

ATTACHMENT II

ASSESSMENT OF THE IMPACT OF REPEALING STATE REQUIREMENTS FOR EMISSION OFFSETS

II.1 EMISSION OFFSET REQUIREMENTS

New Source Review (NSR) Rules 20.1 through 20.4 were amended in 1998 to locally repeal state requirements for emission offsets, as authorized by state law.¹ Offsets are emission reductions provided to mitigate emission increases from new or modified stationary sources. State offset requirements had applied to sources having the potential to emit 15 tons or more per year of NO_x or VOC. The requirements were locally repealed following an evaluation of their minimal impact and a determination by the District and the ARB that they were not needed to achieve state ambient air quality standards for ozone by the earliest practicable date. Other requirements of NSR rules remain in effect, including federal offset requirements.²

To qualify as offsets, the emission reductions must not otherwise be required by local, state, or federal mandates; that is, the emission reductions must be "surplus."³ Qualifying emission reductions are approved and recorded by the District as "credits" in an offset register (also called a "bank"), and an emission reduction certificate is issued to the owner. These credits can later be withdrawn by their owner to satisfy an emission offset requirement, or sold or transferred to a new owner for this purpose. District Rules 26.0-26.10 (Emission Reduction Credits) govern this process.

In practice, emission reduction credits are difficult to generate. Stringent District, state and federal requirements for stationary source emission controls leave little opportunity for creating surplus emission reductions for use as offsets. Consequently, most banked emission reduction credits are derived from permanently curtailing or shutting down a permitted facility or equipment.⁴ Such shutdowns and resulting air quality benefits routinely occur as a normal course of business activity, independent of offset requirements.⁵ No additional air quality benefit is realized (beyond that which occurred at the time of the shutdown) when shutdown-related emission reductions are subsequently banked and used for offset purposes. Consequently, state offset requirements essentially resulted in costly paper transfers of emission reduction credits from one company to another with no corresponding air quality benefit.

¹ California Health and Safety Code (H&SC) Sections 40918.5 and 40918.6

² Ongoing NSR provisions include state requirements for Best Available Control Technology (BACT) on equipment with potential to emit 10 pounds or more per day of VOC or NO_x, and federal requirements for Lowest Achievable Emission Rate (LAER) control technology and offsets (at a 1.2-to-1 ratio) for new or modified facilities with potential to emit 50 tons or more per year of VOC or NO_x.

³ The emission reductions must also be real, quantifiable, and enforceable.

⁴ Shutdowns are a federally authorized source of offsets. See "Use of Shutdown Credits for Offsets," John Seitz, Director, Office of Air Quality Planning and Standards, EPA, date unknown.

⁵ In fact, a majority of shutdown-related emission reductions are never banked.

II.2 REQUIRED FINDINGS FOR REPEAL

To streamline regulatory processes and reduce costs without compromising air quality, state law was amended in 1996 (Assembly Bill 3319) to allow an air district to locally repeal State emission offset requirements if the Board and the ARB meet stringent health-protective requirements. Before repealing state emission offset requirements, the Board must review an estimate of emissions growth, if any, that is likely to occur as a result of the repeal, and make the findings described below. These findings must be confirmed by the ARB and reconsidered when updating the RAQS.

II.2.1 All Feasible Control Measures

The Board must find that all feasible control measures for emission sources under District purview have been adopted or are scheduled for consideration of adoption. The proposed Revision of the RAQS addresses and satisfies this requirement. Consequently, it is not further addressed herein.

II.2.2 Transport Mitigation

The Board must find that state emission offset requirements are not necessary to comply with the ozone transport mitigation requirements of state law. In fact, transport mitigation requirements do not apply to San Diego County, which is not identified in state law as an upwind source of transported air pollution. Consequently, transport mitigation requirements are not further addressed herein.

II.2.3 Expeditious Ozone Attainment

The Board must find that state emission offset requirements are not necessary to attain and maintain state ambient air quality standards for ozone by the earliest practicable date. Pursuant to ARB Guidance,¹ a key criterion is ensuring that the repeal of state offset requirements does not significantly impact a projected trend of decreasing total ozone-precursor emissions in the region.² This requirement is the primary focus of the assessment herein. The related finding that unbanked emission reductions from shutdown of emitting facilities (the usual source of offsets) exceeded growth in emissions from new or modified major sources was also reconfirmed.

II.3 TRACKING REQUIREMENTS

The ARB issued an Executive Order in 1998 specifying requirements for tracking and assessing emission increases associated with permitting actions that would have triggered state offset requirements were they still in place:³

¹ "Air Resources Board Staff's Basis For A Determination That A District's No-Net-Increase Permitting Program Is Not Necessary Pursuant to Health and Safety Code §40918.5 and 40918.6" (October 31, 1997).

² Page 5 of the ARB guidance

³ ARB Executive Order G-97-007-02 (December 17, 1998).

II.3.1 Emission Increases from Affected New or Modified Sources

Determine the total annual and cumulative increases of VOC and NO_x emissions associated with permitting actions that would have (or may have) triggered state offset requirements were they in place. This information is used to determine the quantity of offsets foregone as a result of the repeal of state offset requirements.

II.3.2 Emission Decreases from Shutdowns

Determine the annual and cumulative reductions of VOC and NO_x emissions that resulted from permanent equipment shutdowns that have not been registered as emission reduction credits in the District credit bank. This information is used to determine the level of emission reductions that have continued to occur from shutdowns (following the repeal of state offset requirements), which historically are the primary source of emission offsets. To the extent shutdowns and associated emission benefits continue to occur, the potential air quality impact of the repeal is reduced or eliminated.

II.3.3 Details

Tracking details include: (1) the year in which the emission increase or decrease occurred; (2) the source of the emission increase or decrease; (3) the nature of the emission change (e.g., the equipment type, whether it is a new or modified source, whether it is a permanent shutdown); (4) the amount of emission increase or decrease in tons per year; (5) the pollutant type; (6) the amount of offsets, if any, provided pursuant to federal requirements; (7) any adjustments to unbanked shutdowns that would be necessary to qualify the associated reductions as offsets;¹ and (8) any other pertinent information agreed upon by the District and ARB as necessary to assess the impact of the repeal of state offset requirements.

II.4 TRACKING RESULTS

The District previously instituted tracking procedures to identify and compile the required data for assessing the impact of the repeal of state offset requirements. The tracking information for the assessment herein (shown in Tables II-1 through II-4, beginning on page II-8) reflects the five-year period of January 1, 2010, through December 31, 2014. Tracking information for earlier periods is reflected in the previous assessments conducted in 1998, 2001, 2004 and 2007. Due to database changes, 2007 through 2009 data could not be collected. However, the overall decreasing emissions trend indicates no significant impact due to the data gap.

¹ Pursuant to Rule 26.0, Banking of Emission Reduction Credits, emission reductions from shutdowns for which credits are granted are discounted by the emission reductions that would have occurred had Reasonably Available Control Technology or Best Available Retrofit Control Technology requirements applied.

II.4.1 Emission Increases from 10-Ton Sources

Table II-1 compares permitted and actual emission increases from affected sources for which the District issued permits during the five-year tracking period. No offsets were required to satisfy existing federal offset requirements. The listed increases occurred at sources with actual aggregate post-project emissions exceeding 10 tons per year of either VOC or NOx. As with the previous assessments, the threshold of 10 tons per year was used as a conservative indicator of sources with a potential to emit 15 tons per year, which is the threshold that would have triggered state offset requirements were they still in place.¹

II.4.2 Emission Decreases from Unbanked Shutdowns

Table II-2 lists unbanked actual emission reductions from permanent facility or equipment shutdowns, adjusted where necessary for eligibility as emission offsets. The list is not exhaustive, given that additional shutdowns and associated emission reductions likely occurred, particularly from smaller emission sources.² Regardless, as indicated in Table II-2, shutdowns and associated emission reductions continue to occur since the repeal of state offset requirements.

II.4.3 Net Emissions Differential

Table II-3 combines information from Table II-1 (permitted emission increases from all projects at sites at or above 10 tons per year) with information from Table II-2 (unbanked actual emission reductions) to show the resulting net emissions differential for each year during the 2010-2014 tracking period. Consistent with expectations, the repeal of state offset requirements has not resulted in a significant increase in VOC and NOx emissions.

For both the five years examined (2010-2014) and the 13 years examined for all assessment periods (1999-2014) resulted in an annual average VOC emissions decrease of 18.9 tons per year. This net decrease resulted from unbanked actual emission reductions from shutdowns exceeding permitted emission increases from new sources, despite conservative assumptions. (As discussed previously, not all unbanked emission reductions from shutdowns were uncovered, and new sources affected by the repeal of state offset requirements were assumed to include sources with actual VOC emissions of between 10-15 tons per year, although many such sources would not have triggered state offset requirements.)

