SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Supplemental RACM/RACT Analysis for the NOx RECLAIM Program

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Background

The South Coast Air Basin (Basin) was designated as nonattainment for the 2006 24-hour PM2.5 National Ambient Air Quality Standards (NAAQS), effective December 14, 2009. The Basin is required to submit an Air Quality Management Plan (AQMP) to U.S. EPA no later than 3 years after the designation date, by December 14, 2012, to address the attainment strategies for the 2006 24-hour PM2.5 standard. The EPA requires that attainment plans for moderate nonattainment areas must provide for the implementation of Reasonably Available Control Measures (RACM) and Reasonably Available Control Technology (RACT) for existing sources of PM2.5 and PM2.5 precursors in the nonattainment area. The federal Clean Air Act (CAA), Section 172(c)(1), sets the overall framework for the RACM analysis. The CAA requires nonattainment areas to:

> *provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards.*

The 2012 AQMP included a thorough RACM/RACT analysis following the policy and guidance approach provided by the U.S. EPA in its PM2.5 Implementation Rule.[1] The 2012 AQMP was approved by the SCAQMD Board in December 2012, with additional amendments approved in February 2013, and was subsequently submitted to CARB and the U.S. EPA for inclusion into the State Implementation Plan (SIP). In January 2013, the D.C. Circuit Court issued a decision in *NRDC* v. *EPA*, 706 F.3d 428, holding that the EPA erred in implementing the 1997 PM2.5 NAAQS pursuant solely to the general implementation provisions of Subpart 1 without considering the more specific particulate matter provisions in Subpart 4. The court decision compelled the U.S. EPA to evaluate the 24-hour PM2.5 SIP requirements specific to particulate matter, in addition to the general planning provisions of Subpart 1 that were previously used for PM2.5 SIPs. Subsequently, a Supplement to the 2012 AQMP (2015 Supplement) was prepared to demonstrate attainment of the 24-hour PM2.5 standard by 2015 under Subpart 4, along with updates to the transportation conformity budgets,

[1] 72 FR 20586 (April 25, 2007). Clean Air Fine Particle Implementation Rule.

analysis of RACM/RACT, control measure commitments submitted in the 2012 AQMP, and other Subpart 4 requirements. The 2015 Supplement was submitted March 4, 2015 as part of the California SIP revisions.

On April 14, 2016, EPA issued a final rule on the SIP revisions (2012 AQMP & 2015 Supplement) for the 2006 PM2.5 standard in the Los Angeles-South Coast air basin PM2.5 nonattainment area. EPA disapproved the plan's analysis showing that the region requires the implementation of RACT for sources of PM2.5 or its precursors, indicating that the 2010 REgional CLean Air Incentives Market (RECLAIM) program does not meet the RACM/RACT requirement for certain sources of emissions. While EPA referred to the 2010 RECLAIM Program, its analysis referred to the 2005 NOx RECLAIM amendment. The analysis did not indicate any deficiency in the 2010 SOx RECLAIM Program. As a result of EPA's disapproval of the RACT demonstration, the agency also concluded the plan failed to demonstrate that it met the requirements for Reasonable Further Progress (RFP). EPA based this decision on information presented during the 2015 RECLAIM rulemaking stating that the 2005 NOx RECLAIM amendments had not achieved the expected level of controls at a number of facilities, and that surplus RECLAIM Trading Credits (RTCs) in the market allowed some facilities to delay installing controls which would be equivalent to BARCT or "best available retrofit control technology". The partial disapproval was effective on May 16, 2016.

As a result of this disapproval, the offset sanction in CAA section 179(b)(2) will apply in the South Coast PM2.5 nonattainment area 18 months after the effective date of the partial disapproval (November 16, 2017) and the highway funding sanctions in CAA section 179(b)(1) will apply in the area 6 months after the offset sanction is imposed (May 16, 2018). Additionally, this disapproval action triggers an obligation on EPA to promulgate a federal implementation plan (FIP) unless California corrects the deficiencies, and the EPA approves the related plan revisions, within two years of the disapproval (May 16, 2018). To correct these deficiencies, the State must submit to EPA a demonstration that the NOx RECLAIM program, either as it existed in 2010 or as subsequently amended in 2015 and 2016, ensures emissions reductions equivalent, in the aggregate, to the reductions anticipated from the direct application of RACT on covered sources. Neither sanction will apply if California submits and EPA approves, prior to the implementation of the sanctions, SIP revisions that correct the deficiencies.

With regard to the ozone NAAQS, on March 12, 2008, the U.S. EPA strengthened its ground-level 8-hour ozone standard from 0.08 parts per million (ppm) to a level of

0.075 ppm. On May 21, 2012, the U.S. EPA classified the South Coast as "extreme" nonattainment and the Coachella Valley, located in Riverside County, as "severe-15" nonattainment, effective July 20, 2012. For ozone nonattainment areas classified as moderate or above, a RACT demonstration is required two years after the effective date of designation (July 20, 2014). On June 6, 2014, the SCAQMD adopted the RACT Demonstration for the 2008 8-hour ozone NAAQS, as a component of the anticipated 2016 AQMP, providing a comprehensive assessment of SCAQMD rules and regulations that control VOC and NOx emissions.

On November 3, 2016, EPA proposed to approve the 2016 AQMP RACT SIP, with the exception of major NOx sources in the South Coast Air Basin, as satisfying the RACT requirements of the CAA. EPA's proposal to disapprove the 2016 AQMP RACT SIP pertaining to major NOx sources in the Basin is based on the finding that the 2010 RECLAIM program does not achieve NOx emission reductions equal, in the aggregate, to RACT reductions in the nonattainment areas with respect to the 2008 8-hour ozone standard:

> *The 2016 AQMP RACT SIP relies on the 2010 RECLAIM program to satisfy the RACT requirements for major NOx sources in the South Coast and Coachella Valley. However, based on new information contained in SCAQMD's December 2015 Draft Final Staff Report (''2015 staff report'') revising Regulation XX, we find that additional NOx reductions are now required to achieve RACT as evidenced by the lack of controls on some refinery boiler units and the District's proposal to reduce the NOx RECLAIM emissions cap.*

EPA noted the 2015 RECLAIM amendment, as approved by the SCAQMD Governing Board on December 4, 2015, included a reassessment of the overall facility caps based on a recent BARCT review, and indicated that the SCAQMD could submit a demonstration of how the RECLAIM program, as amended, provides for NOx emission reductions at least equal, in the aggregate, to those reductions expected from the direct application of RACT on all major NOx sources in the South Coast, as part of a subsequent SIP submittal. This document provides that demonstration.

SCAQMD's RECLAIM program was adopted in 1993 to reduce emissions from the largest stationary sources of NOx and SOx emissions through a market-based trading program. It is designed to help meet air quality standards while providing facilities with flexibility to seek the most cost-effective solution to reduce their emissions. Under RECLAIM, each facility has a NOx and/or SOx annual emissions cap

(allocation) which decreases over time. Consequently, facility operators can decide what equipment, processes, and materials they will use to reduce emissions to a level at or below their annual emission limits. In lieu of reducing emissions, facility owners or operators may elect to use the trading market to purchase RTCs from other facilities that have reduced emissions below their annual target. RECLAIM applies to facilities located in the Basin and Coachella Valley emitting four tons or more per year of NOx and/or SOx in the year 1990 or any subsequent year, excluding certain essential public services, such as landfills, public transit, and fire fighting facilities, that remain under command-and-control. As of the 2015 compliance year, the most recent compliance year fully audited, there are approximately 268 facilities in the RECLAIM NOx program.

The California Clean Air Act (CCAA) requires districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible measures. Health and Safety (H&S) Code §§40913, 40914, and 40920.5. The required use of *Best Available Retrofit Control Technology* (BARCT) for existing stationary sources is one of the specified feasible measures. Health & Safety Code sections 40440 (a) and (b)(1) and 40918 require SCAQMD to monitor advances in BARCT and to periodically reassess the overall facility caps to ensure that RECLAIM facilities achieve the same or more emission reductions that would have occurred under a command-and control approach, and that emission reductions from the program fully contribute to the efforts in the Basin to achieve the federal NAAQS. Health & Safety Code section 40406 defines BARCT as:

> *an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.*

In addition to compliance with the BARCT requirements in the CCAA, a market-based cap and trade program may satisfy RACT requirements under longstanding EPA interpretation of the CAA by ensuring that the level of emission reductions resulting from implementation of the program will at least be equal, in the aggregate, to those reductions expected from the direct application of RACT on all affected sources within the nonattainment area.[2] EPA's guidance in the General Preamble 44 FR 53762 (September 17, 1979) defines RACT as:

[2] 59 FR 16690 (April 7, 1994), and U.S. EPA, ‘‘Improving Air Quality with Economic Incentive Programs,’’ EPA–452/R–01–001 (January 2001), at Section 16.7, and 80 FR 12,264,12,278 Col 3 (March 6, 2015) “Implementation of the 2008 National Ambient Air Quality Standard for Ozone: State Implementation Plan Requirements”

> *the lowest emission limit that a source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility*

The EPA has not established universal decision criteria for technological and economic feasibility that would apply in every case; rather, RACT determinations are considered case-by-case determinations. In comparing the definition of terms, RACT is achieved using a control technology that is "reasonably available" and is less stringent than BARCT, which represents the "maximum degree of reduction achievable". BARCT has a stringency similar to BACT as defined by the CAA[3] and BACM as defined by the General Preamble[4], which are more stringent than RACT.

