Ventura County
Air Pollution
Control District

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June 4, 2019

Air Pollution Control Board
800 South Victoria Avenue
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SUBJECT: NEW SOURCE REVIEW RULE ANNUAL REPORT – RULE 26.11

RECOMMENDED ACTION:

Receive and file.

FISCAL/MANDATES IMPACT:

None.

STATEMENT OF MATTER FOR BOARD CONSIDERATION:

The District's new source review rule requires that the Engineering Division prepare the attached report. The new source review rule is the principle rule used to mitigate emission increases from new and modified stationary sources of air pollutant emissions in Ventura County. It is an important part of the District's plan for attaining and maintaining the state and national ambient air quality standards in Ventura County. Mitigation is achieved by requiring new and modified sources to install the best available control technology. In addition, larger sources are required to provide emission reduction credits to offset emission increases.

Attached is the most recent annual report on the annual equivalency demonstration program established by Rule 26.11, "New Source Review – ERC Evaluation at Time of Use". Your Board adopted Rule 26.11 on May 14, 2002. The purpose of the annual equivalency demonstration program is to demonstrate, as a whole, the District's new source review rule requirements for emission offsetting are equivalent to the EPA new source review rule requirements. The District rules require the emission reductions used to offset the emission increase be surplus to all requirements at the time they are banked. EPA policy however, requires emission reductions used to offset the emission increase be surplus to all requirements at the time they are used.

As long as the District demonstrates equivalency, new major sources and major modifications to sources remain exempt from the requirement to provide emission reduction credits that are surplus at the time of use. The report concludes for calendar year 2018, the District has demonstrated equivalency. The report shows a positive

balance at the end of the reporting period of 67.20 tons per year of reactive organic compounds (ROC) and 39.81 tons per year of nitrogen oxides (NOx).

This equivalency finding would provide a measure of regulatory relief to a permit applicant proposing a major permit action, should such a project occur.

If you have any questions, please call me at 645-1440 or call Kerby E. Zozula, Engineering Division Manager, at 645-1421.

MICHAEL VILLEGAS
Air Pollution Control Officer

Attachment

NSR Equivalency Demonstration Report for 2019

Ventura County Air Pollution Control District
Annual Equivalency Demonstration Program

Rule 26.11, "New Source Review – ERC Evaluation at Time of Use"

Annual Report
April 1, 2019

Prepared by:

Kerby E. Zozula, Manager
Engineering Division

Annual Equivalency Demonstration Program Report
April 1, 2019

Introduction

Section C.5 of District Rule 26.11, "New Source Review – ERC Evaluation at Time of Use", requires the Ventura County Air Pollution Control District (District) to provide an annual report on its annual equivalency demonstration program to the U. S. Environmental Protection Agency (EPA). The purpose of the annual equivalency demonstration program is to demonstrate that, as a whole, the District new source review rule requirements for emission offsetting are equivalent to the EPA new source review rule requirements.

The District new source review rules require any facility that emits more than five (5) tons per year of reactive organic compounds (ROC) or nitrogen oxides (NOx) to provide emission offsets for any ROC or NOx emission increase. The District rules allow banking of emission reduction credits (ERCs), which can then be used as future emission offsets. The District rules require that the emission reductions used to create ERCs be surplus to all requirements at the time they are *banked.*

EPA new source review rules require any facility that would increase emissions more than twenty-five (25) tons per year of ROC or NOx to provide emission offsets for the emission increase. EPA policy requires, however, that emission reductions used to offset the emission increase be surplus to all requirements at the time they are *used.*

Under the equivalency demonstration program, all ROC and NOx ERCs provided to the District are examined to determine what portion of the original emission reduction is surplus at the time of use. On an annual basis, the total amount that is surplus is compared to the total amount of ROC and NOx emission offsets required by new major sources and major modifications to sources. If the annual equivalency demonstration program report shows a positive balance, no action is required. If the annual equivalency demonstration program report shows a program deficiency, the District will require that emission offsets for major new sources and major modifications be surplus at the time of use until an annual report shows that the program deficiency is resolved.