The average-annual net NOx emissions differential during the 2010-2014 tracking period was a NOx emissions decrease of 11.2 tons per year. The 13-year trend indicates an average-annual NOx emissions decrease of 6.2 tons per year. Further, not all unbanked emission reductions

¹ In reality, many sources with actual emissions between 10 and 15 tons per year would not have been subject to State offset requirements because of permit conditions capping their potential to emit at 15 tons per year.

² Considerable effort is required to accurately quantify unbanked emission reductions from shutdowns, including making adjustments for eligibility as emission offsets. Consequently, likely not all unbanked emission reductions have been uncovered, particularly those from smaller sources.

from shutdowns were uncovered, and affected new sources were conservatively assumed to include sources between 10-15 tons of NO_x per year.

II.4.4 Bank of Emission Credits

Table II-4 is provided for informational purposes and pursuant to ARB guidelines to indicate the origin of emission reduction credits registered in the District's offset bank as of November 19, 2014. Previous trends hold—that is, permanent equipment or facility shutdowns remain the primary source of offsets rather than voluntary process or control technology improvements. Specifically, as indicated in Table II-4, 86.8% of NO_x and 85.2% of VOC emission reduction credits registered in the offset bank as of November 19, 2014, were derived from shutdowns.

II.5 REQUIRED COMPARISONS

The ARB Executive Order also requires five specific comparisons addressing emission impacts of the repeal of state offset requirements and the air basin emission inventories. The comparisons are designed to help evaluate whether the predicted minimal impacts of the repeal, projected into the future, continue to be minimal given updated emission inventory and tracking data.

II.5.1 Current versus Previous Projections of Emission Impacts

Tables II-5 and II-6 provide updated projections of annual and cumulative VOC and NO_x emission impacts, respectively, of the repeal of state offset requirements. The projections are compared with the modest emission increases conservatively projected in the District's 1998 assessment. Tables II-5 and II-6 show no increase in VOC or NO_x, respectively, during the five-year tracking period.

As shown in Table II-5, cumulative VOC impacts exceed the originally projected "expected-case" impacts during the tracking period and in future years. However, the actual VOC impacts are far below originally projected "worst-case" impacts in any year through 2035. Table II-6 shows no NO_x increases since 2006.

II.5.2 Impacts as a Percentage of Annual Total Emissions

As shown in Table II-7, the VOC emissions impact of repealing state offset requirements was close to 0% of total annual permitted VOC emissions during the 2010-2014 tracking period. During all years examined (1998-2035), the net VOC impacts fall within the range of 0.06% to 0.18%, a negligible impact.

As shown in Table II-8, the cumulative NO_x emissions impact of the repeal was below 0.08% of the total NO_x inventory during the 2010-2014 tracking period. The projected future impact in 2035, based on the eight-year trend, is 0.15%.

These results indicate the impacts of the repeal of state offset requirements continue to constitute a negligible percentage of the total emission inventory. The repeal will not significantly impact an existing trend of decreasing total regionwide emissions.

II.5.3 Impacts as a Percentage of Annual Stationary-Source Emissions

As shown in Table II-9, the cumulative impact of the repeal of state offset requirements was less than 0.7% of the total stationary-source VOC emissions inventories during the 2010-2014 tracking period. Given the projected future annual impact of zero VOC emissions and slight growth in stationary source emissions, the cumulative percentage impact decreases each year through 2035.

As shown in Table II-10, the cumulative impact of the repeal of state offset requirements was less than 3.0% of the total stationary-source NOx emissions inventories during the 2010-2014 tracking period. The cumulative impact of the repeal of State offset requirements results in a projected 2035 cumulative impact of 1.76% of the stationary-source NOx emissions inventory.

The projected future cumulative impact of the repeal of state offset requirements is expected to be a negligible percentage of the VOC and NOx stationary-source emissions inventories through 2035. Temporary emission increases could occur, but are not expected to constitute a significant percentage of the stationary-source inventory, nor significantly impact the projected trend of decreasing total emissions. Further, emission increases would be subject to federal offset requirements if specified emission thresholds are exceeded.

II.5.4 Current versus Previous Projections of Percentage Impacts

Percent of Total Emissions. Tables II-11 and II-12 compare the originally projected worst-case and expected-case impacts of the repeal of state offset requirements (as identified in the 1998 assessment) with actual 1998-2014 data and with an update of projected future-year impacts. The projected future impact for VOC exceeds the expected-case scenarios, but is far less than the worst-case scenario impact. The projected future impact for NOx is lower than both the expected-case and worst-case scenarios.

Percent of Stationary-Source Emissions. Tables II-13 and II-14 compare original and updated projections of impacts of the repeal of state offset requirements expressed as a percentage of stationary-source inventories. Projected cumulative VOC and NOx impacts fall below the original expected-case impacts.

II.5.5 Current versus Previous Emissions Inventories and Projections

Tables II-15 and II-16 compare updated VOC and NOx emissions inventories and inventory projections with those used in the original 1998 demonstration. For both VOC and NOx, the most recent data provided by ARB indicate mobile source emissions are projected to decrease through 2035, while stationary and area sources are projected to increase in the same timeframe. Also for both pollutants, the total inventory continues to reflect substantial future decreases in emissions, due primarily to anticipated reductions in mobile source emissions. Moreover, conclusions of the previous assessments hold true; though not expected, even sizable emission impacts of the repeal of state offset requirements would not significantly impact the trend of decreasing total emissions in the region.

II.6 CONCLUSION

As demonstrated in the preceding analysis prepared pursuant to state law and ARB guidance, permanent facility or equipment shutdowns have continued apace since the repeal of state offset requirements, providing substantial emission benefits. The repeal of state offset requirements has not significantly impacted the projected trend of decreasing total ozone-precursor emissions in San Diego County, nor is it anticipated to in the future. Additionally, all feasible control measures under District purview have been adopted or are scheduled for consideration of adoption, and state emission offset requirements are not necessary to comply with the ozone transport mitigation requirements of state law. Therefore, pursuant to state law and ARB guidance, the District concludes that state emission offset requirements remain unnecessary in San Diego County to attain and maintain the state ambient air quality standard for ozone by the earliest practicable date.

Table II-1
Permanent Emission Increases and Offsets Provided From Sources with Actual Aggregate
Post-Project Emissions Exceeding 10 Tons/Year of VOC or NOx
January 1, 2010 – December 31, 2014
(Tons/Year)¹

Name	Application Description	VOC (TPY) Permitted	VOC (TPY) Actual	NOx (TPY) Permitted	NOx (TPY) Actual
SD Metro Pumping Station #2	Emergency generator	0.01	0.01	0.16	0.16
UCSD	Waste burner	0.00		0.02	
USMC Base Marine Ground OPS	Emergency generator	0.06		0.06	
	2010 Totals	0.07	0.01	0.24	0.00
Commander Navy Region SW	Emergency generator	0.01		0.01	
Commander Navy Region SW	Emergency generator	0.00	0.00	0.02	0.02
Commander Navy Region SW	Emergency generator	0.00	0.00	0.02	0.02
Commander Navy Region SW	Emergency generator	0.01		0.05	
Kyocera America Inc	Oxidation catalyst	0.04		0.00	
Sea World San Diego	Emergency generator	0.00		0.05	
SFPP LP	Emergency generator	0.02		0.02	
UCSD	Emergency generator	0.01	0.01	0.24	0.24
UCSD	Emergency generator	0.04		0.04	
UCSD	Emergency generator	0.00		0.03	
USN Hospital 2 PWC	Emergency generator	0.09		0.09	
	2011 Totals	0.21	0.00	0.56	0.00
USN Sub Base	Marine coating	0.56		0.00	
USN Sub Base	Marine coating	0.56		0.00	
USN Sub Base	Emergency generator	0.02		0.02	
Commander Navy Region SW	Emergency generator	0.00		0.06	
Grossmont Hospital	Boiler	0.00		1.73	
Kyocera America Inc	Emergency generator	0.03		0.50	
Qualcomm Inc	Turbine	2.50		3.50	
Qualcomm Inc	Emergency generator	0.21		0.21	
Salk Institute	Boiler	0.15		1.23	
Salk Institute	Boiler	0.15		1.23	
Salk Institute	Emergency generator	0.01		1.23	
Sea World San Diego	Emergency generator	0.00		0.04	
Southern California Edison	Boiler	0.46		2.19	
UCSD	Emergency generator	0.00		0.02	
UCSD	Emergency generator	0.00		0.02	
UCSD	Emergency generator	0.01	0.01	0.33	0.33
USMC Base Marine Ground OPS	Emergency generator	0.00		0.00	
USN Naval Sta 1 SCE	Emergency generator	0.01		0.01	
	2012 Totals	4.68	0.01	12.32	0.33
CNP Signs & Graphics	Surface coating	1.83	1.56	0.00	
Commander Navy Region SW	Emergency generator	0.00		0.18	
Commander Navy Region SW	Emergency generator			0.06	0.06

¹ Applications above required no emission offsets for the pollutant increases. Emissions of 0.00 are less than 0.005 tons per year.

