

APPENDIX B

Air Quality and Climate Modeling Data

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1 Appendix B-1

2 AIR QUALITY MODELING DATA

3 This appendix accompanies Sections 3.3 and 4.3 of the DEIS and presents the results of the air
 4 quality analysis for individual nonattainment areas. Each table provides the estimated reduction in
 5 emissions within each nonattainment area by alternative, for one pollutant and calendar year of analysis.
 6 In each table the emissions changes are presented for the proposed MY 2011-2015 CAFE standards, and
 7 also for the cumulative impacts of the proposed MY 2011-2015 standards and the potential MY 2016-
 8 2020 standards. The following tables of nonattainment areas by pollutant and calendar year of analysis
 9 are included:

List of Emissions Tables in Appendix B-1					
No.	Pollutant	Analysis Year	No.	Pollutant	Analysis Year
1	Acetaldehyde	2015	23	Diesel Particulate Matter	2025
2	Acetaldehyde	2020	24	Diesel Particulate Matter	2035
3	Acetaldehyde	2025	25	Formaldehyde	2015
4	Acetaldehyde	2035	26	Formaldehyde	2020
5	Acrolein	2015	27	Formaldehyde	2025
6	Acrolein	2020	28	Formaldehyde	2035
7	Acrolein	2025	29	Nitrogen Oxides	2015
8	Acrolein	2035	30	Nitrogen Oxides	2020
9	Benzene	2015	31	Nitrogen Oxides	2025
10	Benzene	2020	32	Nitrogen Oxides	2035
11	Benzene	2025	33	Particulate Matter 2.5 Microns	2015
12	Benzene	2035	34	Particulate Matter 2.5 Microns	2020
13	1,3 Butadiene	2015	35	Particulate Matter 2.5 Microns	2025
14	1,3 Butadiene	2020	36	Particulate Matter 2.5 Microns	2035
15	1,3 Butadiene	2025	37	Sulfur Oxides	2015
16	1,3 Butadiene	2035	38	Sulfur Oxides	2020
17	Carbon Monoxide	2015	39	Sulfur Oxides	2025
18	Carbon Monoxide	2020	40	Sulfur Oxides	2035
19	Carbon Monoxide	2025	41	Volatile Organic Compounds	2015
20	Carbon Monoxide	2035	42	Volatile Organic Compounds	2020
21	Diesel Particulate Matter	2015	43	Volatile Organic Compounds	2025
22	Diesel Particulate Matter	2020	44	Volatile Organic Compounds	2035

**Table B1-1
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.03	-0.05	-0.05	-0.03	-0.01	-0.02	0.00	-0.03	-0.05	-0.05	-0.03	-0.01	-0.02
Allegan Co., MI	x	-	100	-	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Atlanta, GA	x	x	100	100	0.00	-0.18	-0.26	-0.26	-0.17	-0.07	-0.12	0.00	-0.18	-0.26	-0.26	-0.17	-0.07	-0.12
Baltimore, MD	x	x	100	100	0.00	-0.08	-0.11	-0.11	-0.07	-0.03	-0.05	0.00	-0.08	-0.11	-0.11	-0.07	-0.03	-0.05
Baton Rouge, LA	x	-	100	-	0.00	0.50	0.67	1.09	1.42	1.75	1.87	0.00	0.68	1.09	1.41	1.74	1.87	-0.01
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1.04	1.38	2.23	2.89	3.53	3.77	0.00	1.39	2.23	2.88	3.53	3.78	-0.01
Birmingham, AL	-	x	-	100	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.12	-0.18	-0.18	-0.12	-0.05	-0.08	0.00	-0.12	-0.18	-0.18	-0.12	-0.05	-0.08
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	0.00	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02
Canton-Massillon, OH	-	x	-	100	0.00	0.06	0.08	0.13	0.18	0.23	0.24	0.00	0.08	0.13	0.18	0.22	0.24	-0.01
Charleston, WV	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.01	-0.02	-0.02	-0.01	-0.01	-0.01	0.00	-0.01	-0.02	-0.02	-0.01	-0.01	-0.01
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	0.57	0.74	1.36	1.92	2.49	2.61	0.00	0.82	1.36	1.83	2.39	2.67	-0.12
Chico, CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.05	-0.07	-0.07	-0.05	-0.02	-0.03	0.00	-0.05	-0.07	-0.07	-0.05	-0.02	-0.03
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.07	-0.10	-0.10	-0.07	-0.03	-0.05	0.00	-0.07	-0.10	-0.10	-0.07	-0.03	-0.05
Columbus, OH	x	x	100	100	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.19	-0.26	-0.27	-0.17	-0.07	-0.12	0.00	-0.19	-0.26	-0.27	-0.17	-0.07	-0.12
Dayton-Springfield, OH	-	x	-	100	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.00	-0.01	0.06	0.16	0.26	0.26	0.00	0.03	0.07	0.12	0.22	0.28	-0.06
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.04	-0.06	0.01	0.14	0.26	0.25	0.00	-0.01	0.02	0.07	0.19	0.29	-0.09
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01
Greater Connecticut, CT	x	-	100	-	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03
Greene	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01

**Table B1-1
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Acetaldehyde 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	2.00	2.66	4.39	5.80	7.18	7.64	0.00	2.72	4.40	5.74	7.11	7.69	-0.09
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.19	0.26	0.43	0.56	0.69	0.74	0.00	0.26	0.43	0.55	0.69	0.74	-0.01
Imperial Co., CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00
Indianapolis, IN	-	x	-	100	0.00	-0.04	-0.06	-0.06	-0.04	-0.02	-0.03	0.00	-0.04	-0.06	-0.06	-0.04	-0.02	-0.03
Jamestown, NY	x	-	100	-	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Jefferson Co., NY	x	-	100	-	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Knoxville, TN	x	x	100	100	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02
Lancaster, PA	-	x	-	100	0.00	-0.01	-0.02	-0.02	-0.01	0.00	-0.01	0.00	-0.01	-0.02	-0.02	-0.01	0.00	-0.01
Las Vegas, NV	x	-	100	-	0.00	-0.04	-0.05	-0.05	-0.04	-0.01	-0.02	0.00	-0.04	-0.05	-0.05	-0.04	-0.01	-0.02
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	0.76	0.98	1.91	2.82	3.74	3.90	0.00	1.14	1.91	2.63	3.53	4.02	-0.26
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01
Louisville, KY-IN	-	x	-	100	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02	0.00	-0.03	-0.04	-0.04	-0.03	-0.01	-0.02
Macon, GA	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.01	-0.02	-0.02	-0.01	0.00	-0.01	0.00	-0.01	-0.02	-0.02	-0.01	0.00	-0.01
Memphis, TN-AR	x	-	100	-	0.00	0.14	0.19	0.32	0.44	0.56	0.59	0.00	0.20	0.32	0.43	0.54	0.59	-0.02
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03	0.00	-0.05	-0.07	-0.07	-0.04	-0.02	-0.03
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.09	-0.15	0.08	0.46	0.85	0.81	0.00	0.01	0.09	0.27	0.64	0.92	-0.25
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	0.92	1.21	2.10	2.88	3.65	3.86	0.00	1.29	2.10	2.79	3.55	3.91	-0.12
Phoenix-Mesa	x	-	100	-	0.00	-0.11	-0.15	-0.15	-0.10	-0.04	-0.07	0.00	-0.11	-0.15	-0.15	-0.10	-0.04	-0.07
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.05	-0.07	-0.07	-0.05	-0.02	-0.03	0.00	-0.05	-0.07	-0.07	-0.05	-0.02	-0.03
Poughkeepsie, NY	x	x	100	100	0.00	-0.03	-0.05	-0.05	-0.03	-0.01	-0.02	0.00	-0.03	-0.05	-0.05	-0.03	-0.01	-0.02
Providence (All RI), RI	x	-	100	-	0.00	-0.02	-0.03	-0.04	-0.02	-0.01	-0.02	0.00	-0.02	-0.03	-0.04	-0.02	-0.01	-0.02
Reading, PA	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01

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Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01	0.00	-0.02	-0.03	-0.03	-0.02	-0.01	-0.01
Rochester, NY	x	-	100	-	0.00	-0.03	-0.05	-0.05	-0.03	-0.01	-0.02	0.00	-0.03	-0.05	-0.05	-0.03	-0.01	-0.02
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sacramento Metro, CA	x	-	50	-	0.00	-0.06	-0.08	-0.08	-0.05	-0.02	-0.04	0.00	-0.06	-0.08	-0.08	-0.05	-0.02	-0.04
San Diego, CA	x	-	100	-	0.00	-0.08	-0.12	-0.12	-0.08	-0.03	-0.05	0.00	-0.08	-0.12	-0.12	-0.08	-0.03	-0.05
San Francisco Bay Area, CA	x	-	100	-	0.00	0.44	0.57	1.07	1.54	2.01	2.11	0.00	0.64	1.07	1.45	1.92	2.16	-0.12
San Joaquin Valley, CA	x	x	50	100	0.00	-0.02	-0.03	0.05	0.18	0.30	0.29	0.00	0.02	0.05	0.12	0.24	0.33	-0.08
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Springfield (Western MA), MA	x	-	100	-	0.00	-0.02	-0.04	-0.04	-0.02	-0.01	-0.02	0.00	-0.02	-0.04	-0.04	-0.02	-0.01	-0.02
St. Louis, MO-IL	x	x	100	100	0.00	0.20	0.26	0.49	0.71	0.93	0.97	0.00	0.30	0.49	0.67	0.89	1.00	-0.05
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.02	0.02	0.04	0.05	0.06	0.07	0.00	0.02	0.04	0.05	0.06	0.07	0.00
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.01	-0.02	-0.02	-0.01	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.01	0.00	-0.01
Washington, DC-MD-VA	x	x	100	100	0.00	-0.13	-0.18	-0.19	-0.12	-0.05	-0.09	0.00	-0.13	-0.18	-0.19	-0.12	-0.05	-0.09
Wheeling, WV-OH	-	x	-	100	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00
York, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.01	0.00	-0.01	0.00	-0.01	-0.01	-0.02	-0.01	0.00	-0.01

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-2
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.05	-0.06	0.31	0.59	0.84	0.90	0.00	-0.10	-0.10	0.28	0.57	0.82	0.89
Allegan Co., MI	x	-	100	-	0.00	-0.01	-0.01	0.03	0.06	0.09	0.10	0.00	-0.01	-0.01	0.03	0.06	0.09	0.10
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	-0.01	-0.01	0.03	0.06	0.08	0.09	0.00	-0.01	-0.01	0.03	0.06	0.08	0.09
Atlanta, GA	x	x	100	100	0.00	-0.27	-0.32	1.63	3.13	4.45	4.76	0.00	-0.51	-0.55	1.47	3.03	4.36	4.71
Baltimore, MD	x	x	100	100	0.00	-0.11	-0.13	0.68	1.30	1.85	1.98	0.00	-0.21	-0.23	0.61	1.26	1.81	1.96
Baton Rouge, LA	x	-	100	-	0.00	1.31	1.74	3.09	3.98	4.72	5.11	0.00	2.21	3.61	4.63	5.40	5.94	0.46
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2.66	3.54	6.01	7.60	8.91	9.65	0.00	4.52	7.34	9.13	10.47	11.37	0.28
Birmingham, AL	-	x	-	100	0.00	-0.04	-0.05	0.25	0.48	0.68	0.72	0.00	-0.08	-0.08	0.22	0.46	0.66	0.72
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.18	-0.22	1.10	2.12	3.01	3.22	0.00	-0.34	-0.37	0.99	2.05	2.95	3.18
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.02	-0.03	0.15	0.29	0.41	0.44	0.00	-0.05	-0.05	0.13	0.28	0.40	0.43
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.04	-0.05	0.26	0.51	0.72	0.77	0.00	-0.08	-0.09	0.24	0.49	0.71	0.77
Canton-Massillon, OH	-	x	-	100	0.00	0.16	0.22	0.46	0.63	0.77	0.83	0.00	0.27	0.45	0.65	0.81	0.92	0.22
Charleston, WV	-	x	-	100	0.00	-0.01	-0.01	0.07	0.14	0.19	0.21	0.00	-0.02	-0.02	0.06	0.13	0.19	0.21
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.07	-0.08	0.43	0.82	1.17	1.25	0.00	-0.13	-0.14	0.39	0.80	1.15	1.24
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.02	-0.02	0.13	0.24	0.35	0.37	0.00	-0.04	-0.04	0.11	0.24	0.34	0.37
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1.66	2.25	5.96	8.59	10.83	11.68	0.00	2.77	4.78	8.06	10.57	12.54	4.84
Chico, CA	x	-	100	-	0.00	-0.01	-0.01	0.05	0.09	0.12	0.13	0.00	-0.01	-0.02	0.04	0.09	0.12	0.13
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.07	-0.09	0.44	0.84	1.20	1.28	0.00	-0.14	-0.15	0.40	0.82	1.17	1.27
Clearfield and Indiana Cos.	x	-	100	-	0.00	-0.01	-0.01	0.04	0.08	0.11	0.12	0.00	-0.01	-0.01	0.04	0.08	0.11	0.12
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.10	-0.12	0.63	1.22	1.72	1.85	0.00	-0.20	-0.21	0.57	1.17	1.69	1.83
Columbus, OH	x	x	100	100	0.00	-0.07	-0.08	0.41	0.79	1.11	1.19	0.00	-0.13	-0.14	0.37	0.76	1.09	1.18
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.27	-0.32	1.66	3.18	4.52	4.84	0.00	-0.52	-0.55	1.49	3.08	4.43	4.78
Dayton-Springfield, OH	-	x	-	100	0.00	-0.03	-0.04	0.19	0.37	0.52	0.56	0.00	-0.06	-0.06	0.17	0.36	0.51	0.55
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.10	0.15	1.26	2.09	2.81	3.02	0.00	0.14	0.36	1.45	2.28	2.98	2.22
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.05	0.09	1.68	2.88	3.92	4.21	0.00	0.04	0.27	1.84	3.06	4.08	3.34
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.01	-0.02	0.08	0.16	0.22	0.24	0.00	-0.03	-0.03	0.07	0.15	0.22	0.24
Greater Connecticut, CT	x	-	100	-	0.00	-0.07	-0.08	0.42	0.81	1.14	1.22	0.00	-0.13	-0.14	0.38	0.78	1.12	1.21
Greene	x	-	100	-	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.00	0.00	0.00	0.01	0.02	0.03	0.03
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.03	-0.04	0.19	0.36	0.52	0.55	0.00	-0.06	-0.06	0.17	0.35	0.51	0.55
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.03	-0.03	0.17	0.33	0.47	0.50	0.00	-0.05	-0.06	0.15	0.32	0.46	0.50

**Table B1-2
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	-0.01	-0.01	0.04	0.09	0.12	0.13	0.00	-0.01	-0.01	0.04	0.08	0.12	0.13
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	5.28	7.04	13.32	17.51	21.01	22.73	0.00	8.93	14.67	19.61	23.33	26.01	3.53
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.51	0.68	1.27	1.66	1.99	2.15	0.00	0.86	1.42	1.88	2.22	2.47	0.30
Imperial Co., CA	x	-	100	-	0.00	-0.01	-0.01	0.05	0.10	0.14	0.15	0.00	-0.02	-0.02	0.05	0.10	0.14	0.15
Indianapolis, IN	-	x	-	100	0.00	-0.06	-0.07	0.38	0.73	1.04	1.11	0.00	-0.12	-0.13	0.34	0.71	1.02	1.10
Jamestown, NY	x	-	100	-	0.00	-0.01	-0.01	0.04	0.07	0.10	0.10	0.00	-0.01	-0.01	0.03	0.07	0.09	0.10
Jefferson Co., NY	x	-	100	-	0.00	-0.01	-0.01	0.03	0.06	0.09	0.10	0.00	-0.01	-0.01	0.03	0.06	0.09	0.09
Johnstown, PA	-	x	-	100	0.00	0.00	-0.01	0.03	0.06	0.08	0.08	0.00	-0.01	-0.01	0.03	0.05	0.08	0.08
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	-0.01	0.03	0.05	0.08	0.08	0.00	-0.01	-0.01	0.02	0.05	0.07	0.08
Knoxville, TN	x	x	100	100	0.00	-0.04	-0.05	0.26	0.50	0.71	0.76	0.00	-0.08	-0.09	0.23	0.48	0.69	0.75
Lancaster, PA	-	x	-	100	0.00	-0.02	-0.02	0.10	0.19	0.28	0.30	0.00	-0.03	-0.03	0.09	0.19	0.27	0.29
Las Vegas, NV	x	-	100	-	0.00	-0.06	-0.07	0.34	0.65	0.92	0.98	0.00	-0.10	-0.11	0.30	0.62	0.90	0.97
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	2.37	3.23	10.02	14.91	19.09	20.57	0.00	3.92	6.94	13.12	17.86	21.63	10.14
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.03	-0.03	0.17	0.33	0.47	0.51	0.00	-0.05	-0.06	0.16	0.32	0.46	0.50
Louisville, KY-IN	-	x	-	100	0.00	-0.04	-0.05	0.27	0.51	0.73	0.78	0.00	-0.08	-0.09	0.24	0.49	0.71	0.77
Macon, GA	-	x	-	100	0.00	-0.01	-0.01	0.05	0.10	0.14	0.14	0.00	-0.02	-0.02	0.04	0.09	0.13	0.14
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.03	0.05	0.07	0.07	0.00	-0.01	-0.01	0.02	0.05	0.07	0.07
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.02	0.05	0.07	0.07	0.00	-0.01	-0.01	0.02	0.05	0.07	0.07
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.02	-0.02	0.10	0.19	0.26	0.28	0.00	-0.03	-0.03	0.09	0.18	0.26	0.28
Memphis, TN-AR	x	-	100	-	0.00	0.39	0.52	1.18	1.64	2.02	2.19	0.00	0.65	1.10	1.66	2.08	2.41	0.68
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.07	-0.08	0.42	0.80	1.14	1.22	0.00	-0.13	-0.14	0.38	0.78	1.12	1.21
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.02	0.05	0.06	0.07	0.00	-0.01	-0.01	0.02	0.04	0.06	0.07
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	0.19	0.33	5.11	8.70	11.82	12.69	0.00	0.22	0.93	5.65	9.30	12.33	9.93
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	-0.01	-0.01	0.04	0.07	0.10	0.11	0.00	-0.01	-0.01	0.03	0.07	0.10	0.11
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	2.55	3.42	7.86	10.96	13.57	14.65	0.00	4.28	7.21	11.00	13.88	16.09	4.74
Phoenix-Mesa	x	-	100	-	0.00	-0.15	-0.18	0.93	1.79	2.54	2.73	0.00	-0.29	-0.31	0.84	1.73	2.50	2.70
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.08	-0.09	0.47	0.90	1.27	1.36	0.00	-0.15	-0.16	0.42	0.87	1.25	1.35
Poughkeepsie, NY	x	x	100	100	0.00	-0.05	-0.06	0.30	0.58	0.83	0.88	0.00	-0.09	-0.10	0.27	0.56	0.81	0.87
Providence (All RI), RI	x	-	100	-	0.00	-0.04	-0.04	0.22	0.42	0.60	0.64	0.00	-0.07	-0.07	0.20	0.41	0.59	0.63
Reading, PA	-	x	-	100	0.00	-0.01	-0.02	0.09	0.17	0.24	0.26	0.00	-0.03	-0.03	0.08	0.17	0.24	0.26

**Table B1-2
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.03	-0.03	0.18	0.34	0.48	0.52	0.00	-0.05	-0.06	0.16	0.33	0.47	0.51
Rochester, NY	x	-	100	-	0.00	-0.05	-0.06	0.31	0.59	0.84	0.90	0.00	-0.10	-0.10	0.28	0.57	0.82	0.89
Rome, GA	-	x	-	100	0.00	0.00	-0.01	0.03	0.05	0.07	0.08	0.00	-0.01	-0.01	0.02	0.05	0.07	0.08
Sacramento Metro, CA	x	-	50	-	0.00	-0.09	-0.10	0.51	0.99	1.40	1.50	0.00	-0.16	-0.17	0.46	0.96	1.38	1.49
San Diego, CA	x	-	100	-	0.00	-0.12	-0.14	0.72	1.39	1.97	2.11	0.00	-0.22	-0.24	0.65	1.34	1.93	2.08
San Francisco Bay Area, CA	x	-	100	-	0.00	1.32	1.78	5.06	7.40	9.40	10.13	0.00	2.19	3.81	6.75	9.00	10.77	4.57
San Joaquin Valley, CA	x	x	50	100	0.00	0.09	0.15	1.63	2.75	3.72	3.99	0.00	0.12	0.37	1.84	2.97	3.91	3.04
Sheboygan, WI	x	-	100	-	0.00	0.00	-0.01	0.03	0.05	0.08	0.08	0.00	-0.01	-0.01	0.03	0.05	0.08	0.08
Springfield (Western MA), MA	x	-	100	-	0.00	-0.04	-0.04	0.22	0.42	0.60	0.64	0.00	-0.07	-0.07	0.20	0.41	0.59	0.64
St. Louis, MO-IL	x	x	100	100	0.00	0.61	0.82	2.33	3.41	4.33	4.67	0.00	1.01	1.76	3.11	4.15	4.97	2.10
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.04	0.06	0.13	0.18	0.22	0.24	0.00	0.07	0.12	0.18	0.23	0.27	0.07
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.02	-0.02	0.17	0.31	0.43	0.47	0.00	-0.04	-0.03	0.16	0.31	0.43	0.44
Washington, DC-MD-VA	x	x	100	100	0.00	-0.19	-0.23	1.16	2.23	3.16	3.39	0.00	-0.36	-0.39	1.04	2.15	3.10	3.35
Wheeling, WV-OH	-	x	-	100	0.00	-0.01	-0.01	0.04	0.08	0.11	0.12	0.00	-0.01	-0.01	0.04	0.08	0.11	0.12
York, PA	-	x	-	100	0.00	-0.02	-0.02	0.09	0.18	0.26	0.27	0.00	-0.03	-0.03	0.08	0.17	0.25	0.27

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-3
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	0.01	0.03	1.17	1.90	2.47	2.71	0.00	-0.18	-0.07	1.55	2.48	3.11	3.48
Allegan Co., MI	x	-	100	-	0.00	0.00	0.00	0.13	0.21	0.27	0.30	0.00	-0.02	-0.01	0.17	0.27	0.34	0.38
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.12	0.19	0.25	0.27	0.00	-0.02	-0.01	0.15	0.25	0.31	0.35
Atlanta, GA	x	x	100	100	0.00	0.05	0.13	6.21	10.10	13.15	14.39	0.00	-0.97	-0.38	8.24	13.19	16.56	18.51
Baltimore, MD	x	x	100	100	0.00	0.02	0.06	2.58	4.20	5.46	5.98	0.00	-0.40	-0.16	3.42	5.48	6.88	7.69
Baton Rouge, LA	x	-	100	-	0.00	2.04	2.70	5.10	6.58	7.73	8.42	0.00	3.95	6.45	8.63	9.99	11.02	1.79
Beaumont/Port Arthur, TX	x	-	100	-	0.00	4.10	5.42	9.43	11.89	13.79	15.01	0.00	8.09	13.05	16.27	18.33	19.96	1.12
Birmingham, AL	-	x	-	100	0.00	0.01	0.02	0.94	1.54	2.00	2.19	0.00	-0.15	-0.06	1.25	2.00	2.52	2.81
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	0.03	0.09	4.20	6.83	8.89	9.73	0.00	-0.65	-0.26	5.57	8.92	11.20	12.51
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.00	0.01	0.57	0.92	1.20	1.32	0.00	-0.09	-0.03	0.75	1.21	1.51	1.69
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.01	0.02	1.01	1.64	2.14	2.34	0.00	-0.16	-0.06	1.34	2.14	2.69	3.01
Canton-Massillon, OH	-	x	-	100	0.00	0.27	0.36	0.88	1.20	1.45	1.58	0.00	0.48	0.83	1.41	1.75	2.00	0.86
Charleston, WV	-	x	-	100	0.00	0.00	0.01	0.27	0.44	0.57	0.63	0.00	-0.04	-0.02	0.36	0.57	0.72	0.81
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	0.01	0.04	1.63	2.66	3.46	3.79	0.00	-0.25	-0.10	2.17	3.47	4.36	4.87
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.00	0.01	0.48	0.79	1.02	1.12	0.00	-0.08	-0.03	0.64	1.03	1.29	1.44
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	3.02	4.06	12.95	18.57	22.95	25.06	0.00	4.91	9.08	19.91	26.27	30.78	19.04
Chico, CA	x	-	100	-	0.00	0.00	0.00	0.17	0.28	0.37	0.40	0.00	-0.03	-0.01	0.23	0.37	0.47	0.52
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	0.01	0.04	1.67	2.72	3.54	3.88	0.00	-0.26	-0.10	2.22	3.55	4.46	4.98
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.00	0.16	0.26	0.33	0.37	0.00	-0.02	-0.01	0.21	0.34	0.42	0.47
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	0.02	0.05	2.41	3.92	5.10	5.58	0.00	-0.38	-0.15	3.20	5.11	6.42	7.18
Columbus, OH	x	x	100	100	0.00	0.01	0.03	1.56	2.53	3.30	3.61	0.00	-0.24	-0.10	2.07	3.31	4.15	4.64
Dallas-Fort Worth, TX	x	-	100	-	0.00	0.05	0.14	6.31	10.27	13.36	14.62	0.00	-0.98	-0.39	8.37	13.40	16.82	18.80
Dayton-Springfield, OH	-	x	-	100	0.00	0.01	0.02	0.73	1.19	1.55	1.69	0.00	-0.11	-0.04	0.97	1.55	1.95	2.18
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.37	0.52	3.68	5.70	7.27	7.95	0.00	0.23	0.91	5.20	7.67	9.38	8.71
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.40	0.58	5.20	8.16	10.47	11.45	0.00	0.04	0.89	7.24	10.90	13.42	13.11
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.03	0.05	0.06	0.07	0.00	0.00	0.00	0.04	0.06	0.08	0.09
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	0.00	0.01	0.31	0.51	0.66	0.73	0.00	-0.05	-0.02	0.42	0.66	0.83	0.93
Greater Connecticut, CT	x	-	100	-	0.00	0.01	0.03	1.60	2.60	3.38	3.70	0.00	-0.25	-0.10	2.12	3.39	4.26	4.76
Greene	x	-	100	-	0.00	0.00	0.00	0.04	0.06	0.08	0.09	0.00	-0.01	0.00	0.05	0.08	0.10	0.11
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.01	0.02	0.72	1.18	1.53	1.67	0.00	-0.11	-0.04	0.96	1.53	1.93	2.15

