

APPENDIX D

CALIFORNIA AIR RESOURCES BOARD

CALIFORNIA RECREATIONAL HARBORCRAFT DIESEL FUEL CONSUMPTION

Methodology to Calculate Recreational California Harborcraft Diesel Fuel Consumption

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Estimation of Statewide Consumption of Diesel Fuel by Recreational Harbor Craft Using ARB 2003 Emissions Inventory

Assumptions:

- ? Average specific fuel consumption of 203 grams per kw-hr (Entec U.K., 7/2002)
- ? Average NOx emission factor of 12 grams per kw-hr (Entec U.K., 7/2002)
- ? Emissions from ARB's 2003 Emissions Inventory (Appendix X)
- ? All diesel fuel used by recreational craft is U.S. EPA onroad diesel fuel, except in the North Coast region (coastal areas north of the Bay Area)

Sample Calculation:

$2.79 \text{ Ton NOx/day} \times 2000 \text{ lb NOx/Ton} \times 454 \text{ grams NOx/lb.} \times \text{kw-hr}/12 \text{ g NOx} \times 203 \text{ g fuel/kw-hr} \times \text{lb fuel}/454 \text{ g} \times \text{gall fuel}/7\text{lb} \times 365.25 \text{ day/yr.} = \mathbf{4.9 \text{ million gallons}}$

Recreational Harbor Fuel Consumption by Region and Fuel Type (million gallons)

California Region	All Diesel	CARB Diesel	EPA On-Road
S.F. Bay Area Air Basin	0.41	0	0.41
South Coast Air Basin	1.78	0	1.78
North Coast Air Basin	0.07	0.07	0
All Other Areas	2.66	0	2.66
Total Recreational Craft	4.9	0.07	4.8