Name	Application Description	VOC (TPY) Permitted	VOC (TPY) Actual	NOx (TPY) Permitted	NOx (TPY) Actual
Costco Wholesale	Emergency generator	0.00		0.07	
General Dynamics NASSCO	Marine & Aerospace coating	0.64		0.00	
Minnesota Methane LLC San Diego Miramar Facility	Cogen	2.20		10.80	
Minnesota Methane LLC San Diego Miramar Facility	Cogen	2.20		10.80	
Qualcomm Inc	Emergency generator			0.39	0.39
Qualcomm Inc	Emergency generator			0.39	0.39
Solar Turbines Inc	Engine test stand	0.10		24.90	
UCSD	Emergency generator	0.00		0.00	
UCSD	Emergency generator	0.00		0.02	
UCSD	Emergency generator	0.00		0.02	
UCSD	Emergency generator	0.00		0.02	
UCSD	Emergency generator	0.00		0.02	
UCSD	Emergency generator	0.00		0.03	
UCSD	Emergency generator	0.00		0.02	
USMC Base Marine Ground	Emergency generator	0.00		0.03	
USMC Base Marine Ground	Emergency generator	0.00		0.02	
USMC Base Marine Ground	Emergency generator	0.00		0.05	
USMC MCAS Miramar	Emergency generator	0.00		0.07	
USMC MCAS Miramar	Emergency generator	0.00		0.19	
USMC MCAS Miramar	Emergency generator	0.00		0.01	
USMC MCAS Miramar	Emergency generator	0.00		0.01	
USMC MCAS Miramar	Emergency generator	0.00	0.00	0.02	0.02
USMC MCAS Miramar	Emergency generator	0.00	0.00	0.02	0.02
	2013 Totals	6.98	0.00	48.15	0.06
Chromalloy, San Diego	Surface coating	1.83		0.43	
Commander Navy Region SW	Emergency generator	0.00		0.02	
Commander Navy Region SW	Emergency generator	0.00	0.00	0.02	0.02
Commander Navy Region SW	Emergency generator	0.00	0.00	0.02	0.02
Commander Navy Region SW	Emergency generator			0.06	0.06
Commander Navy Region SW	Emergency generator			0.06	0.06
General Dynamics NASSCO	IC engine	0.00	0.00	1.82	3.12
Hydranautics	Emergency generator	0.00	0.00	0.07	0.07
Otay Landfill Gas LLC	IC engine	3.67		10.80	
Otay Landfill Gas LLC	IC engine	3.67		10.80	
Richard J Donovan Correctional Facility	Boiler	0.06		0.12	
Sea World San Diego	Emergency generator	0.00		0.04	
Sea World San Diego	Emergency generator	0.00	0.00	0.19	0.19
UCSD Medical Center Thornton Hospital	Emergency generator	0.00		0.01	
USMC MCAS Miramar	Emergency generator	0.00	0.00	0.01	0.01
USN Hospital 2 PWC	Emergency generator	0.00	0.00	0.02	0.02
	2014 Totals	9.24	0.00	24.50	3.26
	5 Year Emission Increases	21.18	0.02	85.77	3.65

Table II-2
Unbanked Actual VOC and NO_x Emission Reductions from
Equipment and Facility Shutdowns
January 1, 2010 – December 31, 2014
(Tons/Year)¹

Name	Equipment Description	VOC (TPY)	NO _x (TPY)
American Airlines	IC Engine	0.01	0.16
Bardon Enterprises	Wood coating operation	9.23	0.00
Cabrillo Power Encina	Cold solvent degreaser	0.02	0.00
Cabrillo Power Encina	Cold solvent degreaser	0.03	0.00
Continental Maritime	IC Engine	0.00	0.03
HG Fenton	IC Engine	0.14	1.65
Hamilton Sunstrand	Paint spray booth	0.02	0.00
Hanson Aggregates	IC Engine	0.04	0.47
Napp Systems	Boiler	0.04	0.40
City of Oceanside	Boiler	0.02	0.43
Pomerado Hospital	Boiler	0.04	0.00
Pomerado Hospital	IC Engine	0.00	0.12
Pomerado Hospital	IC Engine	0.00	0.14
Pomerado Hospital	IC Engine	0.00	0.14
Pratt & Whitney Composites	IC Engine	0.21	0.00
Pratt & Whitney Composites	IC Engine	0.04	0.00
South Chollas Landfill	Landfill flare	0.14	1.52
S. D. Marriott Hotel	Boiler	0.03	0.55
S. D. Marriott Hotel	Boiler	0.02	0.43
S. D. Metro Pump Station 2	IC Engine	0.01	0.00
County of San Diego Mental Health Service	IC Engine	0.01	0.06
County of San Diego Mental Health Service	IC Engine	0.00	0.07
USMC Miramar Air Station	Boiler	1.67	0.27
USN 32 nd St Naval Station	IC Engine	0.09	0.01
USN North Island	IC Engine	0.00	0.01
USN Submarine Base	IC Engine	0.02	0.20
USN Submarine Base	IC Engine	0.01	0.05
2010 Totals (tons)		11.84	6.71
Alvarado Hospital	IC Engine	0.00	0.02
Asphalt Inc Lakeside	Asphalt batch plant	1.67	4.44
Calmat Mission Center Road	Asphalt batch plant	1.27	4.68
Driscoll Boat Works	Marine coating operation	1.34	0.00
Eternal Hills Cemetery	Crematory furnace	0.00	0.09
Eternal Hills Cemetery	IC Engine	0.00	0.08
General Atomic	Paint spray booth	0.01	0.00
Napp Systems	Boiler	0.03	0.50
National Steel & Shipbuilders Co	IC Engine	0.03	0.33
Pomerado Hospital	Boiler	0.03	0.56
Quality Cabinet & Fixtures	Paint spray booth	1.43	0.00

¹ No adjustments to the listed unbanked shutdown emissions above were necessary due to any equipment subject to RACT were not included.

Name	Equipment Description	VOC (TPY)	NOx(TPY)
Quality Cabinet & Fixtures	Paint spray booth	0.19	0.00
Quality Cabinet & Fixtures	Paint spray booth	6.62	0.00
Salk Institute	Boiler	0.15	0.86
Salk Institute	Boiler	0.10	0.46
Scandinavian Marble Design	Cultured marble mfg	2.42	0.00
Sea World	IC Engine	1.48	3.04
Sea World	IC Engine	1.69	2.71
Sea World	IC Engine	0.00	0.01
UCSD Campus	Boiler	0.31	1.56
USDA Animal & Health Inspection	Pathological incinerator	0.00	0.05
USN North Island	Marine coating operation	1.28	0.00
VA Hospital	Boiler	0.11	0.59
VA Hospital	Boiler	0.11	0.57
2011 Totals (tons)		20.26	20.55
Allied Casting Inc	Aluminum melting furnace	0.01	0.15
Alturdyne	Paint spray booth	0.23	0.00
CW Mc Grath	IC Engine	0.01	0.05
Encina Wastewater Authority	Wastewater flare	0.26	1.04
Encina Wastewater Authority	Wastewater treatment	2.73	0.00
Federal Sign	Metal parts coating	2.32	0.00
Gas Recovery Santee	Landfill gas extraction well	0.26	6.63
Hanson Aggregates	IC Engine	0.02	0.20
Little RW Coatings	IC Engine	0.03	0.33
Manson Construction	IC Engine	0.06	1.34
Manson Construction	IC Engine	0.45	16.94
Marine Service Commercial Diving Co	Marine coating operation	0.48	0.00
Minnesota Methane	Boiler	0.00	0.01
Otay Water District	IC Engine	0.01	0.10
Otay Water District	IC Engine	0.20	2.29
Pacific Bell	IC Engine	0.01	0.39
Pacific Bell	IC Engine	0.01	0.40
Pacific Bell	IC Engine	0.13	0.37
Pacific Gas Turbine	IC Engine	6.69	8.46
Pacific Gas Turbine	IC Engine	0.00	0.05
Pacific Gas Turbine	Paint spray booth	0.03	0.00
Palomar Medical Center	IC Engine	0.04	0.53
Partner Press LLC	Graphics art printing	0.53	0.00
Real Energy Inc	Gas turbine	0.02	0.01
Real Energy Inc	Gas turbine	0.01	0.00
Rohr Industries	IC Engine	0.05	0.00
Scripps Mercy Hospital	IC Engine	0.00	0.15
Scripps Mercy Hospital	IC Engine	0.00	0.13
Scripps Mercy Hospital	Boiler	0.05	0.29
Scripps Mercy Hospital	Boiler	0.05	0.27
SD Web Offset	Graphics art printing	0.96	0.00
SD Web Offset	Graphics art printing	0.07	0.00
Sharp Memorial Hospital	Chiller	0.06	0.35
Signet Armorlite	Lens casting mfg	0.03	0.00
UCSD Campus	IC Engine	0.00	0.01
USMC Camp Pendleton	IC Engine	0.05	0.12