**Table B1-3
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.01	0.01	0.65	1.06	1.39	1.52	0.00	-0.10	-0.04	0.87	1.39	1.75	1.95
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Hickory, NC	-	x	-	100	0.00	0.00	0.00	0.17	0.28	0.36	0.39	0.00	-0.03	-0.01	0.23	0.36	0.45	0.51
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	8.42	11.19	23.19	30.67	36.47	39.75	0.00	15.96	26.47	38.47	45.78	51.23	13.87
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.81	1.08	2.18	2.87	3.40	3.71	0.00	1.55	2.55	3.64	4.30	4.80	1.18
Imperial Co., CA	x	-	100	-	0.00	0.00	0.00	0.20	0.33	0.43	0.47	0.00	-0.03	-0.01	0.27	0.43	0.54	0.60
Indianapolis, IN	-	x	-	100	0.00	0.01	0.03	1.45	2.37	3.08	3.37	0.00	-0.23	-0.09	1.93	3.09	3.88	4.33
Jamestown, NY	x	-	100	-	0.00	0.00	0.00	0.13	0.22	0.28	0.31	0.00	-0.02	-0.01	0.18	0.29	0.36	0.40
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	0.12	0.20	0.26	0.29	0.00	-0.02	-0.01	0.17	0.27	0.33	0.37
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	0.11	0.18	0.23	0.26	0.00	-0.02	-0.01	0.15	0.23	0.29	0.33
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	0.11	0.17	0.22	0.24	0.00	-0.02	-0.01	0.14	0.22	0.28	0.31
Knoxville, TN	x	x	100	100	0.00	0.01	0.02	0.99	1.61	2.09	2.29	0.00	-0.15	-0.06	1.31	2.10	2.63	2.94
Lancaster, PA	-	x	-	100	0.00	0.00	0.01	0.39	0.63	0.82	0.89	0.00	-0.06	-0.02	0.51	0.82	1.03	1.15
Las Vegas, NV	x	-	100	-	0.00	0.01	0.03	1.28	2.08	2.71	2.96	0.00	-0.20	-0.08	1.70	2.72	3.41	3.81
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.02
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.00	0.00	0.00	0.02	0.03	0.03	0.04
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	4.62	6.26	23.35	34.20	42.65	46.58	0.00	6.90	13.58	35.13	47.72	56.56	39.86
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.01	0.01	0.66	1.07	1.40	1.53	0.00	-0.10	-0.04	0.87	1.40	1.76	1.96
Louisville, KY-IN	-	x	-	100	0.00	0.01	0.02	1.01	1.65	2.15	2.35	0.00	-0.16	-0.06	1.35	2.15	2.70	3.02
Macon, GA	-	x	-	100	0.00	0.00	0.00	0.19	0.31	0.40	0.44	0.00	-0.03	-0.01	0.25	0.40	0.50	0.56
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.10	0.16	0.21	0.22	0.00	-0.02	-0.01	0.13	0.21	0.26	0.29
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.09	0.15	0.20	0.22	0.00	-0.01	-0.01	0.13	0.20	0.25	0.28
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.00	0.01	0.37	0.60	0.78	0.86	0.00	-0.06	-0.02	0.49	0.79	0.99	1.10
Memphis, TN-AR	x	-	100	-	0.00	0.66	0.89	2.35	3.27	3.98	4.34	0.00	1.16	2.04	3.71	4.71	5.43	2.68
Milwaukee-Racine, WI	x	-	100	-	0.00	0.01	0.03	1.59	2.59	3.37	3.69	0.00	-0.25	-0.10	2.11	3.38	4.24	4.74
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.09	0.15	0.19	0.21	0.00	-0.01	-0.01	0.12	0.19	0.24	0.27
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	1.26	1.81	15.66	24.50	31.41	34.35	0.00	0.26	2.89	21.84	32.76	40.28	39.03
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.00	0.14	0.23	0.30	0.33	0.00	-0.02	-0.01	0.19	0.30	0.38	0.43
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	4.36	5.84	15.79	22.06	26.94	29.40	0.00	7.61	13.38	24.91	31.75	36.65	18.64
Phoenix-Mesa	x	-	100	-	0.00	0.03	0.08	3.55	5.78	7.53	8.24	0.00	-0.55	-0.22	4.72	7.55	9.48	10.59

**Table B1-3
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	0.01	0.04	1.78	2.89	3.77	4.12	0.00	-0.28	-0.11	2.36	3.78	4.74	5.30
Poughkeepsie, NY	x	x	100	100	0.00	0.01	0.03	1.15	1.88	2.44	2.67	0.00	-0.18	-0.07	1.53	2.45	3.07	3.44
Providence (All RI), RI	x	-	100	-	0.00	0.01	0.02	0.83	1.36	1.77	1.93	0.00	-0.13	-0.05	1.11	1.77	2.22	2.48
Reading, PA	-	x	-	100	0.00	0.00	0.01	0.34	0.55	0.72	0.78	0.00	-0.05	-0.02	0.45	0.72	0.90	1.01
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.01	0.01	0.67	1.09	1.42	1.56	0.00	-0.10	-0.04	0.89	1.43	1.79	2.00
Rochester, NY	x	-	100	-	0.00	0.01	0.03	1.17	1.90	2.47	2.71	0.00	-0.18	-0.07	1.55	2.48	3.11	3.48
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.10	0.17	0.22	0.24	0.00	-0.02	-0.01	0.14	0.22	0.27	0.30
Sacramento Metro, CA	x	-	50	-	0.00	0.02	0.04	1.96	3.19	4.16	4.55	0.00	-0.31	-0.12	2.60	4.17	5.23	5.85
San Diego, CA	x	-	100	-	0.00	0.02	0.06	2.75	4.47	5.82	6.37	0.00	-0.43	-0.17	3.64	5.83	7.32	8.19
San Francisco Bay Area, CA	x	-	100	-	0.00	2.46	3.32	11.36	16.45	20.42	22.30	0.00	3.86	7.33	17.29	23.12	27.24	17.96
San Joaquin Valley, CA	x	x	50	100	0.00	0.44	0.62	4.90	7.63	9.76	10.67	0.00	0.18	1.04	6.87	10.23	12.54	11.93
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	0.11	0.18	0.23	0.25	0.00	-0.02	-0.01	0.14	0.23	0.29	0.32
Springfield (Western MA), MA	x	-	100	-	0.00	0.01	0.02	0.84	1.36	1.78	1.94	0.00	-0.13	-0.05	1.11	1.78	2.24	2.50
St. Louis, MO-IL	x	x	100	100	0.00	1.14	1.53	5.24	7.58	9.41	10.28	0.00	1.78	3.38	7.97	10.66	12.55	8.27
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.07	0.10	0.26	0.36	0.44	0.48	0.00	0.13	0.23	0.41	0.52	0.60	0.29
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.01	0.03	0.60	0.97	1.25	1.37	0.00	-0.07	0.00	0.80	1.27	1.58	1.72
Washington, DC-MD-VA	x	x	100	100	0.00	0.04	0.10	4.41	7.18	9.35	10.23	0.00	-0.69	-0.27	5.86	9.37	11.77	13.15
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.00	0.15	0.25	0.33	0.36	0.00	-0.02	-0.01	0.20	0.33	0.41	0.46
York, PA	-	x	-	100	0.00	0.00	0.01	0.36	0.58	0.76	0.83	0.00	-0.06	-0.02	0.47	0.76	0.95	1.07

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-4
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	0.16	0.26	2.94	4.41	5.46	6.02	0.00	-0.43	0.14	5.18	7.60	8.95	10.16
Allegan Co., MI	x	-	100	-	0.00	0.02	0.03	0.32	0.48	0.60	0.66	0.00	-0.05	0.02	0.57	0.83	0.98	1.11
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.02	0.03	0.29	0.44	0.54	0.60	0.00	-0.04	0.01	0.52	0.76	0.89	1.01
Atlanta, GA	x	x	100	100	0.00	0.86	1.39	15.65	23.44	29.03	32.03	0.00	-2.27	0.77	27.55	40.42	47.60	54.04
Baltimore, MD	x	x	100	100	0.00	0.36	0.58	6.50	9.74	12.06	13.31	0.00	-0.95	0.32	11.45	16.80	19.78	22.45
Baton Rouge, LA	x	-	100	-	0.00	3.02	4.00	8.01	10.31	11.99	13.12	0.00	6.28	10.42	15.03	17.47	19.27	5.23
Beaumont/Port Arthur, TX	x	-	100	-	0.00	5.96	7.86	14.01	17.60	20.23	22.11	0.00	12.96	20.88	26.56	29.72	32.40	3.26
Birmingham, AL	-	x	-	100	0.00	0.13	0.21	2.38	3.56	4.41	4.87	0.00	-0.35	0.12	4.19	6.14	7.24	8.21
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	0.58	0.94	10.58	15.85	19.63	21.65	0.00	-1.54	0.52	18.63	27.33	32.18	36.54
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.08	0.13	1.43	2.14	2.66	2.93	0.00	-0.21	0.07	2.52	3.70	4.35	4.94
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.14	0.23	2.54	3.81	4.72	5.21	0.00	-0.37	0.12	4.48	6.57	7.74	8.78
Canton-Massillon, OH	-	x	-	100	0.00	0.42	0.57	1.57	2.14	2.54	2.79	0.00	0.74	1.39	2.89	3.64	4.12	2.51
Charleston, WV	-	x	-	100	0.00	0.04	0.06	0.68	1.02	1.26	1.39	0.00	-0.10	0.03	1.20	1.76	2.07	2.35
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	0.23	0.37	4.12	6.17	7.63	8.42	0.00	-0.60	0.20	7.25	10.63	12.52	14.21
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.07	0.11	1.22	1.83	2.26	2.49	0.00	-0.18	0.06	2.15	3.15	3.71	4.21
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	5.17	7.07	25.57	35.85	43.25	47.57	0.00	7.15	15.89	46.38	61.35	70.36	55.59
Chico, CA	x	-	100	-	0.00	0.02	0.04	0.44	0.66	0.82	0.90	0.00	-0.06	0.02	0.77	1.14	1.34	1.52
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	0.23	0.37	4.22	6.31	7.82	8.62	0.00	-0.61	0.21	7.42	10.88	12.82	14.55
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.02	0.04	0.40	0.60	0.74	0.82	0.00	-0.06	0.02	0.70	1.03	1.21	1.38
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	0.34	0.54	6.07	9.09	11.26	12.42	0.00	-0.88	0.30	10.69	15.68	18.46	20.96
Columbus, OH	x	x	100	100	0.00	0.22	0.35	3.93	5.88	7.28	8.03	0.00	-0.57	0.19	6.91	10.14	11.94	13.55
Dallas-Fort Worth, TX	x	-	100	-	0.00	0.88	1.41	15.90	23.82	29.49	32.54	0.00	-2.31	0.78	27.99	41.06	48.36	54.90
Dayton-Springfield, OH	-	x	-	100	0.00	0.10	0.16	1.84	2.76	3.41	3.77	0.00	-0.27	0.09	3.24	4.75	5.60	6.36
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.90	1.30	8.46	12.39	15.20	16.76	0.00	0.02	2.10	15.05	21.30	24.87	25.43
Detroit-Ann Arbor, MI	x	x	100	100	0.00	1.14	1.68	12.25	18.04	22.20	24.48	0.00	-0.45	2.40	21.73	31.05	36.34	38.28
Door Co., WI	x	-	100	-	0.00	0.00	0.01	0.07	0.11	0.14	0.15	0.00	-0.01	0.00	0.13	0.19	0.23	0.26
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Evansville, IN	-	x	-	100	0.00	0.04	0.07	0.79	1.18	1.46	1.61	0.00	-0.11	0.04	1.39	2.04	2.40	2.72
Greater Connecticut, CT	x	-	100	-	0.00	0.22	0.36	4.03	6.03	7.47	8.24	0.00	-0.59	0.20	7.09	10.40	12.24	13.90
Greene	x	-	100	-	0.00	0.01	0.01	0.09	0.14	0.17	0.19	0.00	-0.01	0.00	0.16	0.24	0.28	0.32
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.10	0.16	1.82	2.73	3.38	3.73	0.00	-0.26	0.09	3.21	4.70	5.54	6.29

**Table B1-4
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.09	0.15	1.65	2.47	3.06	3.38	0.00	-0.24	0.08	2.90	4.26	5.02	5.69
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.00	0.00	0.00	0.02	0.03	0.03	0.04
Hickory, NC	-	x	-	100	0.00	0.02	0.04	0.43	0.64	0.79	0.88	0.00	-0.06	0.02	0.75	1.10	1.30	1.48
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	12.74	16.96	38.48	50.70	59.59	65.31	0.00	25.09	43.22	71.61	86.14	96.12	40.50
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	1.22	1.62	3.58	4.69	5.50	6.03	0.00	2.44	4.16	6.67	7.96	8.86	3.45
Imperial Co., CA	x	-	100	-	0.00	0.03	0.05	0.51	0.76	0.94	1.04	0.00	-0.07	0.02	0.89	1.31	1.54	1.75
Indianapolis, IN	-	x	-	100	0.00	0.20	0.33	3.66	5.49	6.79	7.50	0.00	-0.53	0.18	6.45	9.46	11.14	12.65
Jamestown, NY	x	-	100	-	0.00	0.02	0.03	0.34	0.51	0.63	0.69	0.00	-0.05	0.02	0.60	0.87	1.03	1.17
Jefferson Co., NY	x	-	100	-	0.00	0.02	0.03	0.31	0.47	0.58	0.64	0.00	-0.05	0.02	0.55	0.81	0.96	1.09
Johnstown, PA	-	x	-	100	0.00	0.02	0.02	0.28	0.42	0.52	0.57	0.00	-0.04	0.01	0.49	0.72	0.84	0.96
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.01	0.02	0.27	0.40	0.49	0.55	0.00	-0.04	0.01	0.47	0.69	0.81	0.92
Knoxville, TN	x	x	100	100	0.00	0.14	0.22	2.49	3.73	4.62	5.09	0.00	-0.36	0.12	4.38	6.43	7.57	8.59
Lancaster, PA	-	x	-	100	0.00	0.05	0.09	0.97	1.46	1.80	1.99	0.00	-0.14	0.05	1.71	2.51	2.96	3.36
Las Vegas, NV	x	-	100	-	0.00	0.18	0.29	3.22	4.83	5.98	6.60	0.00	-0.47	0.16	5.67	8.32	9.80	11.13
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.02	0.02	0.03	0.03	0.00	0.00	0.00	0.03	0.04	0.05	0.06
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.03	0.05	0.06	0.06	0.00	0.00	0.00	0.06	0.08	0.10	0.11
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	8.37	11.56	48.11	68.33	82.88	91.21	0.00	9.53	24.61	86.77	117.11	135.05	116.38
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.09	0.15	1.66	2.49	3.08	3.40	0.00	-0.24	0.08	2.93	4.29	5.05	5.74
Louisville, KY-IN	-	x	-	100	0.00	0.14	0.23	2.56	3.83	4.74	5.23	0.00	-0.37	0.13	4.50	6.60	7.77	8.83
Macon, GA	-	x	-	100	0.00	0.03	0.04	0.48	0.71	0.88	0.97	0.00	-0.07	0.02	0.84	1.23	1.45	1.64
Manitowoc Co., WI	x	-	100	-	0.00	0.01	0.02	0.24	0.37	0.45	0.50	0.00	-0.04	0.01	0.43	0.63	0.74	0.84
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.01	0.02	0.24	0.36	0.44	0.49	0.00	-0.03	0.01	0.42	0.62	0.72	0.82
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.05	0.08	0.93	1.40	1.73	1.91	0.00	-0.14	0.05	1.64	2.41	2.84	3.22
Memphis, TN-AR	x	-	100	-	0.00	1.07	1.44	4.35	5.98	7.15	7.86	0.00	1.76	3.44	7.97	10.21	11.61	7.81
Milwaukee-Racine, WI	x	-	100	-	0.00	0.22	0.36	4.01	6.01	7.43	8.20	0.00	-0.58	0.20	7.06	10.35	12.19	13.84
Nevada (Western Part), CA	x	-	100	-	0.00	0.01	0.02	0.23	0.34	0.42	0.46	0.00	-0.03	0.01	0.40	0.59	0.69	0.78
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	3.49	5.13	36.71	54.02	66.44	73.25	0.00	-1.10	7.51	65.14	92.96	108.74	113.97
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.02	0.03	0.36	0.54	0.67	0.74	0.00	-0.05	0.02	0.64	0.93	1.10	1.25
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	7.09	9.59	29.53	40.66	48.71	53.51	0.00	11.49	22.71	53.97	69.45	79.05	54.44
Phoenix-Mesa	x	-	100	-	0.00	0.49	0.80	8.96	13.42	16.61	18.33	0.00	-1.30	0.44	15.77	23.13	27.24	30.93

**Table B1-4
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acetaldehyde 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	0.25	0.40	4.48	6.71	8.31	9.17	0.00	-0.65	0.22	7.89	11.57	13.63	15.47
Poughkeepsie, NY	x	x	100	100	0.00	0.16	0.26	2.91	4.35	5.39	5.94	0.00	-0.42	0.14	5.11	7.50	8.84	10.03
Providence (All RI), RI	x	-	100	-	0.00	0.12	0.19	2.10	3.15	3.90	4.30	0.00	-0.31	0.10	3.70	5.43	6.39	7.26
Reading, PA	-	x	-	100	0.00	0.05	0.08	0.85	1.28	1.58	1.75	0.00	-0.12	0.04	1.50	2.20	2.60	2.95
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.09	0.15	1.69	2.54	3.14	3.47	0.00	-0.25	0.08	2.98	4.38	5.15	5.85
Rochester, NY	x	-	100	-	0.00	0.16	0.26	2.94	4.41	5.46	6.02	0.00	-0.43	0.14	5.18	7.60	8.95	10.16
Rome, GA	-	x	-	100	0.00	0.01	0.02	0.26	0.39	0.48	0.53	0.00	-0.04	0.01	0.45	0.66	0.78	0.89
Sacramento Metro, CA	x	-	50	-	0.00	0.27	0.44	4.95	7.41	9.17	10.12	0.00	-0.72	0.24	8.71	12.77	15.04	17.07
San Diego, CA	x	-	100	-	0.00	0.38	0.62	6.92	10.37	12.84	14.17	0.00	-1.01	0.34	12.19	17.88	21.05	23.90
San Francisco Bay Area, CA	x	-	100	-	0.00	4.32	5.93	22.89	32.28	39.06	42.96	0.00	5.50	13.01	41.40	55.29	63.58	52.45
San Joaquin Valley, CA	x	x	50	100	0.00	1.14	1.66	11.38	16.71	20.53	22.63	0.00	-0.18	2.55	20.22	28.75	33.60	34.83
Sheboygan, WI	x	-	100	-	0.00	0.02	0.02	0.27	0.41	0.51	0.56	0.00	-0.04	0.01	0.48	0.71	0.83	0.94
Springfield (Western MA), MA	x	-	100	-	0.00	0.12	0.19	2.11	3.17	3.92	4.32	0.00	-0.31	0.10	3.72	5.46	6.43	7.30
St. Louis, MO-IL	x	x	100	100	0.00	1.99	2.74	10.55	14.88	17.99	19.79	0.00	2.54	6.01	19.08	25.48	29.29	24.14
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.12	0.16	0.48	0.66	0.78	0.86	0.00	0.20	0.38	0.87	1.12	1.27	0.85
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.09	0.15	1.48	2.21	2.74	3.02	0.00	-0.18	0.12	2.62	3.82	4.49	5.01
Washington, DC-MD-VA	x	x	100	100	0.00	0.61	0.99	11.13	16.66	20.63	22.76	0.00	-1.62	0.55	19.58	28.73	33.83	38.41
Wheeling, WV-OH	-	x	-	100	0.00	0.02	0.03	0.39	0.58	0.72	0.79	0.00	-0.06	0.02	0.68	1.00	1.18	1.34
York, PA	-	x	-	100	0.00	0.05	0.08	0.90	1.35	1.67	1.85	0.00	-0.13	0.04	1.59	2.33	2.74	3.11

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-5
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05
Allegan Co., MI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Atlanta, GA	x	x	100	100	0.00	-0.04	-0.05	-0.14	-0.21	-0.27	-0.29	0.00	-0.04	-0.05	-0.14	-0.21	-0.27	-0.29
Baltimore, MD	x	x	100	100	0.00	-0.02	-0.02	-0.06	-0.09	-0.11	-0.12	0.00	-0.02	-0.02	-0.06	-0.09	-0.11	-0.12
Baton Rouge, LA	x	-	100	-	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03
Beaumont/Port Arthur, TX	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Birmingham, AL	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.03	-0.04	-0.09	-0.14	-0.18	-0.20	0.00	-0.03	-0.04	-0.09	-0.14	-0.18	-0.20
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05
Canton-Massillon, OH	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Charleston, WV	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.01	-0.01	-0.04	-0.05	-0.07	-0.08	0.00	-0.01	-0.01	-0.04	-0.05	-0.07	-0.08
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.02
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	-0.04	-0.06	-0.14	-0.21	-0.28	-0.30	0.00	-0.04	-0.06	-0.14	-0.21	-0.28	-0.30
Chico, CA	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.01	-0.01	-0.04	-0.06	-0.07	-0.08	0.00	-0.01	-0.01	-0.04	-0.06	-0.07	-0.08
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.01	-0.02	-0.05	-0.08	-0.10	-0.11	0.00	-0.01	-0.02	-0.05	-0.08	-0.10	-0.11
Columbus, OH	x	x	100	100	0.00	-0.01	-0.01	-0.03	-0.05	-0.07	-0.07	0.00	-0.01	-0.01	-0.03	-0.05	-0.07	-0.07
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.04	-0.05	-0.14	-0.21	-0.27	-0.29	0.00	-0.04	-0.05	-0.14	-0.21	-0.27	-0.29
Dayton-Springfield, OH	-	x	-	100	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.03	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.03
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	-0.02	-0.03	-0.07	-0.10	-0.13	-0.14	0.00	-0.02	-0.03	-0.07	-0.10	-0.13	-0.14
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.03	-0.04	-0.10	-0.15	-0.19	-0.21	0.00	-0.03	-0.04	-0.10	-0.15	-0.19	-0.21
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Greater Connecticut, CT	x	-	100	-	0.00	-0.01	-0.01	-0.04	-0.05	-0.07	-0.07	0.00	-0.01	-0.01	-0.04	-0.05	-0.07	-0.07
Greene	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.03	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.03

**Table B1-5
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	-0.03	-0.04	-0.10	-0.15	-0.20	-0.22	0.00	-0.03	-0.04	-0.10	-0.15	-0.20	-0.22
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Imperial Co., CA	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Indianapolis, IN	-	x	-	100	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.07	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.07
Jamestown, NY	x	-	100	-	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Knoxville, TN	x	x	100	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05
Lancaster, PA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Las Vegas, NV	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.06	-0.06	0.00	-0.01	-0.01	-0.03	-0.04	-0.06	-0.06
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	-0.08	-0.12	-0.30	-0.45	-0.58	-0.62	0.00	-0.08	-0.12	-0.30	-0.45	-0.58	-0.62
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03
Louisville, KY-IN	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05
Macon, GA	-	x	-	100	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Memphis, TN-AR	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.01	-0.01	-0.04	-0.05	-0.07	-0.07	0.00	-0.01	-0.01	-0.04	-0.05	-0.07	-0.07
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.08	-0.11	-0.29	-0.44	-0.57	-0.61	0.00	-0.08	-0.11	-0.29	-0.44	-0.57	-0.61
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	-0.04	-0.05	-0.14	-0.21	-0.27	-0.29	0.00	-0.04	-0.05	-0.14	-0.21	-0.27	-0.29
Phoenix-Mesa	x	-	100	-	0.00	-0.02	-0.03	-0.08	-0.12	-0.15	-0.17	0.00	-0.02	-0.03	-0.08	-0.12	-0.15	-0.17

**Table B1-5
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.01	-0.02	-0.04	-0.06	-0.08	-0.08	0.00	-0.01	-0.02	-0.04	-0.06	-0.08	-0.08
Poughkeepsie, NY	x	x	100	100	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05
Providence (All RI), RI	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04
Reading, PA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	0.00	0.00	-0.01	-0.01	-0.02	-0.03	-0.03
Rochester, NY	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sacramento Metro, CA	x	-	50	-	0.00	-0.01	-0.02	-0.04	-0.07	-0.09	-0.09	0.00	-0.01	-0.02	-0.04	-0.07	-0.09	-0.09
San Diego, CA	x	-	100	-	0.00	-0.02	-0.02	-0.06	-0.09	-0.12	-0.13	0.00	-0.02	-0.02	-0.06	-0.09	-0.12	-0.13
San Francisco Bay Area, CA	x	-	100	-	0.00	-0.04	-0.05	-0.13	-0.20	-0.26	-0.28	0.00	-0.04	-0.05	-0.13	-0.20	-0.26	-0.28
San Joaquin Valley, CA	x	x	50	100	0.00	-0.02	-0.03	-0.09	-0.13	-0.17	-0.19	0.00	-0.02	-0.03	-0.09	-0.13	-0.17	-0.19
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Springfield (Western MA), MA	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04
St. Louis, MO-IL	x	x	100	100	0.00	-0.02	-0.02	-0.06	-0.09	-0.12	-0.13	0.00	-0.02	-0.02	-0.06	-0.09	-0.12	-0.13
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.02	-0.03	-0.03	0.00	0.00	0.00	-0.01	-0.02	-0.03	-0.03
Washington, DC-MD-VA	x	x	100	100	0.00	-0.03	-0.04	-0.10	-0.15	-0.19	-0.21	0.00	-0.03	-0.04	-0.10	-0.15	-0.19	-0.21
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
York, PA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-6
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.02	-0.03	-0.06	-0.09	-0.11	-0.12	0.00	-0.03	-0.04	-0.08	-0.12	-0.14	-0.16
Allegan Co., MI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02
Atlanta, GA	x	x	100	100	0.00	-0.12	-0.15	-0.32	-0.46	-0.56	-0.62	0.00	-0.14	-0.19	-0.45	-0.63	-0.75	-0.84
Baltimore, MD	x	x	100	100	0.00	-0.05	-0.06	-0.13	-0.19	-0.23	-0.26	0.00	-0.06	-0.08	-0.19	-0.26	-0.31	-0.35
Baton Rouge, LA	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08
Beaumont/Port Arthur, TX	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04	0.00	-0.01	-0.01	-0.03	-0.04	-0.04	-0.05
Birmingham, AL	-	x	-	100	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.09	0.00	-0.02	-0.03	-0.07	-0.10	-0.11	-0.13
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.08	-0.10	-0.22	-0.31	-0.38	-0.42	0.00	-0.10	-0.13	-0.30	-0.42	-0.50	-0.57
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10	0.00	-0.02	-0.03	-0.07	-0.10	-0.12	-0.14
Canton-Massillon, OH	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04
Charleston, WV	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.03	-0.04	-0.09	-0.12	-0.15	-0.16	0.00	-0.04	-0.05	-0.12	-0.16	-0.20	-0.22
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.01	-0.01	-0.03	-0.04	-0.04	-0.05	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.07
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	-0.12	-0.15	-0.33	-0.47	-0.58	-0.64	0.00	-0.15	-0.20	-0.46	-0.64	-0.77	-0.86
Chico, CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.03	-0.04	-0.09	-0.12	-0.15	-0.17	0.00	-0.04	-0.05	-0.12	-0.17	-0.20	-0.23
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.02
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.05	-0.06	-0.13	-0.18	-0.22	-0.24	0.00	-0.05	-0.07	-0.17	-0.24	-0.29	-0.32
Columbus, OH	x	x	100	100	0.00	-0.03	-0.04	-0.08	-0.11	-0.14	-0.16	0.00	-0.04	-0.05	-0.11	-0.16	-0.19	-0.21
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.12	-0.15	-0.33	-0.47	-0.57	-0.63	0.00	-0.14	-0.19	-0.45	-0.64	-0.76	-0.85
Dayton-Springfield, OH	-	x	-	100	0.00	-0.01	-0.02	-0.04	-0.05	-0.07	-0.07	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	-0.06	-0.07	-0.15	-0.22	-0.26	-0.29	0.00	-0.07	-0.09	-0.21	-0.29	-0.35	-0.39
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.08	-0.10	-0.23	-0.32	-0.40	-0.44	0.00	-0.10	-0.13	-0.32	-0.44	-0.53	-0.59
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04
Greater Connecticut, CT	x	-	100	-	0.00	-0.03	-0.04	-0.08	-0.12	-0.14	-0.16	0.00	-0.04	-0.05	-0.12	-0.16	-0.19	-0.22
Greene	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.01	-0.02	-0.04	-0.05	-0.07	-0.07	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10