This report is the most current annual report on the equivalency demonstration program. The report covers all ERCs provided for Authorities to Construct issued, and all ERCs surrendered, in Calendar Year 2018. The report indicates the status of these transactions as of January 1, 2019.

Emission Reductions Required by the Clean Air Act

District Rule 26.11 requires staff to determine, for each emission reduction credit used or surrendered, the amount of that emission reduction that is surplus to any emission reductions required by the federal Clean Air Act. In a Memorandum of Understanding dated February 11, 2003, EPA and the District agreed that the following list of emission reductions are required by the federal Clean Air Act and, therefore, are not surplus emission reductions.

A. Any emission reduction required by a stand-alone federal requirement or regulation, including, but not limited to, Acid Rain, New Source Performance Standard, Reasonably Available Control Technology, and Maximum Achievable Control Technology, whether or not the requirements are part of the State Implementation Plan (SIP) or a local attainment plan.

B. Any emission reduction relied upon by a permitting authority for attainment purposes, or contained in an approved attainment plan, including emission reductions relied upon for Reasonable Further Progress calculations. Reference 40 CFR 51.165(a)(3)(ii)(G).

C. Any emission reduction whose original emission is not included in the District's emission inventory. Reference 40 CFR 51.165(a)(3)(ii)(C)(1).

D. Any emission reduction based on a source-specific or source category-specific SIP provision used to comply with CAA requirements.

E. Any emission reduction required by a condition of a permit issued to comply with CAA new source review requirements. Any emission reduction required by a permit condition placed on a permit solely: 1) to make the reduction federally enforceable to meet federal creditability criteria for use of the reduction as an offset for new source review purposes, or 2) to assure compliance with a state or local requirement that is not federally enforceable shall not be included in this class. Reference 40 CFR 51.165(a)(3)(ii)(G).

F. Any emission reduction based on a source-specific emission limitation resulting from an Environmental Protection Agency enforcement case.

Pursuant to Rule 26.11.B.1, the evaluation is <u>not</u> required for any emission reduction credits provided by the applicant as temporary emission reduction credits pursuant to Rule 26.4.F.4.

Emission Reduction Credits Based on Projects Occurring Prior to 1990

Paragraph C in the above list states that any emission reduction whose original emission is not included in the District's emission inventory is not considered surplus. The District's portion of the State Implementation Plan is based on a 1990 inventory of actual emissions. Thus, any actual emissions from emission reduction projects that occurred prior to 1990 are not explicitly in the District's baseline emission inventory.

In its portion of the SIP, the District created a projected emission inventory using the baseline emission inventory and a set of growth factors and control factors. No specific line item was included for emissions growth due to the use of ERCs that derived from emission reduction projects occurring prior to 1990. It could be argued that the use of these ERCs is implicitly included as some portion of the set of growth factors. However, the overall growth in emissions from stationary sources resulting simply from applying the growth factors to the baseline stationary source inventory is negative. That is, applying the growth factors alone results in an overall emissions decrease.

Thus, the District staff concludes that it cannot be reasonably argued that the original emissions from any emission reduction project that occurred prior to 1990 are included in the District's emission inventory. As a result, no ERCs that derived from emission reduction projects that occurred prior to 1990 are considered to represent emission reductions that are surplus at the time of use.

Permit Applications For Which Emission Offsets Were Provided

District Rule 26.11 requires that District staff evaluate each ROC and NOx emission reduction credit that is provided by an applicant pursuant to the emission offset provisions of District Rule 26.2.B to determine how much of the credit is surplus as of the date the Authority to Construct was issued.

Table 1 lists all Authorities to Construct, issued in calendar year 2018, for which permit applicants were required to provide emission offsets pursuant to District Rule 26.2.B. Table 1 identifies the permit applications, both Authorities to Construct and associated Permits to Operate. Each permit application is identified by its five-digit facility number and associated three-digit application number. The dates are the dates the permits were issued. If the application number and issuance dates are the same for the Authority to Construct and the Permit to Operate, it indicates that the District issued one document that served as both permits, that is, a combined Authority to Construct and Permit to Operate.