EPA's decision to disapprove the RACT and RFP elements for the 2006 PM2.5 standard, and the proposal to disapprove the RACT SIP for the 2008 ozone standard were based on the determination that the RECLAIM program did not achieve NOx emission reductions equal to those expected from the direct application of RACT on all major NOx sources in South Coast. The determination relies on information presented in the staff report of the 2015 RECLAIM amendment, which addresses the BARCT assessment of the RECLAIM emission sources. It is important to note that the 2015 staff report did not address what would be a RACT level of emissions for RECLAIM sources. Consequently, a NOx allocation based on a RACT level of stringency was not provided to EPA. In the next two sections of this report, SCAQMD staff has prepared a supplemental analysis demonstrating that the NOx allocations in the RECLAIM program (both the 2010 RECLAIM program and the recently amended 2015 RECLAIM program) are at least equivalent, in the aggregate, to RACT emission levels imposed on affected sources in the South Coast Air Basin and Coachella Valley.

[3] CAA section 169(3) defines BACT as "*an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant*."

[4] 59 FR 41998, 42010 (August 16, 1994) defines BACM as "*the maximum degree of emission reduction achievable from a source or source category which is determined on a case-by-case basis, considering energy, economic and environmental impacts and other costs*."

RACT Analysis for the 2005 NOx RECLAIM Amendment (Identified by EPA as the 2010 RECLAIM Program)

Program Background

When the NOx RECLAIM program was first adopted, RECLAIM facilities were issued NOx annual allocations which declined annually from 1993 until 2003 and remained constant after 2003. The annual allocations reflected the levels of BARCT to be in place at the RECLAIM facilities, and were the result of a BARCT analysis conducted in 1993. The 2003 AQMP examined the RECLAIM program and found that additional reduction opportunities existed due to the advancement of control technology. As part of the 2005 NOx BARCT reassessment, staff examined the most stringent emission limits in other air pollution control district rules and other requirements for equipment categories in the RECLAIM program in an effort to determine the appropriate mass emission reductions to reflect BARCT. Staff also examined types of retrofit technologies that had been achieved in practice, whether or not these controls are required in SIP approved rules. As a result, staff identified new BARCT levels for six source categories (miscellaneous combustion, fluid catalytic cracking units (FCCUs), metal melting and heat treating furnaces, refinery boilers and heaters, non-refinery boilers and heaters above 2 MMBTU/hr, and electricity-generating facilities (EGF) boilers). More details on BARCT determinations can be found in the 2005 RECLAIM staff report (Table 2).[5]

BARCT Achievement

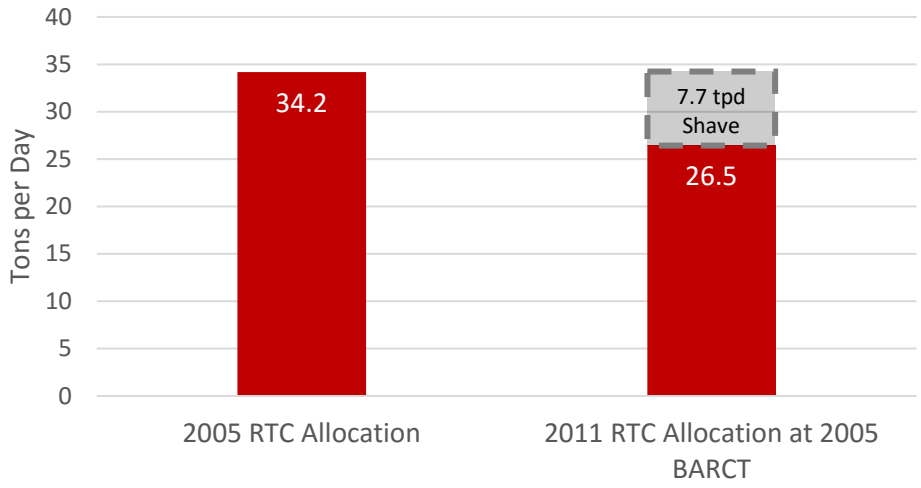
To establish RTC reduction targets required to achieve BARCT in the 2005 RECLAIM amendment, an ending RTC allocation representing allowable programmatic emissions after BARCT implementation was determined. The details of the calculation is presented in the 2005 RECLAIM staff report (Part C - Method, Amount and Timing of RTC Reduction. See Page 44).[5] The methodology for determining the ending RTC allocation relies on using actual emissions that are adjusted for growth and BARCT. In other words, the methodology sets allowable programmatic emissions that are based on projected actual emissions. Projected actual emissions for the equipment categories with new BARCT are calculated using the following formula:

$$Projected\ Actual\ Emissions = Actual\ Emissions\ in\ Baseline \times SCAG\ Growth\ Factors \times BARCT\ Control\ Factors$$

[5] Staff Report for Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). January 2005. http://www.aqmd.gov/home/governing-board/agendas-minutes

For the 2005 RECLAIM amendments, a projection of future actual emissions based on baseline emissions, growth, and BARCT control levels yielded projected emissions of 24.1 tons per day (tpd) in the ending year (2011). These are also known as the remaining programmatic emissions. The growth factors used in the 2005 NOx amendment can be found in the 2005 RECLAIM staff report (See Page 45).[6] The remaining programmatic emissions are then adjusted upward by 10% to account for inaccessible RTCs due to imperfect market conditions and extra RTCs held by facilities as a margin of safety to ensure compliance with annual audits.[7] Applying the 10% compliance margin would bring the 2011 remaining RTCs to 26.5 tpd (24.1 tpd x 1.1 = 26.5 tpd). With the 2005 RTC allocation level at 34.2 tpd, a 7.7 tpd shave (34.2 tpd – 26.5 tpd = 7.7 tpd) from the 34.2 starting RTC allocations was required to achieve BARCT in the 2005 assessment (Figure 1). In January 2005, the District adopted NOx RTC reductions of 7.7 tpd, reducing the facility annual allocations from 34.2 tpd to 26.5 tpd starting in 2007 with full implementation achieved in 2011. Figure 2a shows the breakdown of the source category BARCT emissions (26.5 tpd) after the 2005 NOx BARCT reassessment.

Figure 1: 2005 and 2011 RTC Holdings



[6] Staff Report for Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). January 2005. http://www.aqmd.gov/home/governing-board/agendas-minutes

[7] The 10% compliance margin was part of the allowable programmatic emissions (26.5 tpd) in the 2005 RECLAIM amendment. See Page 54 of the Staff Report for Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). January 2005. http://www.aqmd.gov/home/governing-board/agendas-minutes

RACT Demonstration

EPA's partial disapproval of the PM2.5 RACT demonstration, finalized in April 2016, was based on information presented during the 2015 RECLAIM rulemaking stating that the 2005 NOx RECLAIM amendments had not achieved the expected level of controls at a number of facilities, and that surplus RTCs in the market allowed some facilities to delay installing controls which would be equivalent to BARCT. To determine if RECLAIM facilities are subject to emission limits that represent RACT in the aggregate, allocations that are established based on RACT-level control should be used, but such information was not available in the RECLAIM staff report which focused on BARCT. Since the BARCT assessment was determined based on control technology that represents the "maximum degree of reduction achievable" as compared to the level that is "reasonably available" as required by RACT, a program that potentially had not achieved BARCT equivalency might still meet RACT requirements.

Staff re-evaluated the source categories for which BARCT was proposed for the 2005 NOx RECLAIM rule to determine what would be the corresponding RACT level for each source category, and whether RACT level had been met. Among the six source categories where BARCT was proposed for the 2005 NOx RECLAIM assessment, the two source categories of refinery boilers and heaters, and non-refinery boilers and heaters were considered to be at RACT as a result of the application of BARCT. The conclusion that the BARCT allocation level is essentially equivalent to RACT for these categories was reached because there were already rules in place in other California air districts for these categories with more stringent emission limits at the time of the rulemaking. Four of the source categories (miscellaneous combustion, FCCUs, EGF boilers, and metal melting and heat treating furnaces) were assigned BARCT levels that were beyond RACT because there were no other rules in the South Coast District or any other California air districts for these specific categories of equipment that were more stringent than the existing RECLAIM BARCT emission limits as of 2005. On this basis, the previous Tier 1 BARCT level (Rule 2002 Table 1)[8] can be designated as a RACT-level control because even at the Tier 1 level there were no other rules in the South Coast District or any other California districts for these specific source

[8] SCAQMD Rule 2002 Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx) http://www.aqmd.gov/docs/default-source/rule-book/reg-xx/rule-2002.pdf?sfvrsn=4

categories of equipment that were more stringent at the time of the rulemaking.[9] The 2005 programmatic RTC cap at RACT for these four source categories is represented by the remaining emissions at the previous Tier 1 level.[10] This results in higher emissions from these four source categories than was required by the 2005 amendment, since RACT controls are expected to be less stringent than BARCT controls. The remaining emissions for each equipment category, either as the 2005 BARCT levels or the Tier 1 levels, can be found in Table 5A of the 2005 staff report.[10] The sum of the remaining emissions for all sources and categories representing RACT level of implementation then equals 28.1 tpd in 2011. A breakdown of the 28.1 tpd can be found in Figure 2b (first to the seventh row). The remaining emissions without BARCT adjustment to the four source categories of miscellaneous combustion, FCCUs, EGF boilers, and metal melting and heat treating furnaces are shown in Figure 2b in gray. Applying the 10% compliance margin[11] brings the total remaining programmatic RTC allocation at 30.9 tpd (28.1 tpd x 1.1 = 30.9 tpd) in year 2012, which represents the NOx allocation if RACT-level control is enforced as a result of the 2005 RECLAIM amendment.