**Table B1-6
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.01	-0.02	-0.03	-0.05	-0.06	-0.07	0.00	-0.01	-0.02	-0.05	-0.07	-0.08	-0.09
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	-0.09	-0.11	-0.24	-0.34	-0.42	-0.47	0.00	-0.11	-0.14	-0.34	-0.47	-0.56	-0.63
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05
Imperial Co., CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.03
Indianapolis, IN	-	x	-	100	0.00	-0.03	-0.03	-0.08	-0.11	-0.13	-0.15	0.00	-0.03	-0.04	-0.10	-0.15	-0.17	-0.20
Jamestown, NY	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Knoxville, TN	x	x	100	100	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10	0.00	-0.02	-0.03	-0.07	-0.10	-0.12	-0.13
Lancaster, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05
Las Vegas, NV	x	-	100	-	0.00	-0.02	-0.03	-0.07	-0.09	-0.12	-0.13	0.00	-0.03	-0.04	-0.09	-0.13	-0.15	-0.17
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	-0.25	-0.32	-0.70	-0.99	-1.21	-1.34	0.00	-0.30	-0.41	-0.96	-1.35	-1.61	-1.80
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.01	-0.02	-0.03	-0.05	-0.06	-0.07	0.00	-0.02	-0.02	-0.05	-0.07	-0.08	-0.09
Louisville, KY-IN	-	x	-	100	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10	0.00	-0.02	-0.03	-0.07	-0.10	-0.12	-0.14
Macon, GA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.03
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04	0.00	-0.01	-0.01	-0.03	-0.04	-0.04	-0.05
Memphis, TN-AR	x	-	100	-	0.00	-0.02	-0.02	-0.05	-0.07	-0.08	-0.09	0.00	-0.02	-0.03	-0.06	-0.09	-0.11	-0.12
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.03	-0.04	-0.08	-0.12	-0.14	-0.16	0.00	-0.04	-0.05	-0.11	-0.16	-0.19	-0.21
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.25	-0.31	-0.68	-0.97	-1.19	-1.31	0.00	-0.30	-0.40	-0.94	-1.32	-1.57	-1.76
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	-0.12	-0.15	-0.33	-0.46	-0.57	-0.63	0.00	-0.14	-0.19	-0.45	-0.63	-0.75	-0.84
Phoenix-Mesa	x	-	100	-	0.00	-0.07	-0.08	-0.19	-0.26	-0.32	-0.36	0.00	-0.08	-0.11	-0.26	-0.36	-0.43	-0.48

**Table B1-6
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.03	-0.04	-0.09	-0.13	-0.16	-0.18	0.00	-0.04	-0.05	-0.13	-0.18	-0.21	-0.24
Poughkeepsie, NY	x	x	100	100	0.00	-0.02	-0.03	-0.06	-0.09	-0.10	-0.12	0.00	-0.03	-0.04	-0.08	-0.12	-0.14	-0.16
Providence (All RI), RI	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.06	-0.08	-0.08	0.00	-0.02	-0.03	-0.06	-0.08	-0.10	-0.11
Reading, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.01	-0.02	-0.04	-0.05	-0.06	-0.07	0.00	-0.02	-0.02	-0.05	-0.07	-0.08	-0.09
Rochester, NY	x	-	100	-	0.00	-0.02	-0.03	-0.06	-0.09	-0.11	-0.12	0.00	-0.03	-0.04	-0.08	-0.12	-0.14	-0.16
Rome, GA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Sacramento Metro, CA	x	-	50	-	0.00	-0.04	-0.05	-0.10	-0.14	-0.18	-0.20	0.00	-0.04	-0.06	-0.14	-0.20	-0.24	-0.26
San Diego, CA	x	-	100	-	0.00	-0.05	-0.07	-0.14	-0.20	-0.25	-0.28	0.00	-0.06	-0.08	-0.20	-0.28	-0.33	-0.37
San Francisco Bay Area, CA	x	-	100	-	0.00	-0.11	-0.14	-0.31	-0.44	-0.55	-0.60	0.00	-0.14	-0.18	-0.43	-0.61	-0.72	-0.81
San Joaquin Valley, CA	x	x	50	100	0.00	-0.08	-0.10	-0.21	-0.30	-0.36	-0.40	0.00	-0.09	-0.12	-0.29	-0.40	-0.48	-0.54
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Springfield (Western MA), MA	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.06	-0.08	-0.08	0.00	-0.02	-0.03	-0.06	-0.08	-0.10	-0.11
St. Louis, MO-IL	x	x	100	100	0.00	-0.05	-0.07	-0.15	-0.20	-0.25	-0.28	0.00	-0.06	-0.08	-0.20	-0.28	-0.33	-0.37
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08
Washington, DC-MD-VA	x	x	100	100	0.00	-0.08	-0.11	-0.23	-0.33	-0.40	-0.44	0.00	-0.10	-0.14	-0.32	-0.44	-0.53	-0.59
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.02
York, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04	0.00	-0.01	-0.01	-0.03	-0.04	-0.04	-0.05

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-7
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.04	-0.04	-0.07	-0.10	-0.13	-0.14	0.00	-0.05	-0.06	-0.12	-0.17	-0.21	-0.24
Allegan Co., MI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
Atlanta, GA	x	x	100	100	0.00	-0.19	-0.22	-0.38	-0.55	-0.67	-0.76	0.00	-0.27	-0.34	-0.64	-0.92	-1.09	-1.25
Baltimore, MD	x	x	100	100	0.00	-0.08	-0.09	-0.16	-0.23	-0.28	-0.32	0.00	-0.11	-0.14	-0.27	-0.38	-0.45	-0.52
Baton Rouge, LA	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.05	-0.06	-0.07	0.00	-0.03	-0.03	-0.06	-0.09	-0.11	-0.12
Beaumont/Port Arthur, TX	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05	0.00	-0.02	-0.02	-0.04	-0.06	-0.07	-0.08
Birmingham, AL	-	x	-	100	0.00	-0.03	-0.03	-0.06	-0.08	-0.10	-0.12	0.00	-0.04	-0.05	-0.10	-0.14	-0.17	-0.19
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.13	-0.15	-0.26	-0.37	-0.45	-0.51	0.00	-0.19	-0.23	-0.43	-0.62	-0.74	-0.85
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.05	-0.06	-0.07	0.00	-0.03	-0.03	-0.06	-0.08	-0.10	-0.11
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.03	-0.04	-0.06	-0.09	-0.11	-0.12	0.00	-0.04	-0.06	-0.10	-0.15	-0.18	-0.20
Canton-Massillon, OH	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04	0.00	-0.01	-0.02	-0.03	-0.04	-0.05	-0.06
Charleston, WV	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.05
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.05	-0.06	-0.10	-0.14	-0.18	-0.20	0.00	-0.07	-0.09	-0.17	-0.24	-0.29	-0.33
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.01	-0.02	-0.03	-0.04	-0.05	-0.06	0.00	-0.02	-0.03	-0.05	-0.07	-0.08	-0.10
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	-0.19	-0.23	-0.40	-0.56	-0.69	-0.78	0.00	-0.28	-0.35	-0.66	-0.95	-1.12	-1.29
Chico, CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.05	-0.06	-0.10	-0.15	-0.18	-0.20	0.00	-0.07	-0.09	-0.17	-0.25	-0.29	-0.34
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.07	-0.09	-0.15	-0.21	-0.26	-0.30	0.00	-0.11	-0.13	-0.25	-0.36	-0.42	-0.49
Columbus, OH	x	x	100	100	0.00	-0.05	-0.06	-0.10	-0.14	-0.17	-0.19	0.00	-0.07	-0.09	-0.16	-0.23	-0.27	-0.31
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.19	-0.22	-0.39	-0.56	-0.68	-0.77	0.00	-0.28	-0.35	-0.65	-0.94	-1.11	-1.27
Dayton-Springfield, OH	-	x	-	100	0.00	-0.02	-0.03	-0.05	-0.06	-0.08	-0.09	0.00	-0.03	-0.04	-0.08	-0.11	-0.13	-0.15
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	-0.09	-0.10	-0.18	-0.26	-0.32	-0.36	0.00	-0.13	-0.16	-0.30	-0.43	-0.51	-0.59
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.13	-0.16	-0.27	-0.39	-0.47	-0.54	0.00	-0.19	-0.24	-0.46	-0.65	-0.77	-0.89
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04	0.00	-0.01	-0.02	-0.03	-0.05	-0.05	-0.06
Greater Connecticut, CT	x	-	100	-	0.00	-0.05	-0.06	-0.10	-0.14	-0.17	-0.20	0.00	-0.07	-0.09	-0.17	-0.24	-0.28	-0.32
Greene	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.02	-0.03	-0.04	-0.06	-0.08	-0.09	0.00	-0.03	-0.04	-0.07	-0.11	-0.13	-0.15

**Table B1-7
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.02	-0.02	-0.04	-0.06	-0.07	-0.08	0.00	-0.03	-0.04	-0.07	-0.10	-0.11	-0.13
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.03
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	-0.14	-0.17	-0.29	-0.41	-0.50	-0.57	0.00	-0.21	-0.26	-0.48	-0.69	-0.82	-0.94
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.04	-0.04	-0.05	0.00	-0.02	-0.02	-0.04	-0.06	-0.07	-0.08
Imperial Co., CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04
Indianapolis, IN	-	x	-	100	0.00	-0.04	-0.05	-0.09	-0.13	-0.16	-0.18	0.00	-0.06	-0.08	-0.15	-0.22	-0.26	-0.29
Jamestown, NY	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Knoxville, TN	x	x	100	100	0.00	-0.03	-0.04	-0.06	-0.09	-0.11	-0.12	0.00	-0.04	-0.05	-0.10	-0.15	-0.17	-0.20
Lancaster, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05	0.00	-0.02	-0.02	-0.04	-0.06	-0.07	-0.08
Las Vegas, NV	x	-	100	-	0.00	-0.04	-0.05	-0.08	-0.11	-0.14	-0.16	0.00	-0.06	-0.07	-0.13	-0.19	-0.22	-0.26
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	-0.41	-0.48	-0.83	-1.18	-1.44	-1.64	0.00	-0.59	-0.74	-1.38	-1.99	-2.35	-2.70
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.06	-0.07	-0.08	0.00	-0.03	-0.04	-0.07	-0.10	-0.12	-0.13
Louisville, KY-IN	-	x	-	100	0.00	-0.03	-0.04	-0.06	-0.09	-0.11	-0.12	0.00	-0.04	-0.06	-0.11	-0.15	-0.18	-0.20
Macon, GA	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.04
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.05	0.00	-0.02	-0.02	-0.04	-0.05	-0.07	-0.07
Memphis, TN-AR	x	-	100	-	0.00	-0.03	-0.03	-0.06	-0.08	-0.10	-0.11	0.00	-0.04	-0.05	-0.09	-0.13	-0.16	-0.18
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.05	-0.06	-0.10	-0.14	-0.17	-0.19	0.00	-0.07	-0.09	-0.16	-0.24	-0.28	-0.32
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.40	-0.47	-0.81	-1.16	-1.41	-1.60	0.00	-0.58	-0.72	-1.36	-1.95	-2.30	-2.64
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	-0.19	-0.22	-0.39	-0.55	-0.67	-0.77	0.00	-0.28	-0.35	-0.65	-0.93	-1.10	-1.26
Phoenix-Mesa	x	-	100	-	0.00	-0.11	-0.13	-0.22	-0.31	-0.38	-0.44	0.00	-0.16	-0.20	-0.37	-0.53	-0.62	-0.72

**Table B1-7
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.05	-0.06	-0.11	-0.16	-0.19	-0.22	0.00	-0.08	-0.10	-0.18	-0.26	-0.31	-0.36
Poughkeepsie, NY	x	x	100	100	0.00	-0.04	-0.04	-0.07	-0.10	-0.12	-0.14	0.00	-0.05	-0.06	-0.12	-0.17	-0.20	-0.23
Providence (All RI), RI	x	-	100	-	0.00	-0.03	-0.03	-0.05	-0.07	-0.09	-0.10	0.00	-0.04	-0.05	-0.09	-0.12	-0.15	-0.17
Reading, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.01	-0.02	-0.04	-0.05	-0.06	-0.07
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.06	-0.07	-0.08	0.00	-0.03	-0.04	-0.07	-0.10	-0.12	-0.14
Rochester, NY	x	-	100	-	0.00	-0.04	-0.04	-0.07	-0.10	-0.13	-0.14	0.00	-0.05	-0.06	-0.12	-0.17	-0.21	-0.24
Rome, GA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Sacramento Metro, CA	x	-	50	-	0.00	-0.06	-0.07	-0.12	-0.17	-0.21	-0.24	0.00	-0.09	-0.11	-0.20	-0.29	-0.34	-0.40
San Diego, CA	x	-	100	-	0.00	-0.08	-0.10	-0.17	-0.24	-0.30	-0.34	0.00	-0.12	-0.15	-0.28	-0.41	-0.48	-0.55
San Francisco Bay Area, CA	x	-	100	-	0.00	-0.18	-0.21	-0.37	-0.53	-0.65	-0.74	0.00	-0.27	-0.33	-0.62	-0.90	-1.06	-1.22
San Joaquin Valley, CA	x	x	50	100	0.00	-0.12	-0.14	-0.25	-0.35	-0.43	-0.49	0.00	-0.18	-0.22	-0.41	-0.59	-0.70	-0.81
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Springfield (Western MA), MA	x	-	100	-	0.00	-0.03	-0.03	-0.05	-0.07	-0.09	-0.10	0.00	-0.04	-0.05	-0.09	-0.12	-0.15	-0.17
St. Louis, MO-IL	x	x	100	100	0.00	-0.08	-0.10	-0.17	-0.24	-0.30	-0.34	0.00	-0.12	-0.15	-0.29	-0.41	-0.49	-0.56
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.02	-0.02	-0.04	-0.05	-0.06	-0.07	0.00	-0.03	-0.03	-0.06	-0.09	-0.10	-0.12
Washington, DC-MD-VA	x	x	100	100	0.00	-0.13	-0.16	-0.27	-0.39	-0.48	-0.54	0.00	-0.20	-0.24	-0.46	-0.66	-0.78	-0.89
Wheeling, WV-OH	-	x	-	100	0.00	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.01	-0.01	-0.02	-0.02	-0.03	-0.03
York, PA	-	x	-	100	0.00	-0.01	-0.01	-0.02	-0.03	-0.04	-0.04	0.00	-0.02	-0.02	-0.04	-0.05	-0.06	-0.07

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-8
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.05	-0.05	-0.06	-0.09	-0.11	-0.13	0.00	-0.09	-0.10	-0.09	-0.16	-0.19	-0.23
Allegan Co., MI	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
Atlanta, GA	x	x	100	100	0.00	-0.27	-0.29	-0.30	-0.46	-0.58	-0.70	0.00	-0.50	-0.53	-0.50	-0.83	-1.03	-1.24
Baltimore, MD	x	x	100	100	0.00	-0.11	-0.12	-0.12	-0.19	-0.24	-0.29	0.00	-0.21	-0.22	-0.21	-0.34	-0.43	-0.52
Baton Rouge, LA	x	-	100	-	0.00	-0.03	-0.03	-0.03	-0.04	-0.06	-0.07	0.00	-0.05	-0.05	-0.05	-0.08	-0.10	-0.12
Beaumont/Port Arthur, TX	x	-	100	-	0.00	-0.02	-0.02	-0.02	-0.03	-0.03	-0.04	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.07
Birmingham, AL	-	x	-	100	0.00	-0.04	-0.04	-0.05	-0.07	-0.09	-0.11	0.00	-0.08	-0.08	-0.08	-0.13	-0.16	-0.19
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.18	-0.19	-0.20	-0.31	-0.39	-0.47	0.00	-0.34	-0.36	-0.34	-0.56	-0.70	-0.84
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.02	-0.03	-0.03	-0.04	-0.05	-0.06	0.00	-0.05	-0.05	-0.05	-0.08	-0.09	-0.11
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.04	-0.05	-0.05	-0.07	-0.09	-0.11	0.00	-0.08	-0.09	-0.08	-0.13	-0.17	-0.20
Canton-Massillon, OH	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03	0.00	-0.02	-0.02	-0.02	-0.04	-0.05	-0.06
Charleston, WV	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03	0.00	-0.02	-0.02	-0.02	-0.04	-0.04	-0.05
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.07	-0.08	-0.08	-0.12	-0.15	-0.18	0.00	-0.13	-0.14	-0.13	-0.22	-0.27	-0.33
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.02	-0.02	-0.02	-0.04	-0.05	-0.05	0.00	-0.04	-0.04	-0.04	-0.06	-0.08	-0.10
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	-0.28	-0.30	-0.31	-0.47	-0.60	-0.72	0.00	-0.52	-0.55	-0.52	-0.85	-1.06	-1.28
Chico, CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.07	-0.08	-0.08	-0.12	-0.16	-0.19	0.00	-0.13	-0.14	-0.14	-0.22	-0.28	-0.33
Clearfield and Indiana Cos.	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.11	-0.11	-0.12	-0.18	-0.22	-0.27	0.00	-0.19	-0.21	-0.19	-0.32	-0.40	-0.48
Columbus, OH	x	x	100	100	0.00	-0.07	-0.07	-0.07	-0.12	-0.15	-0.17	0.00	-0.13	-0.13	-0.13	-0.21	-0.26	-0.31
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.28	-0.29	-0.30	-0.47	-0.59	-0.71	0.00	-0.51	-0.54	-0.51	-0.84	-1.05	-1.26
Dayton-Springfield, OH	-	x	-	100	0.00	-0.03	-0.03	-0.03	-0.05	-0.07	-0.08	0.00	-0.06	-0.06	-0.06	-0.10	-0.12	-0.15
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	-0.13	-0.14	-0.14	-0.22	-0.27	-0.33	0.00	-0.24	-0.25	-0.24	-0.39	-0.49	-0.58
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.19	-0.20	-0.21	-0.32	-0.41	-0.49	0.00	-0.35	-0.38	-0.36	-0.59	-0.73	-0.88
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.04	0.00	-0.03	-0.03	-0.03	-0.04	-0.05	-0.06
Greater Connecticut, CT	x	-	100	-	0.00	-0.07	-0.07	-0.08	-0.12	-0.15	-0.18	0.00	-0.13	-0.14	-0.13	-0.21	-0.27	-0.32
Greene	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.03	-0.03	-0.03	-0.05	-0.07	-0.08	0.00	-0.06	-0.06	-0.06	-0.10	-0.12	-0.14

**Table B1-8
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.07	0.00	-0.05	-0.06	-0.05	-0.09	-0.11	-0.13
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	-0.20	-0.22	-0.22	-0.34	-0.43	-0.52	0.00	-0.38	-0.40	-0.38	-0.62	-0.77	-0.93
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	-0.02	-0.02	-0.02	-0.03	-0.04	-0.04	0.00	-0.03	-0.03	-0.03	-0.05	-0.07	-0.08
Imperial Co., CA	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.02	-0.02	-0.02	-0.03	-0.03	-0.04
Indianapolis, IN	-	x	-	100	0.00	-0.06	-0.07	-0.07	-0.11	-0.14	-0.16	0.00	-0.12	-0.12	-0.12	-0.19	-0.24	-0.29
Jamestown, NY	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
Jefferson Co., NY	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02
Johnstown, PA	-	x	-	100	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Knoxville, TN	x	x	100	100	0.00	-0.04	-0.05	-0.05	-0.07	-0.09	-0.11	0.00	-0.08	-0.08	-0.08	-0.13	-0.16	-0.20
Lancaster, PA	-	x	-	100	0.00	-0.02	-0.02	-0.02	-0.03	-0.04	-0.04	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.08
Las Vegas, NV	x	-	100	-	0.00	-0.06	-0.06	-0.06	-0.09	-0.12	-0.14	0.00	-0.10	-0.11	-0.10	-0.17	-0.21	-0.26
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	-0.58	-0.62	-0.64	-0.99	-1.25	-1.50	0.00	-1.08	-1.15	-1.08	-1.78	-2.22	-2.67
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.07	0.00	-0.05	-0.06	-0.05	-0.09	-0.11	-0.13
Louisville, KY-IN	-	x	-	100	0.00	-0.04	-0.05	-0.05	-0.07	-0.09	-0.11	0.00	-0.08	-0.09	-0.08	-0.14	-0.17	-0.20
Macon, GA	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	0.00	-0.02	-0.02	-0.02	-0.03	-0.03	-0.04
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.02	-0.02	-0.02	-0.03	-0.03	-0.04	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.07
Memphis, TN-AR	x	-	100	-	0.00	-0.04	-0.04	-0.04	-0.07	-0.08	-0.10	0.00	-0.07	-0.08	-0.07	-0.12	-0.15	-0.18
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.07	-0.07	-0.08	-0.12	-0.15	-0.18	0.00	-0.13	-0.14	-0.13	-0.21	-0.26	-0.32
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.57	-0.61	-0.63	-0.97	-1.22	-1.47	0.00	-1.06	-1.12	-1.06	-1.75	-2.18	-2.61
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.03
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	-0.27	-0.29	-0.30	-0.46	-0.58	-0.70	0.00	-0.50	-0.54	-0.51	-0.83	-1.04	-1.25
Phoenix-Mesa	x	-	100	-	0.00	-0.15	-0.16	-0.17	-0.26	-0.33	-0.40	0.00	-0.29	-0.31	-0.29	-0.47	-0.59	-0.71

**Table B1-8
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Acrolein 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.08	-0.08	-0.09	-0.13	-0.17	-0.20	0.00	-0.14	-0.15	-0.14	-0.24	-0.30	-0.36
Poughkeepsie, NY	x	x	100	100	0.00	-0.05	-0.05	-0.06	-0.09	-0.11	-0.13	0.00	-0.09	-0.10	-0.09	-0.15	-0.19	-0.23
Providence (All RI), RI	x	-	100	-	0.00	-0.04	-0.04	-0.04	-0.06	-0.08	-0.09	0.00	-0.07	-0.07	-0.07	-0.11	-0.14	-0.17
Reading, PA	-	x	-	100	0.00	-0.01	-0.02	-0.02	-0.03	-0.03	-0.04	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.07
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.08	0.00	-0.05	-0.06	-0.05	-0.09	-0.11	-0.13
Rochester, NY	x	-	100	-	0.00	-0.05	-0.05	-0.06	-0.09	-0.11	-0.13	0.00	-0.09	-0.10	-0.09	-0.16	-0.19	-0.23
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Sacramento Metro, CA	x	-	50	-	0.00	-0.09	-0.09	-0.09	-0.14	-0.18	-0.22	0.00	-0.16	-0.17	-0.16	-0.26	-0.33	-0.39
San Diego, CA	x	-	100	-	0.00	-0.12	-0.13	-0.13	-0.20	-0.26	-0.31	0.00	-0.22	-0.24	-0.22	-0.37	-0.46	-0.55
San Francisco Bay Area, CA	x	-	100	-	0.00	-0.26	-0.28	-0.29	-0.45	-0.56	-0.68	0.00	-0.49	-0.52	-0.49	-0.80	-1.00	-1.20
San Joaquin Valley, CA	x	x	50	100	0.00	-0.17	-0.19	-0.19	-0.30	-0.37	-0.45	0.00	-0.32	-0.34	-0.32	-0.53	-0.66	-0.80
Sheboygan, WI	x	-	100	-	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Springfield (Western MA), MA	x	-	100	-	0.00	-0.04	-0.04	-0.04	-0.06	-0.08	-0.09	0.00	-0.07	-0.07	-0.07	-0.11	-0.14	-0.17
St. Louis, MO-IL	x	x	100	100	0.00	-0.12	-0.13	-0.13	-0.20	-0.26	-0.31	0.00	-0.22	-0.24	-0.22	-0.37	-0.46	-0.55
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.03	-0.03	-0.03	-0.04	-0.05	-0.06	0.00	-0.05	-0.05	-0.05	-0.08	-0.10	-0.11
Washington, DC-MD-VA	x	x	100	100	0.00	-0.19	-0.20	-0.21	-0.33	-0.41	-0.49	0.00	-0.36	-0.38	-0.36	-0.59	-0.73	-0.88
Wheeling, WV-OH	-	x	-	100	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.03	-0.03
York, PA	-	x	-	100	0.00	-0.02	-0.02	-0.02	-0.03	-0.03	-0.04	0.00	-0.03	-0.03	-0.03	-0.05	-0.06	-0.07

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-9
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Benzene 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	0.02	0.05	0.69	1.27	1.83	1.94	0.00	0.02	0.05	0.69	1.27	1.83	1.94
Allegan Co., MI	x	-	100	-	0.00	0.00	0.01	0.08	0.14	0.20	0.21	0.00	0.00	0.01	0.08	0.14	0.20	0.21
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.07	0.13	0.18	0.19	0.00	0.00	0.00	0.07	0.13	0.18	0.19
Atlanta, GA	x	x	100	100	0.00	0.12	0.25	3.68	6.75	9.72	10.34	0.00	0.12	0.25	3.68	6.75	9.72	10.34
Baltimore, MD	x	x	100	100	0.00	0.05	0.10	1.53	2.80	4.04	4.30	0.00	0.05	0.10	1.53	2.80	4.04	4.30
Baton Rouge, LA	x	-	100	-	0.00	3.88	5.17	8.63	11.34	13.99	14.95	0.00	5.17	8.31	11.05	13.71	14.90	1.00
Beaumont/Port Arthur, TX	x	-	100	-	0.00	7.79	10.39	16.89	21.93	26.86	28.71	0.00	10.39	16.70	21.76	26.70	28.69	0.62
Birmingham, AL	-	x	-	100	0.00	0.02	0.04	0.56	1.03	1.48	1.57	0.00	0.02	0.04	0.56	1.03	1.48	1.57
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	0.08	0.17	2.49	4.56	6.57	6.99	0.00	0.08	0.17	2.49	4.56	6.57	6.99
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.01	0.02	0.34	0.62	0.89	0.95	0.00	0.01	0.02	0.34	0.62	0.89	0.95
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.02	0.04	0.60	1.10	1.58	1.68	0.00	0.02	0.04	0.60	1.10	1.58	1.68
Canton-Massillon, OH	-	x	-	100	0.00	0.51	0.68	1.25	1.71	2.16	2.30	0.00	0.68	1.09	1.57	2.02	2.27	0.48
Charleston, WV	-	x	-	100	0.00	0.01	0.01	0.16	0.29	0.42	0.45	0.00	0.01	0.01	0.16	0.29	0.42	0.45
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	0.03	0.06	0.97	1.77	2.56	2.72	0.00	0.03	0.06	0.97	1.77	2.56	2.72
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.01	0.02	0.29	0.53	0.76	0.81	0.00	0.01	0.02	0.29	0.53	0.76	0.81
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	5.76	7.77	15.86	22.54	29.04	30.99	0.00	7.64	12.34	19.40	25.99	30.37	10.64
Chico, CA	x	-	100	-	0.00	0.00	0.01	0.10	0.19	0.27	0.29	0.00	0.00	0.01	0.10	0.19	0.27	0.29
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	0.03	0.07	0.99	1.82	2.62	2.78	0.00	0.03	0.07	0.99	1.82	2.62	2.78
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.01	0.09	0.17	0.25	0.26	0.00	0.00	0.01	0.09	0.17	0.25	0.26
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	0.05	0.10	1.43	2.62	3.77	4.01	0.00	0.05	0.10	1.43	2.62	3.77	4.01
Columbus, OH	x	x	100	100	0.00	0.03	0.06	0.92	1.69	2.44	2.59	0.00	0.03	0.06	0.92	1.69	2.44	2.59
Dallas-Fort Worth, TX	x	-	100	-	0.00	0.12	0.25	3.74	6.85	9.88	10.50	0.00	0.12	0.25	3.74	6.85	9.88	10.50
Dayton-Springfield, OH	-	x	-	100	0.00	0.01	0.03	0.43	0.79	1.14	1.22	0.00	0.01	0.03	0.43	0.79	1.14	1.22
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.71	0.98	3.12	4.97	6.77	7.21	0.00	0.92	1.51	3.53	5.37	6.92	4.87
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.77	1.10	4.09	6.69	9.22	9.82	0.00	1.01	1.66	4.52	7.12	9.38	7.32
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.02	0.03	0.05	0.05	0.00	0.00	0.00	0.02	0.03	0.05	0.05
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	0.01	0.01	0.19	0.34	0.49	0.52	0.00	0.01	0.01	0.19	0.34	0.49	0.52
Greater Connecticut, CT	x	-	100	-	0.00	0.03	0.06	0.95	1.74	2.50	2.66	0.00	0.03	0.06	0.95	1.74	2.50	2.66
Greene	x	-	100	-	0.00	0.00	0.00	0.02	0.04	0.06	0.06	0.00	0.00	0.00	0.02	0.04	0.06	0.06
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.01	0.03	0.43	0.78	1.13	1.20	0.00	0.01	0.03	0.43	0.78	1.13	1.20