The ERC Certificates used to provide emission offsets are identified by a four-digit number as the Authority to Construct ERC and the Permit to Operate ERC.

Frequently, a portion of an ERC Certificate is sold. The District then updates the transaction records for the original ERC Certificate and issues a new ERC Certificate for the portion sold, with a new ERC number. The surplus analysis discussed below requires an examination of the original emission reduction that was the basis for the emission offset provided by the permit applicant. In order to facilitate that analysis, Table 1 lists the original ERC Certificate number following each Authority to Construct ERC number and Permit to Operate ERC number.

If an emission reduction credit is both generated and used as part of the same project, the District refers to the credit as an internal emission reduction credit. On some occasions in the past, no ERC Certificate number was assigned to an internal emission reduction credit. Table 1 does not include any such transactions for 2018. In most cases today, a unique ERC number is used for cases where an emission reduction credit is both generated and used as part of the same project.

Finally, Table 1 lists the total amount of ROC and NOx emission offsets in tons per year provided to the District from each ERC Certificate or internal emission reduction credit.

Table 1 lists information for both Authorities to Construct and associated Permits to Operate because, in some cases, the information could be different. If the Permit to Operate information differs from the Authority to Construct information, the memorandum of understanding requires that the differences be discussed in the annual report.

None of the applications referenced in Table 1 were applications for major new sources or major modifications of either ROC or NOx that were subject to EPA new source review rules.

Table 1 - 2018 Permit Applications For Which Emission Offsets Provided

Authority to Construct Date	Facility Number	AC App Number	A to C ERC	Original ERC	A to C ROC	A to C NOx	Permit to Operate Date	PO App Number	P to O ERC	Original ERC	P to O ROC	P to O NOx
1/25/2018	01006	730	1112	1112	0.08	0.00	10/3/2018	731	1112	1112	0.08	0.00
2/27/2018	01006	740	1160	1160	0.46	0.00	10/3/2018	741	1160	1160	0.46	0.00
3/6/2018	08062	180	1030	1030	0.19	0.00						
3/6/2018	08062	180	1153	1047	0.48	0.00						
4/2/2018	06413	211	1194	1047	3.25	0.00	4/2/2018	211	1194	1047	3.25	0.00
5/18/2018	08062	200	1124	1124	0.52	0.00						
7/2/2018	00066	560	1219	1214	0.41	0.00	10/31/2018	561	1219	1214	0.41	0.00
7/6/2018	00066	580	1240	1005	0.80	0.00						
8/21/2018	00066	600	1219	1214	0.41	0.00						
11/14/2018	00066	620	1240	1005	0.12	0.00						

Note: All ROC and NOx numbers are in units of tons per year.

Surrendered Emission Reduction Credit Certificates

District Rule 26.11 requires that District staff evaluate each ROC and NOx emission reduction credit that is permanently surrendered by the registered owner, without being used pursuant to Rule 26.2.B, to determine how much of the credit is surplus as of the date the emission reduction credit is surrendered.

During calendar year 2018, there were no ERC transactions based on the surrender of a portion of an ERC Certificate.

Analysis of Provided and Surrendered Emission Reduction Credits

As discussed above, District staff has concluded that emission reductions that derived from projects that occurred prior to 1990 cannot currently be considered surplus to all requirements of the federal Clean Air Act. District staff, therefore, reviewed the District files for all original ERC Certificates listed in Table 1 to determine which certificates were issued for emission reductions that occurred prior to 1990.

Table 2 lists the Authority to Construct applications from Table 1 that provided emission offsets from projects that occurred prior to 1990. Only Authority to Construct information from Table 1 was used since the amount of ERCs provided do not contribute to the surplus ERC balance as shown in Table 4. None of the ROC or NOx provided to the District through these Table 2 transactions are surplus to all requirements of the federal Clean Air Act.

