SCAQMD Rule 1146.1 (Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters, November 1, 2013). The rule was recently strengthened in specific categories, such as units firing on landfill gas (25 ppm), digester gas (15 ppm), and natural gas (9 ppm or 0.011 lbs/10^6 BTU). The 2013 SCAQMD staff report associated with the adoption estimated that cost-effectiveness ranged from $14,400 to $33,500 per ton of NOx emission reductions.

[62] SJVAPCD Rule 4307 (Boilers, Steam Generators, and Process Heaters – 2.0 MMBTU/hour to 5.0 MMBTU/hour, May 19, 2011). The 2008 Staff Report completed at rule adoption indicated that cost-effectiveness ranged from $12,000 to $18,000 per ton.

1997.[63] On December 16, 1998, pursuant to state BARCT requirements, Rule 69.3.1 was adopted supplementing Rule 69.3. Rule 69.3.1 was amended on February 24, 2010, to reduce high daily NOx emissions from certain older existing turbines that generate electrical power during periods of peak electrical demand. Rules 69.3 and 69.3.1 are subject to the RACT requirements of CAA §182(f), because there are gas turbine engines at major NOx sources.

The District compared both rules to those of other air districts, including SJVAPCD Rule 4703 (Stationary Gas Turbines, last amended September 20, 2007) and BAAQMD Rule 9-9 (Nitrogen Oxides from Stationary Gas Turbines, last amended December 6, 2006). Rules 69.3 and 69.3.1 were determined to be as stringent for comparable source categories. Consequently, Rule 69.3.1 is being submitted with this RACT SIP submittal to supplement, but not replace, Rule 69.3 as RACT for the 2008 eight-hour ozone standard.

2.2.8 Rules 69.4 and 69.4.1

District Rule 69.4 (Stationary Reciprocating Internal Combustion Engines – Reasonably Available Control Technology) and Rule 69.4.1 (Stationary Reciprocating Internal Combustion Engines – Best Available Retrofit Control Technology) regulate NOx emissions from stationary reciprocating internal combustion engines. Rule 69.4 was approved into the SIP on January 4, 2006.[64] State law requires implementation of BARCT; therefore, Rule 69.4.1 was adopted on November 15, 2000, to supplement Rule 69.4. Both Rules 69.4 and 69.4.1 are subject to the RACT requirements of CAA §182(f), because there are reciprocating internal combustion engines at major NOx sources.

For all new engines subject to the rule(s), federal RACT level of control for spark-ignition engines is already achieved through BACT requirements under state law through the District's NSR rules, and the state Air Toxic Control Measures (ATCM) requirements for compression-ignition engines. BACT for new engines, under the District's NSR rules, is considered to be as stringent as the required federal RACT level of control. The federal requirement for new engines to meet BACT will also be federally enforceable upon EPA SIP approval of the District's recently revised NSR rules. Consequently, the District considers that, upon EPA approval, all new engines in the source category will meet RACT requirements through the District's existing rules.

To evaluate RACT for existing engines, Rule 69.4.1 was compared to SCAQMD Rule 1110.2 (Emissions from Gaseous and Liquid-Fueled Engines, June 3, 2016) (Case 1), VCAPCD Rule 74.9 (Stationary Internal Combustion Engines, November 8, 2005) (Case 2), and SJVAPCD Rule 4702 (Internal Combustion Engines, November 14, 2013) (Case 3). The District evaluated the local feasibility, cost-effectiveness and emissions reduction potential of amending Rule 69.4.1 to reflect the more stringent emission limits in the aforementioned rules, and to determine whether the resulting emission reductions would be cost-effective for the following more stringent emission limits:

1. Tighten Emission Standards to 11-ppmv NOx. Require that all non-emergency stationary internal combustion engines meet an 11-ppmv NOx standard, consistent with SCAQMD Rule 1110.2. This measure would apply to about 112 units, requiring installation of add-on controls to meet the more stringent NOx standard.

[63] 62 FR 32691
[64] 71 FR 244

2. Tighten Emission Standards to 80-ppmv NOx. Require that all non-emergency stationary compression-ignition engines meet an 80-ppmv NOx standard, consistent with VCAPCD Rule 74.9. This measure would apply to about 67 units, requiring installation of add-on controls to meet the more stringent NOx standard.

3. Tighten Emission Standards to Tier 4. Require that all non-emergency stationary compression-ignition engines meet a Tier 4 engine standard, consistent with SJVAPCD Rule 4702. This measure would apply to about 67 units, requiring new and replacement engines to meet the more stringent NOx standard. The District is currently implementing these lower standards through enforcement of the state Diesel Engine ATCM and federal NSPS IIII, and is currently amending Rule 69.4.1 to meet these more stringent requirements.

For Cases 1 and 2, cost-effectiveness values were estimated for each affected engine. The potential emission reductions (averaged over 365 days of operation per year) and cost-effectiveness ranges for both of the cases are summarized in the table below.

Cost-Effectiveness Range (Rule 69.4.1)

Case	Potential NOx Emission Reductions (tons/day)	Cost-Effectiveness Range ($/ton NOx reduced)
1	0.39	$14,000 to $7,918,000
2	0.15	$6,000 to $3,164,000
3	0.12	Currently implemented through enforcement of the state Diesel Engine ATCM and NSPS IIII

Neither Case 1 nor Case 2 meets the EPA RACT threshold of $5,000 per ton of NOx reductions, and thus neither represents a reasonably available level of control. An investigation of whether there is any subset of units for which further controls would be cost-effective determined that neither of the further control measures were cost-effective for almost every individual engine. For Case 3, the District determines that RACT is already being implemented through implementation of the state Diesel Engine ATCM and the federally enforceable NSPS IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines).[65] Since the federal NSPS is already enforceable in the SIP, Rule 69.4.1 is determined to meet RACT. This rule is also under revision (discussed below); submittal into the SIP would therefore be premature.

On June 28, 2016, the EPA finalized amendments to NSPS IIII. These amendments included a requirement that new stationary compression-ignition engines include emission controls meeting Tier 4 final emission standards. As of July 2016, the final amendments had not been published in the

[65] "Amendments to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," U.S. Environmental Protection Agency. June 28, 2016, EPA-HQ-OAR-2014-0866. https://www3.epa.gov/ttn/atw/icengines/docs/20160615fr.pdf

Federal Register. In response to the recent NSPS amendments, and the existing state Diesel Engine ATCM, the District is currently working on an amendment to Rule 69.4.1 requiring new or replacement compression-ignition engines to meet Tier 4 standards. It is anticipated that the rule revision would be proposed for Board consideration in approximately mid-2017. At the time an amended Rule 69.4.1 is adopted with more stringent emission limits, Rule 69.4.1 will be submitted into the SIP to supplement, but not replace, Rule 69.4 as RACT for the 2008 eight-hour ozone standard.

2.2.9 Former Rule 69.5 and Rule 69.5.1

Recently replaced District Rule 69.5, adopted in 1998, limited emissions from new residential-type water heaters in San Diego County to 40 nanograms per Joule (ng/J) of heat output. The District compared former Rule 69.5 to SCAQMD's Rule 1121 (Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters, last amended September 3, 2004), which requires most new water heaters sold in the South Coast region to meet a 10 ng/J NOx limit. The District assessed the commercial availability of units complying with the 10 ng/J emissions limit and found that complying units are now readily available and not cost prohibitive. Consequently, on June 24, 2015, the District adopted Rule 69.5.1 to replace former Rule 69.5, which was repealed on July 1, 2016. The 10 ng/J NOx limit went into effect on July 1, 2016.

Former Rule 69.5 is not subject to the RACT requirements of CAA §182(f), because natural gas-fired water heaters are considered area sources, not major NOx sources. Additionally, there is no CTG applicable to the sources covered by Rule 69.5.1 (or former Rule 69.5), and no known major sources exist in the County. Consequently, Rule 69.5.1 is not subject to RACT requirements, and is not being submitted with this RACT SIP submittal.

2.2.10 Rule 69.6

District Rule 69.6 (Natural Gas-Fired, Fan-Type Central Furnaces) regulates NOx emissions from natural gas-fired, fan-type central furnaces. Rule 69.6 is not subject to the RACT requirements of CAA §182(f), because the subject sources are considered area sources, not major NOx sources. Accordingly, Rule 69.6 is not being submitted with this RACT SIP submittal.