**Table B1-9
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Benzene 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.01	0.03	0.39	0.71	1.02	1.09	0.00	0.01	0.03	0.39	0.71	1.02	1.09
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Hickory, NC	-	x	-	100	0.00	0.00	0.01	0.10	0.18	0.27	0.28	0.00	0.00	0.01	0.10	0.18	0.27	0.28
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	16.01	21.41	36.88	49.12	61.08	65.25	0.00	21.34	34.33	46.85	58.88	64.82	7.75
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	1.54	2.06	3.52	4.68	5.80	6.20	0.00	2.06	3.31	4.48	5.62	6.16	0.66
Imperial Co., CA	x	-	100	-	0.00	0.00	0.01	0.12	0.22	0.32	0.34	0.00	0.00	0.01	0.12	0.22	0.32	0.34
Indianapolis, IN	-	x	-	100	0.00	0.03	0.06	0.86	1.58	2.28	2.42	0.00	0.03	0.06	0.86	1.58	2.28	2.42
Jamestown, NY	x	-	100	-	0.00	0.00	0.01	0.08	0.15	0.21	0.22	0.00	0.00	0.01	0.08	0.15	0.21	0.22
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	0.07	0.14	0.20	0.21	0.00	0.00	0.00	0.07	0.14	0.20	0.21
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	0.07	0.12	0.17	0.18	0.00	0.00	0.00	0.07	0.12	0.17	0.18
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	0.06	0.11	0.17	0.18	0.00	0.00	0.00	0.06	0.11	0.17	0.18
Knoxville, TN	x	x	100	100	0.00	0.02	0.04	0.59	1.07	1.55	1.64	0.00	0.02	0.04	0.59	1.07	1.55	1.64
Lancaster, PA	-	x	-	100	0.00	0.01	0.02	0.23	0.42	0.60	0.64	0.00	0.01	0.02	0.23	0.42	0.60	0.64
Las Vegas, NV	x	-	100	-	0.00	0.02	0.05	0.76	1.39	2.00	2.13	0.00	0.02	0.05	0.76	1.39	2.00	2.13
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	8.83	11.96	26.29	38.25	49.89	53.22	0.00	11.69	18.91	31.66	43.50	51.91	22.27
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.01	0.03	0.39	0.72	1.03	1.10	0.00	0.01	0.03	0.39	0.72	1.03	1.10
Louisville, KY-IN	-	x	-	100	0.00	0.02	0.04	0.60	1.10	1.59	1.69	0.00	0.02	0.04	0.60	1.10	1.59	1.69
Macon, GA	-	x	-	100	0.00	0.00	0.01	0.11	0.21	0.30	0.31	0.00	0.00	0.01	0.11	0.21	0.30	0.31
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.06	0.11	0.15	0.16	0.00	0.00	0.00	0.06	0.11	0.15	0.16
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.06	0.10	0.15	0.16	0.00	0.00	0.00	0.06	0.10	0.15	0.16
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.01	0.01	0.22	0.40	0.58	0.62	0.00	0.01	0.01	0.22	0.40	0.58	0.62
Memphis, TN-AR	x	-	100	-	0.00	1.26	1.69	3.20	4.42	5.61	5.99	0.00	1.68	2.70	3.98	5.18	5.90	1.50
Milwaukee-Racine, WI	x	-	100	-	0.00	0.03	0.06	0.94	1.73	2.49	2.65	0.00	0.03	0.06	0.94	1.73	2.49	2.65
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.05	0.10	0.14	0.15	0.00	0.00	0.00	0.05	0.10	0.14	0.15
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	2.45	3.45	12.47	20.31	27.93	29.74	0.00	3.18	5.23	13.85	21.66	28.45	21.81
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.01	0.08	0.16	0.22	0.24	0.00	0.00	0.01	0.08	0.16	0.22	0.24
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	8.31	11.17	21.26	29.46	37.47	39.99	0.00	11.05	17.81	26.39	34.49	39.39	10.42
Phoenix-Mesa	x	-	100	-	0.00	0.07	0.14	2.11	3.86	5.56	5.92	0.00	0.07	0.14	2.11	3.86	5.56	5.92

**Table B1-9
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Benzene 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	0.03	0.07	1.05	1.93	2.78	2.96	0.00	0.03	0.07	1.05	1.93	2.78	2.96
Poughkeepsie, NY	x	x	100	100	0.00	0.02	0.05	0.68	1.25	1.80	1.92	0.00	0.02	0.05	0.68	1.25	1.80	1.92
Providence (All RI), RI	x	-	100	-	0.00	0.02	0.03	0.49	0.91	1.31	1.39	0.00	0.02	0.03	0.49	0.91	1.31	1.39
Reading, PA	-	x	-	100	0.00	0.01	0.01	0.20	0.37	0.53	0.56	0.00	0.01	0.01	0.20	0.37	0.53	0.56
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.01	0.03	0.40	0.73	1.05	1.12	0.00	0.01	0.03	0.40	0.73	1.05	1.12
Rochester, NY	x	-	100	-	0.00	0.02	0.05	0.69	1.27	1.83	1.94	0.00	0.02	0.05	0.69	1.27	1.83	1.94
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.06	0.11	0.16	0.17	0.00	0.00	0.00	0.06	0.11	0.16	0.17
Sacramento Metro, CA	x	-	50	-	0.00	0.04	0.08	1.16	2.13	3.07	3.27	0.00	0.04	0.08	1.16	2.13	3.07	3.27
San Diego, CA	x	-	100	-	0.00	0.05	0.11	1.63	2.98	4.30	4.57	0.00	0.05	0.11	1.63	2.98	4.30	4.57
San Francisco Bay Area, CA	x	-	100	-	0.00	4.70	6.35	13.39	19.22	24.91	26.57	0.00	6.23	10.06	16.26	22.03	25.98	10.03
San Joaquin Valley, CA	x	x	50	100	0.00	0.84	1.18	4.02	6.47	8.86	9.43	0.00	1.10	1.80	4.50	6.94	9.04	6.66
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	0.06	0.12	0.17	0.18	0.00	0.00	0.00	0.06	0.12	0.17	0.18
Springfield (Western MA), MA	x	-	100	-	0.00	0.02	0.03	0.50	0.91	1.31	1.40	0.00	0.02	0.03	0.50	0.91	1.31	1.40
St. Louis, MO-IL	x	x	100	100	0.00	2.17	2.93	6.18	8.87	11.49	12.26	0.00	2.88	4.64	7.50	10.16	11.99	4.62
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.14	0.19	0.35	0.49	0.62	0.66	0.00	0.19	0.30	0.44	0.57	0.65	0.16
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.03	0.05	0.38	0.68	0.97	1.03	0.00	0.04	0.06	0.40	0.69	0.97	0.96
Washington, DC-MD-VA	x	x	100	100	0.00	0.08	0.17	2.62	4.80	6.91	7.35	0.00	0.08	0.17	2.62	4.80	6.91	7.35
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.01	0.09	0.17	0.24	0.26	0.00	0.00	0.01	0.09	0.17	0.24	0.26
York, PA	-	x	-	100	0.00	0.01	0.01	0.21	0.39	0.56	0.60	0.00	0.01	0.01	0.21	0.39	0.56	0.60

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-10
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Benzene 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	0.34	0.59	4.42	6.98	9.14	9.90	0.00	0.21	0.63	5.33	8.20	10.45	11.42
Allegan Co., MI	x	-	100	-	0.00	0.04	0.06	0.48	0.76	1.00	1.08	0.00	0.02	0.07	0.58	0.90	1.14	1.25
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.03	0.06	0.44	0.69	0.91	0.98	0.00	0.02	0.06	0.53	0.82	1.04	1.14
Atlanta, GA	x	x	100	100	0.00	1.82	3.11	23.50	37.12	48.61	52.64	0.00	1.12	3.33	28.33	43.60	55.58	60.75
Baltimore, MD	x	x	100	100	0.00	0.76	1.29	9.77	15.43	20.20	21.87	0.00	0.47	1.38	11.77	18.12	23.10	25.24
Baton Rouge, LA	x	-	100	-	0.00	10.07	13.43	24.09	30.95	36.60	39.65	0.00	16.90	27.53	36.13	42.20	46.40	5.88
Beaumont/Port Arthur, TX	x	-	100	-	0.00	20.04	26.63	45.34	57.30	67.14	72.74	0.00	33.87	54.97	68.92	79.10	85.93	3.66
Birmingham, AL	-	x	-	100	0.00	0.28	0.47	3.57	5.64	7.39	8.00	0.00	0.17	0.51	4.31	6.63	8.45	9.23
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	1.23	2.11	15.89	25.10	32.87	35.59	0.00	0.76	2.25	19.15	29.48	37.58	41.07
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.17	0.28	2.15	3.40	4.45	4.81	0.00	0.10	0.30	2.59	3.99	5.08	5.56
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.30	0.51	3.82	6.04	7.90	8.56	0.00	0.18	0.54	4.61	7.09	9.04	9.88
Canton-Massillon, OH	-	x	-	100	0.00	1.38	1.86	3.94	5.29	6.42	6.95	0.00	2.24	3.71	5.67	6.98	7.93	2.82
Charleston, WV	-	x	-	100	0.00	0.08	0.14	1.02	1.62	2.12	2.29	0.00	0.05	0.15	1.23	1.90	2.42	2.64
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	0.48	0.82	6.18	9.76	12.78	13.84	0.00	0.29	0.88	7.45	11.47	14.62	15.98
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.14	0.24	1.83	2.89	3.79	4.10	0.00	0.09	0.26	2.21	3.40	4.33	4.73
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	16.31	22.36	56.00	78.10	96.54	104.56	0.00	25.65	43.12	77.85	100.27	117.02	62.50
Chico, CA	x	-	100	-	0.00	0.05	0.09	0.66	1.04	1.37	1.48	0.00	0.03	0.09	0.80	1.23	1.56	1.71
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	0.49	0.84	6.33	10.00	13.09	14.17	0.00	0.30	0.90	7.63	11.74	14.97	16.36
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.05	0.08	0.60	0.95	1.24	1.34	0.00	0.03	0.08	0.72	1.11	1.42	1.55
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	0.71	1.21	9.12	14.40	18.86	20.42	0.00	0.43	1.29	10.99	16.91	21.56	23.56
Columbus, OH	x	x	100	100	0.00	0.46	0.78	5.89	9.31	12.19	13.20	0.00	0.28	0.84	7.10	10.93	13.94	15.23
Dallas-Fort Worth, TX	x	-	100	-	0.00	1.85	3.16	23.88	37.72	49.39	53.47	0.00	1.14	3.38	28.78	44.30	56.47	61.72
Dayton-Springfield, OH	-	x	-	100	0.00	0.21	0.37	2.76	4.37	5.72	6.19	0.00	0.13	0.39	3.33	5.13	6.54	7.15
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	2.52	3.67	14.73	22.07	28.24	30.58	0.00	3.35	6.14	18.94	26.91	33.06	28.59
Detroit-Ann Arbor, MI	x	x	100	100	0.00	3.06	4.56	20.55	31.19	40.14	43.46	0.00	3.80	7.23	26.04	37.68	46.71	43.03
Door Co., WI	x	-	100	-	0.00	0.01	0.01	0.11	0.18	0.23	0.25	0.00	0.01	0.02	0.14	0.21	0.27	0.29
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Evansville, IN	-	x	-	100	0.00	0.09	0.16	1.18	1.87	2.45	2.65	0.00	0.06	0.17	1.43	2.20	2.80	3.06
Greater Connecticut, CT	x	-	100	-	0.00	0.47	0.80	6.04	9.55	12.50	13.54	0.00	0.29	0.86	7.29	11.21	14.30	15.63
Greene	x	-	100	-	0.00	0.01	0.02	0.14	0.22	0.29	0.31	0.00	0.01	0.02	0.17	0.26	0.33	0.36
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.21	0.36	2.73	4.32	5.65	6.12	0.00	0.13	0.39	3.30	5.07	6.47	7.07

Table B1-10
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Benzene 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.19	0.33	2.48	3.91	5.12	5.55	0.00	0.12	0.35	2.99	4.59	5.86	6.40
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.02	0.03	0.04	0.04	0.00	0.00	0.00	0.02	0.03	0.04	0.04
Hickory, NC	-	x	-	100	0.00	0.05	0.09	0.64	1.01	1.33	1.44	0.00	0.03	0.09	0.77	1.19	1.52	1.66
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	42.16	56.46	107.52	140.55	167.88	181.86	0.00	70.03	114.62	158.81	189.22	210.71	45.53
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	4.05	5.41	10.16	13.23	15.77	17.08	0.00	6.74	11.02	15.07	17.87	19.84	3.88
Imperial Co., CA	x	-	100	-	0.00	0.06	0.10	0.76	1.20	1.58	1.71	0.00	0.04	0.11	0.92	1.41	1.80	1.97
Indianapolis, IN	-	x	-	100	0.00	0.43	0.73	5.50	8.69	11.38	12.32	0.00	0.26	0.78	6.63	10.21	13.01	14.22
Jamestown, NY	x	-	100	-	0.00	0.04	0.07	0.51	0.80	1.05	1.14	0.00	0.02	0.07	0.61	0.94	1.20	1.31
Jefferson Co., NY	x	-	100	-	0.00	0.04	0.06	0.47	0.75	0.98	1.06	0.00	0.02	0.07	0.57	0.88	1.12	1.22
Johnstown, PA	-	x	-	100	0.00	0.03	0.06	0.42	0.66	0.86	0.93	0.00	0.02	0.06	0.50	0.77	0.99	1.08
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.03	0.05	0.40	0.63	0.83	0.90	0.00	0.02	0.06	0.48	0.74	0.95	1.03
Knoxville, TN	x	x	100	100	0.00	0.29	0.50	3.74	5.90	7.73	8.37	0.00	0.18	0.53	4.51	6.93	8.84	9.66
Lancaster, PA	-	x	-	100	0.00	0.11	0.19	1.46	2.31	3.02	3.27	0.00	0.07	0.21	1.76	2.71	3.46	3.78
Las Vegas, NV	x	-	100	-	0.00	0.37	0.64	4.84	7.64	10.01	10.84	0.00	0.23	0.69	5.83	8.98	11.45	12.51
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.02	0.04	0.05	0.05	0.00	0.00	0.00	0.03	0.04	0.06	0.06
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.01	0.05	0.07	0.10	0.11	0.00	0.00	0.01	0.06	0.09	0.11	0.12
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	25.88	35.84	99.01	140.63	175.45	190.01	0.00	39.66	67.53	135.07	178.17	210.70	130.84
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.19	0.33	2.50	3.94	5.16	5.59	0.00	0.12	0.35	3.01	4.63	5.90	6.45
Louisville, KY-IN	-	x	-	100	0.00	0.30	0.51	3.84	6.06	7.94	8.60	0.00	0.18	0.54	4.63	7.12	9.08	9.92
Macon, GA	-	x	-	100	0.00	0.06	0.09	0.72	1.13	1.48	1.60	0.00	0.03	0.10	0.86	1.33	1.69	1.85
Manitowoc Co., WI	x	-	100	-	0.00	0.03	0.05	0.37	0.58	0.76	0.82	0.00	0.02	0.05	0.44	0.68	0.87	0.95
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.03	0.05	0.36	0.57	0.74	0.80	0.00	0.02	0.05	0.43	0.66	0.85	0.93
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.11	0.19	1.40	2.21	2.90	3.14	0.00	0.07	0.20	1.69	2.60	3.31	3.62
Memphis, TN-AR	x	-	100	-	0.00	3.45	4.68	10.42	14.18	17.30	18.74	0.00	5.57	9.24	14.85	18.54	21.25	8.79
Milwaukee-Racine, WI	x	-	100	-	0.00	0.47	0.80	6.02	9.51	12.45	13.48	0.00	0.29	0.85	7.26	11.17	14.24	15.56
Nevada (Western Part), CA	x	-	100	-	0.00	0.03	0.05	0.34	0.54	0.70	0.76	0.00	0.02	0.05	0.41	0.63	0.81	0.88
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	9.47	14.04	61.97	93.86	120.67	130.66	0.00	11.91	22.50	78.73	113.56	140.56	128.13
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.04	0.07	0.54	0.86	1.12	1.21	0.00	0.03	0.08	0.65	1.01	1.28	1.40
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	22.82	30.98	69.93	95.39	116.59	126.29	0.00	36.72	61.03	99.32	124.45	142.96	61.20
Phoenix-Mesa	x	-	100	-	0.00	1.04	1.78	13.45	21.25	27.82	30.13	0.00	0.64	1.91	16.21	24.96	31.81	34.77

Table B1-10
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Benzene 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	0.52	0.89	6.73	10.63	13.92	15.07	0.00	0.32	0.95	8.11	12.49	15.92	17.40
Poughkeepsie, NY	x	x	100	100	0.00	0.34	0.58	4.36	6.89	9.02	9.77	0.00	0.21	0.62	5.26	8.09	10.32	11.28
Providence (All RI), RI	x	-	100	-	0.00	0.24	0.42	3.16	4.98	6.53	7.07	0.00	0.15	0.45	3.80	5.85	7.46	8.16
Reading, PA	-	x	-	100	0.00	0.10	0.17	1.28	2.02	2.65	2.87	0.00	0.06	0.18	1.54	2.38	3.03	3.31
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.20	0.34	2.54	4.02	5.26	5.70	0.00	0.12	0.36	3.07	4.72	6.02	6.58
Rochester, NY	x	-	100	-	0.00	0.34	0.59	4.42	6.98	9.14	9.90	0.00	0.21	0.63	5.33	8.20	10.45	11.43
Rome, GA	-	x	-	100	0.00	0.03	0.05	0.39	0.61	0.80	0.87	0.00	0.02	0.05	0.47	0.72	0.91	1.00
Sacramento Metro, CA	x	-	50	-	0.00	0.58	0.98	7.43	11.73	15.36	16.63	0.00	0.35	1.05	8.95	13.78	17.56	19.20
San Diego, CA	x	-	100	-	0.00	0.81	1.38	10.39	16.42	21.50	23.28	0.00	0.50	1.47	12.53	19.28	24.58	26.87
San Francisco Bay Area, CA	x	-	100	-	0.00	13.50	18.59	48.67	68.45	84.99	92.05	0.00	20.99	35.48	67.07	87.34	102.57	58.96
San Joaquin Valley, CA	x	x	50	100	0.00	3.14	4.62	19.48	29.36	37.67	40.79	0.00	4.06	7.55	24.89	35.65	43.97	39.16
Sheboygan, WI	x	-	100	-	0.00	0.03	0.05	0.41	0.65	0.85	0.92	0.00	0.02	0.06	0.49	0.76	0.97	1.06
Springfield (Western MA), MA	x	-	100	-	0.00	0.25	0.42	3.17	5.01	6.56	7.11	0.00	0.15	0.45	3.82	5.89	7.50	8.20
St. Louis, MO-IL	x	x	100	100	0.00	6.23	8.58	22.44	31.56	39.18	42.43	0.00	9.69	16.38	30.93	40.27	47.29	27.14
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.38	0.52	1.15	1.56	1.90	2.06	0.00	0.62	1.03	1.64	2.04	2.34	0.95
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.22	0.35	2.29	3.58	4.67	5.06	0.00	0.19	0.45	2.79	4.23	5.36	5.64
Washington, DC-MD-VA	x	x	100	100	0.00	1.29	2.21	16.70	26.39	34.55	37.41	0.00	0.80	2.37	20.13	30.99	39.51	43.18
Wheeling, WV-OH	-	x	-	100	0.00	0.05	0.08	0.58	0.92	1.20	1.30	0.00	0.03	0.08	0.70	1.08	1.38	1.50
York, PA	-	x	-	100	0.00	0.10	0.18	1.35	2.14	2.80	3.03	0.00	0.06	0.19	1.63	2.51	3.20	3.50

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-11
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Benzene 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	1.04	1.56	10.51	15.98	20.24	22.17	0.00	0.35	1.81	15.39	22.62	27.42	30.56
Allegan Co., MI	x	-	100	-	0.00	0.11	0.17	1.15	1.75	2.21	2.42	0.00	0.04	0.20	1.68	2.47	3.00	3.34
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.10	0.16	1.05	1.59	2.01	2.20	0.00	0.04	0.18	1.53	2.25	2.73	3.04
Atlanta, GA	x	x	100	100	0.00	5.52	8.30	55.91	85.01	107.63	117.91	0.00	1.89	9.63	81.86	120.32	145.84	162.54
Baltimore, MD	x	x	100	100	0.00	2.29	3.45	23.23	35.32	44.72	48.99	0.00	0.78	4.00	34.01	50.00	60.60	67.54
Baton Rouge, LA	x	-	100	-	0.00	15.66	20.80	38.85	49.90	58.42	63.65	0.00	30.27	49.18	66.17	76.40	84.14	15.74
Beaumont/Port Arthur, TX	x	-	100	-	0.00	30.79	40.75	70.70	89.01	103.12	112.27	0.00	60.69	97.72	122.21	137.61	149.76	9.80
Birmingham, AL	-	x	-	100	0.00	0.84	1.26	8.50	12.92	16.36	17.92	0.00	0.29	1.46	12.44	18.29	22.17	24.71
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	3.73	5.61	37.80	57.48	72.77	79.72	0.00	1.28	6.51	55.34	81.35	98.60	109.89
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.50	0.76	5.11	7.78	9.85	10.79	0.00	0.17	0.88	7.49	11.01	13.34	14.87
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.90	1.35	9.09	13.82	17.50	19.17	0.00	0.31	1.57	13.31	19.56	23.71	26.42
Canton-Massillon, OH	-	x	-	100	0.00	2.23	3.00	6.96	9.38	11.26	12.29	0.00	4.02	6.75	11.40	14.03	15.90	7.54
Charleston, WV	-	x	-	100	0.00	0.24	0.36	2.43	3.70	4.69	5.13	0.00	0.08	0.42	3.56	5.24	6.35	7.08
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	1.45	2.18	14.70	22.36	28.31	31.01	0.00	0.50	2.53	21.53	31.64	38.35	42.75
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.43	0.65	4.35	6.62	8.38	9.18	0.00	0.15	0.75	6.37	9.37	11.36	12.66
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	27.75	37.71	106.30	148.24	180.75	197.50	0.00	45.84	80.30	169.19	218.23	252.17	167.21
Chico, CA	x	-	100	-	0.00	0.16	0.23	1.57	2.39	3.03	3.31	0.00	0.05	0.27	2.30	3.38	4.10	4.57
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	1.49	2.24	15.05	22.89	28.98	31.75	0.00	0.51	2.59	22.04	32.40	39.27	43.77
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.14	0.21	1.42	2.16	2.74	3.00	0.00	0.05	0.25	2.08	3.06	3.71	4.14
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	2.14	3.22	21.69	32.97	41.75	45.73	0.00	0.73	3.73	31.75	46.67	56.57	63.05
Columbus, OH	x	x	100	100	0.00	1.38	2.08	14.02	21.32	26.99	29.57	0.00	0.47	2.41	20.53	30.17	36.57	40.76
Dallas-Fort Worth, TX	x	-	100	-	0.00	5.61	8.44	56.80	86.37	109.35	119.79	0.00	1.92	9.78	83.16	122.24	148.16	165.13
Dayton-Springfield, OH	-	x	-	100	0.00	0.65	0.98	6.58	10.00	12.66	13.87	0.00	0.22	1.13	9.63	14.15	17.15	19.12
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	5.14	7.27	31.93	47.01	58.72	64.27	0.00	5.95	12.64	48.32	67.51	80.40	76.49
Detroit-Ann Arbor, MI	x	x	100	100	0.00	6.62	9.46	45.58	67.67	84.83	92.86	0.00	6.72	15.45	68.40	96.81	115.82	115.13
Door Co., WI	x	-	100	-	0.00	0.03	0.04	0.27	0.41	0.51	0.56	0.00	0.01	0.05	0.39	0.57	0.70	0.78
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.00	0.00	0.00	0.02	0.02	0.03	0.03
Evansville, IN	-	x	-	100	0.00	0.28	0.42	2.82	4.29	5.43	5.94	0.00	0.10	0.49	4.13	6.06	7.35	8.19
Greater Connecticut, CT	x	-	100	-	0.00	1.42	2.14	14.38	21.86	27.68	30.33	0.00	0.49	2.48	21.05	30.95	37.51	41.81
Greene	x	-	100	-	0.00	0.03	0.05	0.33	0.50	0.64	0.70	0.00	0.01	0.06	0.48	0.71	0.86	0.96
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.64	0.97	6.50	9.89	12.52	13.72	0.00	0.22	1.12	9.52	14.00	16.96	18.91

