APPENDIX B. RULE REFERENCE TABLE (LAST UPDATED 06/14/11)

Rule Citation[1]	RULE TITLE	A/R[2]	District Adoption Date[3]	SIP FR Approval Date
	REGULATION I - GENERAL PROVISIONS			
1	Title	F	04/30/80	09/28/81
2	Definitions	F	06/30/99	02/03/00[4]
4	Review of Rules	F	01/01/70†	09/22/72
5	Authority to Arrest	F	03/24/76†	05/11/77
	REGULATION II - PERMITS			
10	Permits Required	F	07/25/95	03/11/98
10.1††	NSPS & NESHAPS Requirements	D	11/8/76	N/A
11	Exemptions	F	09/20/78	07/06/82
11	Exemptions from Rule 10 Permit Requirements	D/F	04/25/07	Pending
12	Registration of Specified Equipment	D	11/15/00	N/A
12.1	Portable Equipment Registration	D	05/21/97	N/A
14	Applications	F	04/30/80	09/28/81
15	Permit Process - Public Notifications	D/F	09/18/90	Pending
17	Cancellation of Applications	F	11/25/81	03/11/98
18	Action on Applications	F	01/17/72	09/22/72
18	Action on Applications	D/F	09/18/90	Pending
19	Provision of Sampling and Testing Facilities	F	04/06/93	03/11/98
19.1††	NSPS & NESHAPS Provision of Sampling and Testing Facilities Requirements	D	11/08/76	N/A
19.2	Continuous Emission Monitoring Requirements	F	12/13/78	09/28/81
19.3	Emission Information	F	5/15/96	03/09/00
20	Standards for Granting Applications	F	01/17/72	09/22/72
20	Standards for Granting Permits	D/F	06/10/86	Pending
20.1	Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions, and Other Requirements	F	07/05/79	04/14/81
20.1	NSR - General Provisions	D/F	11/04/98	Pending
20.2	Standards for Authority to Construct - Best Available Air Pollution Control Technology	F	07/05/79	04/14/81
20.2	NSR - Non-major Stationary Sources	D/F	11/04/98	Pending

1. Rule Citations marked with an "††" contain no substantive requirements and are listed for informational purposes only.
2. 'A/R' Denotes enforceability of the listed applicable requirement as follows:
   'F' Denotes a Federal applicable requirement that is federally enforceable and District enforceable.
   'D/F' Denotes a District applicable requirement which is pending SIP approval. When such a rule receives SIP approval, it supersedes the existing SIP rule and becomes the Federal applicable requirement.
   'D' Denotes a District only applicable requirement. This may include some state requirements that are enforceable by the District.
3. District adoption dates marked with an "†" are the effective date of the rule, the actual adoption date is uncertain.
4. On September 17, 2010, EPA approved the District's November, 4, 2009, revision to the table of exempt compounds in Rule 2, which can be administratively amended without Board action to amend the rule.

20.3	Standards for Authority to Construct - Air Quality Analysis	F	07/05/79	04/14/81
20.3	NSR - Major Stationary Source and PSD Stationary Source	D/F	11/04/98	Pending
20.4	Standards for Authority to Construct - Major Stationary Sources	F	07/05/79	04/14/81
20.4	NSR - Portable Emission Units	D/F	11/04/98	Pending
20.5	Power Plants	F	07/05/79	04/14/81
20.6	Standards for Permit to Operate - Air Quality Analysis	F	07/05/79	04/14/81
20.6	Standards for Permit to Operate Air Quality Analysis	D/F	12/15/87	Pending
20.8	Special Offset Requirement Relating to Banking	D	2/16/83	N/A
21	Permit Conditions	F	11/29/94	03/11/98
22	Denial of Applications	F	01/01/69†	09/22/72
23	Further Information	F	01/01/69†	09/22/72
24	Temporary Permit to Operate	F	03/20/96	10/24/08
25	Appeals	F	01/01/69†	09/22/72
25	Appeals	D/F	06/21/00	Pending
26.0	Banking of Emission Reduction Credits (ERCs) - General Requirements	D/F	10/22/97	Pending
26.1	Standards for Granting Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.2	Use of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.3	Reclassification of Class B Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.4	Permanency of Banked Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.5	Transfer of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.6	District Banking of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.7	Shutdown and Related Emission Unit	D/F	10/22/97	Pending
26.8	Banking of Limited Emission Reductions	D/F	10/22/97	Pending
26.9	Emission Reduction Credit Certificates and The Emission Reduction Credit Register	D/F	10/22/97	Pending
26.10	Banking For BRAC Military Base Closure or Realignment Actions	D/F	10/22/97	Pending
27	Banking of Mobile Source Emission Reduction Credits	D/F	11/29/94	Pending
27.1	Federal Requirements for San Diego County APCD Alternative Mobile Source Emission Reduction Program Approved On 9/8/2000	F	08/06/08	06/03/09
	REGULATIONS III - FEES			
40	Permit Fees	D	8/13/03	N/A
42	Hearing Board Fees	D	06/21/00	N/A
44	Technical Reports, Charges for	D	12/7/83	N/A
	REGULATIONS IV - PROHIBITIONS			
50	Visible Emissions	F	08/13/97	12/7/98
50.1††	NSPS & NESHAPS Visible Emissions Requirements	D	11/08/76	N/A
51	Nuisance	F	01/01/69†	09/22/72
52	Particular Matter	F	01/22/97	12/9/98
52.1††	NSPS & NESHAPS Particular Matter Requirements	D	11/08/76	N/A
53	Specific Contaminants	F	01/22/97	12/9/98
53.1	Scavenger Plants	F	01/01/69†	09/22/72
53.2††	NSPS & NESHAPS Specific Contaminants Requirements	D	11/08/76	N/A

