

# **APPENDIX I**

## **Growth and Control Factors for Forecasted Emissions Inventory**

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## Growth and Control Factors for Emission Projections

Part	PM <sub>10</sub>	2005 (Base Year)	2010 (non-regulated)	2010 (regulated)	2015 (non-regulated)	2015 (regulated)	2020 (non-regulated)	2020 (regulated)
1	<b>Ocean-Going Vessels (OGV)</b>	1.00	0.84	0.23	1.04	0.24	1.28	0.27
	<i>Anchorage</i>	1.00	0.58	0.24	0.71	0.30	0.87	0.37
	<i>Hotelling</i>	1.00	0.45	0.25	0.56	0.19	0.69	0.16
	<i>Maneuvering</i>	1.00	1.23	0.23	1.52	0.28	1.88	0.35
	<i>Maneuvering (without Main Engine Rule)</i>	1.00	1.23	0.90	1.52	1.11	1.88	1.38
	<i>Transit</i>	1.00	1.23	0.21	1.52	0.26	1.88	0.32
	<i>Transit (without Main Engine Rule)</i>	1.00	1.23	1.16	1.52	1.43	1.88	1.77
1	<b>Commercial Harbor Craft</b>	1.00	0.87	0.82	0.74	0.41	0.54	0.27
1	<b>Cargo Handling Equipment</b>	1.00	0.94	0.56	0.66	0.22	0.36	0.20
1	<b>Trucks (Drayage)</b>	1.00	1.13	0.18	1.14	0.18	0.49	0.33
1 & 2	<b>Rail</b>	1.00	0.89	0.80	0.86	0.76	0.81	0.72
3	<b>Ocean-Going Vessels (OGV)</b>	1.00	0.78	0.18	0.79	0.19	0.81	0.20
	<i>Anchorage</i>	1.00	0.83	0.17	0.82	0.17	0.81	0.17
	<i>Hotelling</i>	1.00	0.71	0.18	0.71	0.18	0.71	0.19
	<i>Maneuvering</i>	1.00	1.10	0.20	1.24	0.22	1.42	0.25
	<i>Maneuvering (without Main Engine Rule)</i>	1.00	1.10	0.58	1.24	0.61	1.42	0.65
	<i>Transit</i>	1.00	1.10	0.19	1.24	0.21	1.42	0.24
	<i>Transit (without Main Engine Rule)</i>	1.00	1.10	0.91	1.24	0.99	1.42	1.11
3	<b>Commercial Harbor Craft</b>	1.00	0.94	0.92	0.89	0.60	0.70	0.35
3	<b>Trucks (Aggregate)</b>	1.00	0.77	0.58	0.56	0.10	0.41	0.16
	Drayage Trucks	1.00	1.13	0.18	1.14	0.18	0.49	0.33
	Private Fleet Trucks	1.00	0.74	0.60	0.53	0.10	0.39	0.16
3	<b>Rail</b>	1.00	1.01	0.95	1.08	1.01	1.17	1.09

**Notes for Growth and Control Factor Table Above**

Category	Growth (%)	Uncontrolled	Controlled
OGV - Transiting	<u>Part 1:</u> Container 4.4% and Reefer Container 2.9% <u>Part 2:</u> (Varies by Port): Passenger 5.3%, Tanker -2.1-5.3%, Bulk -5.4-5.2%, General Cargo -5.4-1.89%, Roro -1.4%	ARPOL Annex VI Main Engine NOx Control	Main Engine and Auxiliary Engine Rules
OGV - Hotelling			Auxiliary Engine Rule and Shore Power Rule
OGV - Maneuvering			Main Engine and Auxiliary Engine Rules
OGV - Anchorage			Auxiliary Engine Rule
Locomotives	Growth between 2005 and 2020 of approximately 4.5% per year	1998 SC MOU and 1997 EPA's regulations	ARB 2005 MOU, ARB Ultra Clean Diesel Rule, 1998 SC MOU and 1997 EPA Regulations
Harbor Craft	No growth in tugs/tows or crew/supply, about a 2% growth in commercial boats*, and a 6% decline in commercial fishing (through 2009, and then no decline)	engine standards, cleaner fuel	ARB Rule, engine standards, cleaner fuel
Drayage Trucks	5%	chip reflash, idling rules, engine standards	ARB Rule, chip reflash, idling rules, engine standards
Other Heavy Duty Trucks	1.2-4%	chip reflash, idling rules, engine standards	Proposed ARB Rule (2007 by 2014), chip reflash, idling rules, engine standards
Cargo Handling Equipment		engine standards, cleaner fuel	ARB Rule, engine standards, cleaner fuel