Table B1-11
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Benzene 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.58	0.88	5.89	8.96	11.34	12.43	0.00	0.20	1.01	8.63	12.68	15.37	17.13
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.01	0.04	0.06	0.08	0.09	0.00	0.00	0.01	0.06	0.09	0.11	0.12
Hickory, NC	-	x	-	100	0.00	0.15	0.23	1.53	2.32	2.94	3.22	0.00	0.05	0.26	2.24	3.29	3.98	4.44
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	66.49	88.62	179.72	235.42	278.48	303.63	0.00	125.42	206.07	301.41	357.01	397.86	121.82
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	6.36	8.47	16.85	21.98	25.94	28.27	0.00	12.07	19.78	28.36	33.40	37.12	10.38
Imperial Co., CA	x	-	100	-	0.00	0.18	0.27	1.81	2.76	3.49	3.82	0.00	0.06	0.31	2.65	3.90	4.73	5.27
Indianapolis, IN	-	x	-	100	0.00	1.29	1.94	13.09	19.90	25.19	27.60	0.00	0.44	2.25	19.16	28.16	34.14	38.05
Jamestown, NY	x	-	100	-	0.00	0.12	0.18	1.21	1.84	2.33	2.55	0.00	0.04	0.21	1.77	2.60	3.16	3.52
Jefferson Co., NY	x	-	100	-	0.00	0.11	0.17	1.12	1.71	2.16	2.37	0.00	0.04	0.19	1.65	2.42	2.93	3.27
Johnstown, PA	-	x	-	100	0.00	0.10	0.15	0.99	1.51	1.91	2.09	0.00	0.03	0.17	1.45	2.14	2.59	2.89
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.09	0.14	0.95	1.45	1.83	2.01	0.00	0.03	0.16	1.39	2.05	2.48	2.77
Knoxville, TN	x	x	100	100	0.00	0.88	1.32	8.89	13.52	17.12	18.75	0.00	0.30	1.53	13.02	19.14	23.20	25.85
Lancaster, PA	-	x	-	100	0.00	0.34	0.52	3.48	5.28	6.69	7.33	0.00	0.12	0.60	5.09	7.48	9.07	10.10
Las Vegas, NV	x	-	100	-	0.00	1.14	1.71	11.51	17.51	22.16	24.28	0.00	0.39	1.98	16.86	24.78	30.03	33.47
Libby, MT	-	x	-	100	0.00	0.01	0.01	0.06	0.09	0.11	0.12	0.00	0.00	0.01	0.08	0.12	0.15	0.17
Liberty-Clairton, PA	-	x	-	100	0.00	0.01	0.02	0.11	0.17	0.22	0.24	0.00	0.00	0.02	0.16	0.24	0.29	0.33
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	45.45	62.24	194.60	275.51	338.28	369.81	0.00	70.81	127.78	305.51	402.75	469.40	350.05
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.59	0.88	5.94	9.03	11.43	12.52	0.00	0.20	1.02	8.69	12.77	15.48	17.26
Louisville, KY-IN	-	x	-	100	0.00	0.90	1.36	9.13	13.88	17.58	19.26	0.00	0.31	1.57	13.37	19.65	23.82	26.55
Macon, GA	-	x	-	100	0.00	0.17	0.25	1.70	2.59	3.28	3.59	0.00	0.06	0.29	2.49	3.66	4.44	4.95
Manitowoc Co., WI	x	-	100	-	0.00	0.09	0.13	0.87	1.33	1.68	1.84	0.00	0.03	0.15	1.28	1.88	2.27	2.53
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.08	0.13	0.85	1.29	1.64	1.80	0.00	0.03	0.15	1.25	1.83	2.22	2.48
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.33	0.49	3.33	5.07	6.41	7.03	0.00	0.11	0.57	4.88	7.17	8.69	9.69
Memphis, TN-AR	x	-	100	-	0.00	5.67	7.64	18.85	25.71	31.02	33.87	0.00	9.96	16.93	30.59	38.25	43.63	23.51
Milwaukee-Racine, WI	x	-	100	-	0.00	1.41	2.13	14.32	21.77	27.57	30.20	0.00	0.48	2.47	20.97	30.82	37.35	41.63
Nevada (Western Part), CA	x	-	100	-	0.00	0.08	0.12	0.81	1.23	1.56	1.71	0.00	0.03	0.14	1.19	1.74	2.11	2.35
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	20.25	28.89	136.94	202.99	254.30	278.38	0.00	21.09	47.75	205.77	290.58	347.40	342.80
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.13	0.19	1.29	1.96	2.48	2.72	0.00	0.04	0.22	1.89	2.78	3.37	3.75
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	37.64	50.75	127.22	173.97	210.19	229.52	0.00	65.69	112.00	205.96	258.48	295.36	163.75
Phoenix-Mesa	x	-	100	-	0.00	3.16	4.75	32.00	48.65	61.60	67.48	0.00	1.08	5.51	46.85	68.86	83.47	93.03

**Table B1-11
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Benzene 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	1.58	2.38	16.01	24.34	30.82	33.76	0.00	0.54	2.76	23.44	34.45	41.76	46.54
Poughkeepsie, NY	x	x	100	100	0.00	1.02	1.54	10.38	15.78	19.98	21.88	0.00	0.35	1.79	15.19	22.33	27.07	30.17
Providence (All RI), RI	x	-	100	-	0.00	0.74	1.12	7.51	11.41	14.45	15.83	0.00	0.25	1.29	10.99	16.16	19.58	21.82
Reading, PA	-	x	-	100	0.00	0.30	0.45	3.05	4.64	5.87	6.43	0.00	0.10	0.53	4.46	6.56	7.95	8.86
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.60	0.90	6.05	9.20	11.65	12.77	0.00	0.20	1.04	8.86	13.03	15.79	17.60
Rochester, NY	x	-	100	-	0.00	1.04	1.56	10.52	15.99	20.24	22.18	0.00	0.35	1.81	15.40	22.63	27.43	30.57
Rome, GA	-	x	-	100	0.00	0.09	0.14	0.92	1.40	1.77	1.94	0.00	0.03	0.16	1.35	1.98	2.40	2.67
Sacramento Metro, CA	x	-	50	-	0.00	1.74	2.62	17.67	26.86	34.01	37.25	0.00	0.60	3.04	25.86	38.02	46.08	51.36
San Diego, CA	x	-	100	-	0.00	2.44	3.67	24.73	37.60	47.61	52.15	0.00	0.83	4.26	36.20	53.22	64.50	71.89
San Francisco Bay Area, CA	x	-	100	-	0.00	23.29	31.76	93.91	131.90	161.36	176.35	0.00	37.50	66.54	148.50	193.53	224.54	157.75
San Joaquin Valley, CA	x	x	50	100	0.00	6.56	9.32	42.68	63.07	78.91	86.37	0.00	7.19	15.79	64.33	90.41	107.91	104.77
Sheboygan, WI	x	-	100	-	0.00	0.10	0.14	0.98	1.48	1.88	2.06	0.00	0.03	0.17	1.43	2.10	2.55	2.84
Springfield (Western MA), MA	x	-	100	-	0.00	0.75	1.12	7.55	11.48	14.53	15.92	0.00	0.25	1.30	11.05	16.24	19.69	21.94
St. Louis, MO-IL	x	x	100	100	0.00	10.75	14.65	43.28	60.79	74.36	81.27	0.00	17.31	30.71	68.46	89.20	103.48	72.62
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.63	0.85	2.07	2.82	3.41	3.72	0.00	1.11	1.88	3.37	4.20	4.79	2.55
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.59	0.87	5.35	8.09	10.22	11.20	0.00	0.33	1.13	7.88	11.49	13.88	15.08
Washington, DC-MD-VA	x	x	100	100	0.00	3.92	5.90	39.74	60.42	76.50	83.81	0.00	1.34	6.84	58.18	85.52	103.66	115.53
Wheeling, WV-OH	-	x	-	100	0.00	0.14	0.21	1.38	2.11	2.67	2.92	0.00	0.05	0.24	2.03	2.98	3.61	4.02
York, PA	-	x	-	100	0.00	0.32	0.48	3.22	4.90	6.20	6.80	0.00	0.11	0.55	4.72	6.93	8.41	9.37

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-12
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Benzene 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	2.41	3.57	22.31	32.58	39.99	44.14	0.00	-0.02	4.48	39.63	56.47	65.98	74.60
Allegan Co., MI	x	-	100	-	0.00	0.26	0.39	2.44	3.56	4.37	4.83	0.00	0.00	0.49	4.34	6.18	7.22	8.16
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.24	0.35	2.22	3.24	3.98	4.39	0.00	0.00	0.45	3.94	5.61	6.56	7.42
Atlanta, GA	x	x	100	100	0.00	12.80	18.97	118.68	173.26	212.71	234.76	0.00	-0.11	23.81	210.79	300.37	350.92	396.79
Baltimore, MD	x	x	100	100	0.00	5.32	7.88	49.32	71.99	88.39	97.55	0.00	-0.05	9.89	87.59	124.81	145.82	164.87
Baton Rouge, LA	x	-	100	-	0.00	23.04	30.55	59.74	76.54	88.84	97.23	0.00	48.33	79.21	112.33	129.82	143.00	38.43
Beaumont/Port Arthur, TX	x	-	100	-	0.00	44.67	58.95	104.29	130.76	150.22	164.13	0.00	97.32	156.28	197.76	220.92	240.64	23.92
Birmingham, AL	-	x	-	100	0.00	1.95	2.88	18.04	26.34	32.33	35.69	0.00	-0.02	3.62	32.04	45.66	53.34	60.31
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	8.66	12.82	80.24	117.14	143.81	158.72	0.00	-0.08	16.10	142.52	203.08	237.26	268.27
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	1.17	1.74	10.86	15.85	19.46	21.47	0.00	-0.01	2.18	19.28	27.48	32.10	36.29
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	2.08	3.08	19.29	28.17	34.58	38.17	0.00	-0.02	3.87	34.27	48.83	57.05	64.50
Canton-Massillon, OH	-	x	-	100	0.00	3.44	4.63	11.80	15.84	18.77	20.61	0.00	6.31	11.15	21.77	27.08	30.50	18.39
Charleston, WV	-	x	-	100	0.00	0.56	0.83	5.17	7.54	9.26	10.22	0.00	0.00	1.04	9.18	13.08	15.28	17.27
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	3.37	4.99	31.21	45.57	55.94	61.74	0.00	-0.03	6.26	55.44	79.00	92.29	104.35
Chattanooga, AL-TN-GA	-	x	-	100	0.00	1.00	1.48	9.24	13.49	16.56	18.28	0.00	-0.01	1.85	16.41	23.39	27.33	30.90
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	44.98	61.40	192.48	265.43	318.39	350.19	0.00	70.41	136.70	350.94	455.96	520.05	408.18
Chico, CA	x	-	100	-	0.00	0.36	0.53	3.34	4.87	5.98	6.60	0.00	0.00	0.67	5.93	8.44	9.87	11.16
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	3.45	5.11	31.96	46.65	57.27	63.21	0.00	-0.03	6.41	56.76	80.88	94.49	106.84
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.33	0.48	3.02	4.41	5.42	5.98	0.00	0.00	0.61	5.37	7.65	8.93	10.10
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	4.97	7.36	46.03	67.21	82.51	91.06	0.00	-0.04	9.23	81.76	116.51	136.12	153.91
Columbus, OH	x	x	100	100	0.00	3.21	4.76	29.76	43.45	53.34	58.87	0.00	-0.03	5.97	52.86	75.32	87.99	99.49
Dallas-Fort Worth, TX	x	-	100	-	0.00	13.01	19.27	120.58	176.03	216.10	238.51	0.00	-0.11	24.19	214.15	305.16	356.52	403.12
Dayton-Springfield, OH	-	x	-	100	0.00	1.51	2.23	13.96	20.38	25.02	27.61	0.00	-0.01	2.80	24.79	35.33	41.28	46.67
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	9.69	13.75	63.97	91.59	111.58	123.01	0.00	8.08	24.14	114.66	158.30	183.48	186.73
Detroit-Ann Arbor, MI	x	x	100	100	0.00	12.97	18.57	92.70	133.42	162.88	179.62	0.00	8.57	30.62	165.75	230.78	268.07	281.06
Door Co., WI	x	-	100	-	0.00	0.06	0.09	0.57	0.83	1.02	1.12	0.00	0.00	0.11	1.01	1.43	1.68	1.89
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.02	0.03	0.04	0.05	0.00	0.00	0.00	0.04	0.06	0.07	0.08
Evansville, IN	-	x	-	100	0.00	0.65	0.96	5.98	8.73	10.72	11.83	0.00	-0.01	1.20	10.63	15.14	17.69	20.00
Greater Connecticut, CT	x	-	100	-	0.00	3.29	4.88	30.53	44.56	54.71	60.38	0.00	-0.03	6.12	54.22	77.26	90.26	102.06
Greene	x	-	100	-	0.00	0.08	0.11	0.70	1.02	1.26	1.39	0.00	0.00	0.14	1.24	1.77	2.07	2.34
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	1.49	2.21	13.81	20.16	24.74	27.31	0.00	-0.01	2.77	24.52	34.94	40.82	46.16

Table B1-12
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Benzene 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	1.35	2.00	12.51	18.26	22.42	24.74	0.00	-0.01	2.51	22.21	31.65	36.98	41.81
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.01	0.01	0.09	0.13	0.15	0.17	0.00	0.00	0.02	0.15	0.22	0.25	0.29
Hickory, NC	-	x	-	100	0.00	0.35	0.52	3.24	4.73	5.81	6.41	0.00	0.00	0.65	5.76	8.21	9.59	10.84
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	99.45	132.55	287.79	376.15	440.69	482.97	0.00	199.13	334.82	536.80	640.28	712.30	297.39
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	9.48	12.61	26.74	34.80	40.69	44.58	0.00	19.19	32.06	49.97	59.19	65.71	25.35
Imperial Co., CA	x	-	100	-	0.00	0.42	0.62	3.85	5.62	6.90	7.61	0.00	0.00	0.77	6.84	9.74	11.38	12.87
Indianapolis, IN	-	x	-	100	0.00	3.00	4.44	27.78	40.56	49.79	54.95	0.00	-0.03	5.57	49.34	70.31	82.14	92.88
Jamestown, NY	x	-	100	-	0.00	0.28	0.41	2.57	3.75	4.60	5.08	0.00	0.00	0.52	4.56	6.50	7.60	8.59
Jefferson Co., NY	x	-	100	-	0.00	0.26	0.38	2.39	3.48	4.28	4.72	0.00	0.00	0.48	4.24	6.04	7.05	7.97
Johnstown, PA	-	x	-	100	0.00	0.23	0.34	2.11	3.08	3.78	4.17	0.00	0.00	0.42	3.74	5.33	6.23	7.04
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.22	0.32	2.02	2.95	3.62	4.00	0.00	0.00	0.41	3.59	5.11	5.97	6.75
Knoxville, TN	x	x	100	100	0.00	2.04	3.02	18.88	27.56	33.83	37.34	0.00	-0.02	3.79	33.53	47.77	55.82	63.11
Lancaster, PA	-	x	-	100	0.00	0.80	1.18	7.38	10.77	13.22	14.59	0.00	-0.01	1.48	13.10	18.67	21.81	24.67
Las Vegas, NV	x	-	100	-	0.00	2.64	3.91	24.44	35.68	43.80	48.34	0.00	-0.02	4.90	43.41	61.85	72.26	81.71
Libby, MT	-	x	-	100	0.00	0.01	0.02	0.12	0.18	0.22	0.24	0.00	0.00	0.02	0.22	0.31	0.36	0.40
Liberty-Clairton, PA	-	x	-	100	0.00	0.03	0.04	0.24	0.35	0.43	0.47	0.00	0.00	0.05	0.42	0.60	0.70	0.79
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	75.94	104.55	362.63	505.72	609.50	670.86	0.00	107.00	221.90	657.88	870.37	997.60	854.53
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	1.36	2.01	12.60	18.39	22.58	24.92	0.00	-0.01	2.53	22.38	31.89	37.26	42.13
Louisville, KY-IN	-	x	-	100	0.00	2.09	3.10	19.38	28.30	34.74	38.35	0.00	-0.02	3.89	34.43	49.06	57.32	64.81
Macon, GA	-	x	-	100	0.00	0.39	0.58	3.61	5.27	6.47	7.15	0.00	0.00	0.72	6.42	9.14	10.68	12.08
Manitowoc Co., WI	x	-	100	-	0.00	0.20	0.30	1.85	2.70	3.32	3.66	0.00	0.00	0.37	3.29	4.68	5.47	6.19
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.19	0.29	1.81	2.64	3.24	3.57	0.00	0.00	0.36	3.21	4.57	5.34	6.04
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.76	1.13	7.07	10.33	12.68	13.99	0.00	-0.01	1.42	12.56	17.90	20.91	23.65
Memphis, TN-AR	x	-	100	-	0.00	8.87	11.99	32.70	44.30	52.74	57.94	0.00	15.55	28.21	60.08	75.88	85.85	57.38
Milwaukee-Racine, WI	x	-	100	-	0.00	3.28	4.86	30.40	44.38	54.48	60.13	0.00	-0.03	6.10	53.99	76.94	89.88	101.63
Nevada (Western Part), CA	x	-	100	-	0.00	0.19	0.27	1.72	2.51	3.08	3.40	0.00	0.00	0.34	3.05	4.35	5.08	5.75
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	39.40	56.34	277.75	399.41	487.43	537.50	0.00	27.26	93.96	496.85	690.79	802.12	836.83
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.30	0.44	2.74	4.00	4.91	5.42	0.00	0.00	0.55	4.86	6.93	8.10	9.16
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	59.12	79.98	221.85	301.25	358.98	394.45	0.00	102.37	187.05	407.23	516.17	584.66	399.74
Phoenix-Mesa	x	-	100	-	0.00	7.33	10.86	67.93	99.17	121.74	134.37	0.00	-0.06	13.63	120.65	171.92	200.85	227.10

Table B1-12
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Benzene 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	3.67	5.43	33.99	49.61	60.91	67.23	0.00	-0.03	6.82	60.36	86.01	100.49	113.62
Poughkeepsie, NY	x	x	100	100	0.00	2.38	3.52	22.03	32.16	39.48	43.57	0.00	-0.02	4.42	39.12	55.75	65.13	73.65
Providence (All RI), RI	x	-	100	-	0.00	1.72	2.55	15.94	23.26	28.56	31.52	0.00	-0.02	3.20	28.30	40.33	47.12	53.28
Reading, PA	-	x	-	100	0.00	0.70	1.03	6.47	9.45	11.60	12.80	0.00	-0.01	1.30	11.50	16.38	19.14	21.64
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	1.39	2.05	12.85	18.76	23.03	25.42	0.00	-0.01	2.58	22.82	32.52	37.99	42.96
Rochester, NY	x	-	100	-	0.00	2.41	3.57	22.32	32.59	40.01	44.16	0.00	-0.02	4.48	39.65	56.49	66.00	74.63
Rome, GA	-	x	-	100	0.00	0.21	0.31	1.95	2.85	3.50	3.86	0.00	0.00	0.39	3.47	4.94	5.77	6.52
Sacramento Metro, CA	x	-	50	-	0.00	4.04	5.99	37.50	54.74	67.21	74.18	0.00	-0.04	7.52	66.60	94.91	110.88	125.37
San Diego, CA	x	-	100	-	0.00	5.66	8.39	52.49	76.63	94.08	103.84	0.00	-0.05	10.53	93.23	132.85	155.21	175.50
San Francisco Bay Area, CA	x	-	100	-	0.00	38.27	52.45	172.38	239.00	287.35	316.16	0.00	57.20	114.28	313.54	410.94	469.82	385.10
San Joaquin Valley, CA	x	x	50	100	0.00	12.58	17.93	86.08	123.55	150.66	166.12	0.00	9.53	30.62	154.13	213.62	247.85	255.77
Sheboygan, WI	x	-	100	-	0.00	0.22	0.33	2.07	3.02	3.71	4.10	0.00	0.00	0.42	3.68	5.24	6.12	6.92
Springfield (Western MA), MA	x	-	100	-	0.00	1.73	2.56	16.02	23.39	28.72	31.69	0.00	-0.02	3.21	28.46	40.55	47.38	53.57
St. Louis, MO-IL	x	x	100	100	0.00	17.65	24.19	79.43	110.12	132.39	145.66	0.00	26.41	52.74	144.49	189.34	216.46	177.28
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.98	1.32	3.59	4.86	5.78	6.35	0.00	1.73	3.13	6.60	8.32	9.41	6.22
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	1.30	1.90	11.25	16.37	20.07	22.15	0.00	0.23	2.59	20.01	28.37	33.10	36.81
Washington, DC-MD-VA	x	x	100	100	0.00	9.10	13.48	84.36	123.15	151.19	166.86	0.00	-0.08	16.92	149.82	213.50	249.43	282.02
Wheeling, WV-OH	-	x	-	100	0.00	0.32	0.47	2.94	4.29	5.27	5.81	0.00	0.00	0.59	5.22	7.44	8.69	9.83
York, PA	-	x	-	100	0.00	0.74	1.09	6.84	9.99	12.26	13.53	0.00	-0.01	1.37	12.15	17.31	20.23	22.87

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-13
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Butadiene 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.01	-0.02	0.01	0.03	0.05	0.05	0.00	-0.01	-0.02	0.01	0.03	0.05	0.05
Allegan Co., MI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Atlanta, GA	x	x	100	100	0.00	-0.06	-0.08	0.03	0.14	0.26	0.28	0.00	-0.06	-0.08	0.03	0.14	0.26	0.28
Baltimore, MD	x	x	100	100	0.00	-0.03	-0.03	0.01	0.06	0.11	0.11	0.00	-0.03	-0.03	0.01	0.06	0.11	0.11
Baton Rouge, LA	x	-	100	-	0.00	0.21	0.28	0.46	0.61	0.75	0.80	0.00	0.28	0.45	0.60	0.74	0.80	0.03
Beaumont/Port Arthur, TX	x	-	100	-	0.00	0.43	0.57	0.93	1.21	1.48	1.58	0.00	0.57	0.92	1.20	1.47	1.58	0.02
Birmingham, AL	-	x	-	100	0.00	-0.01	-0.01	0.00	0.02	0.04	0.04	0.00	-0.01	-0.01	0.00	0.02	0.04	0.04
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.04	-0.05	0.02	0.10	0.18	0.19	0.00	-0.04	-0.05	0.02	0.10	0.18	0.19
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.01	-0.01	0.00	0.01	0.02	0.03	0.00	-0.01	-0.01	0.00	0.01	0.02	0.03
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.01	-0.01	0.01	0.02	0.04	0.04	0.00	-0.01	-0.01	0.01	0.02	0.04	0.04
Canton-Massillon, OH	-	x	-	100	0.00	0.03	0.03	0.06	0.08	0.11	0.11	0.00	0.03	0.06	0.08	0.10	0.11	0.01
Charleston, WV	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.00	-0.01	0.00	0.01	0.02	0.02	0.00	0.00	-0.01	0.00	0.01	0.02	0.02
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	0.25	0.34	0.70	1.02	1.33	1.42	0.00	0.35	0.59	0.90	1.21	1.40	0.28
Chico, CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.02	-0.03	0.01	0.06	0.10	0.11	0.00	-0.02	-0.03	0.01	0.06	0.10	0.11
Columbus, OH	x	x	100	100	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.06	-0.08	0.03	0.15	0.27	0.28	0.00	-0.06	-0.08	0.03	0.15	0.27	0.28
Dayton-Springfield, OH	-	x	-	100	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.01	0.01	0.09	0.17	0.25	0.26	0.00	0.02	0.04	0.12	0.19	0.25	0.13
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.01	-0.01	0.11	0.21	0.31	0.33	0.00	0.01	0.03	0.13	0.23	0.32	0.20
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Greater Connecticut, CT	x	-	100	-	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07
Greene	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03

Table B1-13
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	0.84	1.12	1.92	2.56	3.19	3.40	0.00	1.13	1.84	2.48	3.10	3.40	0.21
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.08	0.11	0.18	0.25	0.30	0.33	0.00	0.11	0.18	0.24	0.30	0.33	0.02
Imperial Co., CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Indianapolis, IN	-	x	-	100	0.00	-0.01	-0.02	0.01	0.03	0.06	0.06	0.00	-0.01	-0.02	0.01	0.03	0.06	0.06
Jamestown, NY	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Knoxville, TN	x	x	100	100	0.00	-0.01	-0.01	0.01	0.02	0.04	0.04	0.00	-0.01	-0.01	0.01	0.02	0.04	0.04
Lancaster, PA	-	x	-	100	0.00	0.00	-0.01	0.00	0.01	0.02	0.02	0.00	0.00	-0.01	0.00	0.01	0.02	0.02
Las Vegas, NV	x	-	100	-	0.00	-0.01	-0.02	0.01	0.03	0.05	0.06	0.00	-0.01	-0.02	0.01	0.03	0.05	0.06
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	0.34	0.46	1.09	1.63	2.17	2.32	0.00	0.50	0.85	1.39	1.92	2.28	0.59
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03
Louisville, KY-IN	-	x	-	100	0.00	-0.01	-0.01	0.01	0.02	0.04	0.05	0.00	-0.01	-0.01	0.01	0.02	0.04	0.05
Macon, GA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.02	0.02
Memphis, TN-AR	x	-	100	-	0.00	0.06	0.08	0.15	0.21	0.27	0.29	0.00	0.08	0.14	0.20	0.25	0.29	0.04
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07	0.00	-0.02	-0.02	0.01	0.04	0.07	0.07
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.01	-0.01	0.33	0.64	0.96	1.02	0.00	0.03	0.09	0.41	0.72	0.99	0.58
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	0.39	0.53	1.01	1.41	1.80	1.92	0.00	0.54	0.90	1.29	1.68	1.91	0.28
Phoenix-Mesa	x	-	100	-	0.00	-0.04	-0.05	0.02	0.08	0.15	0.16	0.00	-0.04	-0.05	0.02	0.08	0.15	0.16

Table B1-13
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.02	-0.02	0.01	0.04	0.07	0.08	0.00	-0.02	-0.02	0.01	0.04	0.07	0.08
Poughkeepsie, NY	x	x	100	100	0.00	-0.01	-0.01	0.01	0.03	0.05	0.05	0.00	-0.01	-0.01	0.01	0.03	0.05	0.05
Providence (All RI), RI	x	-	100	-	0.00	-0.01	-0.01	0.00	0.02	0.04	0.04	0.00	-0.01	-0.01	0.00	0.02	0.04	0.04
Reading, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.02
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03	0.00	-0.01	-0.01	0.00	0.02	0.03	0.03
Rochester, NY	x	-	100	-	0.00	-0.01	-0.02	0.01	0.03	0.05	0.05	0.00	-0.01	-0.02	0.01	0.03	0.05	0.05
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sacramento Metro, CA	x	-	50	-	0.00	-0.02	-0.03	0.01	0.05	0.08	0.09	0.00	-0.02	-0.03	0.01	0.05	0.08	0.09
San Diego, CA	x	-	100	-	0.00	-0.03	-0.04	0.01	0.06	0.12	0.12	0.00	-0.03	-0.04	0.01	0.06	0.12	0.12
San Francisco Bay Area, CA	x	-	100	-	0.00	0.19	0.26	0.58	0.84	1.11	1.19	0.00	0.28	0.47	0.74	1.00	1.17	0.27
San Joaquin Valley, CA	x	x	50	100	0.00	0.00	0.00	0.11	0.21	0.31	0.33	0.00	0.02	0.04	0.14	0.24	0.32	0.18
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Springfield (Western MA), MA	x	-	100	-	0.00	-0.01	-0.01	0.00	0.02	0.04	0.04	0.00	-0.01	-0.01	0.00	0.02	0.04	0.04
St. Louis, MO-IL	x	x	100	100	0.00	0.09	0.12	0.27	0.39	0.51	0.55	0.00	0.13	0.22	0.34	0.46	0.54	0.12
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.00	0.01	0.02	0.02	0.03	0.03	0.00
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.00	-0.01	0.01	0.02	0.03	0.03	0.00	0.00	-0.01	0.01	0.02	0.03	0.03
Washington, DC-MD-VA	x	x	100	100	0.00	-0.04	-0.06	0.02	0.10	0.19	0.20	0.00	-0.04	-0.06	0.02	0.10	0.19	0.20
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
York, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.02	0.02	0.02