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
COATINGS AND SOLVENTS							
Aerospace Manufacturing and Rework Operations & Coating Operations	CTG	Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (EPA-453/R-97-004, 1997/12). See also Aerospace MACT (59 FR-29216 6/06/94, 1994/06).	Applies to aerospace coatings and cleaning solvents used at aerospace manufacturing and rework operations including contractors and subcontractors. Supersedes the applicable parts of the Miscellaneous Metal Part and Products CTG. Does not apply to manufacturing or rework operations involving space vehicles; rework operations performed on antique aerospace vehicles or components; or research and development, quality control, laboratory testing, and electronic parts and assemblies (except for cleaning and coating of completed assemblies).	67.9 – Aerospace Coating Operations	08/17/1998 63 FR 43884	04/30/1997	No sources with emission greater than the CTG applicability threshold of 25 tons of VOC per year.
Paper and Fabric, Surface Coating of	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008, 1977/05)	For fabric and paper coating, applies to all coatings put on paper, fabric, or plastic film, and includes decorative coatings on metal foil such as gift wrap and packaging.	67.4 - Metal Container, Metal Closure and Metal Coil Coating Operations	09/20/2012, 77 FR 58313	11/9/2011	Previously Approved Rule Reaffirmed as RACT
	CTG	Paper, Film, and Foil Coatings (EPA-453/R-07-003, 2007/09)	Paper, film, and foil surface coatings, applies to coatings and cleaning materials	67.5 – Paper, Film and Fabric Coating Operations	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Graphic Arts	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VIII: Graphic Arts - Rotogravure and Flexography (EPA-450/2-78-033, 1978/12)	Applies to graphic arts operations that use the flexographic and rotogravure printing processes as applied to both publication and packaging printing.	67.16 – Graphic Arts Operations	09/20/2012, 77 FR 58313	5/9/2012	Previously Approved Rule Reaffirmed as RACT

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
	CTG	Control Techniques Guidelines for Flexible Packaging Printing (EPA-453/R-06-003,2006/09)	Applies to flexible packaging printing operations that emit at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	67.16 – Graphic Arts Operations	09/20/2012, 77 FR 58313	5/9/2012	Previously Approved Rule Reaffirmed as RACT
	CTG	Offset Lithographic Printing and Letterpress Printing (EPA-453/R-06-002, 2006/09)	Applies to graphic arts operations that use the offset lithographic printing or letterpress printing process.	67.16 – Graphic Arts Operations	09/20/2012, 77 FR 58313	5/9/2012	Previously Approved Rule Reaffirmed as RACT
	ACT	Offset Lithography Printing (EPA-453/R-94-054, 1994/06)	Applies to graphic arts operations that use the offset lithographic printing process.	67.16 – Graphic Arts Operations	09/20/2012, 77 FR 58313	5/9/2012	Previously Approved Rule Reaffirmed as RACT
Magnet Wire, Coating of	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating for Insulation of Magnet Wire (EPA-450/2-77-033, 1977/12)	Applies to wire coating curing ovens.	N/A	N/A	N/A	No Sources
Metal Furniture, Surface Coating of	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume III: Surface Coating of Metal Furniture (EPA-450/2-77-032, 1977/12)	Applies to surface coating of metal furniture by metal furniture manufacturers.	N/A	N/A	N/A	No Sources
	CTG	Metal Furniture Coatings (EPA 453/R-07-005, 2007/09)	Applies to metal surface coating units at facilities where the total actual VOC emissions from all metal furniture coating operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	N/A	N/A	N/A	No Sources

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
Metal Parts and Products, Surface Coating of Miscellaneous	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VI: Surface Coating of Miscellaneous Metal Parts and Products (EPA-450/2-78-015, 1978/06)	Applies to industries that are not covered by specific CTG documents (Specific CTGs have been published for can, coil, automobile and light duty truck, metal furniture, magnet wire, and large appliances.)	67.3 - Metal Parts and Products Coating Operations	11/14/2003, 68 FR 64538	4/9/2003	Previously Approved Rule Reaffirmed as RACT
	CTG	Miscellaneous Metal and Plastic Parts Coatings (EPA 453/R-08-003, 2008/09)	Applies to industries that are not covered by specific CTG documents where the total actual VOC emissions from all metal and/or plastic parts coating operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	67.3 - Metal Parts and Products Coating Operations	11/14/2003, 68 FR 64538	4/9/2003	Previously Approved Rule Reaffirmed as RACT
				66 - Organic Solvents (FORMER) 66.1 - Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds	08/11/1998, 63 FR 42724 08/09/2012, 77 FR 47536	Repealed 02/24/2011 05/11/2016	Repealed 02/24/2011 Replacement Rule Has Been Submitted
Shipbuilding	CTG	Surface Coating Operations at Shipbuilding and Ship Repair Facilities (EPA-453/R-94-032, 1994/04)	Applies to any marine or fresh-water metal hulled vessel used for military or commercial operations, including self-propelled vessels and those towed by other craft. This definition includes, but is not limited to, all military vessels, commercial cargo and passenger ships, ferries, barges, tankers, container ships, patrol and pilot boats, and dredges. Pleasure craft, such as recreational boats and yachts, are not included.	67.18 – Marine Coating Operations	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
	CTG	Miscellaneous Metal and Plastic Parts Coatings, (EPA-453/R-08-003, 2008/09) (For Pleasure Boats)	Applies to any marine or fresh-water metal hulled vessel used for pleasure purposes, such as recreational boats and yachts.	67.18 – Marine Coating Operations	03/27/1997, 62 FR 14639	5/15/1996	No sources applicable to CTG for pleasure-craft operations
	N/A	Shipbuilding and Ship Repair Operations (Surface Coating) (61 FR 44050 8/27/96, 1996/08)	Applies to coatings and solvents used for building or maintaining metal marine or fresh-water metal hulled vessels used for military or commercial operations, including self-propelled vessels and those towed by other craft (barges). This definition includes, but is not limited to, all military vessels, commercial cargo and passenger (cruise) ships, ferries, barges, tankers, container ships, patrol and pilot boats, and dredges.	67.18 – Marine Coating Operations	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Solvent Metal Cleaning	CTG	Control of Volatile Organic Emissions from Solvent Metal Cleaning (EPA-450/2-77-022, 1977/11)	Applies to cold cleaners, open top vapor degreasers, and conveyorized degreasers which use volatile solvents to clean metal parts.	67.6 – Solvent Cleaning Operations (FORMER)	12/13/1994, 59 FR 64132	Repealed 05/23/2008	Repealed 05/23/2008
				67.6.1 – Cold Solvent Cleaning and Stripping Operations	10/13/2009, 74 FR 52427	5/23/2007	Recently Approved Rule Reaffirmed as RACT
				67.6.2 – Vapor Degreasing Operations	10/13/2009, 74 FR 52427	5/23/2007	Recently Approved Rule Reaffirmed as RACT
	CTG	Control of Industrial Cleaning Solvents (EPA-453/R-06-001, 2006/09)	Applies to industrial cleaning with organic solvents.	66 – Organic Solvents (FORMER)	08/11/1998, 63 FR 42724	Repealed 02/24/2011	Repealed 02/24/2011
				66.1 – Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds	08/09/2012, 77 FR 47536	05/11/2016	Replacement Rule Has Been Submitted

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
	ACT	Halogenated Solvent Cleaners (EPA-450/3-89-030, 1989/08)	Applies to cleaning machines that use halogenated solvents.	67.6.2 – Vapor Degreasing Operations	10/13/2009, 74 FR 52427	5/23/2007	Recently Approved Rule Reaffirmed as RACT
	ACT	Industrial Cleaning Solvents (EPA-453/R-94-015, 1994/02)	Applies to industrial cleaning with organic solvents.	66 - Organic Solvents (FORMER) 66.1 - Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds	08/11/1998, 63 FR 42724 08/09/2012, 77 FR 47536	Repealed 02/24/2011 05/11/2016	Repealed 02/24/2011 Replacement Rule Has Been Submitted
Traffic Markings	ACT	Reduction of VOC Emissions from the Application of Traffic Markings (EPA-450/3-88-007, 1988/08)	Applies to application of highway traffic markings.	67.0 - Architectural Coatings (FORMER) 67.0.1 - Architectural Coatings	06/20/2013, 78 FR 37130 Pending	Repealed 1/1/2016 6/24/2015	Repealed 1/1/2016 Replacement Rule Has Been Submitted
Wood Furniture Manufacturing	CTG	Control of VOC Emissions from Wood Furniture Manufacturing Operations (EPA-453/R-96-007, 1996/04); 61 FR 25223, May 20, 1996; 61 FR 50823, September 27, 1996.	Applies to any facility that finishes wood furniture, or performs cleaning or wash-off associated with wood furniture finishing operations.	67.11.1 - Large Wood Products Coating Operations (FORMER) 67.11 - Wood Products Coating Operations	06/05/2003, 68 FR 33635 04/11/2013, 78 FR 21538	Repealed 06/27/2013 06/27/2012	Repealed 06/27/2013 Recently Approved Rule Reaffirmed as RACT