54	Dusts and Fumes	F	01/22/97	12/9/98
54.1	NSPS & NESHAP Dust and Fumes Requirement	D	11/08/76	N/A
58	Incinerator Burning	F	01/17/73†	05/11/77
59	Control of Waste Disposal - Site Emissions	D	11/03/87	Withdrawn
59.1	Municipal Solid Waste Landfills	D	06/17/98	N/A
60	Circumvention	F	05/17/94	03/09/00
60.2	Limiting Potential to Emit - Synthetic Minor Sources	D	08/13/03	N/A
61.0	Definitions Pertaining to the Storage & Handling of Organic Compounds	F	10/16/90	09/13/93
61.1	Receiving & Storing Volatile Organic Compounds at Bulk Plants & Bulk Terminals	F	01/10/95	08/08/95
61.2	Transfer of Volatile Organic Compounds into Mobile Transport Tanks	F	07/26/00	08/26/03
61.3	Transfer of Volatile Organic Compounds into Stationary Storage Tanks	F	10/16/90	06/30/93
61.3.1	Transfer of Gasoline into Stationary Underground Storage Tanks	D	03/01/06	N/A
61.4	Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks	F	10/16/90	05/13/93
61.4	Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks	D/F	03/26/08	Pending
61.4.1	Transfer of Gasoline from Stationary Underground Storage Tanks into Vehicles Fuel Tanks	D	03/01/06	N/A
61.5	Visible Emission Standards for Vapor Control Systems	F	09/20/78†	04/14/81
61.6	NSPS Requirements for Storage of Volatile Organic Compounds	D	01/13/87	Withdrawn
61.7	Spillage and Leakage of Volatile Organic Compounds	F	01/13/87	03/11/98
61.8	Certification Requirements for Vapor Control Equipment	F	01/13/87	03/11/98
62	Sulfur Content of Fuels	F	10/21/81	07/06/82
62.1††	NSPS Requirements for Sulfur Content of Fuels	D	11/08/76	N/A
64	Reduction of Animal Matter	F	07/22/81	07/06/82
66	Organic Solvents	F	07/25/95	08/11/98
66.1	Miscellaneous Surface Coating Operations and Other Processes Emitting VOCs	D/F	2/24/10	Pending
67.0	Architectural Coatings	F	05/15/96	03/27/97
67.0	Architectural Coatings	D/F	12/12/01	Pending
67.1	Alternative Emission Control Plans	F	05/15/96	03/27/97
67.2	Dry Cleaning Equipment Using Petroleum - Based Solvent	F	05/15/96	03/27/97
67.3	Metal Parts and Products Coating Operations	F	05/15/96	03/27/97
67.4	Metal Container, Metal Closure and Metal Coil Coating Operations	F	05/15/96	11/03/97
67.5	Paper, Film and Fabric Coating Operations	F	05/15/96	03/27/97
67.6.1	Cold Solvent Cleaning and Stripping Operations	F	5/23/07	10/13/09
67.6.2	Vapor Degreasing Operations	F	5/23/07	10/13/09
67.7	Cutback and Emulsified Asphalts	F	05/15/96	03/27/97
67.9	Aerospace Coating Operations	F	04/30/97	08/17/98
67.10	Kelp Processing and Bio-Polymer Manufacturing	F	06/25/97	06/22/98
67.11	Wood Parts and Products Coating Operations	D/F	09/25/02	Pending

67.11.1	Large Coating Operations for Wood Products	F	09/25/02	06/05/03
67.12	Polyester Resin Operations	F	05/15/96	03/27/97
67.15	Pharmaceutical and Cosmetic Manufacturing Operations	F	05/15/96	03/27/97
67.16	Graphic Arts Operations	F	05/15/96	03/27/97
67.17	Storage of Materials Containing Volatile Organic Compounds	F	05/15/96	03/27/97
67.18	Marine Coating Operations	F	05/15/96	03/27/97
67.19	Coating and Printing Inks Manufacturing Operations	F	05/15/96	01/19/00
67.20	Motor Vehicle & Mobile Equipment Refinishing Operations	D	11/13/96	N/A
67.20.1	Motor Vehicle and Mobile Equipment Coating Operations	D	06/30/10	N/A
67.21	Adhesive Material Application Operations	D	12/16/98	N/A
67.22	Expandable Polystyrene Foam Products Manufacturing Operations	D	05/15/96	N/A
67.24	Bakery Ovens	F	05/15/96	03/27/97
68	Fuel-Burning Equipment – Oxides of Nitrogen	F	09/20/94	04/09/96
68.1††	NSPS Requirements for Oxides of Nitrogen from Fuel-Burning Equipment	D	11/08/76	N/A
69	Electrical Generating Steam Boilers, Replacement Units & New Units	D	12/12/95	N/A
69.2	Industrial & Commercial Boilers, Process Heaters & Steam Generators	F	09/27/94	02/09/96
69.2.1	Small Boilers, Process Heaters and Steam Generators	D	03/25/10	N/A
69.3	Stationary Gas Turbine Engines	F	09/27/94	06/17/97
69.3	Stationary Gas Turbine Engines – RACT	D/F	12/16/98	Pending
69.3.1	Stationary Gas Turbine Engines – BARCT	D	12/16/98	N/A
69.4	Stationary Internal Combustion Engines	F	09/27/94	01/22/97
69.4	Stationary Internal Combustion Engines – RACT	D/F	07/30/03	2/25/04
69.4.1	Stationary Internal Combustion Engines - BARCT	D	11/15/00	N/A
69.5	Natural Gas-Fired Water Heaters	D	06/17/98	N/A
69.6	Natural Gas-Fired Fan-Type Central Furnaces	D	06/17/98	N/A
70	Orchard Heaters	F	01/17/72	09/22/72
71	Abrasive Blasting	F	03/30/77	08/31/78
	REGULATION V - PROCEDURES BEFORE THE HEARING BOARD			
75	Procedure Before the Hearing Board	D/F	09/17/85	Pending
75.1††	NSPS & NESHAPS Variance Procedures	D	09/17/85	7/30/79
97	Emergency Variance	D/F	07/25/95	Pending
98	Breakdown Conditions: Emergency Variance	D	07/25/95	Withdrawn
	REGULATION VI - BURNING CONTROL			
101–112	Burning Control	F	09/25/02	04/30/03
	REGULATION VII - VALIDITY AND EFFECTIVE DATE			
140	Validity	F	01/01/69†	09/22/72
141	Effective Date	F	01/01/69†	09/22/72