Table 2 - 2018 Applications Using Offsets Derived From Pre-1990 Projects

Authority to Construct Date	Facility Number	AC App Number	A to C ERC	Original ERC	A to C ROC	A to C NOx
3/6/2018	08062	180	1030	1030	0.19	0.00
3/6/2018	08062	180	1153	1047	0.48	0.00
4/2/2018	06413	211	1194	1047	3.25	0.00
7/6/2018	00066	580	1240	1005	0.80	0.00
11/14/2018	00066	620	1240	1005	0.12	0.00
Total					4.84	0.00

Note: All ROC and NOx numbers are in units of tons per year.

Table 3 lists the Authority to Construct applications from Table 1 that provided emission offsets from projects that occurred in 1990 or later. For each of these transactions, District staff analyzed the original ERC Certificate on a case-by-case basis as required by District Rule 26.11.B and Section III.C of the memorandum of understanding. The analysis process is discussed in more detail below.

Based on the analysis, District staff calculated a ratio of the currently surplus emission reductions to the emission reductions originally granted (ER1/ER2) for ROC and an ER1/ER2 ratio for NOx for each original ERC Certificate. Table 3 contains these ratios and a calculation of the portion of each emission reduction credit provided to the District that is currently surplus using the calculation procedure in District Rule 26.11.B.4.

Table 3 shows the total amount of ROC and NOx credits provided to the District and the total amount of ROC and NOx credits that are considered surplus.

Table 3 - 2018 Applications Using Emission Offsets Derived From 1990 or Later Projects

Authority to Construct Date	Facility Number	AC App Number	A to C ERC	Original ERC	A to C ROC	ER1/ER2 ROC	Surplus ROC	A to C NOx	ER1/ER2 NOx	Surplus NOx
1/25/2018	01006	730	1112	1112	0.08	1.11	0.09	0.00	0.00	0.00
2/27/2018	01006	740	1160	1160	0.46	1.11	0.51	0.00	0.00	0.00
5/18/2019	08062	200	1124	1124	0.52	1.25	0.65	0.00	0.00	0.00
7/2/2018	00066	560	1219	1214	0.41	1.23	0.50	0.00	0.00	0.00
8/21/2018	00066	600	1219	1214	0.41	1.23	0.50	0.00	0.00	0.00
Total					1.88		2.25	0.00		0.00

Note: All ROC and NOx numbers are in units of tons per year.

Analyses of Original ERC Certificates

District staff conducted an analysis of each original ERC Certificate on a case-by-case basis as required by District Rule 26.11.B and Section III.C of the memorandum of understanding. The

analyses are included in Appendix A of this report. Each analysis includes the ERC Certificate number, the date the Certificate was originally issued, and a brief description of the project that resulted in an emission reduction.

Each analysis includes an Emission Reduction Calculation Summary Table that contains the size of the original real, quantifiable, permanent and enforceable emission reduction; the size of the real, quantifiable, permanent and enforceable emission reduction corrected for any concerns noted during this re-analysis; the amount of the emission reduction that is currently surplus (i.e., ER1 as defined in District Rule 26.11.B.2); and the amount of the District emission reduction credit granted for the emission reduction taking into account any discounting done by the District and not required by EPA emissions banking rules (i.e., ER2 as defined in District Rule 26.11.B.3).

Each analysis includes a discussion of why the emission reduction is considered real and quantifiable. The District generally defines a real emission reduction as one based on actual emissions. The District defines a quantifiable emission reduction as one for which you can establish a reliable basis for calculating the reduction. Generally, District staff considers an emission reduction real and quantifiable if the emission reduction is calculated using emission factors derived from a source test on the equipment and two years of actual throughput data.

In some cases, it is considered acceptable to substitute standard emission factors for emission factors derived from a source test if source testing is difficult. In two cases, it is standard practice to substitute permitted emissions for actual emissions. The first case is if the permitted emissions for the equipment were originally offset with emission reduction credits (District Rule 26.6.E.4). The second case is if the permitted emissions are less than the calculated actual emissions.

