

Errata Sheet to Sacramento Regional 8-Hour Ozone Plan (02/24/09)

Water Heater Control Measure, SMAQMD-414

The emission inventory of control measure SMAQMD – 414 Water Heaters was developed from Ozone SIP Planning Inventory. This SIP inventory contains an error in the emissions for the EIC code for residential natural gas water heating. In this inventory the emissions for residential natural gas space heating were mapped to the residential natural gas water heating. This resulted in estimating the benefits from control of water heaters using the space heating emission inventory. This over estimates the actual benefits from SMAQMD – 414 Water Heaters control measure commitment. This technical correction is being made to the December 19, 2008 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan, but does not affect the attainment demonstration conclusions or reasonable further progress conclusions of that plan. These changes affect many individual emission inventory tables and control strategy commitment tables. The revised numbers for the control strategy commitment tables are noted below. Contact the District for details on the revised numbers for the inventory tables.

1. Emission inventory and reductions are revised in Appendix C, Page C-141

Emission Inventory –2018

EIC Code	EIC Description	NOx Inventory for Control Measures (tpd)
		2018
060-030-0110-0000	Service and Commercial Natural Gas Water Heating	0.3105
610-608-0110-0000	Residential Natural Gas Water Heating	4.5852 0.9847
Total		4.8957 1.2952

Emission Reductions

EIC Description	Adoption Date	Implementation Date	NOx Emission Reductions (tpd)
			2018
Water Heaters	2009	2010-2012	4.1173 0.7076

2. Emission reductions are revised in Plan, Page 1-7:

**Table 1-3
Summary of New Regional and Local Proposed Control Measures
Sacramento Nonattainment Area**

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO _x
Regional Non-regulatory Measures		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	-	-
Urban Forest Development Program	0 - 0.2	-
Total Regional Non-regulatory Measures	0.1	0.9
Local Regulatory Measures		
Indirect Source Rule - Construction	-	0.1
Indirect Source Rule - Operational	0-<0.1	0-0.1
Architectural Coating	1.5	-
Automotive Refinishing	0.2	-
Degreasing/Solvent Cleaning	1.4	-
Graphic Arts	na	-
Miscellaneous Metal Parts and Products	<0.1	-
Natural Gas Production and Processing	0.1	-
Asphalt Concrete	-	0.1
Boilers, Steam Generator, and Process Heaters	-	0.2
IC Engines	-	0.1
Large Water Heaters and Small Boilers	-	1.3 0.9
Total Local Regulatory Measures	3.2	1.8 1.4
Total Reductions*	3.4	3.1 2.7

Notes: Numbers are truncated to one decimal place. na = not available

*Total reductions are summed from untruncated values. See summary table in Appendix C – Proposed Control Measures.

3. Emission reductions are revised in Plan, Page 7-28:

Large Water Heaters and Small Boilers Category			NOx Emission Reduction (TPD)
District Measure	Adoption Year	Implement Year	2018
SMAQMD-414	2009	2010-2012	4.4 <u>0.7</u>
EDCAQMD-239	2015	2016	<0.1
FRAQMD-3.23	2016	2017	0
PCAPCD-CM2	2015	2017	<0.1
YSAQMD-2.37	2009	2010	0.2
Total			4.3 <u>0.9</u>

4. Emission reductions are revised in Plan, Page 7-29:

**Table 7-4
Summary of New Regional and Local Proposed Control Measures
Sacramento Nonattainment Area**

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO _x
Regional Non-regulatory Measures		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	--	--
Urban Forest Development Program	0 - 0.2	--
Total Regional Non-regulatory Measures	0.1	0.9
Local Regulatory Measures		
Indirect Source Rule - Construction	--	0.1
Indirect Source Rule - Operational	0-<0.1	0-0.1
Architectural Coating	1.5	--
Automotive Refinishing	0.2	--
Degreasing/Solvent Cleaning	1.4	--
Graphic Arts	na	--
Miscellaneous Metal Parts and Products	<0.1	--
Natural Gas Production and Processing	0.1	--
Asphalt Concrete	--	0.1
Boilers, Steam Generator, and Process Heaters	--	0.2
IC Engines	--	0.1
Large Water Heaters and Small Boilers	--	<u>1.3</u> <u>0.9</u>
Total Local Regulatory Measures	3.2	<u>1.8</u> <u>1.4</u>
Total Reductions*	3.4	<u>3.1</u> <u>2.7</u>