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-14
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.01	0.00	0.28	0.46	0.61	0.66	0.00	-0.03	-0.01	0.31	0.50	0.65	0.70
Allegan Co., MI	x	-	100	-	0.00	0.00	0.00	0.03	0.05	0.07	0.07	0.00	0.00	0.00	0.03	0.05	0.07	0.08
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.03	0.05	0.06	0.07	0.00	0.00	0.00	0.03	0.05	0.06	0.07
Atlanta, GA	x	x	100	100	0.00	-0.07	0.00	1.49	2.44	3.26	3.49	0.00	-0.16	-0.05	1.67	2.65	3.47	3.74
Baltimore, MD	x	x	100	100	0.00	-0.03	0.00	0.62	1.01	1.36	1.45	0.00	-0.07	-0.02	0.69	1.10	1.44	1.55
Baton Rouge, LA	x	-	100	-	0.00	0.54	0.73	1.36	1.76	2.09	2.26	0.00	0.92	1.51	2.02	2.37	2.62	0.36
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1.10	1.47	2.53	3.21	3.77	4.08	0.00	1.87	3.04	3.84	4.41	4.80	0.23
Birmingham, AL	-	x	-	100	0.00	-0.01	0.00	0.23	0.37	0.50	0.53	0.00	-0.02	-0.01	0.25	0.40	0.53	0.57
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.05	0.00	1.01	1.65	2.21	2.36	0.00	-0.11	-0.03	1.13	1.79	2.35	2.53
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.01	0.00	0.14	0.22	0.30	0.32	0.00	-0.01	0.00	0.15	0.24	0.32	0.34
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.01	0.00	0.24	0.40	0.53	0.57	0.00	-0.03	-0.01	0.27	0.43	0.56	0.61
Canton-Massillon, OH	-	x	-	100	0.00	0.07	0.10	0.23	0.31	0.38	0.41	0.00	0.11	0.20	0.32	0.40	0.46	0.17
Charleston, WV	-	x	-	100	0.00	0.00	0.00	0.06	0.11	0.14	0.15	0.00	-0.01	0.00	0.07	0.12	0.15	0.16
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.02	0.00	0.39	0.64	0.86	0.92	0.00	-0.04	-0.01	0.44	0.70	0.91	0.98
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.01	0.00	0.12	0.19	0.25	0.27	0.00	-0.01	0.00	0.13	0.21	0.27	0.29
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	0.73	1.07	3.30	4.72	5.94	6.40	0.00	1.19	2.16	4.43	5.81	6.90	3.84
Chico, CA	x	-	100	-	0.00	0.00	0.00	0.04	0.07	0.09	0.10	0.00	0.00	0.00	0.05	0.07	0.10	0.11
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.02	0.00	0.40	0.66	0.88	0.94	0.00	-0.04	-0.01	0.45	0.71	0.94	1.01
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.00	0.04	0.06	0.08	0.09	0.00	0.00	0.00	0.04	0.07	0.09	0.10
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.03	0.00	0.58	0.94	1.27	1.36	0.00	-0.06	-0.02	0.65	1.03	1.35	1.45
Columbus, OH	x	x	100	100	0.00	-0.02	0.00	0.37	0.61	0.82	0.88	0.00	-0.04	-0.01	0.42	0.66	0.87	0.94
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.07	0.00	1.52	2.47	3.31	3.55	0.00	-0.17	-0.05	1.70	2.69	3.53	3.80
Dayton-Springfield, OH	-	x	-	100	0.00	-0.01	0.00	0.18	0.29	0.38	0.41	0.00	-0.02	-0.01	0.20	0.31	0.41	0.44
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.06	0.12	0.91	1.40	1.83	1.97	0.00	0.08	0.23	1.10	1.60	2.02	1.76
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.05	0.13	1.27	2.00	2.63	2.82	0.00	0.05	0.24	1.52	2.25	2.87	2.65
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.01	0.02	0.02
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	0.00	0.00	0.08	0.12	0.16	0.18	0.00	-0.01	0.00	0.08	0.13	0.18	0.19
Greater Connecticut, CT	x	-	100	-	0.00	-0.02	0.00	0.38	0.63	0.84	0.90	0.00	-0.04	-0.01	0.43	0.68	0.89	0.96
Greene	x	-	100	-	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.02	0.02	0.02
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.01	0.00	0.17	0.28	0.38	0.41	0.00	-0.02	-0.01	0.19	0.31	0.40	0.43

Table B1-14
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.01	0.00	0.16	0.26	0.34	0.37	0.00	-0.02	-0.01	0.18	0.28	0.37	0.39
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	0.00	0.00	0.04	0.07	0.09	0.10	0.00	0.00	0.00	0.05	0.07	0.09	0.10
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	2.22	3.01	6.12	8.09	9.76	10.54	0.00	3.73	6.20	8.90	10.69	12.01	2.80
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.21	0.29	0.58	0.76	0.91	0.99	0.00	0.36	0.60	0.84	1.01	1.13	0.24
Imperial Co., CA	x	-	100	-	0.00	0.00	0.00	0.05	0.08	0.11	0.11	0.00	-0.01	0.00	0.05	0.09	0.11	0.12
Indianapolis, IN	-	x	-	100	0.00	-0.02	0.00	0.35	0.57	0.76	0.82	0.00	-0.04	-0.01	0.39	0.62	0.81	0.87
Jamestown, NY	x	-	100	-	0.00	0.00	0.00	0.03	0.05	0.07	0.08	0.00	0.00	0.00	0.04	0.06	0.08	0.08
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.00	0.03	0.05	0.07	0.07	0.00	0.00	0.00	0.03	0.05	0.07	0.08
Johnstown, PA	-	x	-	100	0.00	0.00	0.00	0.03	0.04	0.06	0.06	0.00	0.00	0.00	0.03	0.05	0.06	0.07
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.00	0.03	0.04	0.06	0.06	0.00	0.00	0.00	0.03	0.05	0.06	0.06
Knoxville, TN	x	x	100	100	0.00	-0.01	0.00	0.24	0.39	0.52	0.56	0.00	-0.03	-0.01	0.27	0.42	0.55	0.59
Lancaster, PA	-	x	-	100	0.00	0.00	0.00	0.09	0.15	0.20	0.22	0.00	-0.01	0.00	0.10	0.16	0.22	0.23
Las Vegas, NV	x	-	100	-	0.00	-0.01	0.00	0.31	0.50	0.67	0.72	0.00	-0.03	-0.01	0.34	0.55	0.72	0.77
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	1.07	1.63	5.90	8.62	10.96	11.79	0.00	1.72	3.25	7.72	10.39	12.54	8.05
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.01	0.00	0.16	0.26	0.35	0.37	0.00	-0.02	-0.01	0.18	0.28	0.37	0.40
Louisville, KY-IN	-	x	-	100	0.00	-0.01	0.00	0.24	0.40	0.53	0.57	0.00	-0.03	-0.01	0.27	0.43	0.57	0.61
Macon, GA	-	x	-	100	0.00	0.00	0.00	0.05	0.07	0.10	0.11	0.00	0.00	0.00	0.05	0.08	0.11	0.11
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.00	0.02	0.04	0.05	0.05	0.00	0.00	0.00	0.03	0.04	0.05	0.06
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.00	0.02	0.04	0.05	0.05	0.00	0.00	0.00	0.03	0.04	0.05	0.06
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.00	0.00	0.09	0.15	0.19	0.21	0.00	-0.01	0.00	0.10	0.16	0.21	0.22
Memphis, TN-AR	x	-	100	-	0.00	0.17	0.24	0.61	0.84	1.04	1.12	0.00	0.28	0.48	0.84	1.06	1.24	0.54
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.02	0.00	0.38	0.62	0.84	0.89	0.00	-0.04	-0.01	0.43	0.68	0.89	0.96
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.00	0.02	0.04	0.05	0.05	0.00	0.00	0.00	0.02	0.04	0.05	0.05
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	0.17	0.43	3.84	6.00	7.89	8.46	0.00	0.19	0.76	4.58	6.79	8.63	7.88
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.00	0.03	0.06	0.08	0.08	0.00	0.00	0.00	0.04	0.06	0.08	0.09
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1.10	1.55	4.07	5.68	7.05	7.59	0.00	1.82	3.16	5.62	7.15	8.34	3.76
Phoenix-Mesa	x	-	100	-	0.00	-0.04	0.00	0.85	1.39	1.87	2.00	0.00	-0.09	-0.03	0.96	1.52	1.99	2.14

Table B1-14
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.02	0.00	0.43	0.70	0.93	1.00	0.00	-0.05	-0.01	0.48	0.76	0.99	1.07
Poughkeepsie, NY	x	x	100	100	0.00	-0.01	0.00	0.28	0.45	0.61	0.65	0.00	-0.03	-0.01	0.31	0.49	0.64	0.69
Providence (All RI), RI	x	-	100	-	0.00	-0.01	0.00	0.20	0.33	0.44	0.47	0.00	-0.02	-0.01	0.22	0.36	0.47	0.50
Reading, PA	-	x	-	100	0.00	0.00	0.00	0.08	0.13	0.18	0.19	0.00	-0.01	0.00	0.09	0.14	0.19	0.20
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.01	0.00	0.16	0.26	0.35	0.38	0.00	-0.02	-0.01	0.18	0.29	0.38	0.40
Rochester, NY	x	-	100	-	0.00	-0.01	0.00	0.28	0.46	0.61	0.66	0.00	-0.03	-0.01	0.31	0.50	0.65	0.70
Rome, GA	-	x	-	100	0.00	0.00	0.00	0.02	0.04	0.05	0.06	0.00	0.00	0.00	0.03	0.04	0.06	0.06
Sacramento Metro, CA	x	-	50	-	0.00	-0.02	0.00	0.47	0.77	1.03	1.10	0.00	-0.05	-0.02	0.53	0.84	1.10	1.18
San Diego, CA	x	-	100	-	0.00	-0.03	0.00	0.66	1.08	1.44	1.55	0.00	-0.07	-0.02	0.74	1.17	1.54	1.65
San Francisco Bay Area, CA	x	-	100	-	0.00	0.58	0.87	2.89	4.17	5.27	5.67	0.00	0.95	1.75	3.82	5.07	6.08	3.63
San Joaquin Valley, CA	x	x	50	100	0.00	0.06	0.15	1.20	1.87	2.45	2.63	0.00	0.08	0.27	1.45	2.13	2.69	2.41
Sheboygan, WI	x	-	100	-	0.00	0.00	0.00	0.03	0.04	0.06	0.06	0.00	0.00	0.00	0.03	0.05	0.06	0.07
Springfield (Western MA), MA	x	-	100	-	0.00	-0.01	0.00	0.20	0.33	0.44	0.47	0.00	-0.02	-0.01	0.23	0.36	0.47	0.50
St. Louis, MO-IL	x	x	100	100	0.00	0.27	0.40	1.33	1.92	2.43	2.61	0.00	0.44	0.81	1.76	2.34	2.80	1.67
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.02	0.03	0.07	0.09	0.11	0.12	0.00	0.03	0.05	0.09	0.12	0.14	0.06
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.00	0.00	0.14	0.23	0.31	0.33	0.00	-0.01	0.00	0.16	0.26	0.33	0.35
Washington, DC-MD-VA	x	x	100	100	0.00	-0.05	0.00	1.06	1.73	2.32	2.48	0.00	-0.12	-0.03	1.19	1.88	2.47	2.66
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.00	0.04	0.06	0.08	0.09	0.00	0.00	0.00	0.04	0.07	0.09	0.09
York, PA	-	x	-	100	0.00	0.00	0.00	0.09	0.14	0.19	0.20	0.00	-0.01	0.00	0.10	0.15	0.20	0.22

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-15
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Butadiene 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	0.03	0.07	0.85	1.29	1.64	1.79	0.00	-0.06	0.05	1.20	1.76	2.13	2.35
Allegan Co., MI	x	-	100	-	0.00	0.00	0.01	0.09	0.14	0.18	0.20	0.00	-0.01	0.01	0.13	0.19	0.23	0.26
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.00	0.01	0.08	0.13	0.16	0.18	0.00	-0.01	0.01	0.12	0.17	0.21	0.23
Atlanta, GA	x	x	100	100	0.00	0.14	0.37	4.52	6.88	8.75	9.51	0.00	-0.32	0.29	6.41	9.34	11.35	12.52
Baltimore, MD	x	x	100	100	0.00	0.06	0.15	1.88	2.86	3.63	3.95	0.00	-0.13	0.12	2.66	3.88	4.71	5.20
Baton Rouge, LA	x	-	100	-	0.00	0.85	1.15	2.30	2.98	3.52	3.83	0.00	1.64	2.71	3.86	4.51	4.99	1.21
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1.70	2.26	4.02	5.08	5.90	6.42	0.00	3.35	5.42	6.91	7.81	8.52	0.75
Birmingham, AL	-	x	-	100	0.00	0.02	0.06	0.69	1.05	1.33	1.44	0.00	-0.05	0.04	0.97	1.42	1.72	1.90
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	0.09	0.25	3.06	4.65	5.91	6.43	0.00	-0.22	0.19	4.33	6.31	7.67	8.47
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.01	0.03	0.41	0.63	0.80	0.87	0.00	-0.03	0.03	0.59	0.85	1.04	1.15
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.02	0.06	0.74	1.12	1.42	1.55	0.00	-0.05	0.05	1.04	1.52	1.84	2.04
Canton-Massillon, OH	-	x	-	100	0.00	0.12	0.16	0.45	0.62	0.75	0.82	0.00	0.20	0.36	0.72	0.90	1.03	0.58
Charleston, WV	-	x	-	100	0.00	0.01	0.02	0.20	0.30	0.38	0.41	0.00	-0.01	0.01	0.28	0.41	0.49	0.55
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	0.04	0.10	1.19	1.81	2.30	2.50	0.00	-0.08	0.07	1.69	2.46	2.98	3.29
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.01	0.03	0.35	0.54	0.68	0.74	0.00	-0.03	0.02	0.50	0.73	0.88	0.97
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1.37	2.00	7.36	10.46	12.89	14.02	0.00	2.11	4.21	11.32	14.86	17.35	12.88
Chico, CA	x	-	100	-	0.00	0.00	0.01	0.13	0.19	0.25	0.27	0.00	-0.01	0.01	0.18	0.26	0.32	0.35
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	0.04	0.10	1.22	1.85	2.35	2.56	0.00	-0.09	0.08	1.73	2.51	3.06	3.37
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.00	0.01	0.12	0.18	0.22	0.24	0.00	-0.01	0.01	0.16	0.24	0.29	0.32
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	0.05	0.14	1.75	2.67	3.39	3.69	0.00	-0.13	0.11	2.49	3.62	4.40	4.86
Columbus, OH	x	x	100	100	0.00	0.03	0.09	1.13	1.73	2.19	2.38	0.00	-0.08	0.07	1.61	2.34	2.85	3.14
Dallas-Fort Worth, TX	x	-	100	-	0.00	0.14	0.38	4.59	6.99	8.88	9.66	0.00	-0.33	0.29	6.51	9.49	11.53	12.72
Dayton-Springfield, OH	-	x	-	100	0.00	0.02	0.04	0.53	0.81	1.03	1.12	0.00	-0.04	0.03	0.75	1.10	1.33	1.47
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.21	0.36	2.44	3.63	4.56	4.96	0.00	0.13	0.59	3.56	5.00	5.99	5.89
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.25	0.46	3.54	5.29	6.67	7.25	0.00	0.07	0.68	5.12	7.26	8.73	8.87
Door Co., WI	x	-	100	-	0.00	0.00	0.00	0.02	0.03	0.04	0.05	0.00	0.00	0.00	0.03	0.04	0.05	0.06
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	0.01	0.02	0.23	0.35	0.44	0.48	0.00	-0.02	0.01	0.32	0.47	0.57	0.63
Greater Connecticut, CT	x	-	100	-	0.00	0.04	0.10	1.16	1.77	2.25	2.44	0.00	-0.08	0.07	1.65	2.40	2.92	3.22
Greene	x	-	100	-	0.00	0.00	0.00	0.03	0.04	0.05	0.06	0.00	0.00	0.00	0.04	0.06	0.07	0.07
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.02	0.04	0.53	0.80	1.02	1.11	0.00	-0.04	0.03	0.75	1.09	1.32	1.46

Table B1-15
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.01	0.04	0.48	0.73	0.92	1.00	0.00	-0.03	0.03	0.68	0.98	1.20	1.32
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Hickory, NC	-	x	-	100	0.00	0.00	0.01	0.12	0.19	0.24	0.26	0.00	-0.01	0.01	0.18	0.26	0.31	0.34
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	3.57	4.86	11.05	14.71	17.56	19.10	0.00	6.65	11.27	18.15	21.84	24.55	9.38
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.34	0.47	1.03	1.36	1.62	1.76	0.00	0.64	1.08	1.70	2.03	2.27	0.80
Imperial Co., CA	x	-	100	-	0.00	0.00	0.01	0.15	0.22	0.28	0.31	0.00	-0.01	0.01	0.21	0.30	0.37	0.41
Indianapolis, IN	-	x	-	100	0.00	0.03	0.09	1.06	1.61	2.05	2.23	0.00	-0.08	0.07	1.50	2.19	2.66	2.93
Jamestown, NY	x	-	100	-	0.00	0.00	0.01	0.10	0.15	0.19	0.21	0.00	-0.01	0.01	0.14	0.20	0.25	0.27
Jefferson Co., NY	x	-	100	-	0.00	0.00	0.01	0.09	0.14	0.18	0.19	0.00	-0.01	0.01	0.13	0.19	0.23	0.25
Johnstown, PA	-	x	-	100	0.00	0.00	0.01	0.08	0.12	0.16	0.17	0.00	-0.01	0.01	0.11	0.17	0.20	0.22
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.00	0.01	0.08	0.12	0.15	0.16	0.00	-0.01	0.00	0.11	0.16	0.19	0.21
Knoxville, TN	x	x	100	100	0.00	0.02	0.06	0.72	1.09	1.39	1.51	0.00	-0.05	0.05	1.02	1.49	1.80	1.99
Lancaster, PA	-	x	-	100	0.00	0.01	0.02	0.28	0.43	0.54	0.59	0.00	-0.02	0.02	0.40	0.58	0.71	0.78
Las Vegas, NV	x	-	100	-	0.00	0.03	0.08	0.93	1.42	1.80	1.96	0.00	-0.07	0.06	1.32	1.92	2.34	2.58
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.02	0.02	0.03
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	2.16	3.27	13.86	19.96	24.76	26.92	0.00	3.02	6.57	20.99	28.10	33.08	26.96
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.01	0.04	0.48	0.73	0.93	1.01	0.00	-0.03	0.03	0.68	0.99	1.20	1.33
Louisville, KY-IN	-	x	-	100	0.00	0.02	0.06	0.74	1.12	1.43	1.55	0.00	-0.05	0.05	1.05	1.53	1.85	2.05
Macon, GA	-	x	-	100	0.00	0.00	0.01	0.14	0.21	0.27	0.29	0.00	-0.01	0.01	0.20	0.28	0.35	0.38
Manitowoc Co., WI	x	-	100	-	0.00	0.00	0.01	0.07	0.11	0.14	0.15	0.00	-0.01	0.00	0.10	0.15	0.18	0.20
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.00	0.01	0.07	0.10	0.13	0.14	0.00	0.00	0.00	0.10	0.14	0.17	0.19
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.01	0.02	0.27	0.41	0.52	0.57	0.00	-0.02	0.02	0.38	0.56	0.68	0.75
Memphis, TN-AR	x	-	100	-	0.00	0.29	0.41	1.25	1.74	2.12	2.31	0.00	0.49	0.91	1.97	2.51	2.89	1.81
Milwaukee-Racine, WI	x	-	100	-	0.00	0.04	0.10	1.16	1.76	2.24	2.43	0.00	-0.08	0.07	1.64	2.39	2.91	3.21
Nevada (Western Part), CA	x	-	100	-	0.00	0.00	0.01	0.07	0.10	0.13	0.14	0.00	0.00	0.00	0.09	0.14	0.16	0.18
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	0.77	1.42	10.59	15.83	19.96	21.70	0.00	0.27	2.13	15.36	21.74	26.15	26.41
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.00	0.01	0.10	0.16	0.20	0.22	0.00	-0.01	0.01	0.15	0.22	0.26	0.29
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1.92	2.73	8.50	11.85	14.47	15.74	0.00	3.22	5.98	13.33	17.04	19.69	12.61
Phoenix-Mesa	x	-	100	-	0.00	0.08	0.21	2.59	3.94	5.01	5.44	0.00	-0.18	0.16	3.67	5.35	6.49	7.17

Table B1-15
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	0.04	0.11	1.29	1.97	2.50	2.72	0.00	-0.09	0.08	1.84	2.67	3.25	3.59
Poughkeepsie, NY	x	x	100	100	0.00	0.03	0.07	0.84	1.28	1.62	1.76	0.00	-0.06	0.05	1.19	1.73	2.11	2.32
Providence (All RI), RI	x	-	100	-	0.00	0.02	0.05	0.61	0.92	1.17	1.28	0.00	-0.04	0.04	0.86	1.25	1.52	1.68
Reading, PA	-	x	-	100	0.00	0.01	0.02	0.25	0.38	0.48	0.52	0.00	-0.02	0.02	0.35	0.51	0.62	0.68
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.01	0.04	0.49	0.75	0.95	1.03	0.00	-0.03	0.03	0.69	1.01	1.23	1.36
Rochester, NY	x	-	100	-	0.00	0.03	0.07	0.85	1.29	1.64	1.79	0.00	-0.06	0.05	1.21	1.76	2.13	2.35
Rome, GA	-	x	-	100	0.00	0.00	0.01	0.07	0.11	0.14	0.16	0.00	-0.01	0.00	0.11	0.15	0.19	0.21
Sacramento Metro, CA	x	-	50	-	0.00	0.04	0.12	1.43	2.17	2.76	3.00	0.00	-0.10	0.09	2.03	2.95	3.59	3.96
San Diego, CA	x	-	100	-	0.00	0.06	0.16	2.00	3.04	3.87	4.20	0.00	-0.14	0.13	2.83	4.13	5.02	5.54
San Francisco Bay Area, CA	x	-	100	-	0.00	1.13	1.68	6.59	9.43	11.65	12.67	0.00	1.67	3.46	10.06	13.33	15.63	12.15
San Joaquin Valley, CA	x	x	50	100	0.00	0.26	0.46	3.28	4.90	6.17	6.70	0.00	0.12	0.72	4.77	6.73	8.09	8.07
Sheboygan, WI	x	-	100	-	0.00	0.00	0.01	0.08	0.12	0.15	0.17	0.00	-0.01	0.00	0.11	0.16	0.20	0.22
Springfield (Western MA), MA	x	-	100	-	0.00	0.02	0.05	0.61	0.93	1.18	1.28	0.00	-0.04	0.04	0.87	1.26	1.53	1.69
St. Louis, MO-IL	x	x	100	100	0.00	0.52	0.77	3.04	4.34	5.37	5.84	0.00	0.77	1.60	4.64	6.14	7.20	5.59
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.03	0.05	0.14	0.19	0.23	0.25	0.00	0.05	0.10	0.22	0.28	0.32	0.20
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.02	0.04	0.43	0.65	0.82	0.90	0.00	-0.02	0.04	0.61	0.88	1.07	1.16
Washington, DC-MD-VA	x	x	100	100	0.00	0.10	0.26	3.21	4.89	6.22	6.76	0.00	-0.23	0.20	4.56	6.64	8.06	8.90
Wheeling, WV-OH	-	x	-	100	0.00	0.00	0.01	0.11	0.17	0.22	0.24	0.00	-0.01	0.01	0.16	0.23	0.28	0.31
York, PA	-	x	-	100	0.00	0.01	0.02	0.26	0.40	0.50	0.55	0.00	-0.02	0.02	0.37	0.54	0.65	0.72

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-16
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	0.13	0.24	2.04	2.94	3.58	3.93	0.00	-0.17	0.26	3.64	5.08	5.89	6.61
Allegan Co., MI	x	-	100	-	0.00	0.01	0.03	0.22	0.32	0.39	0.43	0.00	-0.02	0.03	0.40	0.56	0.64	0.72
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.01	0.02	0.20	0.29	0.36	0.39	0.00	-0.02	0.03	0.36	0.51	0.59	0.66
Atlanta, GA	x	x	100	100	0.00	0.67	1.30	10.84	15.61	19.06	20.88	0.00	-0.93	1.36	19.37	27.02	31.31	35.14
Baltimore, MD	x	x	100	100	0.00	0.28	0.54	4.50	6.49	7.92	8.68	0.00	-0.39	0.56	8.05	11.23	13.01	14.60
Baton Rouge, LA	x	-	100	-	0.00	1.28	1.72	3.73	4.84	5.64	6.16	0.00	2.60	4.41	6.99	8.22	9.09	3.40
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2.48	3.29	6.06	7.63	8.79	9.60	0.00	5.36	8.69	11.46	12.91	14.09	2.12
Birmingham, AL	-	x	-	100	0.00	0.10	0.20	1.65	2.37	2.90	3.17	0.00	-0.14	0.21	2.94	4.11	4.76	5.34
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	0.45	0.88	7.33	10.56	12.89	14.12	0.00	-0.63	0.92	13.10	18.27	21.17	23.76
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.06	0.12	0.99	1.43	1.74	1.91	0.00	-0.09	0.12	1.77	2.47	2.86	3.21
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	0.11	0.21	1.76	2.54	3.10	3.39	0.00	-0.15	0.22	3.15	4.39	5.09	5.71
Canton-Massillon, OH	-	x	-	100	0.00	0.19	0.27	0.85	1.16	1.38	1.51	0.00	0.31	0.62	1.57	1.98	2.24	1.63
Charleston, WV	-	x	-	100	0.00	0.03	0.06	0.47	0.68	0.83	0.91	0.00	-0.04	0.06	0.84	1.18	1.36	1.53
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	0.18	0.34	2.85	4.11	5.01	5.49	0.00	-0.24	0.36	5.09	7.11	8.23	9.24
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.05	0.10	0.84	1.22	1.48	1.63	0.00	-0.07	0.11	1.51	2.10	2.44	2.74
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	2.46	3.67	15.06	20.91	25.15	27.52	0.00	2.97	7.64	27.38	35.97	41.05	36.15
Chico, CA	x	-	100	-	0.00	0.02	0.04	0.30	0.44	0.54	0.59	0.00	-0.03	0.04	0.54	0.76	0.88	0.99
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	0.18	0.35	2.92	4.20	5.13	5.62	0.00	-0.25	0.37	5.22	7.28	8.43	9.46
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.02	0.03	0.28	0.40	0.49	0.53	0.00	-0.02	0.03	0.49	0.69	0.80	0.89
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	0.26	0.50	4.20	6.06	7.39	8.10	0.00	-0.36	0.53	7.51	10.48	12.14	13.63
Columbus, OH	x	x	100	100	0.00	0.17	0.33	2.72	3.92	4.78	5.24	0.00	-0.23	0.34	4.86	6.78	7.85	8.81
Dallas-Fort Worth, TX	x	-	100	-	0.00	0.68	1.32	11.01	15.86	19.37	21.21	0.00	-0.94	1.38	19.68	27.46	31.81	35.70
Dayton-Springfield, OH	-	x	-	100	0.00	0.08	0.15	1.27	1.84	2.24	2.46	0.00	-0.11	0.16	2.28	3.18	3.68	4.13
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.52	0.88	5.55	7.91	9.61	10.52	0.00	0.01	1.36	9.98	13.66	15.75	16.54
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.69	1.21	8.16	11.65	14.18	15.53	0.00	-0.18	1.73	14.63	20.14	23.26	24.89
Door Co., WI	x	-	100	-	0.00	0.00	0.01	0.05	0.07	0.09	0.10	0.00	0.00	0.01	0.09	0.13	0.15	0.17
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Evansville, IN	-	x	-	100	0.00	0.03	0.07	0.55	0.79	0.96	1.05	0.00	-0.05	0.07	0.98	1.36	1.58	1.77
Greater Connecticut, CT	x	-	100	-	0.00	0.17	0.33	2.79	4.02	4.90	5.37	0.00	-0.24	0.35	4.98	6.95	8.05	9.04
Greene	x	-	100	-	0.00	0.00	0.01	0.06	0.09	0.11	0.12	0.00	-0.01	0.01	0.11	0.16	0.18	0.21
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.08	0.15	1.26	1.82	2.22	2.43	0.00	-0.11	0.16	2.25	3.14	3.64	4.09