Each analysis includes a discussion of why the emission reduction is considered permanent and enforceable. Generally, District staff considers an emission reduction permanent and enforceable if the equipment involved requires a Permit to Operate in the District and the Permit to Operate has either been surrendered or had conditions added to enforce the emission reduction.

Each analysis includes a discussion of the current calculation procedures that District staff would use to calculate a real, quantifiable, permanent and enforceable emission reduction from the project that generated the emission reduction credit if different than the calculation procedures originally used. Generally, District calculation methods have not changed significantly in the last several years.

Each analysis includes a discussion of what portion of the emission reduction would be considered surplus under the definition of surplus in the memorandum of understanding. Generally, the current District prohibitory rule applicable to the equipment governs what portion of the emission reduction would be considered surplus.

Each analysis includes a discussion of what portion of the emission reduction was granted as an emission reduction credit by the District after applying the discounts required at the time the

credit was granted by District Rule 26.4.C (or equivalent rules prior to October 22, 1991) and any discounts required after the credit was granted by District Rule 26.4.D.1 or District Rule 26.4.D.2 (or equivalent rules prior to October 22, 1991).

Corrections to Prior Year Balances

The memorandum of understanding requires the District to determine if any Permit to Operate information for permits issued during the report year differs from the Authority to Construct information used in prior year reports. The annual report is required to include a discussion of any correction to prior year balances of ROC and NOx caused by any differences identified.

During calendar year 2018, there was a single ROC transaction that had a correction from a prior Authority to Construct.

Conclusion

Table 4 summarizes all emission reduction credits used or surrendered in the District in calendar year 2018. Table 4 shows that 6.72 tons per year of ROC credits and 0.00 tons per year of NOx credits were used or surrendered. Table 4 further shows that 2.25 tons per year of ROC credits and 0.00 tons per year of NOx credits were surplus at the time of use.

No permit applications for major new sources or major modifications were issued during the calendar year 2018. Therefore, there are no required subtractions to the balance for emission reduction credits used that may have not been surplus at the time of use for a new major source or major modification.

The annual equivalency demonstration program had a positive year-end balance of 64.96 tons per year of ROC and 39.81 tons per year of NOx at the end of calendar year 2017. There was a single ROC correction to prior year balances as discussed above. The annual equivalency demonstration program, therefore, has a positive year-end balance of 67.20 tons per year of ROC and 39.81 tons per year of NOx at the end of calendar year 2018.

The District has, therefore, demonstrated that the District new source review rule requirements for emission offsetting are equivalent to the EPA new source review rule requirements for the reporting period. New major sources and major modifications shall be exempt from the provision in Rule 26.2.B.2.d that all emission reduction credits provided be surplus at the time of use for both ROC and NOx until the submission of the next annual report.

Table 4 - 2019 Annual Equivalency Demonstration Program Summary For 2018

	Total ROC	Surplus ROC	Total NOx	Surplus NOx
Applications Using Pre-1990 Project ERCs	4.84	0.00	0.00	0.00
Applications Using 1990 or Later Project ERCs	1.88	2.25	0.00	0.00
Surrendered Pre-1990 Project ERCs	0.00	0.00	0.00	0.00
Surrendered 1990 or Later Project ERCs	0.00	0.00	0.00	0.00
Total Reductions for Calendar Year 2018	6.72	2.25	0.00	0.00
Total Surplus Reductions From Prior Years		64.96		39.81
Correction to Prior Year Balances		(0.01)		0.00
Total Surplus Reductions at End of 2018		67.20		39.81

Note: All ROC and NOx numbers are in tons per year

Ventura County Air Pollution Control District
Annual Equivalency Demonstration Program

Appendix A
Analyses of Original ERC Certificates

ERC Certificate Analysis

ERC Certificate No. 1112 **Issuance Date: April 27, 1995**

Project Description:

The emission reduction resulted from the replacement of JP-4 fuel with JP-5 and JP-8 fuel in three (3) 111,500 gallon floating roof storage tanks and the associated loading equipment at the Point Mugu Naval Air Station. The storage and handling of JP-5 and JP-8 fuel results in negligible air emissions and is exempt from permit requirements. The JP-4 fuel was loaded into a mobile refueler used to fuel Naval aircraft. The emissions from the transfer of JP-4 fuel from the floating roof storage tanks to the mobile refueler was controlled with a carbon adsorption control system.