	REGULATION VIII - SAN DIEGO AIR POLLUTION EMERGENCY PLAN			
126	Applicability	F	05/25/77	08/31/78
127	Episode Criteria Levels	F	09/17/91	03/18/99
128	Episode Declaration	F	09/17/91	03/18/99
129	Episode Termination	F	05/25/77	08/31/78
130	Episode Actions	F	09/17/91	03/18/99
131	Stationary Source Curtailment Plan	F	04/01/81	06/21/82
132	Traffic Abatement Plan	F	04/01/81	06/21/82
132	Traffic Abatement Plan	D/F	12/17/97	Pending
133	Schools	F	05/25/77	08/31/78
134	Source Inspection	F	04/01/81	06/21/82
135	Air Monitoring Stations	F	05/25/77	08/31/78
136	Interdistrict and Interbasin Coordination	F	05/25/77	08/31/78
137	Emergency Action Committee	F	05/25/77	08/31/78
138	Procedures and Plans	F	05/25/77	08/31/78
	APPENDIX A - Persons to be Notified on Episode Declaration	F		
	REGULATION IX - PUBLIC RECORDS			
175	General	F	05/22/74†	05/11/77
176	Information Supplied to District	F	05/22/74†	05/11/77
177	Inspection of Public Records	F	03/30/77	08/31/78
177	Inspection of Public Records	D/F	06/20/01	Pending
	REGULATION XII - TOXIC AIR CONTAMINANTS			
1200	Toxic Air Contaminants - New Source Review	D	06/12/96	N/A
1202	Hexavalent Chromium - Cooling Towers	D	07/25/95	N/A
1203	Ethylene Oxide Sterilizers and Aerators	D	07/26/00	N/A
1205	Control of Dioxins Emissions from Medical Waste Incinerators	D	01/01/94	N/A
1210	Toxic Air Contaminant Public Health Risks - Public Notification and Risk Reduction	D	06/12/96	N/A

	REGULATION XIV - TITLE V OPERATING PERMITS			
1401	General Provisions	F	05/23/01	02/27/04
1410	Permit Required	F	05/23/01	02/27/04
1411	Exemption from Permit to Operate for Insignificant Units	F	01/18/94	11/30/01
1412	Federal Acid Rain Program Requirements	F	01/18/94	11/30/01
1413	Early Reduction of Hazardous Air Pollutants	F	03/07/95	11/30/01
1414	Applications	F	03/07/95	11/30/01
1415	Permit Process-Public Notification	F	05/23/01	02/27/04
1417	Pendency & Cancellation of Applications	F	03/07/95	11/30/01
1418	Action on Applications	F	03/07/95	11/30/01
1419	Provisions of Sampling & Testing Facilities & Emission Information	F	03/07/95	11/30/01
1420	Standards for Granting Permits	F	03/07/95	11/30/01
1421	Permit Conditions	F	03/07/95	02/27/04
1422	Denial or Cancellation Of Applications	F	03/07/95	11/30/01
1423	Further Information	F	01/18/94	11/30/01
1424	Applications Deemed Denied	F	01/18/94	11/30/01
1425	Appeals & Judicial Review	F	03/07/95	02/27/04
	APPENDIX A - Insignificant Units	F	01/18/94	11/30/01
	APPENDIX A - Insignificant Units	F	05/23/01	11/30/01
	REGULATION XV - FEDERAL CONFORMITY			
1501	Conformity of General Federal Actions	F	03/07/95	04/23/99

The following NSPS and NESHAP have been adopted locally by the District. EPA has granted the District delegation for each of these rules. Therefore, these rules, as adopted by the District are the federally applicable requirements. For all other NSPS and NESHAP, the versions cited in the CFR are the federally applicable requirements.

Subpart & Citation	Rule Title	District Adoption Date	Federal Delegation Date
Part 60	**Regulation X - Standards of Performance for New Stationary Sources**		
A	General Provisions	Unknown 11/03/92	11/08/76
E	Standards of Performance for Incinerators	Unknown	03/30/77
I	Standards of Performance for Asphalt Concrete Plants	Unknown 01/13/87	11/08/76
L	Standards of Performance for Secondary Lead Smelters	Unknown	11/08/76
M	Standards of Performance for Secondary Brass and Bronze Ingot Production Plants	Unknown 09/17/85*	03/30/77
O	Standards of Performance for Sewage Treatment Plants	01/13/87	09/17/87
DD	Standards of Performance for Grain Elevators	Unknown	05/24/82
EE	Standards of Performance for Surface Coating Metal Furniture	03/04/86 11/03/92	03/19/87
QQ	Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing	08/24/83	12/22/83
RR	Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations	09/17/86 11/03/92	03/19/87
SS	Standards of Performance for the Industrial Surface Coating Large Appliances	02/22/84 11/03/92*	04/24/84
TT	Standards of Performance for Metal Coil Surface Coating	02/22/84 11/03/92*	04/24/84
BBB	Standards of Performance for the Rubber Tire Manufacturing Industry	03/14/89	07/18/89
FFF	Standards of Performance for Flexible Vinyl and Urethane Coating and Printing	09/17/86	03/19/87
JJJ	Standards of Performance for Petroleum Dry Cleaners	12/15/87	07/18/89
Part 61	**Regulation XI- National Emission Standards for Hazardous Air Pollutants (NESHAPS)**		
A	General Provisions	01/13/87	05/24/82
C	National Emission Standard for Beryllium	Unknown	11/08/76
D	National Emission Standard for Beryllium Rocket Motor Firing	Unknown	11/08/76
E	National Emission Standard for Mercury	03/27/90	05/17/91
F	National Emission Standard for Vinyl Chloride	08/17/77 06/16/78	11/21/77
M	National Emission Standard for Asbestos	06/04/85 02/01/95	07/18/89

The following ATCM and NESHAP have not been adopted by the District, but are being implemented and enforced by the District as ATCM's.