To assess the degree of NOx reduction resulting from the 2005 NOx RECLAIM amendment, the percentage of NOx reductions between 2006 (the year before the 2005 shave began) and 2012 (the year after the 2005 shave was fully implemented) is evaluated. Upon the full implementation of the 2005 NOx BARCT reassessment, the RTC allocation is projected to be reduced by 23%, from 34.2 to 26.5 tpd. Based on implementation of RACT-level control, the allocation would be projected to be at 30.9 tpd by 2012, equivalent to a reduction of 9.6% from 2006 (Figure 3). To meet RACT requirements, the level of emission reductions resulting from implementation of the RECLAIM program must be at least equal, in the aggregate, to those reductions expected from the direct application of RACT on all affected sources. That means, for the RECLAIM program to meet RACT, the reduction of the actual NOx emissions must be at least equal to the RTC allocation reduction at RACT (9.6%, from 34.2 to

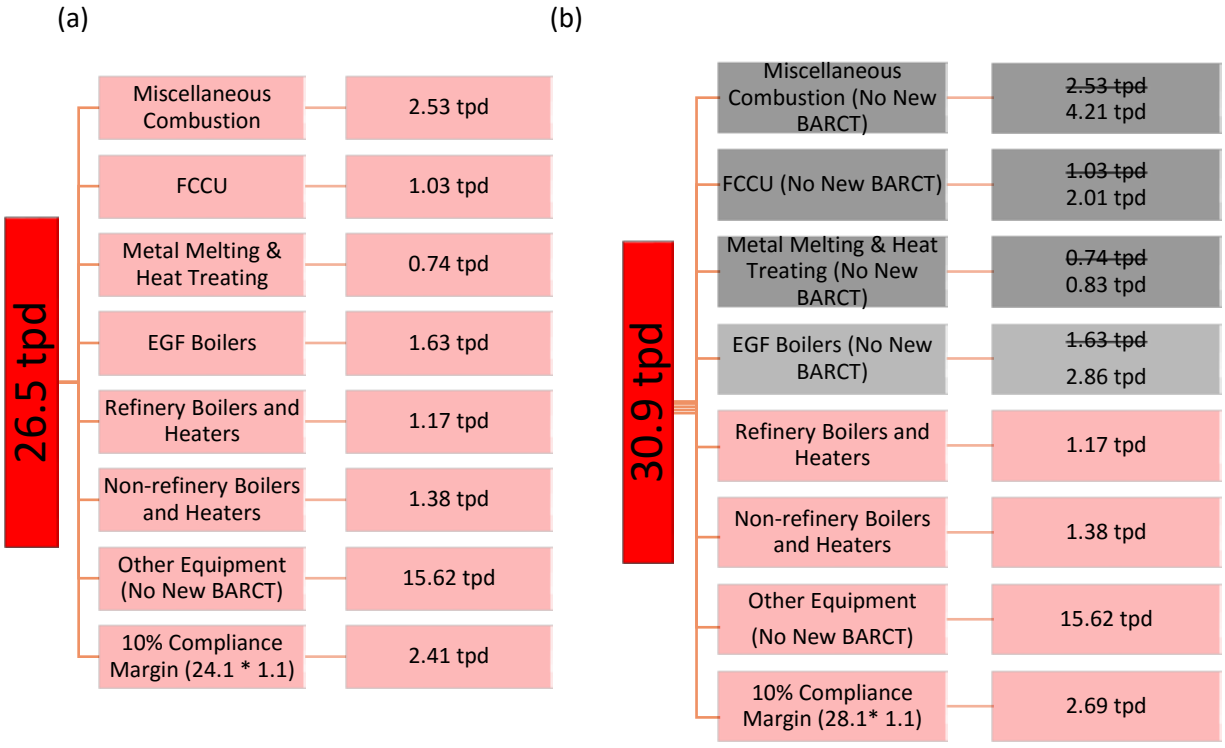
[9] If another state or air district had emission limits similar to the RECLAIM allocation limit, the RECLAIM limit was designated as a RACT level control. If no states or air districts had more stringent emission limits than the RECLAIM limit, then the RECLAIM limit was assumed to be a BARCT level control.

[10] The remaining emissions at the previous Tier 1 level can be found in Table 5A (Page 56) of the 2005 RECLAIM Staff Report for Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). January 2005. http://www.aqmd.gov/home/governing-board/agendas-minutes

[11] The 10% compliance margin was part of the allowable programmatic emissions (26.5 tpd) in the 2005 RECLAIM amendment. See Page 54 of the Staff Report for Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). January 2005. http://www.aqmd.gov/home/governing-board/agendas-minutes

30.9 tpd). For compliance year 2012, audited actual NOx emissions were 21.1 tpd.[12] This translates to a 16% reduction from 2006 (25.1 tpd).[12] Although the reduction of actual NOx emissions resulting from the 2005 RECLAIM amendment is less than the anticipated reduction from the full implementation of 2005 BARCT, it exceeds the anticipated reduction if RACT were applied to those sources, which would be 30.9 tpd.

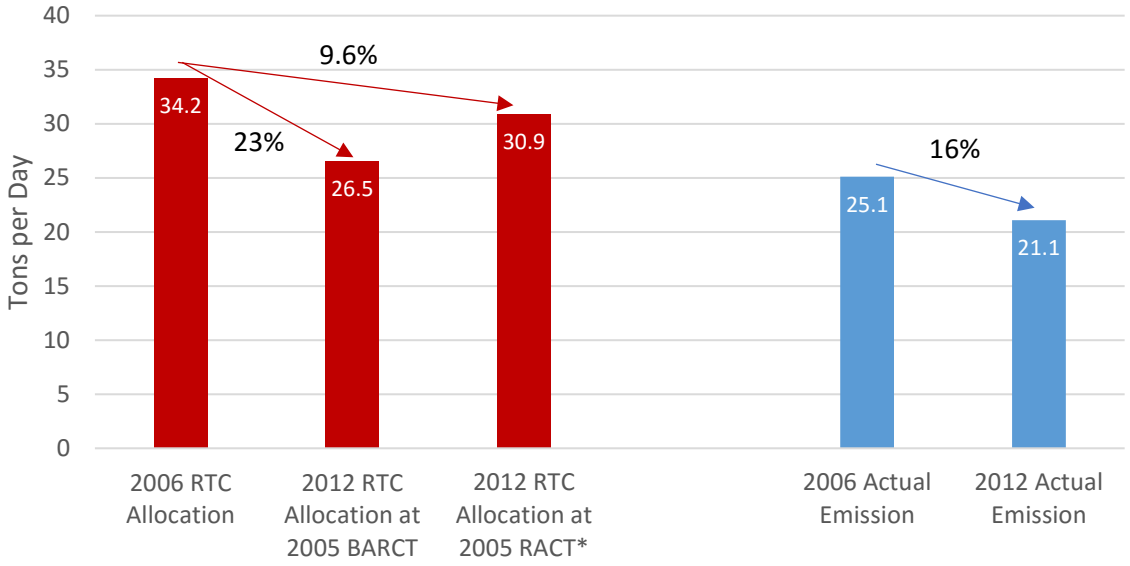
Figure 2: Emissions after the (a) 2005 NOx BARCT Reassessment and (b) 2005 NOx RACT Analysis.*



*The BARCT-level emissions are shown in strikeout in the gray boxes; the RACT-level emissions are shown in the clean text in the gray boxes.

[12] Annual RECLAIM Audit Report for 2015 Compliance Year
http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-038.pdf?sfvrsn=4

Figure 3: RECLAIM Allocations and Actual Emissions[13,14]



*This represents the allocation of the District's RECLAIM program if RACT were to be implemented in lieu of BARCT.

The 2015 RECLAIM reassessment acknowledged that the implementation of the 2005 NOx amendment did not meet BARCT-equivalent level of actual NOx emission reductions. As is more thoroughly discussed in the 2015 RECLAIM staff report[15], this was largely due to the availability of unused RTCs resulting from shutdown selloffs that created a dampening effect on RTC prices. Between the timeframe of 2006 and 2012, facility shutdowns amounted to 2.62 tpd of actual NOx emission reductions.[16] However, NOx RTCs that were previously held by these shutdown facilities were not

[13] The 2011 estimated actual emission at 2005 BARCT is 18.3 tpd

[14] Year 2012 is the year after the 2005 shave was fully implemented. The use of 2012 as an endpoint to calculate actual NOx reduction would reflect the impact of full implementation of the 2005 NOx amendment. For a more meaningful comparison to the reduction in actual NOx emissions, year 2012 is used as an endpoint for calculating the reduction of RTC allocation in Figure 3. Note that the RTC allocation stayed flat between the beginning of the 2011 compliance year (after full implementation of the 2005 NOx amendment) and the end of the 2015 compliance year (before implementation of the 2015 NOx amendment). Using an endpoint between 2011 and 2015 would result in the same level of RTC reduction.