Name	Equipment Description	VOC (TPY)	NOx(TPY)
USN North Island	IC Engine	0.00	0.01
USN North Island	Marine coating operation	0.68	0.00
2012 Totals (tons)		16.55	40.61
808 Energy 3 LLC	Cogeneration engine	0.01	0.1
808 Energy 3 LLC	Cogeneration engine	0.01	0.1
808 Energy 3 LLC	Cogeneration engine	0.01	0.1
808 Energy 3 LLC	Cogeneration engine	0.01	0.1
808 Energy 3, LLC	Cogeneration engine	0.01	0.1
Acadia Pharmaceuticals Inc	Emergency Generator	0.01	0.05
Acxiom Data Quick Corp	Emergency Generator	0.01	0.05
Alvarado Hospital	Emergency Generator	0.01	0.05
Amneal Pharmaceuticals LLC	Emergency Generator	0.01	0.05
Anacomp Inc	Emergency Generator	0.01	0.05
Angelica Textile Services	Boiler	0.15	0.42
Angelica Textile Services	Boiler	0.15	0.42
Arrow Asphalt Recycling	Portable IC engine	0.01	0.05
BAE Systems SDSR	Boiler	0.15	0.42
BAE Systems SDSR	Portable IC engine	0.01	0.05
BAE Systems SDSR	Boiler	0.01	0.09
Cabrillo Power Miramar	Metal parts coating	0.20	1.00
Coronado Island Marriott	Cogeneration engine	0.53	0.96
Hanson Aggregates	Portable IC engine	0.01	0.07
RCP Block & Bric	Dredge engine	0.48	5.57
Staite R E Engineering	Dredge crane	0.03	0.38
Staite R E Engineering	Dredge crane	0.00	0.02
Staite R E Engineering	Portable IC engine	0.02	0.27
Staite R E Engineering	Portable IC engine	0.01	0.11
USN North Island	Paint spray booth	0.01	
USN Submarine Base	Degreaser	0.02	
Western Construction Components	Metal parts coating	6.50	
Barnhart Crane & Rigging Co	Portable IC engine	0.01	0.05
Barnhart Crane & Rigging Co	Portable IC engine	0.01	0.05
Barnhart Crane & Rigging Co	Portable IC engine	0.01	0.05
Beckman Coulter Inc	Emergency Generator	0.01	0.05
Beckman Coulter Inc	Emergency Generator	0.01	0.05
BJS Rentals	Portable IC engine	0.01	0.05
BJS Rentals	Portable IC engine	0.01	0.05
Borrego Water District	Portable IC engine	0.01	0.05
Buena Sanitation District	Emergency Generator	0.01	0.05
City Of SD Comm Div (PT Loma Standpipe)	Emergency Generator	0.01	0.05
City of Vista Fire Dept Hq Sta	Emergency Generator	0.01	0.05
City of Vista Fire Dept Hq Sta	Emergency Generator	0.01	0.05
Coronado Island Marriott Resort	Cogeneration engine	0.01	0.1
Coronado Shores Condominium Assn #8	Emergency Generator	0.01	0.05
Costco Wholesale Corp	Emergency Generator	0.01	0.05
County of San Diego Sheriffs Dept	Emergency Generator	0.01	0.05
County Of SD Sheriff SUB Station	Emergency Generator	0.01	0.05
CW McGrath Inc	Portable IC engine	0.01	0.05
Defense Commissary Agency	Emergency Generator	0.01	0.05
Electra Home Owners Association	Emergency Generator	0.01	0.05

Name	Equipment Description	VOC (TPY)	NOx(TPY)
Electra Home Owners Association	Emergency Generator	0.01	0.05
Elken Contracting Inc	Portable IC engine	0.01	0.05
Encinitas City Of	Emergency Generator	0.01	0.05
Escondido City Of	Cogeneration engine	0.01	0.1
Fain Drilling & Pump Co Inc	Portable IC engine	0.01	0.05
Federal Aviation Administration	Emergency Generator	0.01	0.05
Federal Aviation Administration Miramar	Emergency Generator	0.01	0.05
Gene Therapy System	Emergency Generator	0.01	0.05
General Atomics Aeronautical	Emergency Generator	0.01	0.05
General Atomics Aeronautical Systems Inc	Emergency Generator	0.01	0.05
GKN Aerospace Chemtronics Inc	Emergency Generator	0.01	0.05
Glanbia Nutritionals	Portable IC engine	0.01	0.05
Global Power Group	Portable IC engine	0.01	0.05
Hanson Aggregates Pacific Southwest Inc	Portable IC engine	0.01	0.05
Hanson Aggregates West Inc	Portable IC engine	0.01	0.05
Harte Hanks	Emergency Generator	0.01	0.05
Helix Water District	Emergency Generator	0.01	0.05
Helix Water District	Emergency Generator	0.01	0.05
Illumina Inc	Emergency Generator	0.01	0.05
J & J Abrasive Cleaning	Portable IC engine	0.01	0.05
KSWB Inc	Emergency Generator	0.01	0.05
Manson Construction Co	Portable IC engine	0.01	0.05
Marine Corps Air Station	Emergency Generator	0.01	0.05
Marriott La Jolla	Boiler	0.15	0.42
MCAS Miramar	Emergency Generator	0.01	0.05
MCAS Miramar	Portable IC engine	0.01	0.05
Metrowork	Emergency Generator	0.01	0.05
Nextel Communications Inc (Sprint)	Emergency Generator	0.01	0.05
NK San Diego LLC	Emergency Generator	0.01	0.05
Novarx	Emergency Generator	0.01	0.05
Novarx	Emergency Generator	0.01	0.05
Oceanside City Of Water Utilities	Emergency Generator	0.01	0.05
Pacific Bell	Emergency Generator	0.01	0.05
Pacific Bell	Emergency Generator	0.01	0.05
Perpetual Tree Care	Portable IC engine	0.01	0.05
Pomerado Hospital	Emergency Generator	0.01	0.05
Qualcomm Inc	Emergency Generator	0.01	0.05
Qualcomm Inc	Emergency Generator	0.01	0.05
R E Staite Engineering Inc	Portable IC engine	0.01	0.05
R E Staite Engineering Inc	Portable IC engine	0.01	0.05
R E Staite Engineering Inc	Portable IC engine	0.01	0.05
Rainbow Municipal Water District	Emergency Generator	0.01	0.05
Ramona Municipal Water District	Emergency Generator	0.01	0.05
RCP Block & Brick Inc	Portable IC engine	0.01	0.05
Roofing Services International Inc	Portable IC engine	0.01	0.05
San Diego Space Surveillance Station	Emergency Generator	0.01	0.05
Santa Barbara Tax Products Group	Emergency Generator	0.01	0.05
Scripps Health Facilities	Emergency Generator	0.01	0.05
SD City of Parks & Rec Open Space	Portable IC engine	0.01	0.05
SD City of Parks & Recreation Metro Parks Division	Portable IC engine	0.01	0.05
SD City Of Qualcomm Stadium	Portable IC engine	0.01	0.05