Subpart & Citation	RULE TITLE	A/R	Most Recent Adoption Date
	DISTRICT RULES AND REGULATIONS APPENDIX A - CALIFORNIA AIRBORNE TOXIC CONTROL MEASURES (ATCM)		
17 CCR § 93102	Hexavalent Chromium ATCM for Chrome Plating & Chromic Acid Anodizing Operations	D/F	12/7/06
17 CCR § 93109	ATCM For Emissions of Perchloroethylene From Dry Cleaning Operations	F	01/25/07
17 CCR § 93101.5	ATCM to Reduce Emissions of Hexavalent Chromium and Nickel from Thermal Spraying	D	09/30/05
17 CCR § 93105	ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	D	07/26/01
17 CCR § 93106	Asbestos ATCM for Surface Applications	D	07/20/00
17 CCR § 93107	ATCM For Emissions of Toxic Metals From Non-Ferrous Metal Melting	D	01/14/93
17 CCR § 93111	ATCM for Emissions of Chlorinated Toxic Air Contaminants from Automotive Maintenance & Repair Activities	D	04/27/00
17 CCR § 93112	ATCM for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Motor Equipment Coatings	D	09/20/01
17 CCR § 93113	ATCM to Reduce Emissions of Toxic Air Contaminants from Outdoor Residential Waste Burning	D	02/03/03
17 CCR § 93115	ATCM for Stationary Compression Ignition Engines	D	05/19/11
17 CCR § 93116	ATCM for Portable Diesel-Fueled Engines	D	02/19/11
Part 63	**DISTRICT RULES AND REGULATIONS APPENDIX B - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) FOR SOURCE CATEGORIES**		
A	General Provisions	F	05/16/07
N	Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks	F	04/20/06
O	Ethylene Oxide Sterilization Facilities	F	12/28/07
R	Gasoline Distribution	F	01/24/11
T	Halogenated Solvent Cleaning	F	09/08/00
DD	Off-site Waste & Recovery Operations	F	07/20/99
GG	Aerospace Manufacturing and Rework Facilities	F	12/08/00
II	Shipbuilding and Ship Repair (Surface Coating)	F	12/15/95
JJ	Wood Furniture Manufacturing Operations	F	12/28/98
VVV	Publicly Owned Treatment Works	F	10/21/02
AAAA	Municipal Solid Waste Landfills	F	01/16/03
EEEE	Organic Liquids Distribution (non-gasoline)	F	07/17/08
MMMM	Surface Coating of Miscellaneous Metal Parts and Products	F	04/26/04
PPPP	Plastic Parts (surface coating)	F	04/24/07
SSSS	Surface Coating of Metal Coil	F	03/17/03
VVVV	Boat Manufacturing	F	08/22/01
WWWW	Reinforced Plastic Composites Production	F	8/25/05
YYYY	Stationary Combustion Turbines	F	08/18/04

ZZZZ	Stationary Reciprocating Internal Combustion Engines	F	03/09/11
DDDDD	Industrial, Commercial, and Institutional Boilers and Process Heaters	F	05/18/11
GGGGG	Site Remediation	F	11/29/06
HHHHH	Miscellaneous Coating Manufacturing	F	10/04/06
PPPPP	Engine Test Cells/Stands	F	08/28/03
WWWWW	Hospital Ethylene Oxide Sterilizers Area Sources	F	12/28/07
BBBBBB	Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities	F	01/24/11
CCCCCC	Gasoline Dispensing Facilities	F	01/24/11
HHHHHH	Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources	F	01/09/08
JJJJJJ	Area Sources: Industrial, Commercial, and Institutional Boilers	F	3/21/11
QQQQQQ	Wood Preserving Area Sources	F	07/16/07
VVVVVV	Chemical Manufacturing Area Sources	F	11/29/09
WWWWWW	Plating and Polishing Operations Area Sources	F	07/01/08
XXXXXX	Metal Fabrication and Finishing Area Sources	F	7/23/08
AAAAAAA	Asphalt Processing and Asphalt Roofing Manufacturing Area Sources	F	12/02/09
CCCCCCC	Paint and Allied Products Manufacture Area Sources	F	12/03/09

The following NSPS have been adopted by the District by reference. The rules listed below are the CFR versions of these rules which are federally applicable requirements.

Subpart & Citation	Rule Title	Latest EPA Promulgation Date	District Adoption Date	Delegation Date
Part 60	**District Rules and Regulations Appendix C - Standards of Performance for New Stationary Sources (NSPS)**			
D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	10/17/00 01/28/09	10/17/01 06/24/09	01/03/08 Pending
Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978	06/11/01 01/28/09	10/17/01 06/24/09	01/03/08 Pending
Db	Standards of Performance for Industrial-Commercial - Institutional Steam Generating Units	10/01/01 01/28/09	04/25/01 06/24/09	01/03/08 Pending
Dc	Standards of Performance for Small Industrial-Commercial -Institutional Steam Generating Units	05/08/96 01/28/09	08/13/97 06/24/09	06/24/98 Pending
GG	Standards of Performance for Stationary Gas Turbines	06/27/89 02/24/06	10/17/01 02/25/09	01/03/08 Pending
K	Standards of Performance for Storage Vessels for Petroleum Liquids Construct After June 11, 1973 and Prior to May 19, 1978	10/17/00	06/20/07	01/03/08
Ka	Standards of Performance for Storage Vessels for Petroleum Liquids Construction after May 18, 1978	12/14/00	06/20/07	01/03/08
Kb	Standards of Performance for Volatile Organic Liquid Sto Vessels (Including Petroleum Liquid Storage Vessels) fo Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	10/15/03	06/20/07	01/03/08
AAA	Standards of Performance for New Residential Wood Heaters	06/12/99 10/17/00	04/12/00 N/A	01/03/08 N/A
OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	06/09/97 10/17/00	04/28/99 N/A	05/28/02 N/A
UUU	Standards of Performance for Calciners and Dryers in Mineral Industries	07/29/93 10/17/00	11/17/99 N/A	05/28/02 N/A
VVV	Standards for Polymeric Coating of Supporting Substrates Facilities	09/11/89	05/23/07	01/03/08
WWW	Standards of Performance for Municipal Solid Waste Landfills	04/10/00	08/13/97	06/24/98
AAAA	Standards of Performance for Small Municipal Waste Combustion Units	12/06/00	06/20/07	01/03/08
CCCC	Standards of Performance for Commercial and Industrial Solid Waste Incineration Units	12/01/00	06/20/07	01/03/08
EEEE	Standards of Performance for Other Solid Waste Incineration Units	12/16/05	06/20/07	01/03/08
KKKK	Standards of Performance for Stationary Combustion Turbines	07/06/06	02/25/09	06/01/09