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
Flat Wood Paneling, Surface Coating of	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VII: Factory Surface Coating of Flat Wood Paneling (EPA-450/2-78-032, 1978/06), Control Techniques Guidelines for Flat Wood Paneling Coatings (EPA-453/R-06- 004, 2006/09)	Applies to interior paneling made of wood products.	N/A	N/A	N/A	No Sources
PETROLEUM							
Bulk Gasoline Plants	CTG	Control of Volatile Organic Emissions from Bulk Gasoline Plants (EPA- 450/2-77-035, 1977/12)	Applies to bulk plants with daily throughputs of 76,000 liters (20,077 gal.) gasoline or less.	61.1 – Receiving and Storing Volatile Organic Compounds at Bulk Plants and Bulk Terminals	08/08/1995, 60 FR 40285	1/10/1995	Previously Approved Rule Reaffirmed as RACT
External Floating Roof Tanks, Petroleum Liquid Storage in	CTG	Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks (EPA- 450/2-78-047, 1978/12)	Applies to external floating roof tanks larger than 150,000 liters (~40,000 gal. or 950 bbls.) storing petroleum liquids.	61.1 – Receiving and Storing Volatile Organic Compounds at Bulk Plants and Bulk Terminals	08/08/1995, 60 FR 40285	1/10/1995	Previously Approved Rule Reaffirmed as RACT

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
	ACT	Volatile Organic Liquid Storage in Floating and Fixed Roof Tanks (EPA 453/R-94-001, 1994/01)		67.17 - Storage of Materials Containing Volatile Organic Compounds	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Fixed Roof Tanks, Storage of Petroleum Liquids in	CTG	Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks (EPA-450/2-77-036, 1977/12)	Applies to storage vessels with capacities greater than 150,000 liters containing petroleum liquids with a true vapor pressure greater than 10.5 KPa. Exempts fixed roof tanks with capacities less than 1,600,000 liters used to store produced crude or condensate prior to lease custody transfer.	61.1 – Receiving and Storing Volatile Organic Compounds at Bulk Plants and Bulk Terminals	08/08/1995, 60 FR 40285	1/10/1995	Previously Approved Rule Reaffirmed as RACT
	ACT	Volatile Organic Liquid Storage in Floating and Fixed Roof Tanks (EPA- 453/R-94-001, 1994/01)	Applies to storage tanks in all industries, but primarily in the petroleum refineries, pipelines, chemical plants, liquid terminals.	67.17 - Storage of Materials Containing Volatile Organic Compounds	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Natural Gas/Gasoline Processing Plants, Equipment Leaks from	CTG	Control of VOC Equipment Leaks from Natural Gas/Gasoline Processing Plants (EPA-450/3-83- 007, 1983/12)	Applies to facilities engaged in the separation of natural gas liquids from field gas and/or fraction of the liquids into natural gas products, such as ethane, propane, butane and natural gasoline. It is not applicable to compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units and field gas gathering systems unless they are located at a gas plant.	N/A	N/A	N/A	No Sources

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
Gasoline Dispensing Stage II Vapor Recovery	N/A	Stage II Gasoline Dispensing Facilities (EPA-450/3-91-022a, 1991/12)	Applies to gasoline dispensing into motor vehicles at gasoline dispensing facilities.	61.4 - Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks	01/07/2013, 78 FR 898	3/26/2008	Previously Approved Rule Reaffirmed as RACT
				61.4.1 - Transfer of Gasoline from Stationary Underground Storage Tanks into Vehicle Fuel Tanks	N/A	3/26/2008	Rule addresses state requirements. Not being submitted into SIP.
Gasoline Service Stations	CTG	Design Criteria for Stage I Vapor Control Systems - Gasoline Service Stations (EPA-450/R-75-102, 1975/11)	Applies to filling of gasoline storage tanks from gasoline tanker trucks.	61.3 – Transfer of Volatile Organic Compounds Into Stationary Storage Tanks	06/30/1993, 58 FR 34906	10/16/1990	Previously Approved Rule Reaffirmed as RACT
				61.3.1 – Transfer of Gasoline Into Stationary Underground Storage Tanks	Pending	02/24/2010	Supplementary Rule Being Submitted
Organic Liquid Storage	ACT	Volatile Organic Liquid Storage in Floating and Fixed Roof Tanks (EPA/453 R-94-001, 1994/01)	Applies to storage tanks in all industries, but primarily in petroleum refineries, pipelines, chemical plants, liquid terminals	67.17 - Storage of Materials Containing Volatile Organic Compounds	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Petroleum Refinery Equipment, Leaks from	CTG	Control of VOC Leaks from Petroleum Refinery Equipment (EPA-450/2-78-036, 1978/06)	Applies to leaks from equipment such as pumps, compressors, flanges, valves, and pressure relief devices.	N/A	N/A	N/A	No Sources

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds	CTG	Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds (EPA-450/2-77-025, 1977/10)	Applies to non-condensables from vacuum producing systems, wastewater separators, and all pressurized process units.	N/A	N/A	N/A	No Sources
Synthetic Organic Chemical and Polymer Manufacturing Equipment, Equipment Leaks from	CTG	Control of VOC Fugitive Emissions from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment (EPA-450/3-83-006, 1984/03)	Applies to leaks of process fluids (gaseous or liquid) from plant equipment such as pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, and cooling towers.	N/A	N/A	N/A	No Sources
	CTG	Control of VOC Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (EPA-450/3-84-015, 1984/12)	Applies to air oxidation processes used in the synthetic organic chemical manufacturing industry.	N/A	N/A	N/A	No Sources
	CTG	SOCMI Distillation and Reactor Processes (EPA-450/4-91-031, 1993/08)	Applies to reactor processes that chemically change feed stocks into products or intermediate chemicals and distillation processes used to separate chemicals in the synthetic organic chemical manufacturing industry.	N/A	N/A	N/A	No Sources
Synthetic Organic Chemical and Polymer Manufacturing Equipment, Equipment Leaks from (Cont.)	CTG	Control of VOC Emissions from Manufacture of High - Density Polyethylene, Polypropylene, and Polystyrene Resins (EPA-450/3-83-008, 1983/11)	Applies to the manufacturing of high-density polyethylene, polypropylene, and polystyrene.	N/A	N/A	N/A	No Sources

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
Tank Trucks, Gasoline Loading Terminals	CTG	Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals (EPA-450/2-77-026, 1977/10)	Applies to tank truck terminals with daily throughputs greater than 76,000 liters (20,077 gal.).	61.2 – Transfer of Organic Compounds Into Mobile Transport Tanks	08/26/2003, 68 FR 51186	7/26/2000	Previously Approved Rule Reaffirmed as RACT
Tank Trucks, Gasoline and Vapor Collection Systems	CTG	Control of VOC Leaks from Gasoline Tank Trucks and Vapor Collection Systems (EPA-450/2-78-051, 1978/12)	Applies to gasoline tank trucks that are equipped with vapor collection systems and the vapor collection systems at bulk terminals, bulk plants and service stations.	61.2 – Transfer of Organic Compounds Into Mobile Transport Tanks	08/26/2003, 68 FR 51186	7/26/2000	Previously Approved Rule Reaffirmed as RACT
Oil and Natural Gas Industry	CTG	Control of VOC Leaks from Onshore Production and Processing and Storage Vessels in the Oil and Natural Gas Industry (Draft Version - EPA-HQ-OAR-2015-0216, FRL-9932-42-OAR, 80 FR 56577, 2015/09)	Applies to storage tanks, pneumatic controllers, pneumatic pumps, centrifugal and reciprocating compressors, equipment leaks from natural gas processing plants, and fugitive emissions from equipment leaks.	N/A	N/A	N/A	No Rule Required. Draft CTG allows air districts up to two years after CTG is finalized for the issuance of a Rule (as applicable). District will address the CTG within the two-year timeframe if CTG is finalized.
STATIONARY SOURCE NOx							
Electric Utility Boilers	ACT	NOx Emissions from Utility Boilers (EPA-453/R-94-023, 1994/03)	Applies to electric utility boilers.	69 - Electrical Generating Steam Boilers, Replacement Units, and New Units	N/A	12/12/1995	Rule affirmed as RACT. Rule not being submitted. All sources not applicable to rule as of 1/1/2018.