Notes: Numbers are truncated to one decimal place. na = not available

*Total reductions are summed from untruncated values. See summary table in Appendix C – Proposed Control Measures.

5. Emission reductions are revised in Plan, Page 14-5:

**Table 14-1
Summary of New Regional and Local Proposed Control Measures
Sacramento Nonattainment Area**

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO _x
Regional Non-regulatory Measures		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	--	--
Urban Forest Development Program	0 - 0.2	--
Total Regional Non-regulatory Measures	0.1	0.9
Local Regulatory Measures		
Indirect Source Rule - Construction	--	0.1
Indirect Source Rule - Operational	0-<0.1	0-0.1
Architectural Coating	1.5	--
Automotive Refinishing	0.2	--
Degreasing/Solvent Cleaning	1.4	--
Graphic Arts	na	--
Miscellaneous Metal Parts and Products	<0.1	--
Natural Gas Production and Processing	0.1	--
Asphalt Concrete	--	0.1
Boilers, Steam Generator, and Process Heaters	--	0.2
IC Engines	--	0.1
Large Water Heaters and Small Boilers	--	1.3 <u>0.9</u>
Total Local Regulatory Measures	3.2	1.8 <u>1.4</u>
Total Reductions*	3.4	3.1 <u>2.7</u>

Notes: Numbers are truncated to one decimal place. na = not available

*Total reductions are summed from untruncated values. See summary table in Appendix C – Proposed Control Measures.

6. Emission reductions are revised in Appendix C, Page C-6:

Measure Name	Emission Reductions (TPD)	
	2018	
	VOC	NO _x
Total Miscellaneous Metal Parts and Products	0.02	
Natural Gas Production and Processing		
SMAQMD-461	0.116	-
Total Natural Gas Production and Processing	0.12	-
Asphalt Concrete		
SMAQMD-471	-	0.132
PCAPCD-CM1	-	0.036
Total Asphalt Concrete		0.17
Boilers, Steam Gen. and Process Heaters		
YSAQMD-2.27	-	0.288
Total Boilers, Steam Gen. and Process Heaters		0.29
IC Engines		
SMAQMD-412	-	0.013
FRAQMD-3.22	-	0.004
YSAQMD-2.32	-	0.118
Total IC Engines		0.14
Large Water Heaters and Small Boilers		
SMAQMD-414	-	1.117 0.708
EDCAQMD-239	-	0.003
FRAQMD-3.23	-	0.000
PCAPCD-CM2	-	0.030
YSAQMD-2.37	-	0.240
Total Large Water Heaters and Small Boilers		1.39 0.98
Total Stationary and Area Source Measures	3.30	4.98 1.58
Total Regulatory Measures	3.30	2.42 1.72
Total Reductions	3.42	3.09 2.69