The following NSPS have not been adopted by the District and are not delegated to the District. However, the District has the authority to enforce the NSPS through the Title V program. The rules listed below are the CFR versions of these rules, which are federally applicable requirements.

Subpart & Citation	RULE TITLE	Latest EPA Promulgation Date	District Adoption Date	Delegation Date
Part 60				
IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	07/11/06	N/A	N/A
JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	01/18/08	N/A	N/A

APPENDIX C: ABBREVIATIONS

LIST OF ABBREVIATIONS USED IN THIS PERMIT

APCO	Air Pollution Control Officer
ASTM	American Society for Testing and Methods
BACT	Best Available Control Technology
CAA	federal Clean Air Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CO_2	Carbon Dioxide
District	San Diego County Air Pollution Control District
EF	Emission Factor
EPA	US Environmental Protection Agency
HAP	Hazardous Air Pollutant
I&M	Inspection and Maintenance
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
[NSR]	New Source Review based condition
NO_X	Oxides of nitrogen
O_2	Oxygen
OES	Office of Environmental Services
O&M	Operation and maintenance
Pb	Lead
PM	Total Particulate Matter
PM_{10}	Particulate matter with aerodynamic equivalent diameter of $\leq$ 10 microns
PSD	Prevention of Significant Deterioration
RMP	Risk Management Plan
SDCAPCD	San Diego County Air Pollution Control District
SIP	State Implementation Plan
SO_X	Oxides of sulfur
Title IV	Title IV of the federal Clean Air Act
Title V	Title V of the federal Clean Air Act
VOC	Volatile organic compound

Units of Measure:

dscf	=	Dry standard cubic foot
g	=	grams
gal	=	gallon
gr/dscf	=	Grains per dry standard cubic foot
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
min	=	minute
MM Btu	=	Million British thermal units

psia	=	pounds per square inch, absolute
scf	=	Standard cubic foot
scfm	=	standard cubic feet per minute
yr	=	year

APPENDIX D1: DEFINITIONS—40 CFR PART 63 SUBPART MMMM

Terms used in this permit and associated calculation procedures for purposes of addressing 40 CFR Part 63 Subpart MMMM (Subpart MMMM) requirements are defined below, in the federal Clean Air Act, in 40 CFR §63.2, and in Subpart MMMM. If any term defined below, conflicts with a term in the federal Clean Air Act, in 40 CFR §63.2, or in Subpart MMMM as it is defined for use in Subpart MMMM, the definition of the term federal Clean Air Act, in 40 CFR §63.2, or in Subpart MMMM shall take precedence.

Additive means a material that is added to a coating after purchase from a supplier. Examples of additives are catalysts, activators, and accelerators.

Adhesive or adhesive coating means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives.

Affected coating operation means, except for surface coating operations that occur at research or laboratory facilities or are part of janitorial, building, and facility maintenance operations or coating operations affected by other NESHAPs, all surface coating operations of miscellaneous metal parts and products at this facility including, but not limited to, coating operations under Permits to Operate Nos. 3977, 978792, and 050303 and portable coating operations with or without a valid District permit to operate including, but not limited to, contracted operations. The affected coating operation includes the collection of all of the following items that are used for surface coating of miscellaneous metal parts and products at this facility, as applicable: all storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed; all manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

Affected by other NESHAPs means surface coating operations where plastic is extruded onto metal wire or cable or metal parts or products to form a coating, surface coating of metal parts intended for use in an aerospace vehicle or component using specialty coatings as defined in Appendix A to 40 CFR Part 63 Subpart GG; and surface coating of metal parts, metal product components, or metal products that meet the applicability criteria of 40 CFR Part 63 Subparts JJ, NNNN, RRRR, QQQQ, GG, II, JJJJ, SSSS, VVVV, PPPP, and IIII.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating (*e.g.,* depainting or paint stripping), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

Coating means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

Coating operation means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the facility where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations at the facility. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation.

Coatings solids means the nonvolatile portion of the coating that makes up the dry film.

Coating waste material means waste materials that are generated by coating operations during a compliance period for which the Emission Rate Option of the Subpart MMMM Calculation Procedures is used to demonstrate compliance and that will be treated or disposed of by a facility that is regulated as a hazardous waste treatment, storage and disposal facilities (TSDF) under 40 CFR Part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. Organic HAP contained in wastewater or any waste material from coatings that are excluded from a compliance demonstration are not included in coating waste materials.

Initial compliance period means the period that begins on September 6, 2008 and ends on September 30, 2009.

Compliance period means successive 12-consecutive-calendar-month periods except for the initial compliance period which may contain 13 complete or partial consecutive calendar months. Each calendar month that ends after the initial compliance period is the end of a compliance period consisting of that month and the preceding 11 calendar months.

Extreme performance fluoropolymer coating means coatings that are formulated systems based on fluoropolymer resins which often contain bonding matrix polymers dissolved in non-aqueous solvents as well as other ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including, but not limited to a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that the surface comply with government (*e.g.,* USDA, FDA) or third party specifications for health, safety, reliability, or performance. Once applied to a substrate, extreme performance fluoropolymer coatings undergo

a curing process that typically requires high temperatures, a chemical reaction, or other specialized technology.

General use coating means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating.