Emission Reduction Calculation Summary:

	ROC	NOx
Emission Reduction – Original Calculation	2.66 tpy	0.00 tpy
Emission Reduction – Current Calculation	2.66 tpy	0.00 tpy
EPA Surplus Emission Reduction (ER1)	2.66 tpy	0.00 tpy
District Emission Reduction Credit (ER2)	2.39 tpy	0.00 tpy

Analysis:

Real and Quantifiable

The emission reduction for this replacement project was calculated pursuant to Rule 26.6.E.1 with post-project emissions assumed to be zero. The storage and handling of JP-5 and JP-8 fuel results in negligible air emissions due to the low vapor pressure of these fuels. The storage and handling of these fuels are exempt from permit pursuant to Rule 23.F.21 and exempt from Rule 71.2, "Storage of Reactive Organic Compound Liquids", because the modified Reid vapor pressure of these fuels is less than 0.5 psia.

The emission reduction (2.66 tpy ROC) was calculated from actual JP-4 throughput of 1,102,789 gallons per year averaged for the two-year period from March 1990 to February 1992 as detailed below.

Storage tank standing and withdrawal emissions (0.61 tpy ROC) were determined using the EPA calculations for floating roof tanks. Mobile refueler truck loading emissions (0.08 tpy ROC) were calculated using an emission factor of 1.5 lbs ROC per 1,000 gallons throughput and a carbon adsorption control system efficiency of 90%. Aircraft filling emissions (1.84 tpy ROC) were calculated using an emission factor of 3.33 lbs ROC per 1,000 gallons throughput. Aircraft fuel spillage emissions (0.13 tpy ROC) were calculated using an emission factor of 0.23 lbs ROC per 1,000 gallons throughput.

Permanent and Enforceable – The JP-4 storage tanks and loading equipment required a District Permit to Operate. The Permit to Operate for this equipment was surrendered as part of granting the emission reduction credit.

Current Calculations – The District currently uses the same calculation methods for calculating emission reductions from fuel tank replacement projects like this.

EPA Surplus Emission Reduction – The storage tanks were already in compliance with Rule 71.2, "Storage of Reactive Organic Compound Liquids", and the mobile refueler loading equipment was already in compliance with Rule 71.3, "Transfer of Reactive Organic Compound Liquids". These rules have not changed since 1992. Thus, the emission reduction from the JP-4 fuel tank replacement project calculated originally was and continues to be an EPA surplus emission reduction.

District Emission Reduction Credit – The calculated District ROC emission reduction credit for this replacement project was reduced by 10%, pursuant to Rule 26.4.C.2, from 2.66 to 2.39 tpy ROC.

ERC Certificate Analysis

ERC Certificate No. 1124 **Issuance Date: July 17, 1996**

Project Description:

The emission reduction resulted from a reduction in the permitted metal melting throughput limit and natural gas consumption limit due to the shutdown of three out of four metal melting furnaces. The new limits for the remaining metal melting furnace were 15,000 tons per year of aluminum and magnesium combined for melting and 80 MMCF per year of natural gas consumption. As shown below, only an emission reduction credit for ROC was granted.

Emission Reduction Calculation Summary:

	ROC	NOx
Emission Reduction – Original Calculation	0.80 tpy	0.00 tpy
Emission Reduction – Current Calculation	0.80 tpy	0.00 tpy
EPA Surplus Emission Reduction (ER1)	0.80 tpy	0.00 tpy
District Emission Reduction Credit (ER2)	0.64 tpy	0.00 tpy

Analysis:

Real and Quantifiable – The emission reduction for this facility was calculated based on records supplied by the facility for the 24-month period from January 1, 1992 to December 31, 1993. The ROC emissions were calculated based on an emission source test conducted in March 1995. The two-year average "actual" metal melting throughput was 29,868 tons per year and the two-year average "actual" natural gas consumption was 154.1 MMCF per year. As shown above, the resulting ROC emission reduction was 0.80 tons per year

Permanent and Enforceable – Aluminum and magnesium metal melting furnaces of this size require a District Permit to Operate. The Permit to Operate for 3 out of the 4 metal melting furnaces was surrendered and the permitted metal melting and natural gas consumption limits were lowered to 15,000 tons per year and 80 MMCF per year as discussed above.