[15] 2015 RECLAIM staff report. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

[16] See Attachment M of the 2015 RECLAIM staff report. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

removed from the market (this was not required by the rules in effect at that time), thus exerting a downward pressure on the RTC market prices. Although the presence of shutdown RTCs may have caused undue delay of BARCT-equivalent levels of actual NOx emission reductions, it did not necessarily impact RACT implementation of the program. To assess whether RACT requirements are satisfied, it is crucial to account for the differential between BARCT and RACT level of controls, and thus allocations. If the 2011 allocation was set at RACT, it would have been 30.9 tpd, which is 4.4 tpd higher than the District's 2011 allocation that was based on BARCT. In other words, 4.4 tpd of additional allocation would be available if the RECLAIM program was to be implemented to the level of RACT stringency. The difference between the District's allocation (set at BARCT) and the allocation that represents RACT exceeds the amount of RTCs resulting from facility shutdowns. As such, although the shutdown RTCs could have delayed having a BARCT-equivalent level of actual NOx emission reductions, they did not impact RACT implementation for the sources subject to the 2005 RECLAIM amendment.

Over the period of 2009 to 2013, actual NOx emissions from RECLAIM facilities fell below the overall NOx RTC holdings by 21-30%, resulting in approximately 5.45-8.41 tpd of unused NOx RTCs. These "excess" credits have the potential to reduce the incentive to implement cost-effective controls that would be required under command-and-control. In 2012, the unused allocation (the gap between BARCT allocation of 26.5 tpd and actual emissions of 21.1 tpd in 2012) was 5.4 tpd. Out of the 5.4 tpd of unused RTCs, 2.4 tpd is attributed to the compliance margin. Thus, approximately 3.0 tpd of the unused allocation can be considered "excess". It is important to note that the presence of a certain amount of unused RTCs is needed to account for inaccessible RTCs due to imperfect market conditions and RTCs held by facilities to ensure compliance with annual audits. RTCs are also held to demonstrate RECLAIM New Source Review (NSR) requirements. For example, new EGFs[17] are required by federal NSR regulations to hold RTCs to offset their potential to emit (PTE), even though their actual emissions are well below their PTEs. Other existing EGFs[18] hold excess RTCs to demonstrate resource adequacy to their balancing authority and reliability coordinator in the event of a power emergency. As of September 22, 2015, 21 EGFs

[17] New facility is any facility which has received all District Permits to Construct on or after October 15, 1993.

[18] Existing facility is any facility that submitted Emission Fee Reports pursuant to Rule 301- Permit Fees, for 1992 or earlier years, or with valid District Permits to Operate issued prior to October 15, 1993, and continued to be in operation or possess valid District permits on October 15, 1993.

together hold 5.6 tpd of NOx RTC[19] while their actual emissions were approximately 2.5 tpd in 2012.[20]

A significant share of the unused RTCs, however, are removed from the market every time BARCT is reassessed. During a BARCT reassessment, the projected remaining emissions, which is used to determine future year RECLAIM allocations, are calculated based on actual emissions (i.e., not the allocation) in the base year. As a result, most of the "excess credits" are removed from the market every time a BARCT reassessment is conducted. Furthermore, in October 2016, the RECLAIM program was amended to address RTCs from shutdown facilities. The amendment includes provisions to prevent the majority of facility shutdown RTCs from entering the market and delaying the installation of pollution controls at other NOx RECLAIM facilities. Specifically, the amendments establish criteria for determining a facility shutdown, and the methodology to calculate the amount of RTCs that a facility's future holdings will be adjusted upon shutdown. The amendments also include exclusions from these provisions to allow facilities under the same ownership to use shutdown RTCs under certain conditions, as well as provisions that allow for planned non-operation for up to five years for facilities that meet specific criteria. More details about these provisions could be found in the staff report of the 2016 RECLAIM amendment.[21] Thus, the perceived inadequacy of the prior RECLAIM rule has already been corrected by more stringent emission allocations and program improvements in the 2015 and 2016 RECLAIM amendments.

As illustrated in Figure 3 and discussed above, the 2005 NOx RECLAIM amendment (2010 RECLAIM program) ensures, in the aggregate, NOx emission reductions equivalent to RACT-level controls for the covered sources. Although the RTCs from facility shutdown may have delayed a BARCT-equivalent level of NOx emission reductions, they do not impact RACT-equivalent level implementation of the program.

[19] See Page 49 of the Socioeconomic Report for the 2015 RECLAIM Amendment. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

[20] See Table 5.2 of the 2015 RECLAIM staff report. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

[21] Staff Report for Proposed Amendment to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). October 2016. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2016/2016-Oct7-037.pdf?sfvrsn=9

RACT Analysis for the 2015 RECLAIM Amendment

BARCT Evaluation

Even if the 2005 RECLAIM program did not meet RACT, any deficiency has been corrected by subsequent amendments. The 2012 AQMP identified the need for a BARCT reassessment, as required under State law. This new BARCT analysis began in October 2012. The BARCT assessment is an iterative process which determines the applicability, feasibility, and cost-effectiveness of emission control technology on the targeted emission source categories. Direct contact with emission control equipment vendors, facility operators, and other air districts is an integral part of the process to establish which technologies have been achieved in practice at a particular emission level. Equipment and installation costs are then obtained from vendors and/or equipment operators to establish the cost effectiveness of installing these controls to achieve a specified level of emission reductions for a source category. There can often be more than one type of technology that can achieve an equivalent amount of emission reductions in a cost-effective manner. Based on cost-effective retrofit technologies that are achieved in practice (whether or not these controls are required in SIP approved rules), ten equipment categories were identified as capable of further emission reductions beyond the 2005 NOx emission factors. For the refinery sector, new BARCT levels were identified for FCCUs, boilers/heaters >40 mmbtu/hr, gas turbines, coke calciners, and sulfur recovery and tail gas incinerators. For the non-refinery sector, new BARCT levels were identified for container glass melting furnaces, cement kilns, sodium silicate furnaces, metal melting furnaces >150 mmbtu/hr, gas turbines and ICEs not located on the outer continental shelf (OCS). No new BARCT was identified for EGFs given that the vast majority of equipment in this sector is already permitted at BARCT or BACT. To reflect new BARCT for these ten equipment categories, a new programmatic remaining emission projection for the ending year of 2023, adjusted for economic growth and new BARCT, was calculated to be 10.23 tpd. Then, emissions accounting for new RECLAIM facilities since the 2011 base year were added and a 10% compliance margin was applied, and the remaining emissions became 11.3 tpd. Next, an activity adjustment, accounting for atypical operation conditions in 2011, was applied which results in 11.7 tpd remaining. Lastly, a BARCT uncertainty adjustment was applied to account for uncertainties in the analysis. After all the adjustments have been taken into account, the total remaining emissions were initially proposed to be 12.5 tpd. This resulted in a total proposed NOx RTC reduction shave of 14 tpd (26.5 tpd – 12.5 tpd = 14 tpd) from the 2011 RTC

holdings. More details about the methodology to derive the BARCT-equivalent RTC reduction and the associated adjustments can be found in Appendix U of the 2015 staff report.[22]

Under the 2015 BARCT assessment, a 14 tpd shave was determined based on BARCT achieving the "maximum degree of reduction". In December 2015, the SCAQMD Governing Board, after considering public testimony, adopted amendments to reduce the number of NOx credits by 12 tpd between 2016 and 2022. In October 2016, the program was amended to address how trading credits from facilities that shut down are handled. The 2016 RECLAIM amendment includes provisions to prevent facility shutdown RTCs from entering the market and delaying the installation of pollution controls at other NOx RECLAIM facilities. To determine whether the 2015 NOx RECLAIM program meets RACT requirements, allocations that are based on RACT-level control need to be evaluated.

RACT Analysis

Similar to the RACT analysis conducted for the 2005 NOx amendment, RACT is established based on the emission limits of the most stringent rules and regulations in other California air agencies. For the 2015 RECLAIM amendments, seven of the ten source categories were assigned BARCT levels that were beyond RACT because there were no other rules in SCAQMD or any other California air agencies for these specific categories of equipment, or the RECLAIM BARCT emission limits were more stringent than the analogous source-specific rules in SCAQMD or other California agencies. Staff concluded that RACT for these categories was the remaining emissions for these source categories at the previous 2005 amendment or Tier 1 level (Rule 2002, Tables 1 and 3), because even at the 2005 RECLAIM amendment or Tier 1 level there are no other rules in the South Coast District or any other districts for these specific source categories of equipment with more stringent emission limits.[23] This results in higher emissions for RACT from these seven source categories than would be projected from compliance with the required 2015 BARCT. Three source categories, which include refinery gas turbines, non-refinery gas turbines, and non-refinery internal combustion engines, were considered to be at RACT as a result of the

[22] Staff Report for the 2015 RECLAIM Amendment (Appendix U, Page 204). http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