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
Industrial Commercial Boilers	ACT	NOx Emissions from Industrial Commercial & Institutional Boilers (EPA-453/R-94-022, 1994/03)	Applies to boilers used in industrial facilities.	69.2 - Industrial and Commercial Boilers, Process Heaters and Steam Generators	02/09/1996, 61 FR 4887	9/27/1994	Previously Approved Rule Reaffirmed as RACT
				69.2.1 - Small Boilers, Process Heaters, and Steam Generators	N/A	3/25/2010	No major sources. Rule not being submitted.
				(Proposed) 69.2.2 - Medium Boilers, Process Heaters, and Steam Generators	N/A	N/A	Proposed rule not being submitted - Delayed pending technology availability and/or sufficient cost-effectiveness.
Process Heaters	ACT	NOx Emissions from Process Heaters (EPA-453/R-93-034, revised 1993/09)	Applies to direct-fired heaters used primarily in the petroleum industry.	69.2 - Industrial and Commercial Boilers, Process Heaters and Steam Generators	02/09/1996, 61 FR 4887	9/27/1994	Previously Approved Rule Reaffirmed as RACT

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
				69.2.1 - Small Boilers, Process Heaters, and Steam Generators	N/A	3/25/2010	No major sources. Rule not being submitted.
				(Proposed) 69.2.2 - Medium Boilers, Process Heaters, and Steam Generators	N/A	N/A	Proposed rule not being submitted - Delayed pending technology availability and/or sufficient cost-effectiveness.
Stationary Gas Turbines	ACT	NOx Emissions from Stationary Combustion Turbines (EPA-453/R-93-007, 1993/01)	Applies to stationary gas turbines used in various applications and operations.	69.3 - Stationary Gas Turbines Engines - Reasonable available Control Technology	06/17/1997, 62 FR 32691	12/16/1998	Previously Approved Rule Reaffirmed as RACT
				69.3.1 - Stationary Gas Turbines Engines - Best Available Retrofit Control Technology	Pending	2/24/2010	Supplementary Rule Being Submitted
Stationary Reciprocating Internal Combustion (IC) Engines	ACT	NOx Emissions from Stationary IC Engines (EPA-453/R- 93-032, 1993/07, updated September 2000)	Applies to stationary reciprocating internal combustion engines.	69.4 - Stationary Reciprocating Internal Combustion Engines - RACT	01/04/2006, 71 FR 244	7/30/2003	Previously Approved Rule Reaffirmed as RACT

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
				69.4.1 - Stationary Reciprocating Internal Combustion Engines - BARCT	N/A	11/15/2000	Rule not being submitted. RACT met through BACT and Federal NSPS IIII.
OTHER							
Cutback Asphalt	CTG	Control of VOC from Use of Cutback Asphalt (EPA-450/2-77-037, 1977/12)	Applies to use of cutback asphalt used for roadway paving.	67.7 - Cutback and Emulsified Asphalts	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Ethylene Oxide - Sterilization and Aeration	ACT	Ethylene Oxide Sterilization/Fumigation Operations (EPA-450/3-89-007, 1989/03)	Applies to ethylene oxide used as a sterilant/fumigant in production of medical equipment supplies, in miscellaneous sterilization and fumigation operations, and at hospitals.	1203 - Ethlyene Oxide Sterilizers and Aerators	N/A	N/A	No Major Sources
Industrial Adhesives	CTG	Control Techniques Guidelines for Miscellaneous Industrial Adhesives (EPA-453/R-08-005)	Applies to each miscellaneous industrial adhesive application process at facilities where the total actual VOC emissions from all industrial adhesive operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	67.21 - Adhesive Materials Application Operations	Pending	11/14/2008	Rule Being Submitted
Large Appliances Coating	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume V: Surface Coating of Large Appliances (EPA- 450/2-77-034, 1977/12),	Applies to the coating of large appliances, such as doors, cases, lids, panels and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and similar products.	N/A	N/A	N/A	No Sources

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Rule	SIP Approval Date, Citation	Date Last Revised	Comments
	CTG	Control Techniques Guidelines for Large Appliance Coatings (EPA 453/R-07-004, 2007/09)	Applies to the coating of large appliances, such as doors, cases, lids, panels and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and similar products.	N/A	N/A	N/A	No Sources
Pharmaceutical Products	CTG	Control of VOC from Manufacture of Synthesized Pharmaceutical Products (EPA-450/2-78-029, 1978/12)	Applies to facilities and operations that synthesize pharmaceutical products.	67.15 - Pharmaceutical and Cosmetic Manufacturing Operations	03/27/1997, 62 FR 14639	5/15/1996	Previously Approved Rule Reaffirmed as RACT
Rubber Tires Manufacturing	CTG	Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires (EPA-450/2-78-030, 1978/12)	Applies to manufacturing processes; undertread cementing, tread-end cementing, bead dipping, and green tire spraying.	N/A	N/A	N/A	No Sources
Fiberglass Boat Manufacturing	CTG	Control Techniques Guidelines for Fiberglass Boat Manufacturing Materials (EPA 453/R-08-004, 2008/09)	Applies to facilities that manufacture hulls or decks of boats from fiberglass, or build molds to make fiberglass boat hulls or decks, where the total actual VOC emissions from all fiberglass boat manufacturing operations, including cleaning activities, covered by the CTG are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	67.12.- Polyester Resin Operations 67.12.1 - Polyester Resin Operations	03/27/1997, 62 FR 14639 Pending	05/15/1996 05/11/2016	To be repealed 6/29/2017 Replacement Rule Has Been Submitted

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Sources?	RACT Analysis
COATINGS AND SOLVENTS					
Aerospace Manufacturing and Rework Operations & Coating Operations	CTG	Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (EPA-453/R-97-004, 1997/12). See also Aerospace MACT (59 FR-29216 6/06/94, 1994/06).	Applies to aerospace coatings and cleaning solvents used at aerospace manufacturing and rework operations including contractors and subcontractors. Supersedes the applicable parts of the Miscellaneous Metal Part and Products CTG. Does not apply to manufacturing or rework operations involving space vehicles; rework operations performed on antique aerospace vehicles or components; or research and development, quality control, laboratory testing, and electronic parts and assemblies (except for cleaning and coating of completed assemblies).	Yes	No sources with emissions greater than the CTG applicability threshold of 25 tons VOC per year.
Automobile Refinishing	ACT ACT	Reduction of Volatile Organic Compound Emissions from Automobile Body Refinishing (EPA-453/R-94-031, 1994/04). Automobile Refinishing (EPA-450/3-88-009, 1988/10).	Applies to automobile refinishing operations.	Yes	No major sources
Automobile and Light-duty Trucks, Surface Coating of	CTG CTG	Control of Volatile Organic Emissions from Existing Stationary Sources - Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008, 1977/5). Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings (EPA 453/R-08-006, 2008/09)	For automobile & light truck coating, applies to all objects surface coated in automotive and light duty truck assembly plants. Does not apply to customizers, body shops or other repainters.	No	N/A

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Sources?	RACT Analysis
Flat Wood Paneling, Surface Coating of	CTG CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VII: Factory Surface Coating of Flat Wood Paneling (EPA-450/2-78-032, 1978/06). Control Techniques Guidelines for Flat Wood Paneling Coatings (EPA-453/R-06- 004, 2006/09)	Applies to interior paneling made of wood products.	No	N/A
Ink and Paint Manufacturing	N/A	Control of VOC from Ink and Paint Manufacturing (EPA-450/3-92-013, 1992/04)	Applies to products of the paint manufacturing industry, including architectural coatings, product coating for original equipment manufacturers, and special-purpose coatings. Also applies to ink manufacturing, including letterpress inks, lithographic and offset inks, gravure inks, and flexographic inks.	Yes	No major sources; Sources controlled with BACT.
Large Appliances, Surface Coating of	CTG CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume V: Surface Coating of Large Appliances (EPA-450/2-77-034, 1977/12), Control Techniques Guidelines for Large Appliance Coatings (EPA 453/R-07-004, 2007/09)	Applies to the coating of large appliances, such as doors, cases, lids, panels and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and similar products.	No	N/A
Magnet Wire, Surface Coating for Insulation of	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating for Insulation of Magnet Wire (EPA-450/2-77-033, 1977/12)	Applies to wire coating curing ovens.	No	N/A
Metal Furniture Coatings	CTG	Control of Volatile Organic Emissions from Existing Stationary Sources, Volume III: Surface Coating of Metal Furniture (EPA- 450/2-77-032, 1977/12)	Applies to surface coating of metal furniture by metal furniture manufacturers.	No	N/A
	CTG	Control Techniques Guidelines for Metal Furniture Coatings (EPA 453/R-07-005, 2007/09)	Applies to metal surface coating units at facilities where the total actual VOC emissions from all metal furniture coating operations, including cleaning activities, are at least 6.8 kg/day (15 lb/day) of VOC before consideration of controls.	No	N/A

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Sources?	RACT Analysis
PETROLEUM					
Petroleum Refineries	ACT	Control Techniques for VOC Emissions from Stationary Sources (EPA-453/R-92-018, 1992/12)	Applies to petroleum refineries.	No	N/A
	CTG	Control of Refinery Vacuum Producing Systems, Wastewater Separators and Process Unit Turnarounds (EPA 450/2-77- 025, 1977/10)	Applies to vacuum producing systems, wastewater separators and process unit turnarounds at refineries.	No	N/A
	CTG	Control of VOC Leaks from Petroleum Refinery Equipment (EPA-450/2-78-036, 1978/06)	Applies to leaks equipment such as pumps, compressors, flanges, valves, and pressure relief devices.	No	N/A
Natural Gas / Gasoline Processing Plants	CTG	Control of VOC Equipment Leaks from Natural Gas/Gasoline Processing Plans (EPA-450/3-83-007, 1983/12)	Applies to facilities engaged in the separation of natural gas liquids from field gas and/or fraction of the liquids into natural gas products, such as ethane, propane, butane and natural gasoline. It is not applicable to compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units and field gas gathering systems unless they are located at a gas plant.	No	N/A
Large Petroleum Dry Cleaners	CTG	Control of VOC Emissions from Large Petroleum Dry Cleaners, (EPA-450/3-82-009, 1982/09)	Applies to petroleum solvent dry cleaning facilities that consume 123,000 liters or more of petroleum solvent per year.	Yes	No sources consuming over the CTG applicability threshold of 123,000 liters per year