High temperature coating means any coating applied to a substrate which during normal use must withstand temperatures of at least 538 degrees Celsius (1000 degrees Fahrenheit).

Manufacturer's formulation data means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in 40 CFR §63.3941. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

Mass fraction of organic HAP means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kilograms of organic HAP per kg of material or pounds of organic HAP per pound of material.

Miscellaneous metal parts and products means any metal part or item except metal parts or products where plastic is extruded onto metal wire or cable or metal parts or products to form a coating; metal parts intended for use in an aerospace vehicle or component that are coated using specialty coatings as defined in Appendix A to 40 CFR Part 63 Subpart GG; and metal parts, product components, or products that meet the applicability criteria of 40 CFR Part 63 Subparts JJ, NNNN, RRRR, QQQQ, GG, II, JJJJ, SSSS, VVVV, PPPP,and IIII. Miscellaneous metal parts and products include, but are not limited to, metal components of gas turbine engines and gas turbine engines themselves and any auxiliary equipment and their component parts that are for use with gas turbine engines.

Non-HAP material means a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR §1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP

Organic HAP content means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using the Subpart MMMM Calculation Procedures. For purposes of this permit, the organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt except as specified for two-component coatings.

Organic HAP means, except for compounds deleted as HAPs by EPA, any compound, or any compound in a family of compounds, listed in Table D1-1 that contains at least one carbon atom and any VOC as defined as a VOC in 40 §CFR 51.100 (s) or identified in 40 §CFR 51.100 (s) as having negligible photochemical reactivity if that compound is also identified as a HAP. Notwithstanding this definition, any compound that the EPA Administrator has determined is an organic HAP is an organic HAP for purposes of this permit.

Protective oil means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils. Protective oils used on miscellaneous metal parts and products include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

Research or laboratory facility means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

Rubber-to-metal coatings are coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process.

Surface coating is the application of coating to a substrate including any associated activities, such as surface preparation, cleaning, mixing, and storage provided that these activities are directly related to the application of the coating.

Surface preparation means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting or paint stripping.

Volatile organic compound (VOC) means any compound defined as a VOC in 40 CFR 51.100(s).

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as the volume of nonvolatiles) to the volume of a coating in which it is contained; in gallons (liters) of coating solids per gallon (liter) of coating.

Table D1-1. Organic HAPs

Chemical Name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051

4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis (2-ethylhexyl) phthalate (DEHP)	117817
Bis (chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998
Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4–D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3′-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675

3,3′-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3′-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycolethers[a] except for ethylene glycol monobutyl ether (EGBE or 2-Butoxyethanol)—CAS Number 111–76–2	
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873

Methyl chloroform (1,1,1-Trichloroethane)	71556
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4′-Methylenebis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4′-Methylenediphenyl diisocyanate (MDI)	101688
4,4′-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter[b]	
1,3-Propane sultone	1120714
beta-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807

Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

Glycol ethers include mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-$(OCH_2CH_2)_n$-OR′.

Where:

n = 1, 2, or 3;

R = alkyl C7 or less; or

R = phenyl or alkyl substituted phenyl;

R′= H or alkyl C7 or less; or OR′ consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

[b]Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

APPENDIX D2: SUBPART MMMM CALCULATION PROCEDURES

JUNE 26, 2011

The calculation procedures below shall be used, as applicable, for purposes of demonstrating compliance with conditions of this permit that address the applicable requirements of 40 CFR Part 63 Subpart MMMM (40 CFR §63.3880–§63.3980) referred to herein as Subpart MMMM.

In performing the calculations specified in these calculation procedures, all terms in an equation must be expressed in consistent units of either (1) pounds and gallons or (2) kilograms, or grams when indicated, and liters.

1. FACILITY SPECIFIC EMISSION LIMIT

For purposes of calculating a Facility-Specific Emission Limit, surface coating using coatings in each coating subcategory listed in Table D2-1 shall be considered a separate coating operation. If applicable, the Facility-Specific Emission Limit shall be calculated using the following equation for each compliance period for each coating operation or group of coating operations:

$$\textit{Facility-Specific}\ \text{Emission Limit} = \frac{\sum_{i=1}^{n}(\text{Limit}_i)(Solids_i)}{\sum_{i=1}^{n}(Solids_i)} \qquad \text{Equation 1.1}$$

Where:

Facility-Specific Emission Limit = the applicable emission limit for all coatings used in affected coating operations and all coating operations affected by other NESHAPs for each compliance period, in pounds (kilograms) of organic HAP per pound (kilogram) of coating solids used;

Limit_i = The existing source emission limit applicable to the *i*'th coating operation included in the Facility-Specific Emission Limit in units of pounds (kilograms) of organic HAP per gallon (liter) of coating solids and that are identified in Table D2-1;

$Solids_i$ = The volume of solids used in the *i*'th coating operation in the compliance period that is subject to the *i*'th emission limit, in gallons (liters); and

n = The number of different coating operations included in the Facility-Specific Emission Limit including all affected coating operations and all coating operations affected by other NESHAPs.

Table D2-1. Existing Source Coating Emission Limits, Mass Organic HAP per Volume of Coating Solids

Coating Subcategory	Limit, lbs/gal	Limit, kg/l
General use coatings	2.6	0.31
High temperature coatings	27.5	3.3
Rubber-to-metal coatings	37.7	4.5
Extreme performance fluoropolymer coatings	12.4	1.5

2. COMPLIANCE OPTION PROCEDURES

2.1 COMPLIANT MATERIAL OPTION

For each material that is used in a coating operation or group of operations for which the Compliant Material Option has been elected to demonstrate compliance, the following procedure shall be used to demonstrate compliance or a deviation(s):

(1) If a Facility-Specific Emission Limit has been elected for the applicable compliance period, calculate the Facility-Specific Emission Limit in accordance with Section 1.

(2) Calculate the mass fraction of organic HAP in accordance with Subsection 3.1.

(3) If not directly available from manufacturer of supplier information or measurements, calculate the volume fraction of solids in accordance with Subsection 3.2.