[23] For the 2005 amendments, BARCT takes full effect in 2011, for the Tier 1 limits, BARCT takes full effect in 2000. SCAQMD Rule 2002 Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx). http://www.aqmd.gov/docs/default-source/rule-book/reg-xx/rule-2002.pdf?sfvrsn=4

application of BARCT. This assessment was made because there were already command-and-control rules in place for these categories with more stringent emission limits at the time of the rulemaking. The sum of the remaining emissions for all sources and categories under RACT would equal 13 tpd. The adjustments were then applied (new facilities that have entered the program, 10% compliance margin, and activity adjustments from cement/glass facility shutdowns account for 0.07, 1.31 and 0.39 tpd of the adjustments, respectively), which results in a total remaining programmatic RTC allocation at RACT of 14.8 tpd. These adjustments are applied in the same manner as in the 2015 RECLAIM amendment (Figure U.1, Page 205 of the staff report).[24] Figure 4 presents the breakdown of NOx remaining emissions from the affected sources after adjusting for the RACT assessment of the 2015 RECLAIM program. The remaining emissions without BARCT adjustment are shown in gray. It should be noted that for non-refinery source categories where emissions at RACT were calculated, a composite source/industry-specific growth factor was applied to calculate the source category-specific remaining emissions (the growth factor for refinery operations is 1). The growth factor used for each equipment category can be found in Table 5.2 of the 2015 staff report.[25] The growth factors used in the 2005 NOx amendment can be found in the 2005 RECLAIM staff report (See Page 45).[26]

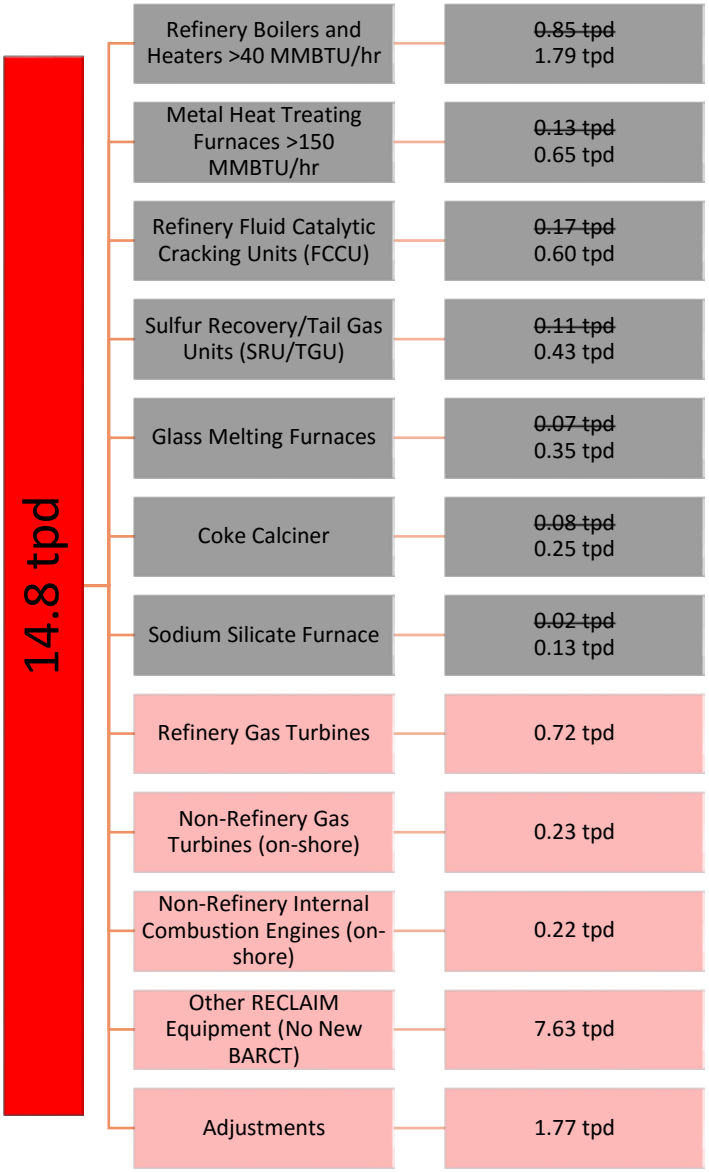
The RACT analysis demonstrates that if the 2015 RECLAIM program was to be implemented to the level of RACT stringency, the programmatic RTC cap would be set at 14.8 tpd, which is higher than the RTC holdings of 14.5 tpd that resulted from the 2015 RECLAIM amendment (Figure 5). In other words, the 12 tpd shave adopted with the 2015 RECLAIM amendment provides emission reductions that exceed the RACT requirements. Thus, it is concluded that that the level of emission reductions resulting from the implementation of the 2015 RECLAIM program will be at least equivalent, in the aggregate, to those reductions expected from the direct application of RACT on affected sources in the South Coast Air Basin and Coachella Valley.

[24] Staff Report for the 2015 RECLAIM Amendment (Figure U.1, Page 205). http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

[25] Staff Report for the 2015 RECLAIM Amendment (Table 5.2, Page 34). http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

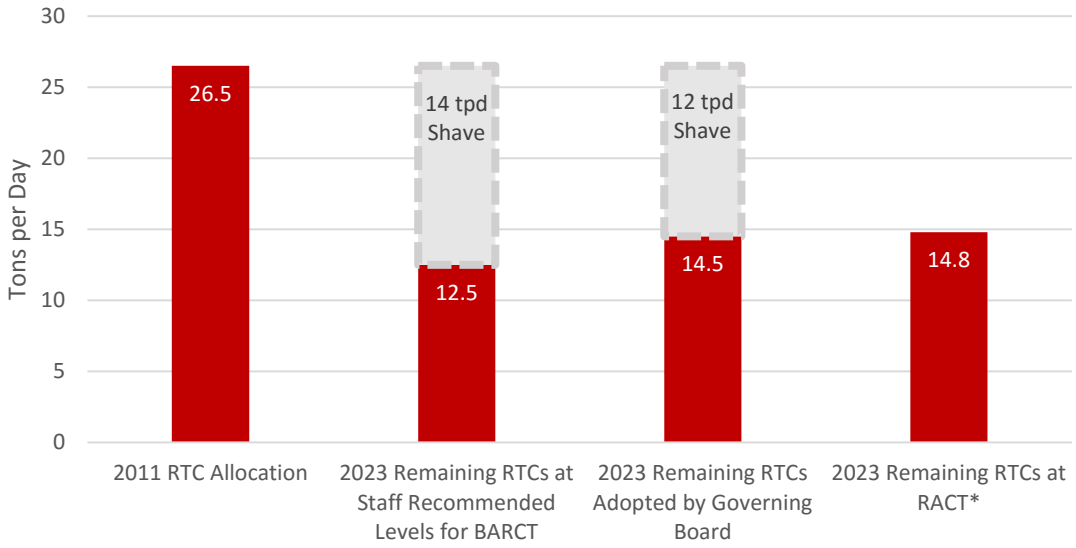
[26] 2005 RECLAIM Staff Report for Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM). January 2005. http://www.aqmd.gov/home/governing-board/agendas-minutes

Figure 4: Emissions after the 2015 NOx RACT Analysis*



*The BARCT-level emissions are shown in strikeout in the gray boxes; the RACT level emissions are shown in the clean text in the gray boxes. Adjustments of 1.77 tpd shown in the last pink box represent the new facilities entering the program, compliance margins, and adjustments for cement/glass facilities.

Figure 5: RTC Holdings in 2011 and 2023 for the 2015 RECLAIM Program



*This represents the allocation of the District's RECLAIM program if RACT were to be implemented in lieu of BARCT.

Reduction Implementation Schedule

Out of the 12 tpd RECLAIM shave that the Board adopted in the 2015 amendment, 2 tpd of RTC reductions were achieved by end of 2016; the remaining reductions are to be achieved between 2018 and the end of 2022 (1 tpd in 2018, 1 tpd in 2019, 2 tpd in 2020, 2 tpd in 2021 and 4 tpd in 2022). The 2 tpd RTC reductions in 2016 could be achieved by removing excess, unused RTCs from the market without the need to install control equipment. Actual NOx reductions by control equipment would be required starting in 2018. The allocation reduction is distributed over a period of five years which will help avoid concurrent demand for materials, contractors, and other resources, which would likely occur if the implementation schedule would instead cover a much shorter period. According to the 2015 RECLAIM staff report, additional BARCT implementation beyond the reductions achieved by removing excess credits will take about 2 – 4 years for planning, permitting, and construction. Under the assumption that all BARCT control devices identified would be installed, an assumed implementation schedule was developed for the socioeconomic analysis for the 2015 NOx RECLAIM amendments. This schedule was based on the required construction time and cost-effectiveness of control equipment, which would ensure the achievement of projected emission reductions in the years 2018 through 2022. To the extent possible, it was assumed that the most cost-effective NOx control equipment would be installed or modified first, taking into account unit turnaround schedule information

available to staff at the time. Table 8 of the socioeconomic assessment[27] summarizes the assumed implementation schedule. Turnaround schedules are of particular importance at refineries because different sections and processes at a specific facility are scheduled to be periodically taken offline to conduct routine maintenance activities and maintain some operational activities. It is during these downtimes, which occur in 4 to 5 year cycles, when new construction of retrofit control equipment is implemented. SCAQMD staff has held several meetings on achieving the allocation targets with some of the major refinery operators in the region. These refinery operators have presented information that showed that they are on track/making progress towards meeting their allocation targets with the implementation of BARCT controls on their equipment. Staff understands that the implementation schedule projections cannot be easily advanced due to the long lead time (years) required to plan and coordinate turnarounds in order to minimize the interruption of fuel production. Given the construction times and turnaround schedules considered for refineries, the estimated dates for installation of most of the controls at these facilities would fall between 2020 and 2022, resulting in more emission reductions towards the end (i.e., a total of 8 tpd between 2020 and 2022) of the implementation schedule. As such, it is concluded that the emission reductions from the 2015 RECLAIM amendment are being implemented as expeditiously as practicable.