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Sources?	RACT Analysis
STATIONARY SOURCE NOx					
Cement Manufacturing	ACT	NOx Emissions from Cement Manufacturing (EPA-453/R-94-004, 1994/03, and update EPA-457/R-00-002, 2000/09)	Applies to the kilns used in cement manufacturing.	No	N/A
Glass Manufacturing	ACT	NOx Emissions from Glass Manufacturing (EPA-453/R-94-037, 1994/06)	Applies to glass manufacturing.	No	N/A
Iron and Steel	ACT	NOx Emissions from Iron and Steel (EPA-453/R-94-065, 1994/9)	Applies to iron and steel manufacturing.	No	N/A
Nitric and Adipic Acid Manufacturing Plants	ACT	NOx Emissions from Nitric and Adipic Acid Manufacturing Plants (EPA-453/3-91-026, 1991/12)	Applies to nitric and adipic acid manufacturing operations.	No	N/A
OTHER					
Agricultural Pesticides	ACT	Control of VOC from the Application of Agricultural Pesticides (EPA-453/R-92-011, 1993/3)	Applies to pesticides used for agricultural purposes.	Yes	Regulated by the State of California Department of Pesticide Regulation, Fugitive VOC Source
Ethylene Oxide - Sterilization and Aeration	ACT	Ethylene Oxide Sterilization (EPA-450/3-89-007, 1989/03)	Applies to ethylene oxide used as a sterilant/fumigant in production of medical equipment supplies, in miscellaneous sterilization and fumigation operations, and at hospitals.	Yes	No major sources

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Sources?	RACT Analysis
Commercial Bakeries	ACT	Bakery Ovens Alternative Control Techniques (EPA-453/R-92-017, 1992/12)	Applies to commercial bakery ovens that are used to produce bread or similar yeast leavened products. Does not apply to bakers that make non-yeast leavened products.	Yes	No major sources
Industrial Wastewater	ACT	Industrial Wastewater CTG (Draft) EPA-453/D-93-056, 1992/9). ACT (1994/4)	Applies to emissions from the collection and treatment of industrial wastewater from: the organic chemicals, plastics, and synthetic fibers industry; the pesticides manufacturing industry; the pharmaceuticals manufacturing industry; and the hazardous waste treatment, storage, and disposal facilities industry.	No	N/A
Leather Tanning and Finishing Operations	ACT	Leather Tanning and Finishing Operations (EPA-453/R-93-025)	Applies to leather finishing operations.	No	N/A
Plywood Veneer Dryers	CTG	Control Techniques for Organic Emissions from Plywood Veneer Dryers (EPA-450/3- 83-012, 1983/05)	Applies to softwood plywood manufacturing operations.	No	N/A
Pneumatic Rubber Tires, Manufacture of	CTG	Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires (EPA-450/2-78-030, 1978/12)	Applies to manufacturing processes; undertread cementing, tread-end cementing, bead dipping, and green tire spraying.	No	N/A
Synthetic Organic Chemical Manufacturing	CTG	Control of VOC Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry (EPA-450/3-84-015, 1984/12)	Applies to air oxidation processes used in the synthetic organic chemical manufacturing industry.	No	N/A
	CTG	SOCMI Distillation and Reactor Processes (EPA-450/4-91-031, 1993/08)	Applies to reactor processes that chemically change feed stocks into products or intermediate chemicals and distillation processes used to separate chemicals in the synthetic organic chemical manufacturing industry.	No	N/A

Source Category	CTG/ACT	Reference Document	Applicability	SDAPCD Sources?	RACT Analysis
Synthetic Organic Chemical and Polymer Manufacturing Equipment, Equipment Leaks from	CTG	Control of VOC Fugitive Emissions from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment (EPA-450/3-83-006, 1984/03)	Applies to leaks of process fluids (gaseous or liquid) from plant equipment such as pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, and cooling towers.	No	N/A
	CTG	Control of VOC Emissions from Manufacture of High - Density Polyethylene, Polypropylene, and Polystyrene Resins (EPA-450/3-83-008, 1983/11)	Applies to the manufacturing of high-density polyethylene, polypropylene, and polystyrene.	No	N/A

APCD Rule Number	APCD Rule Name	SIP Submittal/ Approval Status
59 (as of 2016)	Control of Waste Disposal Site Emissions	Not being submitted. Major source not applicable to rule in 2017.
59.1 (as of 2017)	Municipal Solid Waste Landfills	Not being submitted as per previous EPA Guidance.
68	Fuel-Burning Equipment - Oxides of Nitrogen	Approved 04/09/1996, 61 FR 15719
69	Electrical Generating Steam Boilers, Replacement Units and New Units	Not being submitted. All sources not applicable to rule as of 1/1/2018.
69.2	Industrial and Commercial Boilers, Process Heaters and Steam Generators	Approved 02/09/1996, 61 FR 4887
69.3	Stationary Gas Turbine Engines – Reasonably Available Control Technology	Approved 06/17/1997, 62 FR 32691
69.3.1	Stationary Gas Turbine Engines – Best Available Retrofit Control Technology	Being submitted
69.4	Stationary Reciprocating Internal Combustion Engines – Reasonably Available Control Technology	Approved 01/04/2006, 71 FR 244

APCD Source ID #	Facility Name	ROG (2015 CARB)	ROG (District)	NOx (2015 CARB)	NOx (District)	Rules Evaluated that Apply to San Diego County Major Source Facilities											
						59	59.1	61.0	61.1	61.2	61.3	61.3.1	61.4	61.4.1	61.5	61.6	61.7
88196	***SD City of Miramar Landfill***	***168.5***	***168.5***	-	-	-	***X****	-	-	-	-	-	-	-	-	-	-
0019	***Natl Steel & Shipbuilding A General Dynamics Co***	***105.6***	***105.9***	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0091	Sfpp Lp / Sante Fe Pacific Pipeline	57.7	57.9	-	-	-	-	-	X	X	-	-	-	-	X	X	X
8719	Sycamore Landfill Inc	56.4	56.4	-	-	-	X	-	-	-	-	-	-	-	-	-	-
1795	Solar Turbines Inc	-	-	90.4	76.1	-	-	-	-	-	-	-	-	-	-	-	-
10882	Calpine Corp For The Omg Proj / Otay Mesa Energy Center	-	-	70.5	70.5	-	-	-	-	-	-	-	-	-	-	-	-
8013	SDG&E Palomar Energy Center	-	-	52.0	52.0	-	-	-	-	-	-	-	-	-	-	-	-
0351	SD State University	-	-	50.8	50.9	-	-	-	-	-	-	-	-	-	-	-	-
0415	Applied Energy Llc Naval Station	-	-	45.4	52.2	-	-	-	-	-	-	-	-	-	-	-	-

NOTES:

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Grey denotes a large source that demonstrated actual emissions within 50% (50 tons) of being a major source, based either on 2015 ARB Facility Search Data or District data.

* Facility is currently subject to Rule 59 in 2016, but will become subject to an amended Rule 59.1 in 2017. See analysis in Section 2.1.1 and 2.1.2.

APCD Source ID #	Facility Name	ROG (2015 CARB)	ROG (District)	NOx (2015 CARB)	NOx (District)	Rules Evaluated that Apply to San Diego County Major Source Facilities											
						61.8	64	66 (Repealed)	66.1	67.0 (Repealed)	67.0.1	67.1	67.2	67.3	67.4	67.5	67.6
88196	***SD City of Miramar Landfill***	***168.5***	***168.5***	**-**	**-**	**-**	**-**	**X**	**-**	**X**	**X**	**-**	**-**	**-**	**-**	**-**	**-**
0019	***Natl Steel & Shipbuilding A General Dynamics Co***	***105.6***	***105.9***	**-**	**-**	**-**	**-**	**-**	**X**	**X**	**X**	**-**	**-**	**X**	**-**	**-**	**-**
0091	Sfpp Lp / Sante Fe Pacific Pipeline	57.7	57.9	-	-	X	-	-	-	X	X	-	-	-	-	-	-
8719	Sycamore Landfill Inc	56.4	56.4	-	-	-	-	-	-	X	X	-	-	-	-	-	-
1795	Solar Turbines Inc	-	-	90.4	76.1	-	-	-	-	X	X	-	-	X	-	-	-
10882	Calpine Corp For The Omg Proj / Otay Mesa Energy Center	-	-	70.5	70.5	-	-	-	-	-	-	-	-	-	-	-	-
8013	SDG&E Palomar Energy Center	-	-	52.0	52.0	-	-	-	-	-	-	-	-	-	-	-	-
0351	SD State University	-	-	50.8	50.9	-	-	-	X	-	-	-	-	-	-	-	-
0415	Applied Energy Llc Naval Station	-	-	45.4	52.2	-	-	-	-	-	-	-	-	-	-	-	-

