

Table XI-1. Estimated Total Annualized Non-Recurring Fixed Cost to Comply with Proposed Limits

Code	Category	Proposed Limit	Estimated # Products Non-Compliant	Number of Manufacturers/Marketers with Non-compliant Products in Each Product Category	Estimated Total One-Time Cost to Reformulate All Non-Compliant Products (Dollars)		Estimated Annualized Fixed Cost to Reformulate All Non-Compliant Products (Dollars per Year)
					(B1)	(B2) = (B1) x CRF	
800	Clear Coatings	1.54	75	26	\$488,219.80	\$128,791.15	
801	Flat Paint Products	1.21	91	32	\$555,863.70	\$146,635.44	
802	Fluorescent Coatings	1.77	7	7	\$0.00	\$0.00	
803	Metallic Coatings	1.93	108	22	\$248,916.20	\$65,663.47	
804	Nonflat Paint Products	1.40	503	25	\$1,187,095.00	\$313,152.67	
805	Primers	1.11	122	27	\$584,954.30	\$154,309.47	
890	Ground Traffic/Marking Coatings	1.18	47	15	\$746,205.70	\$196,847.18	
810	Art Fixatives or Sealants	1.80	8	2	\$41,761.20	\$11,016.50	
820	Auto Body Primers	1.57	7	4	\$0.00	\$0.00	
830	Automotive Bumper and Trim Products	1.75	36	7	\$0.00	\$0.00	
840	Aviation or Marine Primers	1.98	0	0	\$0.00	\$0.00	
841	Aviation Propeller Coatings	2.47	0	0	\$0.00	\$0.00	
850	Corrosion Resistant Brass, Bronze, or Copper Coatings	1.78	1	1	\$0.00	\$0.00	
860	Exact Match Finishes: Engine Enamel	1.72	21	2	\$0.00	\$0.00	
861	Exact Match Finishes: Automotive	1.77	40	4	\$85,751.33	\$22,620.98	
862	Exact Match Finishes: Industrial	2.07	2	1	\$0.00	\$0.00	
870	Floral Sprays	1.68	3	2	\$200,000.00	\$52,759.50	
880	Glass Coatings	1.42	4	4	\$0.00	\$0.00	
900	High Temperature Coatings	1.83	37	11	\$200,000.00	\$52,759.50	
910	Hobby/Model/Craft Coatings: Enamel	1.47	2	2	\$0.00	\$0.00	
911	Hobby/Model/Craft Coatings: Lacquer	2.70	3	1	\$0.00	\$0.00	
912	Hobby/Model/Craft Coatings: Clear or Metallic	1.60	4	4	\$200,000.00	\$52,759.50	
920	Marine Spar Varnishes	0.87	0	0	\$0.00	\$0.00	
930	Photographic Coatings	0.99	2	1	\$67,077.09	\$17,694.77	
940	Pleasure Craft Finish Primers, Surfacers or Undercoaters	1.05	0	0	\$0.00	\$0.00	
941	Pleasure Craft Topcoats	0.59	0	0	\$0.00	\$0.00	
950	Shellac Sealers: Clear	0.98	0	0	\$0.00	\$0.00	
951	Shellac Sealers: Pigmented	0.94	0	0	\$0.00	\$0.00	
960	Slip-Resistant Coatings	2.41	0	0	\$0.00	\$0.00	
970	Spatter/Multicolor Coatings	1.07	10	1	\$0.00	\$0.00	
980	Vinyl/Fabric/Leather/Polycarbonate	1.54	4	4	\$386,565.20	\$101,974.93	
990	Webbing/Veil Coatings	0.83	0	0	\$0.00	\$0.00	
991	Weld-Through Primers	0.98	5	5	\$0.00	\$0.00	
992	Wood Stains	1.38	0	0	\$0.00	\$0.00	
993	Wood Touch-Up, Repair or Restoration Coatings	1.49	1	1	\$0.00	\$0.00	
					Grand Annual Total (Dollars per Year)	\$1,316,985.05	
Discount Rate		10.00%					
Project Horizon, yrs		5					
Cost Recovery Factor (CRF)		0.2638					
California-to-National Cost Adjustment Factor		0.13					