(4) Calculate the organic HAP content in accordance with Subsection 3.3.

(5) For each coating material compare the result to the applicable emission limit for that coating subcategory in Table D2-1 or the facility-specific emission limit, as applicable. If the organic HAP content of any coating material exceeds the applicable emission limit, it is a deviation. In addition, if the organic HAP content of any thinner, additive, cleaning material exceeds zero, it is a deviation.

2.2 EMISSION RATE OPTION

For each affected coating operation or group of operations for which the Emission Rate Option has been elected to demonstrate compliance, the following procedure shall be used to demonstrate compliance or a deviation(s):

(1) If a Facility-Specific Emission Limit has been elected for the applicable compliance period for the subject coating operation or group of coating operations, calculate the Facility-Specific Emission Limit in accordance with Section 1.

(2) Calculate the mass fraction of organic HAP of each material in accordance with Subsection 3.1.

(3) If not directly available from manufacturer of supplier information or measurements, calculate the volume fraction of solids of each material in accordance with Subsection 3.2.

(4) Calculate the mass of organic HAP emissions in accordance with Subsection 3.4.

(5) Calculate the mass of organic HAP in waste, if applicable, in accordance with Subsection 3.5.

(6) Calculate the total volume of coating solids used in accordance with Subsection 3.6.

(7) Calculate the organic HAP emission rate in accordance with Subsection 3.7.

(8) For each coating operation or group of coating operations compare the result for each applicable coating subcategory to the applicable emission limit in Table D2-1 or to the Facility-Specific Emission Limit, as applicable. If the organic HAP emission rate exceeds the applicable emission limit, it is a deviation.

3. SUPPORTING CALCULATION PROCEDURES

3.1 MASS FRACTION OF ORGANIC HAP

The mass fraction of organic HAP for each material shall be calculated using the following formula:

$$W_c = \sum_{i=1}^{n} W_i \qquad \text{Equation 3.1.1}$$

Where:

W_i = the mass fraction of i'th individual organic HAP in the material that is determined to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR §1910.1200(d)(4)

and at 1.0 percent by mass or more for other compounds and expressed as a value truncated to four places after the decimal point.

W_c = the total mass fraction of organic HAP in the material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point.

3.2 Volume Fraction of Solids

If not directly available from manufacturer or supplier information or measurements, the volume fraction of coating solids shall be calculated the following equation:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad \text{Equation 3.2.1}$$

Where:

V_s = the volume fraction of coating solids, in gallons (liters) of coating solids per gallon (liter) of coating;

$m_{volatiles}$ = the total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, in pounds (grams) of volatile matter per gallon (liter) of coating; and

D_{avg} = the average density of volatile matter in the coating, in pounds (grams) per gallon (liter) of volatile matter.

3.3 Organic HAP Content

The organic HAP content, in pounds (kilograms) of organic HAP emitted per gallon (liter) of coating solids used, of each coating used shall be calculated using the following equation:

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad \text{Equation 3.3.1}$$

Where:

H_c = organic HAP content of the coating, in pounds (kilograms) of organic HAP emitted per gallon (liter) of coating solids used;

D_c = Density of the coating, in pounds (kilograms) per gallon (liter) of coating;

W_c = Mass fraction of organic HAP in the coating, in pounds (kilograms) of organic HAP per pound (kilogram) of coating, calculated in accordance with Subsection 3.1; and

V_s = Volume fraction of coating solids, in gallons (liters) of coating solids per gallon (liter) of coating, calculated in accordance with Subsection 3.2, if applicable.

3.4 Mass of Organic HAP Emissions

The total mass of organic HAP emissions, which is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials, shall be calculated using the following equation:

$$H_e = A + B + C - R_w \qquad \text{Equation 3.4.1}$$

Where:

H_e = Total mass of organic HAP emissions during the month, in pounds (kilograms);

A = Total mass of organic HAP in the coatings used during the month, in pounds (kilograms), as calculated in Equation 3.4.2 of this section;

B = Total mass of organic HAP in the thinners and/or other additives used during the month, in pounds (kilograms), as calculated in equation 3.4.3 of this section;

C = Total mass of organic HAP in the cleaning materials used during the month, in pounds (kilograms), as calculated in Equation 3.4.4 of this section; and

R_w = The allowance for the amount of coating waste in pounds (kilograms) as calculated in accordance with Subsection 3.5 or, at the option of the permittee, taken to be zero.

Mass of Organic HAP in Coatings

The mass of organic HAP in coating shall be calculated using the following equation:

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad \text{Equation 3.4.2}$$

Where:

A = Total mass of organic HAP in the coatings used during the month, in pounds (kilograms);

$Vol_{c,i}$ = Total volume of the i'th coating used during the month, in gallons (liters);

$D_{c,i}$ = Density of the i'th coating, in pounds (kilograms) per gallon (liter) coating;

$W_{c,i}$ = Mass fraction of organic HAP contained in the i'th coating, in pounds (kilograms) of organic HAP per pound (kilogram) of coating calculated in accordance with Subsection 3.1; and

m = Number of different coatings used during the month.

Mass of Organic HAP in Thinners and/or Other Additives

The mass of organic HAP in the thinners and/or other additives used during the month shall be calculated using the following equation:

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad \text{Equation 3.4.3}$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, pounds (kilograms);

$Vol_{t,j}$ = Total volume of the j'th thinner and/or other additive used during the month, in gallons (liters);

$D_{t,j}$ = Density of the j'th thinner and/or other additive, in pounds (kilograms) per gallon (liter) of material;

$W_{t,j}$ = Mass fraction of organic HAP in the j'th thinner and/or other additive in pounds (kilograms) of organic HAP per pound (kilogram) of material calculated in accordance with Subsection 3.1; and

n = Number of different thinners and/or other additives used during the month.