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APCD Source ID #	Facility Name	ROG (2015 CARB)	ROG (District)	NOx (2015 CARB)	NOx (District)	Rules Evaluated that Apply to San Diego County Major Source Facilities											
						67.6.1	67.6.2	67.7	67.9	67.10	67.11	67.11.1 (Re-pealed)	67.12 (To Be Repealed)	67.12.1	67.15	67.16	67.17
88196	***SD City of Miramar Landfill***	***168.5***	***168.5***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**
0019	***Natl Steel & Shipbuilding A General Dynamics Co***	***105.6***	***105.9***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**-**	**X**	**X**	**-**	**-**	**X**
0091	Sfpp Lp / Sante Fe Pacific Pipeline	57.7	57.9	-	-	-	-	-	-	-	-	-	-	-	-	-	X
8719	Sycamore Landfill Inc	56.4	56.4	-	-	-	-	-	-	-	-	-	-	-	-	-	X
1795	Solar Turbines Inc	-	-	90.4	76.1	-	-	-	-	-	-	-	-	-	-	-	-
10882	Calpine Corp For The Omg Proj / Otay Mesa Energy Center	-	-	70.5	70.5	-	-	-	-	-	-	-	-	-	-	-	-
8013	SDG&E Palomar Energy Center	-	-	52.0	52.0	-	-	-	-	-	-	-	-	-	-	-	-
0351	SD State University	-	-	50.8	50.9	-	-	-	-	-	X	-	-	-	-	-	X
0415	Applied Energy Llc Naval Station	-	-	45.4	52.2	-	-	-	-	-	-	-	-	-	-	-	-

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APCD Source ID #	Facility Name	ROG (2015 CARB)	ROG (District)	NOx (2015 CARB)	NOx (District)	Rules Evaluated that Apply to San Diego County Major Source Facilities											
						67.18	67.19	67.20.1	67.21	67.22	67.24	67.25 (Proposed)	68	68.1	69	69.2	69.2.1
88196	***SD City of Miramar Landfill***	***168.5***	***168.5***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**X**	**-**	**-**	**-**	**-**	**-**
0019	***Natl Steel & Shipbuilding A General Dynamics Co***	***105.6***	***105.9***	**-**	**-**	**X**	**-**	**-**	**X**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
0091	Sfpp Lp / Sante Fe Pacific Pipeline	57.7	57.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8719	Sycamore Landfill Inc	56.4	56.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1795	Solar Turbines Inc	-	-	90.4	76.1	-	-	-	-	-	-	-	-	-	-	X	-
10882	Calpine Corp For The Omg Proj / Otay Mesa Energy Center	-	-	70.5	70.5	-	-	-	-	-	-	-	-	-	-	-	-
8013	SDG&E Palomar Energy Center	-	-	52.0	52.0	-	-	-	-	-	-	-	-	-	-	-	-
0351	SD State University	-	-	50.8	50.9	-	-	-	X	-	-	-	-	-	-	X	X
0415	Applied Energy Llc Naval Station	-	-	45.4	52.2	-	-	-	-	-	-	-	X	-	-	X	-

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APCD Source ID #	Facility Name	ROG (2015 CARB)	ROG (District)	NOx (2015 CARB)	NOx (District)	Rules Evaluated that Apply to San Diego County Major Source Facilities							
						69.2.2 *(Proposed)*	69.3	69.3.1	69.4	69.4.1	69.5	69.5.1	69.6
88196	***SD City of Miramar Landfill***	***168.5***	***168.5***	-	-	-	-	-	-	**X**	-	-	-
0019	***Natl Steel & Shipbuilding A General Dynamics Co***	***105.6***	***105.9***	-	-	-	-	-	-	**X**	-	-	-
0091	Sfpp Lp / Sante Fe Pacific Pipeline	57.7	57.9	-	-	-	-	-	-	X	-	-	-
8719	Sycamore Landfill Inc	56.4	56.4	-	-	-	-	-	-	-	-	-	-
1795	Solar Turbines Inc	-	-	90.4	76.1	-	-	-	-	-	-	-	-
10882	Calpine Corp For The Omg Proj / Otay Mesa Energy Center	-	-	70.5	70.5	-	-	X	X	X	-	-	-
8013	SDG&E Palomar Energy Center	-	-	52.0	52.0	-	X	X	-	X	-	-	-
0351	SD State University	-	-	50.8	50.9	-	X	X	-	X	-	-	-
0415	Applied Energy Llc Naval Station	-	-	45.4	52.2	-	X	X	-	-	-	-	-

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Grey denotes a large source that demonstrated actual emissions within 50% (50 tons) of being a major source, based either on 2015 ARB Facility Search Data or District data.

Rule	Rule Title	CTG / ACT?	Date First Adopted	Date Last Revised	EPA Action	FR Publication Date	Federal Register Rule Approval	RACT Analysis Findings	SIP Submittal / Approval Status
REGULATION I - GENERAL PROVISIONS									
1	Title	No	4/30/80	N/A	Approved	9/28/81	46 FR 47452	NOT SUBJECT TO RACT REQUIREMENTS	
2	Definitions	No	5/15/96	11/4/09	Approved	9/17/10	75 FR 56889	NOT SUBJECT TO RACT REQUIREMENTS	
4	Review of Rule	No	1/1/70	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION II - PERMITS									
10	Permits Required	No	4/6/83	7/25/95	Approved	3/11/98	63 FR 11831	NOT SUBJECT TO RACT REQUIREMENTS	
11	Exemptions	No	9/20/78	5/11/16	Amended Rule submitted to EPA	Amended Rule submitted to EPA	Amended Rule submitted to EPA	NOT SUBJECT TO RACT REQUIREMENTS	Amended Rule has been submitted into SIP
17	Cancellation of Applications	No	4/30/80	11/25/81	Approved	3/11/98	63 FR 11831	NOT SUBJECT TO RACT REQUIREMENTS	
19	Provision of Sampling and Testing Facilities	No	7/30/80	4/6/93	Approved	3/11/98	63 FR 11831	NOT SUBJECT TO RACT REQUIREMENTS	
19.2	Continuous Emission Monitoring Requirements	No	12/13/78	N/A	Approved	9/28/81	46 FR 47452	NOT SUBJECT TO RACT REQUIREMENTS	
19.3	Emission Information	No	5/15/96	N/A	Approved	3/9/00	65 FR 12472	NOT SUBJECT TO RACT REQUIREMENTS	
20	Standards for Granting Applications	No	1/17/72	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	
20.1	Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions, and Other Requirements	No	7/5/79	4/27/16	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	Amended Rule has been submitted into SIP
20.2	Standards for Authority to Construct - Best Available Air Pollution Control Technology	No	7/5/79	4/27/16	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	Amended Rule has been submitted into SIP
20.3	Standards for Authority to Construct - Air Quality Analysis	No	7/5/79	4/27/16	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	Amended Rule has been submitted into SIP
20.4	Standards for Authority to Construct - Major Stationary Sources	No	7/5/79	4/27/16	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	Amended Rule has been submitted into SIP
20.5	Power Plants	No	7/5/79	N/A	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	
20.6	Standards for Permit to Operate - Air Quality Analysis	No	7/5/79	4/27/16	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	Amended Rule has been submitted into SIP
21	Permit Conditions	No	4/1/81	11/29/94	Approved	3/11/98	63 FR 11831	NOT SUBJECT TO RACT REQUIREMENTS	
24	Temporary Permit to Operate	No	3/20/96	N/A	Approved	10/24/08	73 FR 63382	NOT SUBJECT TO RACT REQUIREMENTS	
25	Appeals	No	1/1/69	6/21/00	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	