Table XI-2. Estimated Cost-Effectiveness for Proposed Limits

Code	Category	Typical Non-Compliant PVMIR	Proposed Limit	Estimated # Products Non-Compliant	1997 Emissions Reduction Tons/Day	Estimated Reformulation Costs (in 1999 Dollars)		Estimated Cost-Effectiveness Annual Cost (in 1999 Dollars) \$/lb VOC Reduced (F) = (D) + (E)	
						Annualized Non-Recurring Cost \$/lb VOC Reduced (D)	Annual Recurring Cost \$/lb VOC Reduced (E)		
800	Clear Coatings	1.79	1.54	75	0.17		\$0.13	\$0.29	\$0.42
801	Flat Paint Products	1.57	1.21	91	0.33		\$0.08	\$0.74	\$0.82
802	Fluorescent Coatings	1.78	1.77	7	0.03		\$0.00	\$0.02	\$0.02
803	Metallic Coatings	2.19	1.93	108	0.21		\$0.06	\$0.00	\$0.06
804	Nonflat Paint Products	1.50	1.40	503	1.37		\$0.04	\$0.89	\$0.93
805	Primers	1.57	1.11	122	0.41		\$0.07	\$0.74	\$0.81
890	Ground Traffic/Marking Coatings	1.84	1.18	47	0.28		\$0.12	\$0.20	\$0.32
810	Art Fixatives or Sealants	2.67	1.80	8	0.04		\$0.05	\$0.90	\$0.94
820	Auto Body Primers	1.61	1.57	7	0.04		\$0.00	\$0.11	\$0.11
830	Automotive Bumper and Trim Products	3.00	1.75	36	0.04		\$0.00	\$1.46	\$1.46
840	Aviation or Marine Primers	*	1.98	0	0.00		\$0.00	\$0.00	\$0.00
841	Aviation Propeller Coatings	*	2.47	0	0.00		\$0.00	\$0.00	\$0.00
850	Corrosion Resistant Brass, Bronze, or Copper Coatings	*	1.78	1	0.00		\$0.04	\$0.00	\$0.04
860	Exact Match Finishes: Engine Enamel	2.07	1.72	21	0.01		\$0.00	\$0.73	\$0.73
861	Exact Match Finishes: Automotive	1.95	1.77	40	0.04		\$0.09	\$0.60	\$0.69
862	Exact Match Finishes: Industrial	2.59	2.07	2	0.00		\$0.00	\$0.00	\$0.00
870	Floral Sprays	2.24	1.68	3	0.01		\$1.42	\$0.00	\$1.42
880	Glass Coatings	*	1.42	4	0.00		\$0.04	\$0.00	\$0.04
900	High Temperature Coatings	2.19	1.83	37	0.07		\$0.13	\$0.03	\$0.16
910	Hobby/Model/Craft Coatings: Enamel	2.29	1.47	2	0.00		\$0.00	\$1.10	\$1.10
911	Hobby/Model/Craft Coatings: Lacquer	2.89	2.70	3	0.00		\$0.00	\$0.00	\$0.00
912	Hobby/Model/Craft Coatings: Clear or Metallic	2.19	1.60	4	0.01		\$1.04	\$0.00	\$1.04
920	Marine Spar Varnishes	*	0.87	0	0.00		\$0.00	\$0.00	\$0.00
930	Photographic Coatings	1.08	0.99	2	0.00		\$1.04	\$0.01	\$1.05
940	Pleasure Craft Finish Primers, Surfacer or Undercoaters	*	1.05	0	0.00		\$0.00	\$0.00	\$0.00
941	Pleasure Craft Topcoats	*	0.59	0	0.00		\$0.00	\$0.00	\$0.00
950	Shellac Sealers: Clear	*	0.98	0	0.00		\$0.00	\$0.00	\$0.00
951	Shellac Sealers: Pigmented	*	0.94	0	0.00		\$0.00	\$0.00	\$0.00
960	Slip-Resistant Coatings	N/A	2.41	0	0.00		\$0.00	\$0.00	\$0.00
970	Spatter/Multicolor Coatings	1.39	1.07	10	0.00		\$0.00	\$0.00	\$0.00
980	Vinyl/Fabric/Leather/Polycarbonate	2.47	1.54	4	0.03		\$0.53	\$1.03	\$1.56
990	Webbing/Veil Coatings	*	0.83	0	0.00		\$0.00	\$0.00	\$0.00
991	Weld-Through Primers	1.16	0.98	5	0.00		\$0.00	\$1.67	\$1.67
992	Wood Stains	*	1.38	0	0.00		\$0.00	\$0.00	\$0.00
993	Wood Touch-Up, Repair or Restoration Coatings	*	1.49	1	0.00		\$0.04	\$0.00	\$0.04
		Total		1143	3.111250668		MIN (F)		\$0.00
							MAX (F)		\$1.67
							Overall ERWA		\$0.74

* Information not provided to protect confidentiality of proprietary information.