Name	Equipment Description	VOC (TPY)	NOx(TPY)
SD City Of Qualcomm Stadium	Portable IC engine	0.01	0.05
SD Co Of DPW Airports	Emergency Generator	0.01	0.05
SD Co Of DPW Airports	Emergency Generator	0.01	0.05
SD CO OF DPW Wastewater Management	Emergency Generator	0.01	0.05
SD CO of Gen Svcs PR0086	Emergency Generator	0.01	0.05
SD CO of Gen Svcs PR0086	Emergency Generator	0.01	0.05
SD CO OF General Services	Emergency Generator	0.01	0.05
SD CO OF General Services	Emergency Generator	0.01	0.05
Seaward Marine Svcs	Portable IC engine	0.01	0.05
Southern California Edison	Boiler	0.15	0.42
Southern California Edison	Emergency Generator	0.01	0.05
Sports Authority	Emergency Generator	0.01	0.05
Sweetwater Authority	Emergency Generator	0.01	0.05
Sycamore Landfill LLC	Gas turbine	15.90	16.20
Sycamore Landfill LLC	Gas turbine	15.90	16.20
T Mobile CA/NV LLC Escondido Msc	Emergency Generator	0.01	0.05
Tri City Medical	Emergency Generator	0.01	0.05
U S Geological Survey	Portable IC engine	0.01	0.05
US Border Patrol	Emergency Generator	0.01	0.05
USD	Emergency Generator	0.01	0.05
USMC Base Marine Facilities	Portable IC engine	0.01	0.05
USMC Base Military Support	Emergency Generator	0.01	0.05
USMC MCAS Miramar	Emergency Generator	0.01	0.05
USMC MCAS Miramar	Emergency Generator	0.01	0.05
USN NAV STA	Emergency Generator	0.01	0.05
Verdezyne Inc	Emergency Generator	0.01	0.05
Village by the Sea Homeowners Association	Emergency Generator	0.01	0.05
Wells Fargo	Emergency Generator	0.01	0.05
Wells Fargo	Emergency Generator	0.01	0.05
XO California Inc	Emergency Generator	0.01	0.05
2013 Totals (tons)		41.46	48.77
808 Energy 3, LLC	Cogeneration Engine	0.01	0.10
808 Energy 3, LLC	Cogeneration Engine	0.01	0.10
939 Coast Management Assoc	Emergency Generator	0.01	0.05
Albertsons #6759	Emergency Generator	0.01	0.05
Alexandria Real Estate Equitor Inc/Portola	Emergency Generator	0.01	0.05
American Metal Processing	Aerospace parts coating	0.22	0.00
American Process Group Inc	Portable IC Engine	0.01	0.05
AT&T Services Inc	Emergency Generator	0.01	0.05
ATCO Equipment Rental	Portable IC Engine	0.01	0.05
BAE Systems	Emergency Generator	0.01	0.05
Bay City Electric Works Inc	IC Engine	0.01	0.10
Biologend	Emergency Generator	0.01	0.05
BMR-Bunker Hill LP	IC Engine	0.01	0.10
BMR-Bunker Hill LP	IC Engine	0.01	0.10
BMR-Sorrento West LLC	Emergency Generator	0.01	0.05
Camp Cuyamaca	Emergency Generator	0.01	0.05
Catalent Pharma Solutions	Emergency Generator	0.01	0.05
Certified Coatings Co	Portable IC Engine	0.01	0.05
Certified Coatings Co	Portable IC Engine	0.01	0.05

Name	Equipment Description	VOC (TPY)	NOx(TPY)
Champions of The West Inc	Emergency Generator	0.01	0.05
Chemtronics	Aerospace parts coating	0.02	0.00
Chemtronics	Aerospace parts coating	0.01	0.00
City of Poway	Portable IC Engine	0.01	0.05
City of Vista	IC Engine	0.01	0.10
Clean Air Powers	IC Engine	0.01	0.10
Coca Cola Bottling Co of SD	Boiler	0.15	0.42
Coca Cola Bottling Co of SD	Boiler	0.15	0.42
Coronado Shores Homeowners Association	Emergency Generator	0.01	0.05
Cox Communications	Emergency Generator	0.01	0.05
Dimension One Spas	Misc coating operation	0.47	0.00
Dimension One Spas	Adhesive application	2.00	0.00
Dimension One Spas	Paint spray booth	2.11	0.00
Dimension One Spas	Adhesive application	1.98	0.00
Doubletree by Hilton Hotel Downtown	IC Engine	0.01	0.10
El Super	Emergency Generator	0.01	0.05
Escondido Surgery Center	Emergency Generator	0.01	0.05
Frey Environmental Inc	IC Engine	0.01	0.10
General Atomics	IC Engine	0.00	0.02
General Atomics	Emergency Generator	0.01	0.05
General Atomics Electronic Systems Inc	Emergency Generator	0.01	0.05
George L Sanders Welding Co	Portable IC Engine	0.01	0.05
GKN Aerospace Chemtronics	Metal inspection operation	0.71	0.00
GKN Aerospace Chemtronics	Metal inspection operation	0.23	0.00
GKN Aerospace Chemtronics	Metal inspection operation	0.37	0.00
GKN Aerospace Chemtronics	Metal inspection operation	0.40	0.00
GKN Aerospace Chemtronics	Paint spray booth	0.25	0.00
Jacobs and Cushman San Diego Food Bank	Emergency Generator	0.01	0.05
Kilroy Realty LP	Emergency Generator	0.01	0.05
Kilroy Realty LP	Emergency Generator	0.01	0.05
Kilroy Realty LP	Emergency Generator	0.01	0.05
Mercury Tech Center LLC	Emergency Generator	0.01	0.05
Mercury Tech Center LLC	Emergency Generator	0.01	0.05
Metrome Homeowners Association	Emergency Generator	0.01	0.05
Mitchell International	Emergency Generator	0.01	0.05
Mitchell International	IC Engine	0.01	0.10
Movie Manufacturing & Leasing Co Inc	Portable IC Engine	0.01	0.05
Movie Manufacturing & Leasing Co Inc	Portable IC Engine	0.01	0.05
Napp Systems Inc	Boiler	0.15	0.42
Napp Systems Inc	Misc coating operation	6.69	0.30
Napp Systems Inc	Graphics art printing	2.70	0.00
Napp Systems Inc	Plastic film coating	0.08	0.00
National City Foundry	IC Engine	0.00	0.03
Noven Pharmaceuticals Inc	Emergency Generator	0.01	0.05
Palomar Medical Center	IC Engine	0.03	0.61
Petco Animal Supplies Inc	Emergency Generator	0.01	0.05
Petco Animal Supplies Inc	Emergency Generator	0.01	0.05
Petco Animal Supplies Inc	Emergency Generator	0.01	0.05
Pyramid Construction & Aggregates Inc	Portable IC Engine	0.01	0.05
Qualcomm Inc	Emergency Generator	0.01	0.05
Ray's Tree Service	Portable IC Engine	0.01	0.05

Name	Equipment Description	VOC (TPY)	NO _x (TPY)
Miramar Landfill	IC Engine	0.01	0.63
San Diego City of Metro Wastewater Dept	Emergency Generator	0.01	0.05
Scripps Health Whittier Institute	Emergency Generator	0.01	0.05
SD City Dept of Metro Wastewater	Emergency Generator	0.01	0.05
SD City Of Metro Wastewater Dept	Emergency Generator	0.01	0.05
SD City Of Metro Wastewater Dept	Emergency Generator	0.01	0.05
SD City Of Miramar Landfill	Portable IC Engine	0.01	0.05
SD CO DEPT OF GENERAL SVCS PRO054	Emergency Generator	0.01	0.05
SD CO OF DPW WASTEWATER MGMT	IC Engine	0.01	0.10
SD Co Of Las Colinas PR0072	Emergency Generator	0.01	0.05
SD Co Regional Airport Authority	Boiler	0.15	0.42
SD State University	Emergency Generator	0.01	0.05
SD Stucco Co	Portable IC Engine	0.01	0.05
SD Unified School District	Portable IC Engine	0.01	0.05
SDG&E – Mission Switching Center	IC Engine	0.00	0.02
SDG&E Co	Emergency Generator	0.01	0.05
Sharp Mesa Vista Hospital	Emergency Generator	0.01	0.05
Sharp Mesa Vista Hospital	Emergency Generator	0.01	0.05
Silvia Construction Inc	Portable IC Engine	0.01	0.05
Southern Calif Edison	Metal parts coating	0.26	0.00
Southern Calif Edison	Metal parts coating	0.57	0.00
Southern Calif Edison	Metal parts coating	0.08	0.00
Southern Calif Edison	IC Engine	0.00	0.13
Southern Calif Edison	Wood coating operation	0.01	0.00
Southern Calif Edison	IC Engine	0.08	3.08
Southern Calif Edison	IC Engine	0.08	3.22
Southern California Edison	Emergency Generator	0.01	0.05
Southern California Edison	Emergency Generator	0.01	0.05
Southern California Edison	Emergency Generator	0.01	0.05
Space & Naval Warfare System Center	IC Engine	0.00	0.03
Space & Naval Warfare Systems Ctr	Emergency Generator	0.01	0.05
Symcoat Metal Processing	Vapor degreaser	2.00	0.00
Symcoat Metal Processing	Emergency Generator	0.01	0.05
UCSD	Emergency Generator	0.01	0.05
UCSD Medical Center Thornton Hospital	Emergency Generator	0.01	0.05
Unitrin Direct Insurance Corp	Emergency Generator	0.01	0.05
US Border Patrol	Emergency Generator	0.01	0.05
US Postal Service	Cogeneration Engine	0.01	0.10
USD	Emergency Generator	0.01	0.05
USMC Miramar	Boiler	0.00	0.03
USMC Miramar	IC Engine	0.00	0.03
USMC Miramar	IC Engine	0.00	0.01
USMC Camp Pendleton	IC Engine	0.00	0.05
USMC Camp Pendleton	IC Engine	0.00	0.04
USMC Camp Pendleton	IC Engine	0.00	0.01
USMC Base Military Support	Emergency Generator	0.01	0.05
USMC Base Public Utilities U21	Emergency Generator	0.01	0.05
USMC Base Public Utilities	Emergency Generator	0.01	0.05
USMC MCAS Miramar	Emergency Generator	0.01	0.05
USMC MCAS Miramar	Emergency Generator	0.01	0.05
USMC MCAS Miramar	Boiler	0.15	0.42

