

§§ 80.43–80.44

40 CFR Ch. I (7–1–00 Edition)

evaluating the toxics emissions equations given in paragraphs (b)(1), (b)(2), and (b)(3) of this section.

(c) *Limits of the model.* (1) The model given in paragraphs (a) and (b) of this section shall be used as given to determine VOC and toxics emissions, respectively, if the properties of the fuel being evaluated fall within the ranges shown in this paragraph (c). If the properties of the fuel being evaluated fall outside the range shown in this paragraph (c), the model may not be used to determine the VOC or toxics performance of the fuel:

Fuel parameter	Range
Benzene content	0.0–4.9 vol %.
RVP	6.6–9.0 psi. ¹
Oxygenate content	0–4.0 wt %.
Aromatics content	0–55 vol %.

¹For gasoline sold in California, the applicable RVP range shall be 6.4–9.0 psi.

(2) The model given in paragraphs (a) and (b) of this section shall be effective from January 1, 1995 through December 31, 1997, unless extended by action of the Administrator.

[59 FR 7813, Feb. 16, 1994, as amended at 59 FR 36958, July 20, 1994; 61 FR 20738, May 8, 1996]

§§ 80.43–80.44 [Reserved]

§ 80.45 Complex emissions model.

(a) *Definition of terms.* For the purposes of this section, the following definitions shall apply:

Target fuel = The fuel which is being evaluated for its emissions performance using the complex model

OXY = Oxygen content of the target fuel in terms of weight percent

SUL = Sulfur content of the target fuel in terms of parts per million by weight

RVP = Reid Vapor Pressure of the target fuel in terms of pounds per square inch

E200 = 200 °F distillation fraction of the target fuel in terms of volume percent

E300 = 300 °F distillation fraction of the target fuel in terms of volume percent

ARO = Aromatics content of the target fuel in terms of volume percent

BEN = Benzene content of the target fuel in terms of volume percent

OLE = Olefins content of the target fuel in terms of volume percent

MTB = Methyl tertiary butyl ether content of the target fuel in terms of weight percent oxygen

ETB = Ethyl tertiary butyl ether content of the target fuel in terms of weight percent oxygen

TAM = Tertiary amyl methyl ether content of the target fuel in terms of weight percent oxygen

ETH = Ethanol content of the target fuel in terms of weight percent oxygen

exp = The function that raises the number e (the base of the natural logarithm) to the power in its domain

Phase I = The years 1995–1999

Phase II = Year 2000 and beyond

(b) *Weightings and baselines for the complex model.* (1) The weightings for normal and higher emitters (w_1 and w_2 , respectively) given in table 1 shall be used to calculate the exhaust emission performance of any fuel for the appropriate pollutant and Phase:

TABLE 1—NORMAL AND HIGHER EMITTER WEIGHTINGS FOR EXHAUST EMISSIONS

	Phase I		Phase II	
	VOC & toxics	NO _x	VOC & toxics	NO _x
Normal Emitters (w_1)	0.52	0.82	0.444	0.738
Higher Emitters (w_2) ..	0.48	0.18	0.556	0.262

(2) The following properties of the baseline fuels shall be used when determining baseline mass emissions of the various pollutants:

TABLE 2—SUMMER AND WINTER BASELINE FUEL PROPERTIES

Fuel property	Summer	Winter
Oxygen (wt %)	0.0	0.0
Sulfur (ppm)	339	338
RVP (psi)	8.7	11.5
E200 (%)	41.0	50.0
E300 (%)	83.0	83.0
Aromatics (vol %)	32.0	26.4
Olefins (vol %)	9.2	11.9
Benzene (vol %)	1.53	1.64

(3) The baseline mass emissions for VOC, NO_x and toxics given in tables 3, 4 and 5 of this paragraph (b)(3) shall be used in conjunction with the complex model during the appropriate Phase and season:

TABLE 3—BASELINE EXHAUST EMISSIONS

Exhaust pollutant	Phase I		Phase II	
	Summer (mg/mile)	Winter (mg/mile)	Summer (mg/mile)	Winter (mg/mile)
VOC	446.0	660.0	907.0	1341.0
NO _x	660.0	750.0	1340.0	1540.0