Table XI-4. Estimated Impacts to Raw Materials Cost Per Unit

Code	Category	Estimated Raw Material Costs, \$/Unit of Product		
		Baseline Pre-Regulatory	Compliant	Cost Difference from Baseline Pre-Reg to Compliant
		(G)	(H)	(I) = (H) - (G)
800	Clear Coatings	\$0.11	\$0.13	\$0.02
801	Flat Paint Products	\$0.09	\$0.15	\$0.05
802	Fluorescent Coatings	\$0.09	\$0.09	\$0.00
803	Metallic Coatings	\$0.10	\$0.09	\$0.00
804	Nonflat Paint Products	\$0.09	\$0.15	\$0.06
805	Primers	\$0.09	\$0.15	\$0.05
890	Ground Traffic/Marking Coatings	\$0.09	\$0.12	\$0.03
810	Art Fixatives or Sealants	\$0.10	\$0.15	\$0.06
820	Auto Body Primers	\$0.10	\$0.11	\$0.00
830	Automotive Bumper and Trim Products	\$0.07	\$0.16	\$0.09
840	Aviation or Marine Primers	\$0.00	\$0.00	\$0.00
841	Aviation Propeller Coatings	\$0.00	\$0.00	\$0.00
850	Corrosion Resistant Brass, Bronze, or Copper Coatings	\$0.09	\$0.15	\$0.06
860	Exact Match Finishes: Engine Enamel	\$0.10	\$0.12	\$0.02
861	Exact Match Finishes: Automotive	\$0.10	\$0.13	\$0.03
862	Exact Match Finishes: Industrial	\$0.10	\$0.12	\$0.02
870	Floral Sprays	\$0.11	\$0.15	\$0.04
880	Glass Coatings	\$0.09	\$0.15	\$0.06
900	High Temperature Coatings	\$0.10	\$0.10	\$0.00
910	Hobby/Model/Craft Coatings: Enamel	\$0.12	\$0.10	\$0.00
911	Hobby/Model/Craft Coatings: Lacquer	\$0.12	\$0.10	\$0.00
912	Hobby/Model/Craft Coatings: Clear or Metallic	\$0.13	\$0.19	\$0.06
920	Marine Spar Varnishes	\$0.00	\$0.00	\$0.00
930	Photographic Coatings	\$0.20	\$0.20	\$0.00
940	Pleasure Craft Finish Primers, Surfacer or Undercoaters	\$0.00	\$0.00	\$0.00
941	Pleasure Craft Topcoats	\$0.00	\$0.00	\$0.00
950	Shellac Sealers: Clear	\$0.00	\$0.00	\$0.00
951	Shellac Sealers: Pigmented	\$0.00	\$0.00	\$0.00
960	Slip-Resistant Coatings	\$0.00	\$0.00	\$0.00
970	Spatter/Multicolor Coatings	\$0.08	\$0.10	\$0.02
980	Vinyl/Fabric/Leather/Polycarbonate	\$0.12	\$0.14	\$0.02
990	Webbing/Veil Coatings	\$0.00	\$0.00	\$0.00
991	Weld-Through Primers	\$0.08	\$0.09	\$0.01
992	Wood Stains	\$0.00	\$0.00	\$0.00
993	Wood Touch-Up, Repair or Restoration Coatings	\$0.09	\$0.15	\$0.06
			MIN Increase	\$0.00
			MAX Increase	\$0.09

Table XI-6. Estimated Per-Unit Cost Increases from Both Annualized Non-Recurring and Annual Recurring Costs