Rule	Rule Title	CTG / ACT?	Date First Adopted	Date Last Revised	EPA Action	FR Publication Date	Federal Register Rule Approval	RACT Analysis Findings	SIP Submittal / Approval Status
27.1	Federal Requirements for the San Diego County Air Pollution Control District's Alternative Mobile Source Emission Reduction Program Approved on September 8, 2000	No	8/6/08	N/A	Approved	6/3/09	74 FR 26525	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION IV - PROHIBITIONS									
50	Visible Emissions	No	12/13/78	8/13/97	Approved	12/7/98	63FR 67419	NOT SUBJECT TO RACT REQUIREMENTS	
51	Nuisance	No	1/1/69	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	
52	Particulate Matter	No	9/21/83	1/22/97	Approved	12/9/98	63 FR 67784	NOT SUBJECT TO RACT REQUIREMENTS	
53	Specific Contaminants	No	9/21/83	1/22/97	Approved	12/9/98	63 FR 67784	NOT SUBJECT TO RACT REQUIREMENTS	
53.1	Scavenger Plants	No	1/1/69	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	
54	Dusts and Fumes	No	1/22/97	N/A	Approved	12/9/98	63 FR 67784	NOT SUBJECT TO RACT REQUIREMENTS	
58	Incinerator Burning	No	1/17/73	N/A	Approved	5/11/77	42 FR 23805	NOT SUBJECT TO RACT REQUIREMENTS	
59	Control of Waste Disposal Site Emissions	No	11/3/87	N/A	-	-	-	NOT SUBJECT TO RACT REQUIREMENTS BECAUSE NO MAJOR SOURCES IN 2017.	Not being submitted into SIP
59.1	Municipal Solid Waste Landfills	No	6/17/98	N/A	-	-	-	Rule not required to be submitted into the SIP per EPA Guidance	Not being submitted into SIP
60	Circumvention	No	1/1/69	5/17/94	Approved	3/9/00	65 FR 12472	NOT SUBJECT TO RACT REQUIREMENTS	
61.0	Definitions Pertaining to the Storage and Handling of Organic Compounds	No	5/6/77	10/16/90	Approved	9/13/93	58 FR 47831	NOT SUBJECT TO RACT REQUIREMENTS	
61.1	Receiving & Storing Volatile Organic Compounds at Bulk Plants & Bulk Terminals	Yes	5/6/77	1/10/95	Approved	8/8/95	60 FR 40285	As stringent as SCAQMD Rule 463. More stringent requirements of SCAQMD Rule 1178 would not provide significant VOC reduction.	
61.2	Transfer of Organic Compounds into Mobile Transport Tanks	Yes	5/6/77	7/26/00	Approved	8/26/03	68 FR 51186	More stringent requirements of SJVAPCD Rule 4621 would not provide significant VOC reduction.	
61.3	Transfer of Volatile Organic Compounds into Stationary Storage Tanks	Yes	5/6/77	10/16/90	Approved	6/30/93	58 FR 34906	Supplemented as RACT by Rule 61.3.1	
61.3.1	Transfer of Gasoline Into Stationary Underground Storage Tanks	Yes	3/1/06	N/A	Pending submittal to EPA	Pending submittal to EPA	Pending submittal to EPA	Enhanced Vapor Recovery Program, Supplements Rule 61.3 as RACT	Being submitted into SIP
61.4	Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks	Yes	5/6/77	3/26/08	Approved	01/07/2013	78 FR 898	SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS	

Rule	Rule Title	CTG / ACT?	Date First Adopted	Date Last Revised	EPA Action	FR Publication Date	Federal Register Rule Approval	RACT Analysis Findings	SIP Submittal / Approval Status
61.4.1	Transfer of Gasoline from Stationary Underground Storage Tanks into Vehicles Fuel Tanks	Yes	3/1/06	3/26/08	-	-	-	SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS	Not being submitted into SIP
61.5	Visible Emission Standards for Vapor Control System	No	5/6/77	9/20/78	Approved	4/14/81	46 FR 21757	NOT SUBJECT TO RACT REQUIREMENTS	
61.6	NSPS Requirements for Storage of Volatile Organic Compounds	No	5/6/77	1/13/87	-	-	-	NOT SUBJECT TO RACT REQUIREMENTS	Not being submitted into SIP
61.7	Spillage and Leakage of Volatile Organic Compounds	No	9/20/78	1/13/87	Approved	3/11/98	63 FR 11831	NOT SUBJECT TO RACT REQUIREMENTS	
61.8	Certification Require. for Vapor Control Equip.	No	2/22/84	1/13/87	Approved	3/11/98	63 FR 11831	NOT SUBJECT TO RACT REQUIREMENTS	
62	Sulfur Content of Fuels	No	10/21/81	N/A	Approved	7/6/82	47 FR 29233	NOT SUBJECT TO RACT REQUIREMENTS	
64	Reduction of Animal Matter	No	7/22/81	N/A	Approved	7/6/82	47 FR 29233	SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS BECAUSE NO MAJOR SOURCES	
66 (Former)	Organic Solvents	Yes	7/1/72	Repealed 02/24/11	-	-	-	Repealed 02/24/11. Replaced by Rule 66.1	
66.1	Miscellaneous Surface Coating Operations and Other Processes Emitting Volatile Organic Compounds	Yes	2/24/10 -	N/A 05/11/2016	Approved Amended Rule submitted to EPA	8/9/2012 Amended Rule submitted to EPA	77 FR 47536 Amended Rule submitted to EPA	Amended rule as stringent as Control Techniques Guidelines for Industrial Cleaning Solvents, EPA-453/R-06-001, September 2006. Plastic coating sources emit less than CTG applicability threshold for Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings, EPA-453/R-08-003, September 2008.	Amended Rule has been submitted into SIP
67.0 (Former)	Architectural Coatings	No	11/30/77 -	12/12/01 Repealed 1/1/16	Approved -	6/20/13 -	78 FR 37130 -	AREA SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS REPEALED 1/1/2016. REPLACED BY RULE 67.0.1.	
67.0.1	Architectural Coatings	No	6/24/15	N/A	Replacement Rule submitted to EPA	Replacement Rule submitted to EPA	Replacement Rule submitted to EPA	AREA SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS	Replacement Rule has been submitted into SIP
67.1	Alternative Emission Control Plans	No	5/21/91	5/15/96	Approved	3/27/97	62 FR 14639	NOT SUBJECT TO RACT REQUIREMENTS	

Rule	Rule Title	CTG / ACT?	Date First Adopted	Date Last Revised	EPA Action	FR Publication Date	Federal Register Rule Approval	RACT Analysis Findings	SIP Submittal / Approval Status
67.2	Dry Cleaning Equipment Using Petroleum - Based Solvent	Yes	1/31/78	5/15/96	Approved	3/27/97	62 FR 14639	NO FACILITIES SUBJECT TO CTG APPLICABILITY THRESHOLD. NOT SUBJECT TO RACT REQUIREMENTS. AS STRINGENT AS SCAQMD RULE 1102, 11/17/2000.	
67.3	Metal Parts and Products Coating Operations	Yes	5/9/79	4/9/03	Approved	11/14/03	68 FR 64538	As stringent as metal parts coating recommendations in Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings, EPA 453/R-08-003, September 2008.	
67.4	Metal Container, Metal Closure & Metal Coil Coating Operations	Yes	5/9/79	11/9/11	Approved	9/20/12	77 FR 58313	Amended to be as stringent as SJVAPCD Rule 4604.	
67.5	Paper, Film and Fabric Coating Operations	Yes	5/9/79	5/15/96	Approved	3/27/97	62 FR 14639	As stringent as Control Techniques Guidelines for Paper, Film, and Foil Coatings, EPA-453/R-07-003, September 2007.	
67.6 (Former)	Solvent Cleaning Operations	Yes	7/25/79	N/A Repealed 5/23/08	Approved To be redacted	12/13/94 To be redacted	62 FR 64132 To be redacted	Repealed 5/23/08. Replaced by Rules 67.6.1 and 67.6.2	To be redacted from SIP
67.6.1	Cold Solvent Cleaning and Stripping Operations	Yes	5/23/07	N/A	Approved	10/13/09	74 FR 52427	Recently approved into SIP as RACT	
67.6.2	Vapor Degreasing Operations	Yes	5/23/07	N/A	Approved	10/13/09	74 FR 52427	Recently approved into SIP as RACT	
67.7	Cutback and Emulsified Asphalts	Yes	8/29/79	5/15/96	Approved	3/27/97	62 FR 14639	As stringent as SJVAPCD Rule 4641, 12/17/1992.	
67.9	Aerospace Coating Operations	Yes	8/24/83	4/30/97	Approved	8/17/98	63 FR 43884	NO FACILITIES SUBJECT TO CTG APPLICABILITY THRESHOLD. NOT SUBJECT TO RACT REQUIREMENTS.	
67.10	Kelp Processing and Bio-Polymer Manufacturing Operations	No	1/30/85	6/25/97	Approved	6/22/98	63 FR 33854	Unique source-specific rule. No other rule to compare.	
67.11	Wood Products Coating Operations	Yes	3/14/89	6/27/12	Approved	4/11/13	78 FR 21538	As stringent as SCAQMD Rule 1136, 6/19/1996.	
67.11.1 (Former)	Large Coating Operations for Wood Products	Yes	9/25/02 -	- Repealed 6/27/2012	Approved To be redacted	6/5/03 To be redacted	68 FR 33635 To be redacted	Repealed 6/27/2012 and superseded as RACT by Rule 67.11. No sources currently subject to this rule.	To be redacted from SIP
67.12	Polyester Resin Operations	Yes	3/14/89	5/15/96 Repeal effective 6/29/2017	Approved -	3/27/97 -	62 FR 14639 -	To be repealed effective 6/29/2017, and superseded as RACT by Rule 67.12.1.	