Mass of Organic HAP in the Cleaning Materials

The mass of organic HAP in the cleaning materials used during the month shall be calculated using the following equation:

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad \text{Equation 3.4.4}$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, in pounds (kilograms);

$Vol_{s,k}$ = Total volume of the k'th cleaning material used during the month, in gallons (liters);

$D_{s,k}$ = Density of of the k'th cleaning material,in pounds (kilograms) per gallon (liter) of material;

$W_{s,k}$ = Mass fraction of organic HAP in the k'th cleaning material, in pounds (kilograms) organic HAP per pound (kilogram) of material calculated in accordance with Subsection 3.1; and

p = Number of different cleaning materials used during the month.

3.5 Mass of Organic HAP in Waste

There shall be no allowance for organic HAP in waste except for organic HAP in coating waste, which includes waste coatings and any thinner or other additives added to those coatings. The total amount of organic HAP contained in waste shall be calculated from the following equation:

$R_W = R_A + R_B$ Equation 3.5.1

Where:

R_W = Total mass of organic HAP in waste during the month, in pounds (kilograms).

R_A = Total mass of organic HAP waste from coatings used during the month, in pounds (kilograms), as calculated in accordance with Equation 3.5.2 of this section.

R_B = Total mass of organic HAP waste from thinners and/or additives added to the coatings during the month, in pounds (kilograms), as calculated in accordance with Equation 3.5.3 of this section—there shall be no allowance for thinners used for other purposes than thinning coatings.

Mass Organic HAP Waste from Coatings

The mass of organic HAP in waste from coatings shall be calculated using the following equation:

$$R_A = \left(\frac{M_{w,T}}{M_T}\right)\sum_{i=1}^{m} W_{c,i} D_{c,i} Vol_{c,i} \qquad \text{Equation 3.5.2}$$

Where:

R_A = Total mass of organic HAP waste from coating materials used during the month, in pounds (kilograms);

$Vol_{c,i}$ = Total volume, as applied, of the *i*'th coating used during the month, in gallons (liters);

$D_{c,i}$ = Density, as applied, of the *i*'th coating, in pounds (kilograms) coating per gallon (liter) coating;

$M_{w,T}$ = Total mass of waste from coating materials and thinners and other additives added to those coatings in the month, in pounds (kilograms);

M_T = Total mass of coating materials and thinners and other additives added to those coatings that were used during the month, in pounds (kilograms);

$W_{c,i}$ = Mass fraction of organic HAP contained in the *i*'th coating, as applied, calculated in accordance with Subsection 3.1, in pounds (kilograms) of organic HAP per pound (kilogram) of coating; and

m = Number of different coatings used during the month.

Mass Organic HAP from Thinner or Additives Used in Coatings

The mass of organic HAP in coating waste from thinners or additives used in each coating to the extent such thinners and additives have not been accounted for in Equation 3.5.2 shall be calculated using the following equation:

$$R_B = \left(\frac{M_{w,T}}{M_T}\right)\sum_{i=1}^{m} W_{t,i} D_{t,i} Vol_{c,i} \qquad \text{Equation 3.5.3}$$

Where:

R_B = Total mass of the organic HAP waste from the *i*'th thinner or additive used by being added to coatings during the month, in pounds (kilograms);

$Vol_{t,i}$ = Total volume of the *i*'th thinner or additive used by being added to coatings during the month, in gallons (liters);

$D_{t,i}$ = Density of the *i*'th thinner or additive, in pounds (kilograms) per gallon (liter) of material;

$M_{w,T}$ = Total mass of waste from coating materials and thinners and other additives added to those coatings in the month, in pounds (kilograms);

M_T = Total mass of coating materials and thinners and other additives added to those coatings that were used during the month, in pounds (kilograms);

$W_{t,i}$ = Mass fraction of organic HAP contained in the i'th thinner or additive, in pounds (kilograms) organic HAP per pound (kilogram) of material calculated in accordance with Subsection 3.1; and

n = Number of different thinners or additives used during the month.

3.6 Total Volume of Coating Solids Used

The total volume of coating solids used, which is the combined volume of coating solids for all the coatings used during each month, shall be calculated using the following equation:

$$V_{st} = \sum_{i=1}^{m} (Vol_{c,i})(V_{s,i}) \qquad \text{Equation 3.6.1}$$

Where:

V_{st} = Total volume of coating solids used during the month, gallons (liters);

$Vol_{c,i}$ = Total volume of the i'th coating used during the month, gallons (liters);

$V_{s,i}$ = Volume fraction of coating solids of the i'th coating, in gallons (liters) of solids per gallon (liter) of coating, calculated in accordance with Subsection 3.2; and

m = Number of coatings used during the month.

3.7 Organic HAP Emission Rate

The organic HAP emission rate for the compliance period shall be calculated using the following equation:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} V_{st}} \qquad \text{Equation 3.7.1}$$

Where:

H_{yr} = Average organic HAP emission rate for the compliance period, pounds (kilograms) of organic HAP emitted per gallon (liter) of coating solids used;

H_e = Total mass of organic HAP emissions from all materials used during the y'th month, in pounds (kilograms) as calculated in accordance with Subsection 3.4;

V_{st}= Total volume of coating solids used during the y'th month, in gallons (liters), as calculated in accordance with Subsection 3.6;

y = Identifier for months; and

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

3.8 Excess Component Use for Two-Component Coatings

The excess of a coating component over and above the manufacture's or supplier's recommended mix ratio for a two-component coating shall be calculated using the following equation:

$$V_{excess} = \text{Max}\left[\left(V_a - r_{a/b}V_b\right), \left(V_b - r_{b/a}V_a\right)\right] \qquad \text{Equation 3.8.1}$$

Where:

V_a = Total volume of component a used during the applicable time period in gallons (liters);

V_b = Total volume of component b used during the applicable time period in gallons (liters);

$r_{a/b}$ = The ratio of the volume of component a to the volume of component b used during the applicable time period when the coating is mixed in accordance with the manufacturer's or supplier's fixed recommended mix ratio; and

$r_{b/a}$ = The ratio of the volume of component b to the volume of component a used during the applicable time period when the coating is mixed in accordance with the manufacturer's or supplier's fixed recommended mix ratio.