Current Calculations – The District currently uses the same calculation methods for calculating ROC emission reductions from metal melting furnaces that was originally used.

EPA Surplus Emission Reduction – The District did not and currently does not have any rules that regulate ROC emissions from metal melting furnaces. Thus, the emission reduction originally was and continues to be a surplus emission reduction.

District Emission Reduction Credit – At the time the emission reduction credit was originally issued, BACT for ROC emissions from metal melting furnaces was considered to be satisfied. Thus, the calculated District emission reduction credit for the metal melting furnaces was reduced by 20% from 0.80 tpy to 0.64 tpy pursuant to Rule 26.4.C.1.b.

ERC Certificate Analysis

ERC Certificate No. 1160 **Issuance Date: November 27, 2000**

Project Description:

The emission reduction resulted from the replacement of Aviation Gasoline with JP-5 fuel in two (2) 27,000 gallon aboveground storage tanks and the associated loading equipment at the Point Mugu Naval Air Station. The storage and handling of JP-5 fuel results in negligible air emissions and is exempt from permit requirements. The Aviation Gasoline was loaded into a mobile refueler used to fuel Naval aircraft.

Emission Reduction Calculation Summary:

	ROC	NOx
Emission Reduction – Original Calculation	2.38 tpy	0.00 tpy
Emission Reduction – Current Calculation	2.38 tpy	0.00 tpy
EPA Surplus Emission Reduction (ER1)	2.38 tpy	0.00 tpy
District Emission Reduction Credit (ER2)	2.14 tpy	0.00 tpy

Analysis:

Real and Quantifiable

The emission reduction for this replacement project was calculated pursuant to Rule 26.6.E.1 with post-project emissions assumed to be zero. The storage and handling of JP-5 fuel results in negligible air emissions due to its low vapor pressure. The storage and handling of JP-5 fuel is exempt from permit pursuant to Rule 23.F.21 and exempt from Rule 71.2, "Storage of Reactive Organic Compound Liquids", because the modified Reid vapor pressure of JP-5 fuel is less than 0.5 psia.

The emission reduction (2.38 tpy ROC) was calculated from actual Aviation Gasoline throughput of 64,357 gallons per year averaged for the two-year period pursuant to Rule 26.6.C.

Storage tank standing and withdrawal emissions (2.02 tpy ROC) were determined using the District calculations for aboveground tanks. Mobile refueler truck loading emissions (0.02 tpy ROC) were calculated using an emission factor of 0.4 lbs ROC per 1,000 gallons throughput. Aircraft filling emissions and spillage (0.34 tpy ROC) were calculated using an emission factor of 10.7 lbs ROC per 1,000 gallons throughput.

Permanent and Enforceable

The Aviation Gasoline storage tanks and loading equipment required a District Permit to Operate. The Permit to Operate for this equipment was surrendered as part of granting the emission reduction credit.

Current Calculations

The District currently uses the same calculation methods for calculating emission reductions from fuel tank replacement projects like this.

EPA Surplus Emission Reduction

The storage tanks were already in compliance with Rule 71.2, "Storage of Reactive Organic Compound Liquids", and the mobile refueler loading equipment was already in compliance with Rule 71.3, "Transfer of Reactive Organic Compound Liquids". These rules have not changed since 1992. Thus, the emission reduction from the Aviation Gasoline fuel tank replacement project calculated originally was and continues to be an EPA surplus emission reduction.

District Emission Reduction Credit

The calculated District ROC emission reduction credit for this replacement project was reduced by 10%, pursuant to Rule 26.4.C.2, from 2.38 to 2.14 tpy ROC.