Code	Category	Sales-Wtd Average VOC Content, %	Estimated VOC Emissions, Tons per Day	Typical Unit Weight, Ounces	Estimated Unit Sales per Day in California	Estimated Per Unit Production Cost Increase		
						Annualized Nonrecurring Cost per Unit	Annual Recurring Cost per Unit	Total Increase Cost per Unit
						(J)	(I)	(K)= (J) + (I)
800	Clear Coatings	60	0.96	10.5	4875.493756	\$0.01	\$0.02	\$0.03
801	Flat Paint Products	51	1.54	10.5	9203.144735	\$0.01	\$0.05	\$0.06
802	Fluorescent Coatings	66	0.24	10.5	1108.225108	\$0.00	\$0.00	\$0.00
803	Metallic Coatings	71	1.65	10.5	7061.032864	\$0.00	\$0.00	\$0.00
804	Nonflat Paint Products	54	8.13	10.5	45858.41779	\$0.00	\$0.06	\$0.06
805	Primers	51	1.82	10.5	10863.9513	\$0.01	\$0.05	\$0.06
890	Ground Traffic/Marking Coatings	53	1.70	10.5	9760.369896	\$0.01	\$0.03	\$0.04
810	Art Fixatives or Sealants	70	0.23	10.5	1004.720276	\$0.00	\$0.06	\$0.06
820	Auto Body Primers	51	0.25	10.5	1492.515902	\$0.00	\$0.00	\$0.00
830	Automotive Bumper and Trim Products	84	0.30	10.5	1081.017986	\$0.00	\$0.09	\$0.09
840	Aviation or Marine Primers	*	*	10.5	*	\$0.00	\$0.00	\$0.00
841	Aviation Propeller Coatings	*	*	10.5	*	\$0.00	\$0.00	\$0.00
850	Corrosion Resistant Brass, Bronze, or Copper Coatings	*	*	10.5	*	\$0.00	\$0.06	\$0.06
860	Exact Match Finishes: Engine Enamel	49	0.18	10.5	1146.732158	\$0.00	\$0.02	\$0.02
861	Exact Match Finishes: Automotive	54	0.39	10.5	2200.85758	\$0.00	\$0.03	\$0.04
862	Exact Match Finishes: Industrial	47	0.07	10.5	426.133423	\$0.00	\$0.02	\$0.02
870	Floral Sprays	42	0.23	10.5	1688.736857	\$0.01	\$0.04	\$0.05
880	Glass Coatings	*	*	10.5	*	\$0.00	\$0.06	\$0.06
900	High Temperature Coatings	68	0.48	10.5	2141.185673	\$0.01	\$0.00	\$0.01
910	Hobby/Model/Craft Coatings: Enamel	69	0.10	10.5	456.3156715	\$0.00	\$0.00	\$0.00
911	Hobby/Model/Craft Coatings: Lacquer	74	0.00	10.5	16.251551	\$0.00	\$0.00	\$0.00
912	Hobby/Model/Craft Coatings: Clear or Metallic	78	0.11	10.5	426.066299	\$0.04	\$0.06	\$0.10
920	Marine Spar Varnishes	*	*	10.5	*	\$0.00	\$0.00	\$0.00
930	Photographic Coatings	76	0.01	10.5	57.98041405	\$0.11	\$0.00	\$0.11
940	Pleasure Craft Finish Primers, Surfacer or Undercoaters	*	*	10.5	*	\$0.00	\$0.00	\$0.00
941	Pleasure Craft Topcoats	*	*	10.5	*	\$0.00	\$0.00	\$0.00
950	Shellac Sealers: Clear	*	*	10.5	*	\$0.00	\$0.00	\$0.00
951	Shellac Sealers: Pigmented	*	*	10.5	*	\$0.00	\$0.00	\$0.00
960	Slip-Resistant Coatings	41	0.00	10.5	33.97762882	\$0.00	\$0.00	\$0.00
970	Spatter/Multicolor Coatings	49	0.10	10.5	646.8415938	\$0.00	\$0.02	\$0.02
980	Vinyl/Fabric/Leather/Polycarbonate	74	0.25	10.5	1011.740379	\$0.04	\$0.02	\$0.06
990	Webbing/Veil Coatings	*	*	10.5	*	\$0.00	\$0.00	\$0.00
991	Weld-Through Primers	47	0.02	10.5	149.4293542	\$0.00	\$0.01	\$0.01
992	Wood Stains	*	*	10.5	*	\$0.00	\$0.00	\$0.00
993	Wood Touch-Up, Repair or Restoration Coatings	*	*	10.5	*	\$0.00	\$0.06	\$0.06
Sum					102711.1385			\$0.00
						MIN Unit Cost Increase		\$0.00
						MAX Unit Cost Increase		\$0.11
						SWA-Unit Cost Increase		\$0.05

* Information not provided to protect confidentiality of proprietary information.