Name	Equipment Description	VOC (TPY)	NO _x (TPY)
USMC MCAS Miramar	Boiler	0.15	0.42
USN Amphibious Base	IC Engine	0.01	0.04
USN Amphibious Base	IC Engine	0.00	0.06
USN Amphibious Base	IC Engine	0.01	0.09
USN Amphibious Base Coronado	Emergency Generator	0.01	0.05
USN Amphibious Base Coronado	Emergency Generator	0.01	0.05
USN Amphibious Base Coronado	Emergency Generator	0.01	0.05
USN Hospital	Boiler	0.02	0.12
USN Hospital	Boiler	0.02	0.13
USN Hospital 2 PWC	Boiler	0.15	0.42
USN Hospital 2 PWC	Boiler	0.15	0.42
USN NAV Sta 2 Public Works Center	Portable IC Engine	0.01	0.05
USN NAV Sta 2 Public Works Center	Portable IC Engine	0.01	0.05
Vulcan Materials	Cold solvent degreaser	0.02	0.00
Vulcan Materials	IC Engine	1.68	8.26
Vulcan Materials	Cold solvent degreaser	0.02	0.00
Walton/Greenlaw South Bay Holdings VI, LLC	Emergency Generator	0.01	0.05
White Sands of La Jolla	Emergency Generator	0.01	0.05
White Sands of La Jolla	Emergency Generator	0.01	0.05
2014 Totals (tons)		25.23	25.34
5 Year Overall Totals (tons):		115.34	141.98

Table II-3
Net Emissions Differential:
Comparing Permitted Emission Increases from Sources > 10 Tons/Year
to Unbanked Actual Emission Reductions from Shutdowns (Tons/Year)

Year	Pollutant	Increase from Sources >10 tons	Unbanked Reduction From Shutdowns	Emissions Differential
1999	VOC	30.2	-51.3	-21.1
	NOx	20.3	-16.6	3.7
2000	VOC	47.5	-67.6	-20.1
	NOx	0	-9.8	-9.8
2001	VOC	121.5	-73.8	47.7
	NOx	5	-10.7	-5.7
2002	VOC	49.6	-124.1	-74.5
	NOx	3	-17.5	-14.5
2003	VOC	55.8	-131.6	-75.8
	NOx	30.5	-23.6	6.9
2004	VOC	23.2	-14.4	8.8
	NOx	14.5	-6.8	7.7
2005	VOC	28.7	-61.3	-32.6
	NOx	7.8	-32.1	-24.3
2006	VOC	54.1	-37.7	16.4
	NOx	22.2	-10.3	11.9
2010	VOC	0.1	-11.8	-11.7
	NOx	0.2	-6.7	-6.5
2011	VOC	0	-20.3	-20.3
	NOx	0.6	-20.6	-20.0
2012	VOC	4.7	-16.6	-11.9
	NOx	12.3	-40.6	-28.3
2013	VOC	7	-41.5	-34.5
	NOx	48.2	-48.8	-0.6
2014	VOC	9.2	-25.2	-16.0
	NOx	24.5	-25.3	-0.8
5-Year Annual Average 2010-2014²	VOC	4.2	-23.1	-18.9
	NOx	17.2	-28.4	-11.2
13-Year Annual Average 01/99-12/14	VOC	33.2	-52.1	-18.9
	NOx	14.5	-20.7	-6.2

**Table II-4
Banked Emission Reduction Credits, Amount, and Source
as of November 19, 2014**

Company Name	NO _x (Tons/Year)	VOC (Tons/Year)	Reduction Source
Applied Energy LLC	34.6	--	Shutdown (Equipment)
Cabrillo Enterprises, LLC	--	1.3	Shutdown (Equipment)
Cabrillo Power II, LLC	37.6	--	Shutdown (Equipment)
Callaway Golf Co.	--	12.2	Shutdown (Equipment)
City of San Diego, MWD	--	23.1	Shutdown (Equipment)
Dynergy	1.0	--	Shutdown (Facility)
General Dynamics Properties, Inc.	1.3	0.2	Shutdown (Facility)
Grey K. Environmental Fund, LP		25.1	Process Modification
Grey K. Environmental Fund, LP	4.1	61.2	Shutdown (Facility)
Hanson Aggregates, Pacific SW Region	0.9	0.3	Modification - Engine
Hughes-Aircraft Co., Electro-Opti Cal	--	1.3	Shutdown (Equipment)
Koch Membrane Systems, Inc.	--	2.9	Shutdown (Facility)
Kyocera America	16.7	7.6	Shutdown (Equipment)
Muht-Hei, Inc.	--	9.1	Shutdown (Equipment)
National Steel & Shipbuilding	0.5	0.6	Shutdown (Equipment)
Naval Air Station, North Island	30.0	--	Shutdown (Equipment)
Naval Station, San Diego	5.5	0.1	Shutdown (Equipment)
Navy Region Southwest	12.0	--	Shutdown (Equipment)
Northrop-Grumman Ryan Aeronautical	--	1.2	Shutdown (Facility)
Olduvai Gorge LLC	29.9	60.0	Shutdown (Facility)
Otay Mesa Generating Co., LLC	5.2	--	Process Modification
Performance Contracting Inc.	--	1.0	Shutdown (Facility)
Pio Pico Energy Center, LLC	--	6.6	Process Modification
Qualcomm	20.6	--	Shutdown (Equipment)
SDG&E	23.9	0.4	Modification - Turbine
Sherwin Williams	--	7.5	Process Modification
Shipyards Supplies, Inc.	--	2.0	Equipment Modification
Solar Turbines	10.0	0.6	Shutdown (Equipment)
Southern California Edison Company	0.5	--	Shutdown (Equipment)
Surface Technologies	--	1.5	Shutdown (Facility)
SW Division, Naval Facilities Engineering	--	47.8	Shutdown (Station)
Unisys Corporation	--	7.9	Shutdown (Equipment)
United States Marine Corps	3.0	--	Shutdown (Station)
US Foam	--	0.1	Shutdown (Facility)
USN Communications Station	2.6	0.1	Shutdown (Equipment)
Veterans Administration Hospital	1.9	--	Modification - Engine
Total:	241.8	281.5	
From Permanent Shutdowns:	209.9 (86.8%)	239.7 (85.2%)	
From Process or Equipment Modifications:	31.9 (13.2%)	41.8 (14.8%)	

Table II-5
Updated VOC Emissions Impact
Resulting from Repeal of State Offset Requirements (Tons/Year)

Year	Actual or Projected Impact ¹		1998 Assessment Worst-Case ² (Cumulative)	1998 Assessment Expected-Case ³ (Cumulative)
	Annual	Cumulative		
1998	0	0	0	0
1999	0	0	33	2
2000	0	0	66	4
2001	47.7	47.7	99	6
2002	0	47.7	132	7
2003	0	47.7	165	9
2004	8.8	56.5	198	11
2005	0	56.5	231	13
2006	16.38	72.9	264	14
2010	0	72.9	396	22
2011	0	72.9	429	23
2012	0	72.9	462	25
2013	0	72.9	495	27
2014	0	72.9	528	29
2015	0	72.9	561	30
2020	0	72.9	726	39
2025	0	72.9	891	48
2030	0	72.9	1056	57
2035	0	72.9	1221	66

¹ 1998-2014 data from Table 3. 2015-2035 projections based on ARB Almanac Emissions Projection Data (Published in 2013). Since repeal of State offset requirements has not "caused" emission reductions, any negative values (indicating unbanked shutdowns had exceeded new sources) were replaced with zero values.

