Released Date: October 2002 Next Release Date: One-Time

Potential Supply Impacts of Removal of 1-Pound RVP Waiver

Table 1. RVP Effects of Adding Ethanol to Gasoline

Finished Gasoline	Approximate RVP Increase	Base Gasoline RVP		
RVP Requirement	when Ethanol Added to	Adjustment Needed if 1		
·	Make 10% Blend	Pound Waiver Not Allowed		
9.0	1.0	(1.1)		
7.8	1.2	(1.3)		
7.0	1.3	(1.4)		

Sources: William J. Piel, "Oxygenate Flexibility for Future Fuels," Arco Chemical Company, paper presented at National Conference on Reformulated Gasoline and Clean Air act Implementation, Information Resources, Inc. Washington, DC, October 1991, American Petroleum Institute, *Alcohols and Ethers*, Publication 4261.

Table 2. Volume and Energy Effects to Adjust for RVP When Adding Ethanol

Volume Increase (Decrease) Energy Increase (Decrease) By Adding Ethanol to Make By Adding Ethanol to Make 10% Ethanol Blend 10% Ethanol Blend **RVP** With RVP With RVP Without RVP Without RVP Waiver Waiver Waiver Waiver 9.0 11.1% 7.5% 7.5% 4.5% 7.8 10.3% -0.2% 6.8% 2.2% 7.0 8.3% -0.9% 5.1% -2.8%

Source: See Appendix B.

Table 3. Volumes of 10-Percent Ethanol Blends of Conventional Gasoline Projected for 2012

(Thousand Barrels Per Day)

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	Scenario 1: All 9.0 psi RVP	Scenario 2: 2001 RVP Shares	
All RVP's Combined	1,636	1,636	
9.0 psi	1,636	1,227	
7.8 psi	0	327	
7.0 psi	0	82	

Table 4. 9.0-psi Gasoline Volume Gains When Adding Ethanol To Make 10% Blends

(Thousand Barrels Per Day)

RVP	With Waiver	No Waiver	Difference
9.0	163.3	114.0	49.3
7.8	0.0	0.0	0.0
7.0	0.0	0.0	0.0
Total	163.3	114.0	49.3

Table 5. 9.0-psi Gasoline Energy Gains When Adding Ethanol To Make 10% Blends

(Thousand Barrels Per Day Gasoline Equivalent)

RVP	With Waiver	No Waiver	Difference
9.0	114.5	70.4	44.0
7.8	0.0	0.0	0.0
7.0	0.0	0.0	0.0
Total	114.5	70.4	44.0

Table 6. Varying RVP Gasoline Volume Gains When Adding Ethanol to Make 10% Blend

(Thousand Barrels Per Day)

RVP	With Waiver	No Waiver	Difference
9.0	122.4	85.5	37.0
7.8	30.6	6.9	23.7
7.0	6.3	-0.7	7.0
Total	159.3	91.7	67.6

Table 7. Varying RVP Gasoline Energy Gains When Adding Ethanol to Make 10% Blend

(Thousand Barrels Per Day Gasoline Equivalent)

RVP	With Waiver	No Waiver	Difference
9.0	85.8	52.8	33.0
7.8	21.0	-0.5	21.6
7.0	4.0	-2.4	6.4
Total	110.9	49.9	60.9