In addition to satisfying RACT requirements, the 2015 RECLAIM amendments implement BARCT control limits across several source categories, which were found to be technically feasible and cost-effective. Facilities, such as refineries, that typically purchased RTCs in the past to offset emissions will now be required to install pollution controls due to a greater shift of the shave to the refinery sector (i.e., 56% shave for the refinery sector). The 2016 RECLAIM amendments, which addressed RECLAIM facility shutdowns, would prevent an excess amount of RTCs resulting from shutdowns from being introduced into the market. Furthermore, commitments in the 2016 AQMP will transition RECLAIM facilities into a command-and-control regulatory structure as soon as practicable, and achieve an additional 5 tpd of NOx reductions by no later than 2025. This will further ensure that the facilities in the NOx RECLAIM program meet BARCT and RACT requirements.

[27] See Page 14 of the Socioeconomic Report for the 2015 RECLAIM Amendment. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2015/2015-dec4-030.pdf?sfvrsn=9

RECLAIM Facilities in Coachella Valley

RACT needs to be demonstrated separately for each air basin. In the NOx RECLAIM program, the majority of the affected facilities are in the South Coast Air Basin. Only two RECLAIM facilities are located in the Coachella Valley. The two RECLAIM facilities in the Coachella Valley produce electricity, and use gas turbines for power generation. The gas turbines emit NOx levels that exceed the major source threshold, and the District is required to implement RACT for these sources. RACT must be incorporated into the SIP, either through an EPA-approved rule or through a source-specific RACT determination that is included on a permit and approved by EPA. Currently, the two facilities are regulated by the NOx RECLAIM program (Reg XX), which is a SIP-approved District rule. Although the RECLAIM program meets RACT requirements, the program applies to both the Basin and Coachella Valley, and does not impose an emission cap on the total amount of NOx that these two facilities can emit in Coachella Valley. As a result, if based solely on the RECLAIM program, the maximum allowable NOx emissions emitted by the two facilities in the Coachella Valley may exceed the RACT level of emissions that would have occurred under a command-and-control approach.

In addition to compliance with the RECLAIM program, these two facilities must also comply with the requirements specified in their operating permits, which contain specific NOx emission limits and operational limits. The two facilities started operation after the inception of RECLAIM, and thus were subject to BACT requirements and emissions offsets under RECLAIM's NSR (Rule 2005). As a result, the gas turbines installed are equipped with selective catalytic reduction technology (SCR) with NOx emission limits ranging from 2.5 to 5 ppmv. As of May 2017, the BACT guidelines in various CA air agencies list SCR as one of the emissions control technologies used to achieve BACT emission limits in the range of 2-5 ppmv.[28,29] Under command and control, SCAQMD Rule 1134 set limits for gas turbines for a range of sizes (ratings), with limits varying between 9 and 25 ppm. Given that SCRs are installed to achieve the 2.5-5 ppmv permit limits in place for NOx emissions from gas turbines at these facilities, it is concluded that the NOx emission limits meet RACT for these two facilities. Although NOx emission limits are included on federally-enforceable Title V permits, these permits have not been incorporated into the SIP. Staff has determined that the NOx emission limits on the local permits for the

[28] BAAQMD BACT Workbook http://www.baaqmd.gov/permits/permitting-manuals/bact-tbact-workbook

[29] SJVAPCD BACT Clearinghouse http://www.valleyair.org/busind/pto/bact/bactLoader.htm

gas turbines meet RACT levels, and is proposing to submit for SIP approval the conditions of the local permits that pertain to NOx emission limits and the associated source testing, test methods, monitoring, reporting, and recordkeeping requirements. The RACT-relevant sections of the permits are included in the reference materials following this report. The NOx monitoring, reporting, and recordkeeping requirements for the two Coachella Valley facilities are contained in Rule 2012 and its accompanying protocol, which was submitted on March 17, 2017 by CARB to EPA for approval into the SIP. It should be noted that while an initial performance source test was conducted for the equipment, subsequent monitoring of the permitted NOx emission limits is achieved by way of a continuous emission monitoring system (CEMS), upon certification. At least semi-annually, the relative accuracy of the CEMS is verified by way of a relative accuracy testing audit (RATA), to assure that the system is monitoring NOx emissions accurately. RATA testing is conducted for NOx concentration, stack gas volumetric flow rate, and NOx mass emissions. These requirements are all contained in Appendix A of Rule 2012, the protocol for monitoring, reporting, and recordkeeping for NOx emissions.

The permits for the Coachella facilities will be withdrawn from the SIP when the RECLAIM Program is sunset and those facilities are subject to command-and-control rules that are part of the SIP. Staff is currently working on transitioning RECLAIM to a command-and-control program. The withdrawal will take place on the effective date of EPA's action to approve the command-and-control rule(s). Facilities subject to such rules would require BACT for new sources and BARCT for existing sources, which is more stringent than RACT. Thus, RACT requirements will continue to be met regardless of whether these permits are included in the SIP.

APPENDIX A

to the Supplemental RACM/RACT Analysis

for the NOx RECLAIM Program

FACILITY PERMIT TO OPERATE

63500 19TH AVE
NORTH PALM SPRINGS, CA 92258

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

FACILITY PERMIT TO OPERATE

TABLE OF CONTENTS

Section	Description	Revision #	Date Issued
A	Facility Information		
B	RECLAIM Annual Emission Allocation		
C	Facility Plot Plan		
D	Facility Description and Equipment Specific Conditions		

FACILITY PERMIT TO OPERATE

SECTION A: FACILITY INFORMATION

LEGAL OWNER &/OR OPERATOR:

LEGAL OPERATOR (if different than owner):

EQUIPMENT LOCATION: 63500 19TH AVE
NORTH PALM SPRINGS, CA 92258

MAILING ADDRESS:

RESPONSIBLE OFFICIAL:

TITLE:

TELEPHONE NUMBER:

CONTACT PERSON:

TITLE:

TELEPHONE NUMBER:

TITLE V PERMIT ISSUED:

TITLE V PERMIT EXPIRATION DATE:

TITLE V	RECLAIM	
YES	NOx:	YES
	SOx:	NO
	CYCLE:	2
	ZONE:	INLAND

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION: GAS TURBINES					
GAS TURBINE, UNIT NO 300, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000 SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, 450 MMBTU/HR WITH GENERATOR, 49.9 MW	D1	C3	NOX: MAJOR SOURCE	**NOX**: 5 PPMV NATURAL GAS (4) [**RULE 2005,**]; **NOX**: 115 PPMV NATURAL GAS (8) [**40CFR 60 Subpart GG,**];	A99.1, A195.1, D12.4, D82.2, E57.1, E73.1, I298.1,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION: GAS TURBINES					
SELECTIVE CATALYTIC REDUCTION, SERVING GAS TURBINE NO 300, CORMETECH, MODEL NO. CM27LHT, VANADIA-TITANIA, 63.6 CU.FT. WITH AMMONIA INJECTION, GRID	C4	C3			
GAS TURBINE, UNIT NO 400, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000 SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, 450 MMBTU/HR WITH GENERATOR, 49.9 MW	D6	C8	NOX: MAJOR SOURCE	**NOX**: 5 PPMV NATURAL GAS (4) [**RULE 2005,**]; **NOX**: 115 PPMV NATURAL GAS (8) [**40CFR 60 Subpart GG,**];	A99.1, A195.1, D12.4, D82.2, E57.1, E73.1, I298.2,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION: GAS TURBINES					
SELECTIVE CATALYTIC REDUCTION, SERVING GAS TURBINE NO 400, CORMETECH, MODEL NO. CM27LHT, VANADIA-TITANIA, 63.6 CU.FT. WITH AMMONIA INJECTION, GRID	C9	C8			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION: GAS TURBINES					
GAS TURBINE, UNIT NO 500, NATURAL GAS, GENERAL ELECTRIC, MODEL LM6000 SPRINT, SIMPLE CYCLE, WITH STEAM OR WATER INJECTION, 450 MMBTU/HR WITH GENERATOR, 49.9 MW	D11		NOX: MAJOR SOURCE	**NOX**: 5 PPMV NATURAL GAS (4) [**RULE 2005,**]; **NOX**: 115 PPMV NATURAL GAS (8) [**40CFR 60 Subpart GG,**];	A99.1, A195.1, D12.4, D82.2, E57.1, E73.1, I298.3,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION: GAS TURBINES					
SELECTIVE CATALYTIC REDUCTION, SERVING GAS TURBINE NO 500, CORMETECH, MODEL NO. CM27LHT, VANADIA-TITANIA, 63.6 CU.FT. WITH AMMONIA INJECTION, GRID	C14	C13			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: DEVICE ID INDEX

The following sub-section provides an index to the devices that make up the facility description sorted by device ID.

FACILITY PERMIT TO OPERATE

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	**Section D Page No.**	**Process**	**System**
D1		1	0
C4		1	0
D6		1	0
C9		1	0
D11		1	0
C14		1	0

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F2.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

F9.1

DEVICE CONDITIONS

A. Emission Limits

A63.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A99.1 The 5 PPM NOX emission limit(s) shall not apply during turbine start-up and shutdown periods. Start-up time shall not exceed 30 minutes for each start-up. Written records of start-ups shall be maintained and made available upon request from the Executive Officer.

