Table VIII-7. Estimated Cost-Effectiveness for Phase III Standards

Code	Category	Typical Non-compliant VOC Content (A)	Proposed Limit (B)	# Products Non-compliant (C)	Emission Reduc. tons/day (D)	Estimated Reformulation Costs (in 1997 dollars): Annualized Non-Recurring Fixed Cost, $/lb Low (E1)	Annualized Non-Recurring Fixed Cost, $/lb High (E2)	Annual Recurring Cost, $/lb Low (F1)	Annual Recurring Cost, $/lb High (F2)	Estimated Cost-Effectiveness $/lb VOC reduced (in 1997 dollars): Low G1=(E1+F1)	High G2=(E2+F2)	Avg.* (G1+G2)/2	Tier1+Tier2
	Automotive Care												
200b	Automotive Rubbing/Polishing (all forms)	23%	15%	67	0.33	$0.05	$0.58	($0.82)	($0.82)	($0.78)	($0.24)	$0.00	
210a	Automotive Wax,Polish,Sealant,Glaze (semis/all other)	36%	15%	139	0.67	$0.05	$0.59	$0.42	$0.42	$0.46	$1.01	$0.74	
210b	Automotive Wax,Polish,Sealant,Glaze (hard paste)	75%	45%	17	0.24	$0.02	$0.20	($0.34)	($0.34)	($0.32)	($0.14)	$0.00	
210c	Automotive Wax,Polish,Sealant,Glaze (instant detail)	8%	3%	20	0.04	$0.10	$1.27	($0.38)	($0.38)	($0.28)	$0.89	$0.30	
215	Bug & Tar Remover	100%	40%	85	0.32	$0.06	$0.76	($0.13)	($0.13)	($0.07)	$0.64	$0.28	
620 (T1)	Multi-Purpose Lubricant (excl. solid/semisolid), Tier1	75%	60%	67	1.16	$0.01	$0.17	$0.17	$0.17	$0.18	$0.34	$0.26	
620 (T2)	Multi-Purpose Lubricant (excl. solid/semisolid), Tier2	60%	45%	15	1.19	$0.00	$0.04	$1.84	$1.84	$1.84	$1.87	$1.86	$2.12
650 (T1)	Penetrant (excl. solid/semisolid), Tier1	80%	60%	64	0.08	$0.18	$2.28	$0.17	$0.17	$0.35	$2.45	$1.40	
650 (T2)	Penetrant (excl. solid/semisolid), Tier2	60%	45%	11	0.07	$0.03	$0.45	$0.17	$0.17	$0.20	$0.62	$0.41	$1.81
225a	Rubber & Vinyl Protectant (aerosol)	55%	10%	36	0.23	$0.03	$0.44	$1.05	$1.28	$1.08	$1.72	$1.40	
225b	Rubber & Vinyl Protectant (non-aerosol)	55%	3%	54	0.84	$0.01	$0.19	$0.02	$0.22	$0.03	$0.40	$0.22	
640	Silicone-based Multi-Purp. Lubricant (excl. solid/semi)	95%	60%	72	0.25	$0.06	$0.82	$0.89	$0.89	$0.95	$1.70	$1.33	
230	Undercoating (aerosol)	55%	40%	28	0.06	$0.10	$1.31	$0.15	$0.15	$0.25	$1.46	$0.85	
			Σ	675	5.48						ERWA-AVG =	$0.75	
	Household Care												
505a	Carpet & Upholstery Cleaner (aerosol)	9%	7%	35	0.04	$0.27	$2.72	$2.05	$4.38	$2.32	$7.11	$4.71	
505b	Carpet & Upholstery Cleaner (non-aerosol, dilutable)	0.50%	0.10%	222	0.35	$0.20	$1.99	($1.48)	($1.48)	($1.28)	$0.51	$0.00	
505c	Carpet & Upholstery Cleaner (non-aerosol, ready-to-use)	5.00%	2.50%	6	0.05	$0.04	$0.39	($1.48)	($1.48)	($1.44)	($1.09)	$0.00	
520	Floor Wax Stripper (non-aerosol)	20%	3%	130	1.72	$0.02	$0.24	($0.59)	($0.59)	($0.56)	($0.35)	$0.00	