² 1998 worst-case scenario did not consider emission benefits from shutdowns. Conservatively assumed annual increase of historic-high, 33 tons per year starting in 1999.

³ 1998 expected-case scenario assumed repeal of state offset requirements would result in foregoing offsetting reductions from voluntary process or control technology improvements. Assumed annual net increase of 1.78 tons per year starting in 1999.

Table II-6
Updated NOx Emissions Impact
Resulting from Repeal of State Offset Requirements (Tons/Year)

Year	<i>Emissions Differential or Projected Impact</i> ¹		1998 Assessment Worst-Case ² (Cumulative)	1998 Assessment Expected-Case ³ (Cumulative)
	Annual	Cumulative		
1998	0.0	0.0	0	0
1999	3.7	3.7	15	3
2000	0.0	3.7	30	6
2001	0.0	3.7	45	9
2002	0.0	3.7	60	12
2003	6.9	10.6	75	15
2004	7.7	18.3	90	18
2005	0.0	18.3	105	21
2006	11.9	30.2	120	24
2010	0.0	30.2	180	36
2011	0.0	30.2	195	39
2012	0.0	30.2	210	42
2013	0.0	30.2	225	45
2014	0.0	30.2	240	48
2015	0.0	30.2	255	52
2020	0.0	30.2	330	67
2025	0.0	30.2	405	82
2030	0.0	30.2	480	97
2035	0.0	30.2	555	112

¹ 1998-2014 data from Table 3. 2015-2035 projections based on ARB Almanac Emissions Projection Data (Published in 2013). Since repeal of state offset requirements has not "caused" emission reductions, any negative values (indicating unbanked shutdowns had exceeded new sources) were replaced with zero values.

² 1998 worst-case scenario did not consider emission benefits from shutdowns. Assumed annual increase of 15 tons per year starting in 1999

³ 1998 expected-case scenario assumed repeal of state offset requirements would result in foregoing offsetting reductions from voluntary process or control technology improvements. Assumed annual net increase of 3 tons per year starting in 1999.

Table II-7
Cumulative VOC Emissions Impact of the Repeal of State Offset Requirements
as a Percentage of Annual Total Emissions Inventory
(Tons/Year)

Year	Total Inventory ¹	Actual or Projected Net Impact ²	
		Tons	% of Total Inventory
1998	82,138	0.0	0.00%
1999	81,735	0.0	0.00%
2000	77,952	0.0	0.00%
2001	74,377	47.7	0.06%
2002	69,764	47.7	0.07%
2003	67,225	47.7	0.07%
2004	66,088	56.5	0.09%
2005	63,093	56.5	0.09%
2006	61,035	72.9	0.12%
2010	49,436	72.9	0.15%
2011	48,549	72.9	0.15%
2012	48,049	72.9	0.15%
2014	45,829	72.9	0.16%
2015	43,545	72.9	0.17%
2020	41,683	72.9	0.17%
2025	40,880	72.9	0.18%
2030	40,771	72.9	0.18%
2035	40,698	72.9	0.18%

¹ ARB emissions inventory (November 2015); average daily values multiplied by 365. 2013 data not available from ARB due to QA review.

² From Table 3. Since repeal of state offset requirements has not "caused" emission reductions, any negative values (indicating unbanked shutdowns had exceeded new sources) were replaced with zero values.

Table II-8
Cumulative NOx Emissions Impact of the Repeal of State Offset Requirements
as a Percentage of Annual Total Emissions Inventory
(Tons/Year)

Year	Total Inventory ¹	Actual or Projected Net Impact ²	
		Tons	% of Total Inventory
1998	92,728	0.0	0.00%
1999	92,154	3.7	0.00%
2000	90,926	3.7	0.00%
2001	88,596	3.7	0.00%
2002	83,183	3.7	0.00%
2003	82,142	10.6	0.01%
2004	79,309	18.3	0.02%
2005	79,584	18.3	0.02%
2006	76,929	30.2	0.04%
2010	44,012	30.2	0.07%
2011	42,132	30.2	0.07%
2012	41,807	30.2	0.07%
2014	36,022	30.2	0.08%
2015	35,624	30.2	0.08%
2020	27,339	30.2	0.11%
2025	22,521	30.2	0.13%
2030	20,732	30.2	0.15%
2035	19,966	30.2	0.15%

¹ ARB emissions inventory (November 2015); average daily values multiplied by 365. 2013 data not available from ARB due to QA review.

² From Table 3. Since repeal of state offset requirements has not "caused" emission reductions, any negative values (indicating unbanked shutdowns had exceeded new sources) were replaced with zero values.

Table II-9
Cumulative VOC Emissions Impact of the Repeal of State Offset Requirements
as a Percentage of Annual Stationary-Source Emissions Inventory
(Tons/Year)

Year	Stationary Source Inventory ¹	Actual or Projected Net Impact ²	
		Tons	% of Total Inventory
1998	10,053	0	0.00%
1999	11,512	0	0.00%
2000	11,342	0	0.00%
2001	11,040	47.7	0.43%
2002	11,063	47.7	0.43%
2003	11,141	47.7	0.43%
2004	11,283	56.5	0.50%
2005	11,328	56.5	0.50%
2006	11,405	72.9	0.64%
2010	11,052	72.9	0.66%
2011	11,052	72.9	0.66%
2012	10,994	72.9	0.66%
2013	ARB data not available		
2014	10,603	72.9	0.69%
2015	11,498	72.9	0.63%
2020	12,410	72.9	0.59%
2025	12,739	72.9	0.57%
2030	13,104	72.9	0.56%
2035	13,469	72.9	0.54%

¹ ARB emissions inventory (November 2015); average daily values multiplied by 365. 2013 data not available from ARB due to QA review.

² From Table 3. Since repeal of state offset requirements has not "caused" emission reductions, any negative values (indicating unbanked shutdowns had exceeded new sources) were replaced with zero values.

Table II-10
Cumulative NOx Emissions Impact of the Repeal of State Offset Requirements
as a Percentage of Annual Stationary-Source Emissions Inventory
(Tons/Year)

Year	Stationary Source Inventory ¹	Actual or Projected Net Impact ²	
		Tons	% of Total Inventory
1998	5,227	0.0	0.00%
1999	5,011	3.7	0.07%
2000	5,062	3.7	0.07%
2001	4,817	3.7	0.08%
2002	3,311	3.7	0.11%
2003	3,126	10.6	0.34%
2004	3,191	18.3	0.57%
2005	3,191	18.3	0.57%
2006	3,236	30.2	0.93%
2010	1,610	30.2	1.87%
2011	1,570	30.2	1.92%
2012	1,475	30.2	2.05%
2013	ARB data not available		
2014	1,029	30.2	2.93%
2015	1,606	30.2	1.88%
2020	1,570	30.2	1.92%
2025	1,606	30.2	1.88%
2030	1,643	30.2	1.84%
2035	1,716	30.2	1.76%

¹ ARB emissions inventory (November 2015); average daily values multiplied by 365. 2013 data not available from ARB due to QA review.

² From Table 3. Since repeal of state offset requirements has not "caused" emission reductions, any negative values (indicating unbanked shutdowns had exceeded new sources) were replaced with zero values.

Table II-11
2015 Versus 1998¹ Projections of Cumulative VOC Emissions Impact of Repeal as a
Percentage of Annual Total Emissions Inventory (Tons/Year)

Year	<i>Actual or Projected Impact</i>	1998 Worst-Case Assessment (% of total VOC's)	1998 Expected-Case Assessment (% of total VOC's)
1998	<i>0.00%</i>	0.00%	0.00%
1999	<i>0.00%</i>	0.04%	0.00%
2000	<i>0.00%</i>	0.08%	0.01%
2001	<i>0.06%</i>	0.13%	0.01%
2002	<i>0.06%</i>	0.19%	0.01%
2003	<i>0.06%</i>	0.25%	0.02%
2004	<i>0.09%</i>	0.30%	0.02%
2005	<i>0.09%</i>	0.37%	0.02%
2006	<i>0.12%</i>	0.43%	0.02%
2010	<i>0.12%</i>	0.80%	0.04%
2011	<i>0.12%</i>	0.88%	0.05%
2012	<i>0.12%</i>	0.96%	0.05%
2013	ARB data not available		
2014	<i>0.12%</i>	1.15%	0.06%
2015	0.17%	1.29%	0.07%
2020	0.20%	1.74%	0.09%
2025	0.20%	2.18%	0.12%
2030	0.20%	2.59%	0.14%
2035	0.21%	3.00%	0.16%

¹ Percentages updated to reflect November 2014, ARB emission inventory and projections.