Table B1-16
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.07	0.14	1.14	1.65	2.01	2.20	0.00	-0.10	0.14	2.04	2.85	3.30	3.70
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.00	0.00	0.00	0.01	0.02	0.02	0.03
Hickory, NC	-	x	-	100	0.00	0.02	0.04	0.30	0.43	0.52	0.57	0.00	-0.03	0.04	0.53	0.74	0.86	0.96
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	5.50	7.55	19.18	25.40	29.93	32.72	0.00	10.38	18.65	35.59	43.34	48.45	26.34
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.52	0.72	1.76	2.32	2.73	2.98	0.00	1.01	1.79	3.27	3.95	4.41	2.24
Imperial Co., CA	x	-	100	-	0.00	0.02	0.04	0.35	0.51	0.62	0.68	0.00	-0.03	0.04	0.63	0.88	1.02	1.14
Indianapolis, IN	-	x	-	100	0.00	0.16	0.30	2.54	3.65	4.46	4.89	0.00	-0.22	0.32	4.53	6.33	7.33	8.23
Jamestown, NY	x	-	100	-	0.00	0.01	0.03	0.23	0.34	0.41	0.45	0.00	-0.02	0.03	0.42	0.58	0.68	0.76
Jefferson Co., NY	x	-	100	-	0.00	0.01	0.03	0.22	0.31	0.38	0.42	0.00	-0.02	0.03	0.39	0.54	0.63	0.71
Johnstown, PA	-	x	-	100	0.00	0.01	0.02	0.19	0.28	0.34	0.37	0.00	-0.02	0.02	0.34	0.48	0.56	0.62
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.01	0.02	0.18	0.27	0.32	0.36	0.00	-0.02	0.02	0.33	0.46	0.53	0.60
Knoxville, TN	x	x	100	100	0.00	0.11	0.21	1.72	2.48	3.03	3.32	0.00	-0.15	0.22	3.08	4.30	4.98	5.59
Lancaster, PA	-	x	-	100	0.00	0.04	0.08	0.67	0.97	1.19	1.30	0.00	-0.06	0.08	1.20	1.68	1.95	2.18
Las Vegas, NV	x	-	100	-	0.00	0.14	0.27	2.23	3.22	3.93	4.30	0.00	-0.19	0.28	3.99	5.57	6.45	7.24
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.00	0.00	0.00	0.02	0.03	0.03	0.04
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.02	0.03	0.04	0.04	0.00	0.00	0.00	0.04	0.05	0.06	0.07
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	4.14	6.34	29.29	41.00	49.48	54.15	0.00	3.96	12.42	53.06	70.63	80.87	75.68
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.07	0.14	1.15	1.66	2.02	2.22	0.00	-0.10	0.14	2.06	2.87	3.32	3.73
Louisville, KY-IN	-	x	-	100	0.00	0.11	0.21	1.77	2.55	3.11	3.41	0.00	-0.15	0.22	3.16	4.41	5.11	5.74
Macon, GA	-	x	-	100	0.00	0.02	0.04	0.33	0.48	0.58	0.64	0.00	-0.03	0.04	0.59	0.82	0.95	1.07
Manitowoc Co., WI	x	-	100	-	0.00	0.01	0.02	0.17	0.24	0.30	0.33	0.00	-0.01	0.02	0.30	0.42	0.49	0.55
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.01	0.02	0.17	0.24	0.29	0.32	0.00	-0.01	0.02	0.29	0.41	0.48	0.54
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.04	0.08	0.65	0.93	1.14	1.24	0.00	-0.06	0.08	1.15	1.61	1.87	2.09
Memphis, TN-AR	x	-	100	-	0.00	0.49	0.70	2.43	3.33	3.98	4.35	0.00	0.73	1.57	4.45	5.71	6.48	5.08
Milwaukee-Racine, WI	x	-	100	-	0.00	0.17	0.33	2.78	4.00	4.88	5.35	0.00	-0.24	0.35	4.96	6.92	8.02	9.00
Nevada (Western Part), CA	x	-	100	-	0.00	0.01	0.02	0.16	0.23	0.28	0.30	0.00	-0.01	0.02	0.28	0.39	0.45	0.51
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	2.11	3.65	24.38	34.82	42.36	46.39	0.00	-0.43	5.30	43.76	60.18	69.47	74.11
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.02	0.03	0.25	0.36	0.44	0.48	0.00	-0.02	0.03	0.45	0.62	0.72	0.81
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	3.25	4.69	16.61	22.78	27.25	29.82	0.00	4.76	10.44	30.35	39.10	44.39	35.40
Phoenix-Mesa	x	-	100	-	0.00	0.38	0.74	6.20	8.94	10.91	11.95	0.00	-0.53	0.78	11.09	15.47	17.92	20.11

Table B1-16
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Butadiene 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	0.19	0.37	3.10	4.47	5.46	5.98	0.00	-0.27	0.39	5.55	7.74	8.96	10.06
Poughkeepsie, NY	x	x	100	100	0.00	0.12	0.24	2.01	2.90	3.54	3.88	0.00	-0.17	0.25	3.60	5.02	5.81	6.52
Providence (All RI), RI	x	-	100	-	0.00	0.09	0.17	1.46	2.10	2.56	2.80	0.00	-0.12	0.18	2.60	3.63	4.20	4.72
Reading, PA	-	x	-	100	0.00	0.04	0.07	0.59	0.85	1.04	1.14	0.00	-0.05	0.07	1.06	1.47	1.71	1.92
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.07	0.14	1.17	1.69	2.06	2.26	0.00	-0.10	0.15	2.10	2.93	3.39	3.80
Rochester, NY	x	-	100	-	0.00	0.13	0.24	2.04	2.94	3.59	3.93	0.00	-0.17	0.26	3.64	5.08	5.89	6.61
Rome, GA	-	x	-	100	0.00	0.01	0.02	0.18	0.26	0.31	0.34	0.00	-0.02	0.02	0.32	0.44	0.51	0.58
Sacramento Metro, CA	x	-	50	-	0.00	0.21	0.41	3.42	4.93	6.02	6.60	0.00	-0.29	0.43	6.12	8.54	9.89	11.10
San Diego, CA	x	-	100	-	0.00	0.30	0.57	4.79	6.91	8.43	9.23	0.00	-0.41	0.60	8.57	11.95	13.85	15.54
San Francisco Bay Area, CA	x	-	100	-	0.00	2.09	3.15	13.70	19.09	23.00	25.17	0.00	2.28	6.39	24.86	32.87	37.57	34.11
San Joaquin Valley, CA	x	x	50	100	0.00	0.67	1.15	7.52	10.72	13.04	14.28	0.00	-0.07	1.73	13.50	18.53	21.38	22.65
Sheboygan, WI	x	-	100	-	0.00	0.01	0.02	0.19	0.27	0.33	0.36	0.00	-0.02	0.02	0.34	0.47	0.55	0.61
Springfield (Western MA), MA	x	-	100	-	0.00	0.09	0.18	1.46	2.11	2.57	2.82	0.00	-0.13	0.18	2.61	3.65	4.23	4.74
St. Louis, MO-IL	x	x	100	100	0.00	0.96	1.45	6.31	8.80	10.59	11.60	0.00	1.06	2.95	11.45	15.14	17.31	15.70
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.05	0.08	0.27	0.36	0.43	0.48	0.00	0.08	0.17	0.49	0.62	0.71	0.55
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.07	0.13	1.02	1.46	1.79	1.96	0.00	-0.07	0.15	1.82	2.53	2.93	3.26
Washington, DC-MD-VA	x	x	100	100	0.00	0.48	0.92	7.70	11.10	13.55	14.84	0.00	-0.66	0.97	13.77	19.21	22.25	24.98
Wheeling, WV-OH	-	x	-	100	0.00	0.02	0.03	0.27	0.39	0.47	0.52	0.00	-0.02	0.03	0.48	0.67	0.78	0.87
York, PA	-	x	-	100	0.00	0.04	0.07	0.62	0.90	1.10	1.20	0.00	-0.05	0.08	1.12	1.56	1.80	2.03

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-17
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	17.80	34.11	395.90	712.72	1,018.38	1,082.80	0.00	18.48	35.75	397.16	713.96	1,018.86	1,075.51
Allegan Co., MI	x	-	100	-	0.00	1.95	3.73	43.31	77.96	111.40	118.44	0.00	2.02	3.91	43.44	78.10	111.45	117.65
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.77	3.39	39.36	70.86	101.25	107.66	0.00	1.84	3.55	39.49	70.99	101.30	106.93
Atlanta, GA	x	x	100	100	0.00	94.67	181.43	2,105.71	3,790.84	5,416.59	5,759.22	0.00	98.26	190.14	2,112.43	3,797.42	5,419.11	5,720.46
Baltimore, MD	x	x	100	100	0.00	39.35	75.40	875.00	1,575.22	2,250.76	2,393.14	0.00	40.85	79.03	877.80	1,577.96	2,251.81	2,376.99
Baton Rouge, LA	x	-	100	-	0.00	103.03	142.70	405.04	626.85	841.67	896.69	0.00	134.76	219.67	464.48	685.04	863.96	554.04
Beaumont/Port Arthur, TX	x	-	100	-	0.00	194.70	262.87	531.81	751.38	964.88	1,029.50	0.00	258.09	416.67	650.58	867.66	1,009.41	344.83
Birmingham, AL	-	x	-	100	0.00	14.39	27.57	320.07	576.22	823.34	875.43	0.00	14.93	28.89	321.09	577.22	823.73	869.55
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	64.02	122.68	1,423.70	2,563.03	3,662.20	3,893.86	0.00	66.45	128.57	1,428.25	2,567.48	3,663.91	3,867.61
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	8.63	16.56	192.55	346.67	495.36	526.70	0.00	8.95	17.33	193.15	347.26	495.59	523.26
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	15.39	29.50	342.33	616.28	880.57	936.28	0.00	15.98	30.92	343.42	617.35	880.98	929.96
Canton-Massillon, OH	-	x	-	100	0.00	16.65	24.75	123.88	209.65	292.51	311.25	0.00	20.91	35.10	131.87	217.47	295.51	265.19
Charleston, WV	-	x	-	100	0.00	4.12	7.90	91.67	165.03	235.81	250.73	0.00	4.28	8.28	91.97	165.32	235.92	249.04
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	24.70	47.44	553.35	996.39	1,423.83	1,513.89	0.00	25.57	49.57	554.99	998.00	1,424.44	1,504.43
Chattanooga, AL-TN-GA	-	x	-	100	0.00	7.36	14.11	163.95	295.17	421.76	448.44	0.00	7.64	14.78	164.47	295.67	421.95	445.46
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	234.18	368.98	2,459.20	4,278.10	6,034.12	6,418.41	0.00	283.60	488.87	2,551.79	4,368.75	6,068.83	5,884.69
Chico, CA	x	-	100	-	0.00	2.66	5.10	59.20	106.58	152.29	161.92	0.00	2.76	5.35	59.39	106.76	152.36	160.83
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	25.47	48.82	566.93	1,020.64	1,458.37	1,550.63	0.00	26.42	51.14	568.72	1,022.40	1,459.05	1,540.28
Clearfield and Indiana Cos.	x	-	100	-	0.00	2.41	4.62	53.61	96.51	137.91	146.63	0.00	2.50	4.84	53.78	96.68	137.97	145.64
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	36.73	70.38	816.77	1,470.40	2,101.00	2,233.90	0.00	38.12	73.76	819.38	1,472.96	2,101.98	2,218.85
Columbus, OH	x	x	100	100	0.00	23.74	45.49	528.01	950.55	1,358.21	1,444.13	0.00	24.64	47.68	529.69	952.21	1,358.84	1,434.40
Dallas-Fort Worth, TX	x	-	100	-	0.00	96.19	184.33	2,139.31	3,851.33	5,503.02	5,851.12	0.00	99.84	193.18	2,146.15	3,858.02	5,505.58	5,811.71
Dayton-Springfield, OH	-	x	-	100	0.00	11.14	21.34	247.69	445.91	637.15	677.45	0.00	11.56	22.37	248.48	446.69	637.44	672.89
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	60.34	106.42	1,024.78	1,827.67	2,602.41	2,767.32	0.00	67.31	123.32	1,037.83	1,840.45	2,607.30	2,692.09
Detroit-Ann Arbor, MI	x	x	100	100	0.00	83.86	150.90	1,527.52	2,731.63	3,893.46	4,140.07	0.00	92.02	170.70	1,542.81	2,746.60	3,899.19	4,051.96
Door Co., WI	x	-	100	-	0.00	0.45	0.87	10.05	18.10	25.86	27.49	0.00	0.47	0.91	10.08	18.13	25.87	27.31
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.02	0.04	0.42	0.76	1.09	1.16	0.00	0.02	0.04	0.42	0.76	1.09	1.15
Evansville, IN	-	x	-	100	0.00	4.74	9.11	106.08	191.01	272.94	290.20	0.00	4.91	9.52	106.40	191.32	273.06	288.36
Greater Connecticut, CT	x	-	100	-	0.00	24.36	46.68	541.63	975.06	1,393.22	1,481.35	0.00	25.29	48.93	543.36	976.76	1,393.87	1,471.33
Greene	x	-	100	-	0.00	0.56	1.07	12.44	22.39	31.99	34.02	0.00	0.58	1.12	12.48	22.43	32.01	33.79
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	11.01	21.11	244.95	440.98	630.10	669.95	0.00	11.43	22.12	245.73	441.74	630.39	665.44

Table B1-17
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	9.98	19.12	221.90	399.47	570.79	606.90	0.00	10.36	20.04	222.61	400.17	571.06	602.81
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.07	0.13	1.53	2.75	3.93	4.18	0.00	0.07	0.14	1.53	2.75	3.93	4.15
Hickory, NC	-	x	-	100	0.00	2.59	4.96	57.54	103.58	148.00	157.36	0.00	2.69	5.20	57.72	103.76	148.07	156.30
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	457.82	651.70	2,407.02	3,911.54	5,366.46	5,713.27	0.00	589.84	971.97	2,654.35	4,153.69	5,459.20	4,287.48
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	43.21	61.12	214.12	344.97	471.54	502.07	0.00	55.86	91.81	237.83	368.18	480.43	365.44
Imperial Co., CA	x	-	100	-	0.00	3.07	5.88	68.30	122.95	175.68	186.80	0.00	3.19	6.17	68.52	123.17	175.77	185.54
Indianapolis, IN	-	x	-	100	0.00	22.16	42.47	492.91	887.37	1,267.93	1,348.13	0.00	23.00	44.51	494.49	888.91	1,268.52	1,339.05
Jamestown, NY	x	-	100	-	0.00	2.05	3.93	45.58	82.05	117.24	124.65	0.00	2.13	4.12	45.72	82.19	117.29	123.81
Jefferson Co., NY	x	-	100	-	0.00	1.90	3.65	42.32	76.19	108.86	115.75	0.00	1.98	3.82	42.46	76.32	108.91	114.97
Johnstown, PA	-	x	-	100	0.00	1.68	3.22	37.38	67.29	96.15	102.24	0.00	1.75	3.38	37.50	67.41	96.20	101.54
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	1.62	3.10	35.86	64.54	92.22	98.05	0.00	1.69	3.26	35.98	64.66	92.26	97.35
Knoxville, TN	x	x	100	100	0.00	15.06	28.86	334.92	602.94	861.52	916.01	0.00	15.63	30.24	335.98	603.99	861.92	909.85
Lancaster, PA	-	x	-	100	0.00	5.89	11.28	130.90	235.65	336.71	358.01	0.00	6.11	11.82	131.32	236.06	336.87	355.60
Las Vegas, NV	x	-	100	-	0.00	19.49	37.36	433.61	780.62	1,115.40	1,185.96	0.00	20.23	39.14	434.99	781.98	1,115.92	1,177.99
Libby, MT	-	x	-	100	0.00	0.10	0.19	2.15	3.87	5.53	5.88	0.00	0.10	0.19	2.16	3.88	5.53	5.84
Liberty-Clairton, PA	-	x	-	100	0.00	0.19	0.36	4.22	7.59	10.85	11.54	0.00	0.20	0.38	4.23	7.61	10.86	11.46
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	412.15	668.34	4,981.05	8,740.19	12,368.71	13,155.06	0.00	489.50	855.99	5,125.96	8,882.07	12,423.05	12,319.70
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	10.06	19.27	223.57	402.48	575.09	611.47	0.00	10.44	20.20	224.29	403.18	575.36	607.33
Louisville, KY-IN	-	x	-	100	0.00	15.43	29.59	343.87	619.09	884.61	940.57	0.00	16.01	30.99	344.95	620.15	885.02	934.34
Macon, GA	-	x	-	100	0.00	2.88	5.51	64.08	115.37	164.85	175.28	0.00	2.98	5.77	64.28	115.57	164.93	174.12
Manitowoc Co., WI	x	-	100	-	0.00	1.48	2.83	32.83	59.11	84.45	89.80	0.00	1.53	2.97	32.94	59.21	84.49	89.19
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	1.44	2.76	32.07	57.73	82.48	87.70	0.00	1.50	2.90	32.17	57.83	82.52	87.11
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	5.64	10.81	125.50	225.93	322.82	343.24	0.00	5.86	11.33	125.90	226.32	322.97	340.93
Memphis, TN-AR	x	-	100	-	0.00	43.92	66.53	369.28	631.85	885.44	942.02	0.00	54.54	92.30	389.18	651.34	892.90	827.29
Milwaukee-Racine, WI	x	-	100	-	0.00	24.25	46.48	539.36	970.99	1,387.41	1,475.17	0.00	25.18	48.71	541.09	972.68	1,388.06	1,465.23
Nevada (Western Part), CA	x	-	100	-	0.00	1.37	2.63	30.50	54.91	78.46	83.42	0.00	1.42	2.75	30.60	55.00	78.49	82.86
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	253.10	453.86	4,555.46	8,142.79	11,604.18	12,339.24	0.00	278.53	515.56	4,603.10	8,189.44	11,622.05	12,064.57
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	2.18	4.18	48.58	87.47	124.98	132.88	0.00	2.27	4.38	48.74	87.62	125.04	131.99
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	294.42	448.12	2,547.79	4,369.71	6,129.19	6,520.67	0.00	364.58	618.31	2,679.22	4,498.39	6,178.47	5,762.99
Phoenix-Mesa	x	-	100	-	0.00	54.10	103.72	1,205.00	2,169.43	3,099.86	3,295.95	0.00	56.12	108.63	1,208.79	2,173.14	3,101.28	3,274.09

Table B1-17
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	27.11	51.95	602.97	1,085.51	1,551.05	1,649.16	0.00	28.13	54.44	604.90	1,087.40	1,551.77	1,638.07
Poughkeepsie, NY	x	x	100	100	0.00	17.57	33.68	390.84	703.61	1,005.36	1,068.96	0.00	18.24	35.29	392.09	704.83	1,005.83	1,061.76
Providence (All RI), RI	x	-	100	-	0.00	12.71	24.36	282.74	509.00	727.29	773.30	0.00	13.20	25.53	283.64	509.89	727.63	768.09
Reading, PA	-	x	-	100	0.00	5.16	9.90	114.84	206.75	295.42	314.10	0.00	5.36	10.37	115.21	207.11	295.55	311.99
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	10.25	19.65	227.98	410.42	586.42	623.52	0.00	10.64	20.59	228.71	411.13	586.70	619.31
Rochester, NY	x	-	100	-	0.00	17.81	34.13	396.05	712.99	1,018.77	1,083.21	0.00	18.48	35.76	397.32	714.23	1,019.24	1,075.92
Rome, GA	-	x	-	100	0.00	1.56	2.98	34.63	62.34	89.07	94.70	0.00	1.62	3.13	34.74	62.44	89.11	94.07
Sacramento Metro, CA	x	-	50	-	0.00	29.91	57.32	665.31	1,197.74	1,711.41	1,819.67	0.00	31.05	60.07	667.44	1,199.82	1,712.21	1,807.42
San Diego, CA	x	-	100	-	0.00	41.88	80.25	931.35	1,676.68	2,395.75	2,547.29	0.00	43.47	84.10	934.33	1,679.60	2,396.86	2,530.14
San Francisco Bay Area, CA	x	-	100	-	0.00	202.75	323.88	2,281.19	3,985.89	5,631.49	5,989.82	0.00	243.30	422.25	2,357.15	4,060.26	5,659.97	5,551.91
San Joaquin Valley, CA	x	x	50	100	0.00	79.65	141.78	1,397.24	2,495.09	3,554.42	3,779.62	0.00	88.19	162.50	1,413.24	2,510.76	3,560.42	3,687.38
Sheboygan, WI	x	-	100	-	0.00	1.65	3.17	36.75	66.16	94.53	100.51	0.00	1.72	3.32	36.87	66.27	94.57	99.83
Springfield (Western MA), MA	x	-	100	-	0.00	12.78	24.49	284.28	511.77	731.25	777.51	0.00	13.27	25.67	285.18	512.66	731.59	772.27
St. Louis, MO-IL	x	x	100	100	0.00	93.72	149.60	1,050.94	1,835.91	2,593.68	2,758.73	0.00	112.51	195.19	1,086.14	1,870.38	2,606.88	2,555.77
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	4.84	7.32	40.23	68.76	96.31	102.47	0.00	6.02	10.18	42.44	70.92	97.14	89.74
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	9.25	17.46	196.33	352.94	504.03	535.93	0.00	9.74	18.65	197.25	353.84	504.38	530.63
Washington, DC-MD-VA	x	x	100	100	0.00	67.33	129.00	1,496.75	2,694.52	3,850.07	4,093.62	0.00	69.89	135.22	1,501.56	2,699.22	3,851.88	4,065.93
Wheeling, WV-OH	-	x	-	100	0.00	2.34	4.49	52.14	93.87	134.13	142.61	0.00	2.43	4.71	52.31	94.03	134.19	141.65
York, PA	-	x	-	100	0.00	5.46	10.46	121.36	218.49	312.18	331.93	0.00	5.66	10.96	121.75	218.86	312.33	329.70

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-18
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	190.98	308.58	2,207.12	3,458.38	4,496.95	4,880.46	0.00	123.50	340.03	2,714.59	4,136.79	5,225.91	5,705.76
Allegan Co., MI	x	-	100	-	0.00	20.89	33.75	241.43	378.30	491.90	533.85	0.00	13.51	37.19	296.94	452.51	571.64	624.13
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	19.02	30.73	219.52	343.94	447.22	485.36	0.00	12.34	33.90	270.01	411.43	519.73	567.30
Atlanta, GA	x	x	100	100	0.00	1,018.25	1,644.53	11,744.72	18,401.33	23,926.48	25,966.95	0.00	661.04	1,815.26	14,446.71	22,012.33	27,805.94	30,348.07
Baltimore, MD	x	x	100	100	0.00	422.06	681.95	4,877.90	7,643.29	9,938.64	10,786.22	0.00	272.89	751.39	5,999.41	9,142.61	11,549.68	12,610.36
Baton Rouge, LA	x	-	100	-	0.00	338.83	478.02	1,666.96	2,446.02	3,091.41	3,353.59	0.00	471.49	836.06	2,209.40	3,053.78	3,688.58	2,939.30
Beaumont/Port Arthur, TX	x	-	100	-	0.00	545.26	741.20	1,774.51	2,446.39	3,001.57	3,254.61	0.00	860.65	1,439.43	2,502.91	3,183.84	3,681.47	1,829.40
Birmingham, AL	-	x	-	100	0.00	154.28	249.31	1,784.17	2,795.73	3,635.36	3,945.39	0.00	99.63	274.55	2,194.30	3,344.09	4,224.60	4,613.11
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	686.03	1,108.67	7,935.32	12,434.52	16,168.98	17,547.89	0.00	442.84	1,220.68	9,759.32	14,873.33	18,789.67	20,518.40
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	92.82	150.01	1,073.60	1,682.31	2,187.56	2,374.12	0.00	59.93	165.17	1,320.39	2,012.27	2,542.12	2,775.97
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	164.93	266.55	1,907.98	2,989.80	3,887.73	4,219.29	0.00	106.44	293.44	2,346.53	3,576.18	4,517.85	4,933.63
Canton-Massillon, OH	-	x	-	100	0.00	78.43	117.68	613.30	939.36	1,209.83	1,312.82	0.00	83.62	169.99	775.06	1,140.30	1,418.47	1,406.90
Charleston, WV	-	x	-	100	0.00	44.14	71.35	510.90	800.59	1,041.04	1,129.82	0.00	28.46	78.52	628.31	957.59	1,209.76	1,321.20
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	267.20	431.71	3,087.45	4,837.74	6,290.53	6,827.00	0.00	172.84	475.76	3,797.35	5,786.76	7,310.25	7,981.27
Chattanooga, AL-TN-GA	-	x	-	100	0.00	79.02	127.70	913.98	1,432.18	1,862.30	2,021.13	0.00	51.02	140.61	1,124.07	1,713.08	2,164.15	2,363.23
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,394.92	2,152.76	12,847.69	19,889.71	25,732.96	27,925.38	0.00	1,269.37	2,822.33	16,033.30	23,977.58	30,044.07	31,219.34
Chico, CA	x	-	100	-	0.00	28.55	46.14	330.03	517.14	672.44	729.79	0.00	18.46	50.83	405.91	618.58	781.44	853.22
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	273.29	441.63	3,160.41	4,952.26	6,439.55	6,988.72	0.00	176.49	486.34	3,886.91	5,923.60	7,483.31	8,171.46
Clearfield and Indiana Cos.	x	-	100	-	0.00	25.82	41.73	298.78	468.19	608.81	660.73	0.00	16.65	45.92	367.44	560.01	707.48	772.65
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	393.47	635.91	4,552.25	7,133.38	9,275.78	10,066.84	0.00	253.88	700.01	5,598.56	8,532.41	10,779.18	11,771.38
Columbus, OH	x	x	100	100	0.00	254.81	411.68	2,943.85	4,612.70	5,997.90	6,509.41	0.00	164.88	453.76	3,620.77	5,517.61	6,970.20	7,609.77
Dallas-Fort Worth, TX	x	-	100	-	0.00	1,033.77	1,669.80	11,930.48	18,692.86	24,305.82	26,378.64	0.00	670.35	1,842.22	14,674.72	22,360.68	28,246.49	30,832.18
Dayton-Springfield, OH	-	x	-	100	0.00	119.33	192.85	1,380.53	2,163.29	2,813.00	3,052.90	0.00	77.00	212.31	1,697.85	2,587.57	3,268.93	3,569.79
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	518.85	826.54	5,614.55	8,769.37	11,387.75	12,358.66	0.00	378.35	963.26	6,932.46	10,511.32	13,250.00	14,282.03
Detroit-Ann Arbor, MI	x	x	100	100	0.00	761.84	1,218.72	8,408.57	13,146.33	17,078.58	18,534.81	0.00	537.08	1,397.35	10,369.90	15,747.70	19,863.92	21,496.39
Door Co., WI	x	-	100	-	0.00	4.84	7.83	56.03	87.79	114.16	123.90	0.00	3.13	8.62	68.91	105.01	132.67	144.88
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.20	0.33	2.35	3.69	4.80	5.21	0.00	0.13	0.36	2.90	4.41	5.58	6.09
Evansville, IN	-	x	-	100	0.00	51.10	82.60	591.53	926.95	1,205.36	1,308.15	0.00	32.94	90.88	727.47	1,108.73	1,400.71	1,529.79
Greater Connecticut, CT	x	-	100	-	0.00	261.18	422.02	3,019.21	4,730.92	6,151.68	6,676.31	0.00	168.79	464.90	3,713.33	5,658.91	7,148.83	7,805.69
Greene	x	-	100	-	0.00	5.99	9.68	69.31	108.60	141.22	153.27	0.00	3.86	10.64	85.23	129.90	164.11	179.24
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	118.12	190.86	1,365.49	2,139.65	2,782.22	3,019.49	0.00	76.33	210.25	1,679.42	2,559.35	3,233.20	3,530.29