Rule	Rule Title	CTG / ACT?	Date First Adopted	Date Last Revised	EPA Action	FR Publication Date	Federal Register Rule Approval	RACT Analysis Findings	SIP Submittal / Approval Status
67.12.1	Polyester Resin Operations	Yes	5/11/16	N/A	Replacement Rule submitted to EPA	Replacement Rule submitted to EPA	Replacement Rule submitted to EPA	As stringent as SCAQMD Rule 1162, July 8, 2005 and applicable CTG.	Replacement Rule submitted into SIP
67.15	Pharmaceutical & Cosmetic Manufacturing	Yes	10/18/88	5/15/96	Approved	3/27/97	62 FR 14639	As stringent as SCAQMD Rule 1103, March 12, 1999.	
67.16	Graphic Arts Operations	Yes	10/18/88	5/9/12	Approved	9/20/12	77 FR 58313	Recently amended to be as stringent as Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, EPA-453/R-06-002, September 2006, AND Control Techniques Guidelines for Flexible Package Printing, EPA-453/R-06-003, September 2006.	
67.17	Storage of Materials Containing Volatile Organic Compounds	Yes	3/7/90	5/15/96	Approved	3/27/97	62 FR 14639	Fulfills general house-keeping work practices recommendations of various CTGs.	
67.18	Marine Coating Operations	Yes	7/3/90	N/A	Approved	03/27/97	62 FR 14639	As stringent as applicable CTG and SCAQMD Rule 1106.	
67.19	Coatings and Printing Inks Manufacturing Operations	No	6/7/94	5/15/96	Approved	5/26/00	65 FR 34101	As stringent as SCAQMD Rule 1141.1, 11/17/2000.	
67.20.1	Motor Vehicle and Mobile Equipment Coating Operations	Yes	6/30/10	N/A	-	-	-	SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS BECAUSE NO MAJOR SOURCES.	Not being submitted into SIP
67.21	Adhesive Materials Application Operations	Yes	12/16/98	11/14/08	Pending submittal to EPA	Pending submittal to EPA	Pending submittal to EPA	At least as stringent as Control Techniques Guidelines for Miscellaneous Industrial Adhesives, EPA-453/R-08-005, September 2008.	Being submitted into SIP
67.22	Expandable Polystyrene Foam Products Manufacturing Operations	No	6/7/94	5/15/96	-	-	-	SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS BECAUSE NO MAJOR SOURCES.	Not being submitted into SIP
67.24	Bakery Ovens	Yes	6/7/94	5/15/96	Approved	3/27/97	62 FR 14639	SOURCE CATEGORY NO LONGER SUBJECT TO RACT REQUIREMENTS. NO MAJOR SOURCES.	
67.25 (Proposed)	Composting Operations	No	-	N/A	Proposed Rule under review	Proposed Rule under review	Proposed Rule under review	PROPOSED RULE. SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS.	Proposed rule. Not being submitted into SIP
68	Fuel-Burning Equipment - Oxides of Nitrogen	No	7/1/71	9/20/94	Approved	4/9/96	61 FR 15719	Supplemented as RACT by "69-series" rules	
68.1	NSPS Requirements for Oxides of Nitrogen from Fuel Burning Equipment	No	11/18/76	N/A	-	-	-	NOT SUBJECT TO RACT REQUIREMENTS	Not being submitted into SIP

Rule	Rule Title	CTG / ACT?	Date First Adopted	Date Last Revised	EPA Action	FR Publication Date	Federal Register Rule Approval	RACT Analysis Findings	SIP Submittal / Approval Status
69	Electrical Generating Steam Boilers, Replacement Units and New Units	No	1/18/94	12/12/95	-	-	-	Best Available Retrofit Control Technology	No sources applicable as of 1/1/18. Not being submitted into SIP
69.2	Industrial & Commercial Boilers, Process Heaters & Steam Generators	Yes	9/27/94	N/A	Approved	2/9/96	61 FR 4887	More stringent requirements of SJVAPCD Rule 4306 (October 16, 2008) would not be cost effective.	
69.2.1	Small Boilers, Process Heaters, and Steam Generators	Yes	3/25/09	N/A	-	-	-	NO MAJOR SOURCES. NOT SUBJECT TO RACT REQUIREMENTS	Not being submitted into SIP
69.2.2 (Proposed)	Medium Boilers, Process Heaters, and Steam Generators	Yes	Delayed pending Technology Availability	N/A	-	-	-	PROPOSED RULE DOES NOT MEET EPA RACT $/TON THRESHOLD FOR ADOPTION.	Proposed rule delayed pending technology availability and/or sufficient cost-effectiveness.
69.3	Stationary Gas Turbine Engines	No	9/27/94	N/A	Approved	6/27/97	62 FR 32691	Supplemented as RACT by Rule 69.3.1	
69.3.1	Stationary Gas Turbine Engines – Best Available Retrofit Control Technology	No	12/16/98	2/24/10	Pending submittal to EPA	Pending submittal to EPA	Pending submittal to EPA	Supplements Rule 69.3 as RACT	Being submitted into SIP
69.4	Stationary Reciprocating Internal Combustion Engines	No	9/27/94	7/30/03	Approved	1/4/06	71 FR 244	Reasonably Available Control Technology	
69.4.1	Stationary Reciprocating Internal Combustion Engines – Best Available Retrofit Control Technology	No	11/15/00	N/A	-	-	-	New engines – Best Available Control Technology through NSR. Existing engines –State Diesel Engine ATCM and federal NSPS IIII.	Not being submitted into SIP at this time
69.5 (Former)	Natural Gas-Fired Water Heaters	No	6/17/98	Repealed 7/1/2016	-	-	-	REPEALED 7/1/2016. REPLACED BY RULE 69.5.1. AREA SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS	
69.5.1	Natural Gas-Fired Water Heaters	No	6/24/15	N/A	-	-	-	AREA SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS	Not being submitted into SIP
69.6	Natural Gas-Fired Fan-Type Central Furnaces	No	6/17/98	N/A	-	-	-	AREA SOURCE CATEGORY NOT SUBJECT TO RACT REQUIREMENTS	Not being submitted into SIP
70	Orchard Heaters	No	1/17/1972	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	
71	Abrasive Blasting	No	3/30/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION VI - BURNING CONTROL									
101	Burning Control	No	3/27/90	9/25/02	Approved	4/30/03	68 FR 23035	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION VII - VALIDITY AND EFFECTIVE DATE									
140	Validity	No	1/1/69	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	

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141	Effective Date	No	1/1/69	N/A	Approved	9/22/72	37 FR 19812	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION VIII - SAN DIEGO AIR POLLUTION CONTROL EMERGENCY PLAN									
126	Applicability	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
127	Episode Criteria Levels	No	4/1/81	9/17/91	Approved	3/18/99	64 FR 13351	NOT SUBJECT TO RACT REQUIREMENTS	
128	Episode Declaration	No	5/25/77	9/17/91	Approved	3/18/99	64 FR 13351	NOT SUBJECT TO RACT REQUIREMENTS	
129	Episode Termination	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
130	Episode Actions	No	4/1/81	9/17/91	Approved	3/18/99	64 FR 13351	NOT SUBJECT TO RACT REQUIREMENTS	
131	Stationary Source Curtailment Plan	No	4/1/81	N/A	Approved	6/21/82	47 FR 26619	NOT SUBJECT TO RACT REQUIREMENTS	
132	Traffic Abatement Plan	No	4/1/81	12/17/97	Approved	6/21/82	47 FR 26619	NOT SUBJECT TO RACT REQUIREMENTS	
133	School	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
134	Source Inspection	No	4/1/81	N/A	Approved	6/21/82	47 FR 26619	NOT SUBJECT TO RACT REQUIREMENTS	
135	Air Monitoring Stations	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
136	Interdistrict and Interbasin Coordination	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
137	Emergency Action Committee	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
138	Procedures and Plans	No	5/25/77	N/A	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION IX -PUBLIC RECORDS									
175	General	No	5/22/74	N/A	Approved	5/11/77	42 FR 23805	NOT SUBJECT TO RACT REQUIREMENTS	
176	Information Supplied to District	No	5/22/74	N/A	Approved	5/11/77	42 FR 23805	NOT SUBJECT TO RACT REQUIREMENTS	
177	Inspection of Public Records	No	3/30/77	6/20/01	Approved	8/31/78	43 FR 38826	NOT SUBJECT TO RACT REQUIREMENTS	
REGULATION XII - TOXIC AIR CONTAMINANTS									
1203	Ethlyene Oxide Sterilizers and Aerators	Yes	7/23/91	7/26/00	-	-	-	NOT SUBJECT TO RACT REQUIREMENTS. NO MAJOR SOURCES	Not being submitted
REGULATION XV - FEDERAL CONFORMITY									
1501	Conformity of General Federal Actions	No	3/7/95	N/A	Approved	4/23/99	64 FR 19916	NOT SUBJECT TO RACT REQUIREMENTS	