[**RULE 1303(a)(1)-BACT, ; RULE 1303(b)(1)-Modeling, ;** RULE 1303(b)(1), ;
RULE 1303(b)(2)-Offset, ; RULE 2005, ; RULE 2005,]

[Devices subject to this condition : D1, D6, D11]

A99.2

A195.1 The 5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[**RULE 1303(a)(1)-BACT, ; RULE 1303(b)(1)-Modeling, ;** RULE 1303(b)(1), ;
RULE 1303(b)(2)-Offset, ; RULE 2005, ; RULE 2005,]

[Devices subject to this condition : D1, D6, D11]

A195.2

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A195.3

A327.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

C. Throughput or Operating Parameter Limits

C157.1

D. Monitoring/Testing Requirements

D12.1

D12.2

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D12.3

D12.4

D29.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D29.2

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D82.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D82.2 The operator shall install and maintain a CEMS to measure the following parameters:

NOX concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

[**RULE 2012, ;** RULE 2012,]

[Devices subject to this condition : D1, D6, D11]

E. Equipment Operation/Construction Requirements

E57.1 The operator shall vent this equipment to SCR control whenever the turbine is in operation.

[**RULE 1303(a)(1)-BACT, ;** RULE 1303(a)(1)-BACT, ; **RULE 1303(b)(1)-Modeling, ; RULE 1303(b)(2)-Offset, ;** RULE 1303(b)(2) -Offset, ; **RULE 1703 - PSD Analysis,**]

[Devices subject to this condition : D1, D6, D11]

E73.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E144.1

E179.1

E179.2

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

I. Administrative

I298.1 This equipment shall not be operated unless the facility holds 16826 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 16826 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005, ; RULE 2005,**]

[Devices subject to this condition : D1]

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

I298.2 This equipment shall not be operated unless the facility holds 16826 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 16826 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005, ; RULE 2005,**]

[Devices subject to this condition : D6]

I298.3 This equipment shall not be operated unless the facility holds 16826 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 16826 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**RULE 2005, ; RULE 2005,**]

[Devices subject to this condition : D11]

K. Record Keeping/Reporting

K40.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.1

APPENDIX B

to the Supplemental RACM/RACT Analysis

for the NOx RECLAIM Program

FACILITY PERMIT TO OPERATE

15775 MELISSA LANE RD
NORTH PALM SPRINGS, CA 92258

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

FACILITY PERMIT TO OPERATE

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A	Facility Information		
B	RECLAIM Annual Emission Allocation		
C	Facility Plot Plan		
D	Facility Description and Equipment Specific Conditions		

FACILITY PERMIT TO OPERATE

SECTION A: FACILITY INFORMATION

LEGAL OWNER &/OR OPERATOR:

LEGAL OPERATOR (if different than owner):

EQUIPMENT LOCATION: 15775 MELISSA LANE RD
NORTH PALM SPRINGS, CA 92258

MAILING ADDRESS:

RESPONSIBLE OFFICIAL:

TITLE:

TELEPHONE NUMBER:

CONTACT PERSON:

TITLE:

TELEPHONE NUMBER:

TITLE V PERMIT ISSUED:

TITLE V PERMIT EXPIRATION DATE:

TITLE V	RECLAIM	
YES	NOx:	YES
	SOx:	NO
	CYCLE:	1
	ZONE:	INLAND

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
System 1: GAS TURBINES, POWER GENERATION					
GAS TURBINE, CTG-1, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D1	C3	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV NATURAL GAS (4) [**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF (1) [**RULE 2012,]** ; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.1,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO. 1, CORMETECH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C4	C3 S6			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, CTG-2, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D7	C9	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV NATURAL GAS (4) [**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF (1) [**RULE 2012,**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.3,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO. 2, CORMETECH CHMT-2, WITH 12 MODUELS, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C10	C9 S12			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 3, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D13	C15	NOX: MAJOR SOURCE	**NOX:** 2.5 PPMV NATURAL GAS (4) [**RULE 1703(a)(2) - PSD-BACT, RULE 2005,**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, I298.4,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO.3, CORMETECH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH	C16	C15 S18			
AMMONIA INJECTION, GRID		C28			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 4, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D19	C21	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV (4) [**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012,**]; **NOX**: 15 PPMV (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.5,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO.4, CORMETCH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C22	C21 S24			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 5, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D25	C27	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV NATURAL GAS (4)**[RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012,**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.6,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO.5, CORMETECH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C28	B17 C27 S30			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 6, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D31	C33	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV NATURAL GAS (4) [**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012,**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.7,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO. 6, CORMETECH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C34	C33 S36			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG 7, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D37	C39	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV NATURAL GAS (4) [**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012,**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.8,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO. 7, CORMETECH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 6 FT 3 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C40	C39 S42			

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, GTG8, NATURAL GAS, GENERAL ELECTRIC, MODEL LMS100PA, SIMPLE CYCLE, 891.7 MMBTU/HR AT 72 DEGREES F, WITH WATER INJECTION WITH GENERATOR, 103 MW	D43	C45	NOX: MAJOR SOURCE	**NOX**: 2.5 PPMV NATURAL GAS (4) [**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]; **NOX**: 12.26 LBS/MMSCF NATURAL GAS (1) [**RULE 2012,**]; **NOX**: 15 PPMV NATURAL GAS (8) [**40CFR 60 Subpart KKKK,**];	A99.7, A99.10, A195.2, A433.1, C1.1, C1.6, D12.1, D82.2, H23.1, I298.9,

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
SELECTIVE CATALYTIC REDUCTION, NO. 8, CORMETECH CHMT-2, WITH 12 MODULES, 136 CU.FT.; WIDTH: 9 FT 7.75 IN; HEIGHT: 4 FT 2 IN; LENGTH: 1 FT 4.5 IN WITH AMMONIA INJECTION, GRID	C46	C45 S48			
System 2: EMERGENCY ENGINES					

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
INTERNAL COMBUSTION ENGINE, EMERGENCY FIRE, DIESEL FUEL, CLARKE, MODEL JU6H-UFADTO, DRIVING AN FIRE PUMP, WITH AFTERCOOLER, TURBOCHARGER, 274 HP	D49		NOX: PROCESS UNIT	**NOX**: 134 LBS/1000 GAL DIESEL (1) [**RULE 2012,**]; **NOX + ROG**: 3 GRAM/BHP-HR DIESEL (4) [**RULE 1303(a)(1) -BACT, ;** *RULE 1303(a)(1)-BACT, ;* **RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**];	C1.4, C1.7, D12.5, I298.2, K67.3

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
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FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions

* (1) (1A) (1B) Denotes RECLAIM emission factor
(2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit
(4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit
(6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit
(8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits
(10) See section J for NESHAP/MACT requirements

FACILITY PERMIT TO OPERATE

SECTION D: DEVICE ID INDEX

The following sub-section provides an index to the devices that make up the facility description sorted by device ID.

FACILITY PERMIT TO OPERATE

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	**Section D Page No.**	**Process**	**System**
D1		1	1
C4		1	1
D7		1	1
C10		1	1
D13		1	1
C16		1	1
D19		1	1
C22		1	1
D25		1	1
C28		1	1
D31		1	1
C34		1	1
D37		1	1
C40		1	1
D43		1	1
C46		1	1
D49		1	2

FACILITY PERMIT TO OPERATE

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	**Section D Page No.**	**Process**	**System**

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1

F14.1

DEVICE CONDITIONS

A. Emission Limits

A63.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A63.2

A99.3

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A99.7 The 12.26 LBS/MMCF NOX emission limit(s) shall only apply during the interim reporting period after initial turbine commissioning to report RECLAIM emissions. The interim reporting period shall not exceed 12 months from entry into RECLAIM.

[**RULE 2012,**]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A99.9

A99.10 The 2.5 PPM NOX emission limit(s) shall not apply during turbine start-up, and shutdown periods. Start-up time shall not exceed 25 minutes for each start-up. Shutdown periods shall not exceed 10 minutes for each shutdown. The turbine shall be limited to a maximum of 300 start-ups per year. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

For this condition start-up shall be defined as the start up process to bring the turbine in full successful operations. If during start-up the process is aborted and the start-up is restarted, then the start-up and restart is defined as "one start-up". In this case the start-up time shall not exceed one hour. The NOx emissions limited to 29.54 pounds per hour as listed in condition A433.1

The operator shall keep records of aborted turbine start-ups and make the records available to District personnel upon request.

[**RULE 1703(a)(2) - PSD-BACT,**]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

A195.1

A195.2 The 2.5 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry.

[**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]

[Devices subject to this condition : D1, D7, D13, D25, D31, D37, D43]

A195.3

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A195.4

A327.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A433.1 The operator shall comply at all times with the 2.5 ppm 1-hour BACT limit for NOx, except as defined in condition A99.1 and for the following scenario::

Operating Scenario	Maximum Hourly Emissions Limit	Operational Limit
Start-up hour	29.54	NOx emissions not to exceed 29.54lbs total per start-up per turbine. Each turbine shall be limited to 300 start-ups per year, with each start-up not to exceed 25 minutes.