Table II-12
2015 Versus 1998¹ Projections of Cumulative NO_x Emissions Impact of Repeal as a Percentage of Annual Total Emissions Inventory (Tons/Year)

Year	<i>Actual or Projected Impact</i>	1998 Worst-Case Assessment (% of total NO_x)	1998 Expected-Case Assessment (% of total NO_x)
1998	<i>0.00%</i>	0.00%	0.00%
1999	<i>0.00%</i>	0.02%	0.00%
2000	<i>0.00%</i>	0.03%	0.01%
2001	<i>0.00%</i>	0.05%	0.01%
2002	<i>0.00%</i>	0.07%	0.01%
2003	<i>0.01%</i>	0.09%	0.02%
2004	<i>0.02%</i>	0.11%	0.02%
2005	<i>0.02%</i>	0.13%	0.03%
2006	<i>0.04%</i>	0.16%	0.03%
2010	<i>0.07%</i>	0.41%	0.08%
2011	<i>0.07%</i>	0.46%	0.09%
2012	<i>0.07%</i>	0.50%	0.10%
2013	ARB data not available		
2014	<i>0.08%</i>	0.67%	0.13%
2015	0.08%	0.72%	0.14%
2020	0.11%	1.21%	0.24%
2025	0.13%	1.80%	0.36%
2030	0.15%	2.32%	0.47%
2035	0.15%	2.78%	0.56%

¹ Percentages updated to reflect November 2014, ARB emission inventory and projections.

Table II-13
2015 Versus 1998 Projections of Cumulative VOC Emissions Impact of Repeal as a
Percentage of Annual Stationary-Source Emissions Inventory (Tons/Year)

Year	<i>Actual or Projected Impact</i>	1998 Assessment Worst-Case (Cumulative)	1998 Assessment Expected-Case (Cumulative)
1998	<i>0.00%</i>	0.00%	0.00%
1999	<i>0.00%</i>	0.29%	0.02%
2000	<i>0.00%</i>	0.58%	0.03%
2001	<i>0.43%</i>	0.90%	0.05%
2002	<i>0.43%</i>	1.19%	0.06%
2003	<i>0.43%</i>	1.48%	0.08%
2004	<i>0.50%</i>	1.75%	0.09%
2005	<i>0.50%</i>	2.04%	0.11%
2006	<i>0.50%</i>	2.31%	0.12%
2010	<i>0.51%</i>	3.58%	0.19%
2011	<i>0.51%</i>	3.88%	0.21%
2012	<i>0.51%</i>	4.20%	0.23%
2013	ARB data not available		
2014	<i>0.53%</i>	4.98%	0.27%
2015	0.49%	4.88%	0.26%
2020	0.46%	5.85%	0.32%
2025	0.44%	6.99%	0.38%
2030	0.43%	8.06%	0.43%
2035	0.42%	9.07%	0.49%

Table II-14
2015 Versus 1998 Projections of Cumulative NO_x Emissions Impact of Repeal as a Percentage of Annual Stationary-Source Emissions Inventory (Tons/Year)

Year	<i>Actual or Projected Impact</i>	1998 Assessment Worst-Case (Cumulative)	1998 Assessment Expected-Case (Cumulative)
1998	<i>0.00%</i>	0.00%	0.00%
1999	<i>0.07%</i>	0.30%	0.06%
2000	<i>0.07%</i>	0.59%	0.12%
2001	<i>0.08%</i>	0.93%	0.19%
2002	<i>0.11%</i>	1.81%	0.37%
2003	<i>0.34%</i>	2.40%	0.48%
2004	<i>0.57%</i>	2.82%	0.57%
2005	<i>0.57%</i>	3.29%	0.66%
2006	<i>0.56%</i>	3.71%	0.75%
2010	<i>1.13%</i>	11.18%	2.26%
2011	<i>1.16%</i>	12.42%	2.51%
2012	<i>1.23%</i>	14.24%	2.88%
2013	ARB data not available		
2014	<i>1.77%</i>	23.32%	4.71%
2015	1.13%	15.88%	3.21%
2020	1.16%	21.03%	3.47%
2025	1.13%	25.22%	3.58%
2030	1.11%	29.22%	3.69%
2035	1.06%	32.35%	3.71%

Table II-15
Comparison of Original 1998 and 2015¹ VOC Emissions Inventories
and Inventory Projections for San Diego County
(Tons/Year)

Year	Stationary		Area		Mobile		Total Inventory	
	1998 Demo	2014 Update	1998 Demo	2014 Update	1998 Demo	2014 Update	1998 Demo	2014 Update
1998	18,710	10,053	17,155	14,091	49,246	57,994	85,111	82,138
1999	18,900	11,512	16,863	14,337	44,771	55,885	80,534	81,735
2000	19,090	11,342	16,571	14,240	40,296	52,370	75,957	77,952
2001	--	11,040	--	14,379	--	48,958	--	74,377
2002	--	11,063	--	14,405	--	44,297	--	69,764
2003	--	11,141	--	13,554	--	42,530	--	67,225
2004	--	11,283	--	13,308	--	41,497	--	66,088
2005	20,973	11,328	17,411	13,045	30,003	38,720	68,387	63,093
2006	--	11,405	--	13,081	--	36,549	--	61,035
2010	25,769	11,052	17,958	13,366	23,360	25,017	67,087	49,436
2011	--	11,052	--	13,377	--	24,119	--	48,549
2012	--	10,994	--	13,155	--	23,900	--	48,049
2013	ARB data not available		ARB data not available		ARB data not available		ARB data not available	
2014	--	10,603	--	13,005	--	22,221	--	45,829
2015	--	11,498	--	12,848	--	19,199	--	43,545
2020	--	12,410	--	13,323	--	15,951	--	41,683
2025	--	12,739	--	13,615	--	14,527	--	40,880
2030	--	13,104	--	14,016	--	13,651	--	40,771
2035	--	13,469	--	14,272	--	12,958	--	40,698

¹ Source: ARB, November 2015. Actual emissions were based on CEIDARS database. 2013 data not available from ARB due to QA review. Projected emissions were based on ARB Almanac Emission Projection Data (Published in 2013). Total inventory does not include natural sources and off-shore emissions.

Table II-16
Comparison of Original 1998 and 2015¹ NO_x Emissions Inventories
and Inventory Projections for San Diego County
(Tons/Year)

Year	Stationary		Area		Mobile		Total Inventory	
	1998 Demo	2014 Update	1998 Demo	2014 Update	1998 Demo	2014 Update	1998 Demo	2014 Update
1998	4,855	5,227	2,139	988	66,766	86,513	73,760	92,728
1999	4,599	5,011	2,183	989	62,729	86,153	69,511	92,154
2000	4,344	5,062	2,227	990	58,692	84,874	65,262	90,926
2001	--	4,817	--	991	--	82,789	--	88,596
2002	--	3,311	--	992	--	78,879	--	83,183
2003	--	3,126	--	994	--	78,023	--	82,142
2004	--	3,191	--	996	--	75,122	--	79,309
2005	3,614	3,191	2,409	995	50,042	75,398	56,064	79,584
2006	--	3,236	--	996	--	72,697	--	76,929
2010	4,088	1,610	2,519	942	45,114	41,460	51,721	44,012
2011	--	1,570	--	949	--	39,613	--	42,132
2012	--	1,475	--	945	--	39,387	--	41,807
2013	ARB data not available		ARB data not available		ARB data not available		ARB data not available	
2014	--	1,029	--	953	--	34,040	--	36,022
2015	--	1,606	--	986	--	33,033	--	35,625
2020	--	1,570	--	1,022	--	24,747	--	27,339
2025	--	1,606	--	1,059	--	19,856	--	22,521
2030	--	1,643	--	1,095	--	17,995	--	20,732
2035	--	1,716	--	1,168	--	17,082	--	19,966

¹ Source: ARB, November 2015. Actual emissions were based on CEIDARS database. 2013 data not available from ARB due to QA review. Projected emissions were based on ARB Almanac Emission Projection Data (Published in 2013). Total inventory does not include natural sources and off-shore emissions.