ERC Certificate Analysis

ERC Certificate No. 1214 **Issuance Date: January 3, 2011**

Project Description:

Shutdown of a polyester resin manufacturing facility, Cook Composites & Polymers Co., former VCAPCD Permit to Operate No. 00146. The equipment eligible for emission reduction credits included an 8.4 MMBTU/Hr Boiler, Polyester Resin Production Equipment, Dicyclopentadiene (DCPD) Storage Tank, Styrene Storage Tank, and a Polyester Resin Drumming and Tank Wagon Filling Operation. The Styrene Storage Tank and Polyester Resin Drumming and Tank Wagon Filling Operation were exempt from permit pursuant to Rule 23, "Exemptions From Permit", but were included on the permit pursuant to Rule 35, "Elective Emission Limits". By complying with Rule 35, the facility did not require a Title V Permit as required by Rule 33, "Part 70 Permits".

Emission Reduction Calculation Summary:

	ROC	NOx
Emission Reduction – Original Calculation	4.32 tpy	0.33 tpy
Emission Reduction – Current Calculation	4.32 tpy	0.33 tpy
EPA Surplus Emission Reduction (ER1)	4.32 tpy	0.33 tpy
District Emission Reduction Credit (ER2)	3.51 tpy	0.26 tpy

Analysis:

Real and Quantifiable – Emission reduction credits (2.16 tpy ROC and 0.33 tpy NOx) were originally provided for a portion of the permitted emissions from the Boiler, DCPD Storage Tank, and Polyester Resin Production Equipment from ERC Certificate Nos. 1083 (NOx) and Nos. 1084, 1126, and 1157 (ROC). The calculation procedure of Rule 26.6.E.4.c.2 was used to calculate an emission reduction of 2.16 tpy ROC and 0.33 tpy NOx (the total amount of all emission reduction credits provided as offsets since October 22, 1991).

In addition to the emission reductions calculated above, ROC emission reductions were calculated pursuant to the method in Rule 26.6.E.3 for the shutdown of an emissions unit (the actual emissions). The actual emissions were calculated using two years of actual throughput data for the period October 2005 to September 2007. The equipment included for the additional emissions banking were the Polyester Resin Production Equipment, Styrene Storage Tank, and Polyester Resin Drumming and Tank Wagon Filling Operation. Emission factors were used that represented BACT for the equipment. The actual emissions determined from this equipment eligible for banking totaled 2.16 tpy ROC, for a total of 4.32 tpy ROC when added to the amount above.

Permanent and Enforceable – All of the equipment required a District Permit to Operate. The Permit to Operate for the facility was surrendered prior to the issuance of the emission reduction credit certificate.

Current Calculations – The District currently uses the same calculation methods for calculating emission reductions from equipment shutdowns like this when ROC and NOx offsets were provided.

EPA Surplus Emission Reduction – There are no District prohibitory rules that specifically applied to the Polyester Resin Production Equipment, Styrene Storage Tank, and Polyester Resin Drumming and Tank Wagon Filling Operation. The DCPD Storage Tank was operating in compliance with Rule 71.2, "Storage of Reactive Organic Compound Liquids". The boiler was operating in compliance with Rule 74.15, "Boilers, Steam Generators, and Process Heaters". Rules 71.2 and 74.15 have not changed since the emission banking was performed. Thus, the emission reductions from the equipment calculated originally were and continue to be EPA surplus emission reductions.

District Emission Reduction Credit – Pursuant to Rule 26.4.C.1, the original emission reduction was discounted by the greater of BACT or 20% when the ERC Certificate was issued. BACT was already in place. Thus, the emission reduction was discounted by 20%, except for the Styrene Storage Tank and Polyester Resin Drumming and Tank Wagon Filling Operation that were exempt from permit as discussed above. Pursuant to Rule 26.4.C, emissions reductions from equipment exempt from permit requirements are not discounted.

The District emission reduction after a 20% discount (except for exempt equipment as noted above) was calculated to be 3.51 tpy ROC and 0.26 tpy NOx.