[**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005,**]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

B. Material/Fuel Type Limits

B61.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

B61.2

C. Throughput or Operating Parameter Limits

C1.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

C1.4 The operator shall limit the operating time to no more than 50 hour(s) in any one year.

For the purposes of this condition, the operating time is inclusive of time allotted for maintenance and testing.

[**RULE 1110.2, ;** RULE 1110.2, ; **RULE 1303(b)(2)-Offset, ;** RULE 1303(b)(2)-Offset, ; RULE 1470, ; **RULE 2012,**]

[Devices subject to this condition : D49]

C1.6

C1.7 The operator shall limit the operating time to no more than 200 hour(s) in any one year.

[**RULE 1110.2, ;** RULE 1110.2, ; **RULE 1303(b)(2)-Offset, ;** RULE 1303(b)(2)-Offset, ; **RULE 2012,**]

[Devices subject to this condition : D49]

C157.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D. Monitoring/Testing Requirements

D12.1

D12.2

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D12.3

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D12.4

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

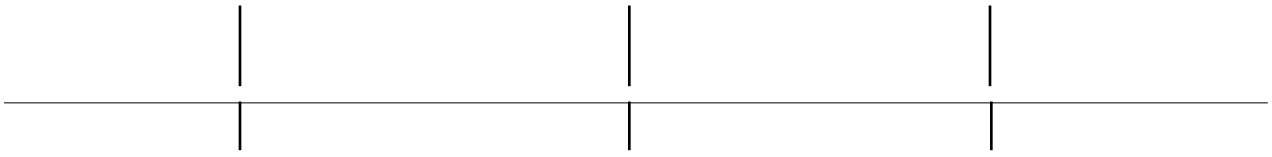
The operator shall comply with the terms and conditions set forth below:

D12.5 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time from the engine.

[**RULE 1110.2, ;** RULE 1110.2, ; **RULE 1303(b)(2)-Offset, ;** RULE 1303(b)(2)-Offset, ; RULE 1470, ; **RULE 2012,**]

[Devices subject to this condition : D49]

D29.2

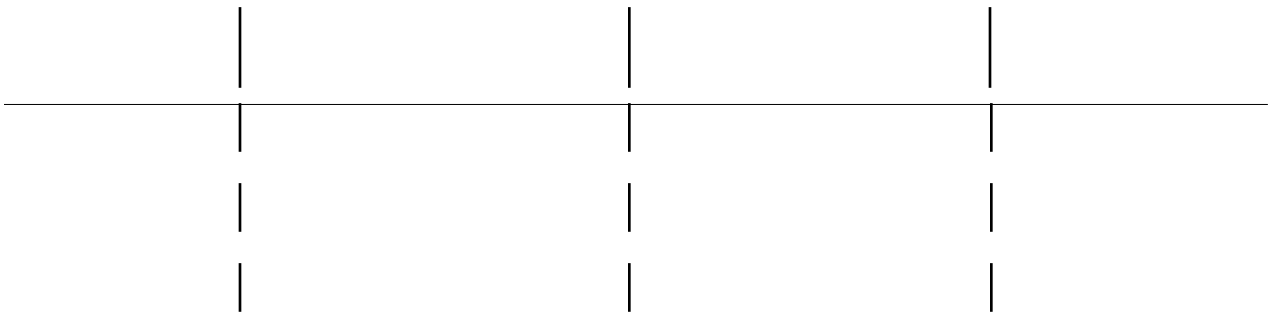


FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D29.3



FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D82.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D82.2 The operator shall install and maintain a CEMS to measure the following parameters:

NOx concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall comply with the requirements of Rule 2012.

[**RULE 1703(a)(2) - PSD-BACT, ; RULE 2005, ; RULE 2012,**]

[Devices subject to this condition : D1, D7, D13, D19, D25, D31, D37, D43]

E. Equipment Operation/Construction Requirements

E144.1

E179.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E179.2

E193.1

H. Applicable Rules

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
NOX	40CFR60, SUBPART	KKKK

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**40CFR 60 Subpart KKKK,**]

[Devices subject to this condition : D1, D7, D19, D25, D31, D37, D43]

I. Administrative

I298.1 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005,**]

[Devices subject to this condition : D1]

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

I298.2 This equipment shall not be operated unless the facility holds 77 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 77 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005,**]

[Devices subject to this condition : D49]

I298.3 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**RULE 2005,**]

[Devices subject to this condition : D7]

I298.4 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005,**]

[Devices subject to this condition : D13]

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

I298.5 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005,**]

[Devices subject to this condition : D19]

I298.6 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**RULE 2005,**]

[Devices subject to this condition : D25]

I298.7 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005,**]

[Devices subject to this condition : D31]

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

I298.8 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

[**RULE 2005,**]

[Devices subject to this condition : D37]

I298.9 This equipment shall not be operated unless the facility holds 35839 pounds of NOx RTCs in its allocation account to offset the annual emissions increase for the first year of operation. The RTCs held to satisfy the first year of operation portion of this condition may be transferred only after one year from the initial start of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the start of operation, the facility holds 30110 pounds of NOx RTCs valid during that compliance year. RTCs held to satisfy the compliance year portion of this condition may be transferred only after the compliance year for which the RTCs are held. If the initial or annual hold amount is partially satisfied by holding RTCs that expire midway through the hold period, those RTCs may be transferred upon their respective expiration dates. This hold amount is in addition to any other amount of RTCs required to be held under other condition(s) stated in this permit.

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**RULE 2005,**]

[Devices subject to this condition : D43]

K. Record Keeping/Reporting

K40.1

K67.1

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.2

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Manual and automatic operation and shall list all engine operations in each of the following areas:

Emergency use hours of operation

Maintenance and testing hours

Other operating hours (describe the reason for operation)

In addition, each time the engine is started manually, the log shall include the date of operation and the timer reading in hours at the beginning and end of operation. the log shall be kept for a minimum of five calendar years prior to the current year and made available to district personnel upon request. the total hours of operation for the previous calendar year shall be recorded sometime during the first 15 days of January of each year.

FACILITY PERMIT TO OPERATE

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**RULE 1110.2, ;** RULE 1110.2, ; RULE 1470,]

[Devices subject to this condition : D49]

K67.5

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Negative Declaration for Control Techniques Guidelines of Surface Coating Operations at Shipbuilding and Repair Facilities, and Paper, Film and Foil Coatings

May 2017

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Negative Declaration

To ensure compliance with Reasonably Available Control Technology (RACT) requirements found in Clean Air Act (CAA) section 182 and elsewhere, EPA, November 3, 2016 (81 FR 76547, at 76548), proposed partial approval and partial disapproval of SCAQMD's 2014 RACT SIP demonstration and recommended South Coast evaluate, and adopt where appropriate, negative declarations for the Surface Coating Operations at Shipbuilding and Repair Facilities Control Techniques Guidelines (CTG, 61 FR–44050, August 27, 1996 and EPA–453/R–94–032), and for the Paper Coating portion of the 2007 Paper, Film and Foil coatings CTG. (EPA 453/R-07-003). A negative declaration is a statement that there are no such operations in the District that are subject to the CTGs.

The District has completed this evaluation and has effectively adopted negative declarations for these two categories. Specifically, regarding the shipbuilding CTG, we note that EPA's Shipbuilding and Ship Repair Coating Operations CTG only applies to facilities that are major sources of VOCs. (*See* 61 FR 44050 at 44052, and 40 CFR 63.781). District staff reviewed our permit database and consulted with knowledgeable District permitting and inspection staff, and conclude that there are no Shipbuilding and Ship Repair coating operations that are major sources of VOC in the District.[1] The operating permit for Willard Marine Inc., the only Title V facility subject to SCAQMD Rule 1106 Marine Coating Operations, limits VOC emissions to 6.7 tons/year, which is below the major source threshold of 10 tons/year for an extreme ozone non-attainment area. Further, the 2016 AQMP (page 9 of Appendix VI), which had a public workshop and adopted by the Board on March 3, 2017, states that solvent based inorganic zinc (the coating category in Rule 1106 that has a higher VOC limit than recommended by CTG) is not used at major source facilities subject to Rule 1106 in the Basin.

Similarly, for EPA's CTG for Paper, Film and Foil coatings, the District's 2016 AQMP, Appendix VI, Table VI-A-4 (page 10), states "To the best of staff's knowledge, no facilities exceed the CTG applicable threshold (25 TPY of VOC per coating line) in the

[1] See CARB's 2014 emissions inventory database for SCAQMD, which lists Bellport/Newport Harbor Shipyard (1.1 tons VOC) as the only source under Standard Industrial Classification Code 3731, Shipbuilding and Repairing https://www.arb.ca.gov/app/emsinv/facinfo/faccrit.php?dd=&grp=1&sort=FacilityNameA&dbyr=2014&ab_=&dis_=SC&co_=&fname_=&city_=&fzip_=&fsic_=3731&facid_=&all_fac=C&displayit=Pollutant&showpol=&showpol2=

Basin." We made this determination based on a review of our permit database and discussions with knowledgeable District permit and inspection staff.

The 2016 AQMP was adopted by the Governing Board after a public process that complies with State requirements and CAA SIP completeness requirements found in 40 CFR 51 appendix V. Therefore, the information discussed above and the 2016 AQMP serve as negative declarations for the Shipbuilding and Ship Repair Coating Operations CTG and the Paper Coating portion of the 2007 Paper, Film and Foil CTG as recommended in EPA's November 2016 proposed action.