tbd = to be determined

7. Emission reductions are revised in Appendix C, Page C-7:

Summary Table of Emission Reductions by Air District

Air District Control Measure Name (Rule No.)	Emission Reductions (TPD)	
	2018	
	VOC	NOx
Stationary and Area Source Measures		
Sacramento Metropolitan AQMD		
Architectural Coating (SMAQMD-442)	0.913	-
Automotive Refinishing (SMAQMD-459)	0.113	-
Degreasing/Solvent Cleaning (SMAQMD-454/466)	0.593	-
Natural Gas Production and Processing (SMAQMD-461)	0.116	-
Asphalt Concrete (SMAQMD-471)	-	0.132
IC Engines (SMAQMD-412)	-	0.013
Large Water Heaters and Small Boilers (SMAQMD-414)	-	4.117 0.708
Total Sacramento Metropolitan AQMD	1.74	4.26 0.85
El Dorado County AQMD		
Architectural Coating (EDCAQMD-215)	0.186	-
Degreasing/Solvent Cleaning (EDCAQMD-225/235)	0.076	-
Misc. Metal Parts and Products (EDCAQMD-246)	0.002	-
Large Water Heaters and Small Boilers (EDCAQMD-239)	-	0.003
Total El Dorado County AQMD	0.26	0.00
Feather River AQMD		
Architectural Coating (FRAQMD-3.15)	0.004	-
Automotive Refinishing (FRAQMD-3.19)	0.001	-
Degreasing/Solvent Cleaning (FRAQMD-3.14)	0.001	-
IC Engines (FRAQMD-3.22)	-	0.004
Large Water Heaters and Small Boilers (FRAQMD-3.23)	-	0.000
Total Feather River AQMD	0.01	0.00
Placer County APCD		
Architectural Coating (PCAPCD-218)	0.201	-
Automotive Refinishing (PCAPCD-234)	0.045	-
Misc. Metal Parts and Products (PCAPCD-CM3)	0.014	-
Asphalt Concrete (PCAPCD-CM1)	-	0.036
Large Water Heaters and Small Boilers (PCAPCD-CM2)	-	0.030
Total Placer County APCD	0.26	0.07
Yolo-Solano AQMD		
Architectural Coating (YSAQMD-2.14)	0.214	-
Automotive Refinishing (YSAQMD-2.26)	0.058	-
Degreasing/Solvent Cleaning (YSAQMD-2.24/2.31)	0.762	-
Graphic Arts (YSAQMD-2.29)	---	-
Boilers, Steam Gen. & Process Heaters (YSAQMD-2.27)	-	0.288
IC Engines (YSAQMD-2.32)	-	0.118
Large Water Heaters and Small Boilers (YSAQMD-2.37)	-	0.240
Total Yolo-Solano AQMD	1.03	0.65
Total Stationary and Area-wide Source Measures	3.30	4.98 1.57

8. Emission reductions are revised in Final EIR, Page 2-14:

TABLE 2-2

Summary of *New* Regional and Local Proposed Control Measures
Sacramento Non-Attainment Area

Control Measure Name	2018 Emission Reductions (TPD)	
	VOC	NO _x
Regional Non-regulatory Measures		
Regional Mobile Incentive Program – On-road	<0.1	0.9
Regional Mobile Incentive Program – Off-road	<0.1	<0.1
Spare The Air Program	<0.1	<0.1
SACOG Transportation Control Measures	-	-
Urban Forest Development Program	0 – 0.2 0.4	-
Total Regional Non-regulatory Measures	0.1 0.12	0.9
Local Regulatory Measures		
Indirect Source Rule – Construction	-	0.1
Indirect Source Rule – Operational	0-<0.1	0-0.1
Architectural Coating	1.5	-
Automotive Refinishing	0.2	-
Degreasing/Solvent Cleaning	1.4	-
Graphic Arts	NA	-
Miscellaneous Metal Parts and Products	<0.1	-
Natural Gas Production and Processing	0.1	-
Asphalt Concrete	-	0.1
Boilers, Steam Generator, and Process Heaters	-	0.2
IC Engines	-	0.1
Large Water Heaters and Small Boilers	-	1.3 0.9
Total Local Regulatory Measures	3.2	1.8 1.4
Total Reductions*	3.4 3.42	3.1 2.7

Notes: Numbers are truncated to one decimal place. na = not available

*Total reductions are summed from untruncated values. See summary table in Appendix C of the 8-Hour Ozone Plan.