800a	General Purpose Degreaser (aerosol)	100%	50%	60	0.27	$0.07	$0.69	$0.23	$0.23	$0.30	$0.92	$0.61	
800b	General Purpose Degreaser (non-aerosol)	100%	10%	109	1.39	$0.02	$0.25	($0.07)	($0.07)	($0.05)	$0.17	$0.06	
535	Metal Polish or Cleaner	55%	30%	34	0.14	$0.08	$0.75	($0.56)	($1.12)	($0.49)	($0.37)	$0.00	
840 (T1)	Paint Remover or Stripper, Tier1	67%	65%	58	0.05	$0.36	$3.61	($3.94)	($3.94)	($3.58)	($0.33)	$0.00	
840 (T2)	Paint Remover or Stripper, Tier2	65%	50%	45	0.16	$0.09	$0.89	($0.89)	($0.89)	($0.81)	($0.01)	$0.00	$0.00
545a	Spot Remover (aerosol)	95%	25%	100	0.05	$0.63	$6.28	($0.22)	($0.22)	$0.40	$6.06	$3.23	
545b	Spot Remover (non-aerosol)	25%	8%	91	0.21	$0.14	$1.36	($1.35)	($1.35)	($1.21)	$0.02	$0.00	
			Σ	889	4.43						ERWA-AVG =	$0.14	
	Personal Care												
770	Hair Shine	95%	55%	13	0.25	$0.01	$0.13	$1.60	$1.60	$1.61	$1.73	$1.67	
430 (T1)	Heavy Duty Hand Cleaner or Soap, Tier1	30%	10%	146	1.67	$0.02	$0.21	$0.38	$0.90	$0.40	$1.11	$0.76	
430 (T2)	Heavy Duty Hand Cleaner or Soap, Tier2	10%	5%	27	0.60	$0.01	$0.11	$3.42	$7.62	$3.43	$7.73	$5.58	$6.34
			Σ	186	2.52						ERWA-AVG =	$2.00	
	Pesticides												
300	Non-Selective Terrestial Herbicide	14.00%	3.00%	71	2.61	$0.01	$0.09	$0.17	$0.17	$0.18	$0.26	$0.22	
320	Wasp and Hornet Insecticide	96.00%	40.00%	29	0.25	$0.04	$0.36	($0.04)	($0.04)	($0.00)	$0.32	$0.16	
			Σ	100	2.86						ERWA-AVG =	$0.21	
			Grand Tot.	1,850	15.3							$0.00	<-MIN
												$5.58	<-MAX
												$0.68	<-OVERALL ERWA-AVG

Notes:
(1) * Avg. Cost-Effectiveness shown as "$0.00" means the average of the low and high cost-effectiveness for the category was either 0 or negative.
(2) ERWA = emission reduction-weighted average
(3) Tier1+Tier2 = the cumulative cost-effectiveness for the two-tier standards
(4) Cost-effectiveness values in "( )" are negative (i.e., indicates potential cost savings)
(5) Non-recurring fixed costs annualized using Cost Recovery Method, with a Cost Recovery Factor (CRF) of 0.16274 corresponding to 10% interest over a 10 year project horizon.
(6) "# Products Non-Compliant" (Column C) and "Emission Reductions" (Column D) reflect 1995 Mid-Term Survey results adjusted for market coverage of the survey.
(7) For non-recurring costs, "low" and "high" refer to range of estimated fixed costs as shown in Section VIII; for recurring costs, "low" and "high" refer to "All Other" ingredients assumed to cost $3.50/lb and $7.00/lb, respectively (in 1997 dollars)
(8) For wasp and hornet insecticide (cat. 320), the "low" and "high" recurring costs shown are arithmetic averages of the applicable ranges for this category as shown on the spreadsheet in the Appendix.