Table B1-18
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	106.96	172.84	1,236.88	1,938.15	2,520.23	2,735.16	0.00	69.08	190.35	1,521.22	2,318.31	2,928.72	3,198.02
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.74	1.19	8.51	13.33	17.34	18.82	0.00	0.47	1.31	10.47	15.95	20.15	22.00
Hickory, NC	-	x	-	100	0.00	27.76	44.85	320.76	502.61	653.54	709.28	0.00	17.96	49.43	394.52	601.20	759.48	829.20
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	1,752.30	2,545.06	10,982.80	16,525.11	21,120.25	22,915.39	0.00	2,173.29	4,079.25	14,163.95	20,294.04	24,939.68	22,745.86
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	160.00	231.05	959.58	1,437.93	1,834.48	1,990.35	0.00	203.29	376.95	1,243.16	1,770.61	2,169.85	1,938.75
Imperial Co., CA	x	-	100	-	0.00	33.03	53.34	380.93	596.83	776.04	842.22	0.00	21.44	58.87	468.57	713.95	901.86	984.32
Indianapolis, IN	-	x	-	100	0.00	237.86	384.30	2,748.13	4,306.04	5,599.15	6,076.65	0.00	153.90	423.56	3,380.04	5,150.78	6,506.80	7,103.92
Jamestown, NY	x	-	100	-	0.00	21.96	35.49	254.02	398.06	517.61	561.75	0.00	14.17	39.06	312.41	476.12	601.50	656.86
Jefferson Co., NY	x	-	100	-	0.00	20.43	33.00	235.96	369.73	480.75	521.75	0.00	13.22	36.38	290.22	442.26	558.69	609.93
Johnstown, PA	-	x	-	100	0.00	18.00	29.09	208.31	326.43	424.47	460.67	0.00	11.60	32.01	256.19	390.45	493.27	538.71
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	17.38	28.05	199.98	313.29	407.33	442.07	0.00	11.33	31.03	246.02	374.79	473.40	516.46
Knoxville, TN	x	x	100	100	0.00	161.55	261.03	1,867.13	2,925.65	3,804.25	4,128.68	0.00	104.45	287.60	2,296.41	3,499.55	4,420.91	4,826.93
Lancaster, PA	-	x	-	100	0.00	63.10	101.97	729.65	1,143.33	1,486.70	1,613.49	0.00	40.76	112.30	897.38	1,367.59	1,727.68	1,886.51
Las Vegas, NV	x	-	100	-	0.00	209.87	338.90	2,418.96	3,789.84	4,927.70	5,347.94	0.00	136.44	374.32	2,975.59	4,533.64	5,726.75	6,249.48
Libby, MT	-	x	-	100	0.00	1.04	1.67	11.98	18.77	24.41	26.49	0.00	0.67	1.84	14.73	22.45	28.37	30.97
Liberty-Clairton, PA	-	x	-	100	0.00	2.03	3.28	23.50	36.83	47.89	51.98	0.00	1.31	3.61	28.90	44.05	55.65	60.78
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	2,722.35	4,244.19	26,460.59	41,092.49	53,234.59	57,771.26	0.00	2,321.68	5,364.54	32,898.39	49,437.90	62,077.50	65,358.27
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	108.01	174.47	1,246.71	1,953.38	2,539.93	2,756.54	0.00	70.03	192.47	1,533.47	2,336.65	2,951.72	3,221.99
Louisville, KY-IN	-	x	-	100	0.00	165.64	267.71	1,916.81	3,003.68	3,905.81	4,238.91	0.00	106.82	294.62	2,357.34	3,592.75	4,538.84	4,956.87
Macon, GA	-	x	-	100	0.00	30.87	49.89	357.22	559.77	727.89	789.96	0.00	19.91	54.90	439.31	669.54	845.86	923.76
Manitowoc Co., WI	x	-	100	-	0.00	15.82	25.57	182.99	286.74	372.85	404.65	0.00	10.21	28.15	225.05	342.98	433.29	473.16
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	15.50	25.04	178.83	280.20	364.33	395.40	0.00	10.06	27.63	219.98	335.18	423.40	462.12
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	60.71	98.04	700.01	1,096.74	1,426.04	1,547.65	0.00	39.43	108.24	861.06	1,311.97	1,657.26	1,808.69
Memphis, TN-AR	x	-	100	-	0.00	224.16	339.88	1,868.02	2,873.71	3,708.06	4,023.82	0.00	226.05	473.90	2,348.66	3,478.54	4,339.99	4,388.93
Milwaukee-Racine, WI	x	-	100	-	0.00	259.93	420.06	3,006.33	4,710.84	6,125.64	6,648.04	0.00	167.82	462.53	3,697.38	5,634.81	7,118.50	7,773.29
Nevada (Western Part), CA	x	-	100	-	0.00	14.72	23.78	170.05	266.45	346.47	376.02	0.00	9.53	26.22	209.16	318.73	402.64	439.57
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	2,277.16	3,640.38	25,055.63	39,167.06	50,879.24	55,217.47	0.00	1,614.05	4,184.75	30,905.69	46,922.00	59,180.62	64,004.77
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	23.39	37.81	270.78	424.32	551.76	598.81	0.00	15.08	41.61	333.01	507.53	641.18	700.26
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1,533.00	2,329.74	12,949.92	19,939.67	25,738.72	27,930.65	0.00	1,526.27	3,222.78	16,264.74	24,122.32	30,114.54	30,573.74
Phoenix-Mesa	x	-	100	-	0.00	582.76	941.19	6,721.97	10,531.84	13,694.13	14,861.97	0.00	378.28	1,038.85	8,268.40	12,598.54	15,914.49	17,369.63

Table B1-18
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	290.32	469.25	3,360.37	5,265.80	6,847.37	7,431.33	0.00	187.15	516.34	4,132.62	6,298.47	7,957.11	8,690.28
Poughkeepsie, NY	x	x	100	100	0.00	188.57	304.67	2,178.96	3,414.24	4,439.55	4,818.16	0.00	121.97	335.76	2,679.97	4,084.01	5,159.21	5,632.81
Providence (All RI), RI	x	-	100	-	0.00	136.25	220.18	1,575.92	2,469.44	3,211.08	3,484.93	0.00	87.95	242.43	1,938.16	2,953.78	3,731.54	4,074.83
Reading, PA	-	x	-	100	0.00	55.41	89.53	640.28	1,003.25	1,304.53	1,415.78	0.00	35.84	98.67	787.50	1,200.06	1,516.00	1,655.15
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	110.60	178.52	1,272.29	1,993.15	2,591.48	2,812.48	0.00	72.17	197.51	1,565.23	2,384.47	3,011.80	3,285.53
Rochester, NY	x	-	100	-	0.00	190.89	308.47	2,207.59	3,459.23	4,498.12	4,881.73	0.00	123.27	339.69	2,715.05	4,137.72	5,227.20	5,707.93
Rome, GA	-	x	-	100	0.00	16.68	26.96	193.00	302.42	393.25	426.79	0.00	10.77	29.69	237.36	361.74	456.99	499.03
Sacramento Metro, CA	x	-	50	-	0.00	321.29	519.03	3,709.88	5,812.84	7,558.36	8,202.94	0.00	208.13	572.35	4,563.09	6,953.30	8,783.71	9,588.71
San Diego, CA	x	-	100	-	0.00	448.76	725.24	5,191.10	8,134.40	10,577.41	11,479.47	0.00	289.65	798.46	6,384.30	9,729.80	12,291.80	13,422.85
San Francisco Bay Area, CA	x	-	100	-	0.00	1,269.06	1,968.69	12,017.62	18,635.15	24,126.41	26,182.23	0.00	1,117.90	2,533.61	14,968.19	22,441.40	28,150.43	29,453.92
San Joaquin Valley, CA	x	x	50	100	0.00	703.83	1,123.04	7,675.21	11,992.57	15,575.84	16,903.87	0.00	506.62	1,300.57	9,472.37	14,371.19	18,120.28	19,562.21
Sheboygan, WI	x	-	100	-	0.00	17.72	28.63	204.84	320.98	417.37	452.97	0.00	11.45	31.53	251.93	383.94	485.03	529.61
Springfield (Western MA), MA	x	-	100	-	0.00	137.05	221.46	1,584.64	2,483.05	3,228.77	3,504.12	0.00	88.53	243.91	1,948.92	2,970.10	3,752.12	4,097.04
St. Louis, MO-IL	x	x	100	100	0.00	585.13	907.50	5,534.24	8,581.07	11,109.34	12,055.97	0.00	516.18	1,168.87	6,893.58	10,334.23	12,962.61	13,558.83
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	24.50	37.12	203.04	312.24	402.82	437.13	0.00	24.84	51.92	255.40	378.04	471.54	476.07
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.01	0.02	0.02	0.02
Ventura Co., CA	x	-	100	-	0.00	95.34	153.73	1,091.41	1,709.38	2,222.30	2,411.81	0.00	62.83	170.83	1,343.09	2,045.29	2,582.98	2,815.10
Washington, DC-MD-VA	x	x	100	100	0.00	722.24	1,166.88	8,344.48	13,074.96	17,001.38	18,451.28	0.00	467.29	1,286.08	10,263.21	15,639.93	19,757.40	21,570.52
Wheeling, WV-OH	-	x	-	100	0.00	25.11	40.58	290.60	455.37	592.14	642.64	0.00	16.19	44.66	357.38	544.67	688.11	751.49
York, PA	-	x	-	100	0.00	58.60	94.66	676.70	1,060.30	1,378.70	1,496.28	0.00	37.94	104.37	832.32	1,268.32	1,602.21	1,749.10

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-19
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	503.71	723.08	4,739.84	7,185.29	9,056.76	9,951.80	0.00	169.58	853.51	7,127.09	10,460.05	12,609.78	14,073.23
Allegan Co., MI	x	-	100	-	0.00	55.10	79.09	518.47	785.97	990.68	1,088.59	0.00	18.55	93.36	779.60	1,144.18	1,379.33	1,539.42
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	50.19	72.03	471.49	714.69	900.81	989.83	0.00	17.07	85.19	709.02	1,040.44	1,254.22	1,399.24
Atlanta, GA	x	x	100	100	0.00	2,687.45	3,856.89	25,228.81	38,240.31	48,197.80	52,960.74	0.00	918.45	4,566.15	37,939.82	55,670.89	67,107.89	74,853.35
Baltimore, MD	x	x	100	100	0.00	1,113.11	1,597.89	10,475.26	15,879.90	20,015.98	21,994.09	0.00	374.51	1,885.91	15,751.11	23,117.26	27,868.36	31,103.38
Baton Rouge, LA	x	-	100	-	0.00	627.07	858.25	3,254.22	4,713.77	5,831.75	6,395.70	0.00	818.42	1,611.99	5,086.77	6,961.55	8,197.05	7,249.77
Beaumont/Port Arthur, TX	x	-	100	-	0.00	901.28	1,209.45	3,154.91	4,341.06	5,250.83	5,744.82	0.00	1,525.65	2,632.97	5,133.42	6,519.65	7,466.65	4,512.20
Birmingham, AL	-	x	-	100	0.00	406.91	584.15	3,831.40	5,808.36	7,321.30	8,044.84	0.00	136.42	688.97	5,760.93	8,455.48	10,193.42	11,378.20
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	1,809.18	2,597.34	17,040.00	25,832.86	32,561.87	35,779.92	0.00	605.44	3,062.29	25,621.14	37,605.80	45,335.66	50,608.51
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	244.89	351.56	2,305.65	3,495.32	4,405.75	4,841.16	0.00	82.16	414.70	3,466.81	5,088.29	6,134.12	6,846.92
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	434.92	624.40	4,097.04	6,211.23	7,829.17	8,602.92	0.00	145.39	736.02	6,160.21	9,041.88	10,900.48	12,168.77
Canton-Massillon, OH	-	x	-	100	0.00	172.03	241.49	1,274.44	1,903.42	2,384.90	2,618.98	0.00	136.93	362.98	1,941.50	2,783.86	3,330.59	3,470.11
Charleston, WV	-	x	-	100	0.00	116.41	167.13	1,097.02	1,663.15	2,096.40	2,303.59	0.00	38.81	196.90	1,649.42	2,421.09	2,918.79	3,258.73
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	705.63	1,012.81	6,632.42	10,053.70	12,671.95	13,924.24	0.00	239.27	1,197.20	9,973.42	14,636.04	17,643.47	19,685.75
Chattanooga, AL-TN-GA	-	x	-	100	0.00	208.43	299.23	1,962.73	2,975.49	3,750.54	4,121.20	0.00	69.85	352.89	2,951.17	4,331.54	5,221.86	5,828.90
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	3,290.65	4,662.79	27,115.88	40,786.84	51,250.45	56,297.34	0.00	1,991.03	6,374.92	41,054.43	59,520.39	71,469.01	77,002.30
Chico, CA	x	-	100	-	0.00	75.30	108.10	708.74	1,074.41	1,354.26	1,488.09	0.00	25.32	127.57	1,065.69	1,564.08	1,885.54	2,104.47
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	720.95	1,034.98	6,787.17	10,289.18	12,969.19	14,250.91	0.00	242.01	1,220.98	10,205.35	14,978.44	18,057.01	20,154.86
Clearfield and Indiana Cos.	x	-	100	-	0.00	68.07	97.74	641.55	972.62	1,225.99	1,347.16	0.00	22.69	115.14	964.59	1,415.87	1,706.93	1,905.73
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	1,037.59	1,489.65	9,775.09	14,819.36	18,679.65	20,525.74	0.00	346.68	1,755.77	14,697.53	21,572.97	26,007.47	29,034.03
Columbus, OH	x	x	100	100	0.00	672.15	964.83	6,322.30	9,583.99	12,080.11	13,273.93	0.00	226.87	1,139.46	9,506.75	13,952.07	16,819.29	18,769.45
Dallas-Fort Worth, TX	x	-	100	-	0.00	2,727.73	3,915.00	25,625.55	38,843.21	48,958.46	53,796.65	0.00	927.97	4,630.75	38,535.09	56,547.90	68,166.44	76,047.40
Dayton-Springfield, OH	-	x	-	100	0.00	314.68	451.78	2,964.44	4,494.18	5,664.86	6,224.72	0.00	105.17	532.52	4,457.26	6,542.32	7,887.13	8,804.88
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	1,323.89	1,893.26	12,003.63	18,159.09	22,869.92	25,127.95	0.00	549.88	2,337.53	18,082.53	26,452.30	31,855.24	35,226.53
Detroit-Ann Arbor, MI	x	x	100	100	0.00	1,961.42	2,808.36	17,998.09	27,245.93	34,323.31	37,713.21	0.00	765.57	3,418.74	27,096.47	39,680.71	47,802.01	53,020.72
Door Co., WI	x	-	100	-	0.00	12.77	18.33	120.31	182.39	229.90	252.62	0.00	4.27	21.61	180.89	265.51	320.09	357.34
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.54	0.77	5.06	7.67	9.66	10.62	0.00	0.18	0.91	7.60	11.16	13.45	15.02
Evansville, IN	-	x	-	100	0.00	134.86	193.61	1,270.38	1,925.93	2,427.61	2,667.53	0.00	45.08	228.22	1,910.11	2,803.63	3,379.94	3,773.21
Greater Connecticut, CT	x	-	100	-	0.00	688.76	988.75	6,483.54	9,828.83	12,388.91	13,613.28	0.00	231.33	1,166.58	9,748.84	14,308.30	17,249.10	19,252.68
Greene	x	-	100	-	0.00	15.78	22.66	148.81	225.61	284.39	312.49	0.00	5.25	26.69	223.74	328.43	395.94	442.10
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	311.51	447.19	2,932.33	4,445.31	5,603.17	6,156.92	0.00	104.63	527.63	4,409.14	6,471.26	7,801.31	8,707.44

Table B1-19
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	282.07	404.94	2,656.08	4,026.59	5,075.42	5,577.01	0.00	94.55	477.58	3,993.69	5,861.67	7,066.49	7,887.90
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	1.94	2.79	18.27	27.70	34.92	38.37	0.00	0.65	3.28	27.48	40.33	48.62	54.27
Hickory, NC	-	x	-	100	0.00	73.21	105.09	688.85	1,044.24	1,316.22	1,446.30	0.00	24.66	124.07	1,035.79	1,520.16	1,832.58	2,045.22
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	3,523.11	4,884.70	22,244.17	32,816.36	40,911.24	44,903.30	0.00	3,689.23	8,234.43	34,245.32	48,182.54	57,280.26	56,102.52
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	316.44	437.68	1,931.67	2,841.57	3,538.30	3,883.08	0.00	346.56	753.35	2,981.06	4,175.94	4,957.01	4,781.91
Imperial Co., CA	x	-	100	-	0.00	87.14	125.07	818.23	1,240.24	1,563.19	1,717.67	0.00	29.75	148.03	1,230.47	1,805.55	2,176.50	2,427.82
Indianapolis, IN	-	x	-	100	0.00	627.44	900.66	5,901.97	8,946.83	11,277.00	12,391.46	0.00	211.73	1,063.62	8,874.69	13,024.49	15,701.11	17,521.77
Jamestown, NY	x	-	100	-	0.00	57.90	83.13	545.47	826.95	1,042.36	1,145.37	0.00	19.35	97.98	820.15	1,203.81	1,451.26	1,620.14
Jefferson Co., NY	x	-	100	-	0.00	53.88	77.34	506.75	768.19	968.26	1,063.94	0.00	18.19	91.35	762.00	1,118.30	1,348.12	1,504.40
Johnstown, PA	-	x	-	100	0.00	47.46	68.14	447.29	678.13	854.78	939.26	0.00	15.81	80.26	672.52	987.16	1,190.10	1,328.74
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	45.83	65.77	429.56	651.04	820.54	901.62	0.00	15.83	78.02	646.04	947.83	1,142.49	1,273.85
Knoxville, TN	x	x	100	100	0.00	426.08	611.64	4,009.68	6,078.45	7,661.64	8,418.82	0.00	143.37	721.90	6,029.16	8,848.74	10,667.35	11,905.60
Lancaster, PA	-	x	-	100	0.00	166.41	238.90	1,566.85	2,375.33	2,994.04	3,289.93	0.00	55.80	281.78	2,355.94	3,457.87	4,168.59	4,653.07
Las Vegas, NV	x	-	100	-	0.00	553.95	794.93	5,196.45	7,876.15	9,926.89	10,907.85	0.00	190.19	941.98	7,814.85	11,466.38	13,821.74	15,414.29
Libby, MT	-	x	-	100	0.00	2.73	3.92	25.73	39.00	49.16	54.02	0.00	0.92	4.63	38.68	56.77	68.44	76.39
Liberty-Clairton, PA	-	x	-	100	0.00	5.35	7.68	50.46	76.50	96.43	105.96	0.00	1.78	9.05	75.87	111.37	134.26	149.92
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	6,589.85	9,366.26	56,106.28	84,564.08	106,344.57	116,826.60	0.00	3,573.23	12,391.83	84,796.28	123,326.66	148,237.08	161,205.78
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	284.95	408.99	2,677.68	4,058.89	5,115.90	5,621.47	0.00	96.78	483.61	4,026.58	5,908.90	7,123.01	7,947.03
Louisville, KY-IN	-	x	-	100	0.00	436.88	627.22	4,116.14	6,240.24	7,865.76	8,643.13	0.00	145.89	739.20	6,188.88	9,084.08	10,951.41	12,226.09
Macon, GA	-	x	-	100	0.00	81.42	116.89	767.09	1,162.94	1,465.87	1,610.74	0.00	27.19	137.76	1,153.37	1,692.92	2,040.91	2,278.46
Manitowoc Co., WI	x	-	100	-	0.00	41.71	59.88	392.93	595.69	750.85	825.06	0.00	13.95	70.59	590.79	867.16	1,045.41	1,167.03
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	40.90	58.71	384.13	582.25	733.87	806.39	0.00	13.95	69.47	577.65	847.64	1,021.79	1,139.82
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	160.20	229.91	1,503.67	2,279.15	2,872.61	3,156.49	0.00	54.81	272.25	2,261.28	3,318.04	3,999.67	4,461.12
Memphis, TN-AR	x	-	100	-	0.00	505.31	711.94	3,906.44	5,851.56	7,340.46	8,061.92	0.00	364.83	1,032.40	5,936.00	8,550.34	10,245.00	10,825.27
Milwaukee-Racine, WI	x	-	100	-	0.00	685.47	984.08	6,455.67	9,786.84	12,336.12	13,555.28	0.00	229.51	1,160.35	9,706.70	14,247.06	17,175.50	19,172.77
Nevada (Western Part), CA	x	-	100	-	0.00	38.83	55.74	365.21	553.62	697.80	766.76	0.00	13.11	65.83	549.16	805.94	971.56	1,084.20
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	5,853.48	8,379.54	53,618.39	81,160.81	102,239.09	112,336.17	0.00	2,306.17	10,222.03	80,730.54	118,205.45	142,391.00	157,867.39
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	61.70	88.58	581.44	881.50	1,111.12	1,220.94	0.00	20.57	104.36	874.22	1,283.21	1,547.00	1,727.18
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	3,477.86	4,903.68	27,119.36	40,646.34	51,000.44	56,014.40	0.00	2,457.51	7,057.15	41,188.23	59,381.92	71,172.38	75,409.95
Phoenix-Mesa	x	-	100	-	0.00	1,538.12	2,207.44	14,439.58	21,886.65	27,585.78	30,311.83	0.00	525.62	2,613.33	21,714.64	31,862.95	38,408.88	42,842.10

Table B1-19
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	765.57	1,099.16	7,215.54	10,939.25	13,788.95	15,151.71	0.00	255.06	1,294.80	10,848.83	15,924.47	19,198.11	21,434.52
Poughkeepsie, NY	x	x	100	100	0.00	497.35	713.94	4,679.42	7,093.65	8,941.22	9,824.84	0.00	167.58	842.86	7,036.28	10,326.66	12,448.94	13,893.29
Providence (All RI), RI	x	-	100	-	0.00	359.29	515.82	3,384.05	5,130.26	6,466.60	7,105.68	0.00	120.24	608.15	5,088.21	7,468.29	9,003.40	10,050.55
Reading, PA	-	x	-	100	0.00	146.15	209.79	1,375.02	2,084.43	2,627.32	2,886.97	0.00	49.25	247.69	2,067.58	3,034.43	3,658.04	4,082.43
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	292.11	419.09	2,733.88	4,143.16	5,221.66	5,737.63	0.00	101.74	498.04	4,111.90	6,031.99	7,270.59	8,103.75
Rochester, NY	x	-	100	-	0.00	503.40	722.69	4,740.53	7,186.64	9,058.60	9,953.85	0.00	168.65	852.24	7,127.86	10,461.88	12,612.25	14,078.57
Rome, GA	-	x	-	100	0.00	44.00	63.17	414.43	628.28	791.94	870.20	0.00	14.72	74.47	623.13	914.61	1,102.61	1,230.86
Sacramento Metro, CA	x	-	50	-	0.00	847.61	1,216.62	7,967.90	12,078.16	15,223.68	16,728.14	0.00	287.19	1,437.90	11,981.57	17,583.19	21,196.27	23,650.49
San Diego, CA	x	-	100	-	0.00	1,183.41	1,698.96	11,147.03	16,899.12	21,301.09	23,406.25	0.00	395.80	2,002.87	16,760.47	24,600.60	29,657.32	33,107.37
San Francisco Bay Area, CA	x	-	100	-	0.00	3,031.95	4,303.15	25,422.00	38,280.42	48,121.92	52,863.09	0.00	1,734.02	5,782.84	38,453.26	55,843.82	67,091.46	72,647.91
San Joaquin Valley, CA	x	x	50	100	0.00	1,804.12	2,581.02	16,421.08	24,847.25	31,295.86	34,386.11	0.00	734.84	3,172.32	24,732.27	36,192.45	43,589.70	48,250.07
Sheboygan, WI	x	-	100	-	0.00	46.72	67.07	439.88	666.85	840.54	923.61	0.00	15.67	79.11	661.40	970.76	1,170.28	1,306.28
Springfield (Western MA), MA	x	-	100	-	0.00	361.42	518.85	3,402.87	5,158.69	6,502.39	7,145.00	0.00	121.23	612.01	5,116.60	7,509.73	9,053.26	10,105.33
St. Louis, MO-IL	x	x	100	100	0.00	1,397.12	1,982.75	11,705.84	17,625.84	22,156.86	24,339.80	0.00	801.00	2,666.50	17,706.93	25,713.10	30,891.33	33,442.76
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	55.08	77.58	424.32	635.46	797.07	875.41	0.00	40.10	112.83	644.91	928.60	1,112.52	1,174.24
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.02	0.03	0.04	0.04	0.00	0.00	0.00	0.03	0.05	0.05	0.06
Ventura Co., CA	x	-	100	-	0.00	250.10	358.84	2,342.03	3,549.42	4,473.42	4,915.46	0.00	86.81	426.15	3,522.44	5,167.53	6,228.71	6,943.42
Washington, DC-MD-VA	x	x	100	100	0.00	1,905.17	2,734.77	17,920.87	27,166.35	34,241.75	37,625.71	0.00	642.88	3,229.57	26,947.29	39,547.87	47,675.22	53,203.56
Wheeling, WV-OH	-	x	-	100	0.00	66.21	95.06	623.98	946.00	1,192.43	1,310.27	0.00	22.07	111.99	938.18	1,377.10	1,660.20	1,853.55
York, PA	-	x	-	100	0.00	154.56	221.86	1,453.33	2,203.06	2,776.82	3,051.24	0.00	52.28	262.12	2,185.39	3,207.17	3,866.22	4,314.14

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-20
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

CO 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	1,014.59	1,422.53	8,804.96	12,902.69	15,830.66	17,523.79	0.00	-22.36	1,782.44	15,925.79	22,849.74	26,690.00	30,236.12
Allegan Co., MI	x	-	100	-	0.00	110.98	155.60	963.13	1,411.36	1,731.64	1,916.84	0.00	-2.46	194.95	1,742.04	2,499.42	2,919.49	3,307.42
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	101.18	141.84	876.12	1,283.70	1,574.94	1,743.37	0.00	-1.54	178.30	1,584.73	2,273.27	2,655.21	3,006.25
Atlanta, GA	x	x	100	100	0.00	5,425.00	7,603.79	46,895.37	68,705.68	84,290.19	93,303.88	0.00	-55.66	9,581.19	84,827.13	121,666.13	142,102.71	160,821.27
Baltimore, MD	x	x	100	100	0.00	2,241.96	3,143.41	19,459.03	28,515.27	34,986.24	38,728.13	0.00	-50.31	3,937.96	35,196.04	50,498.58	58,985.81	66,825.14
Baton Rouge, LA	x	-	100	-	0.00	1,052.65	1,430.77	5,708.63	8,099.45	9,814.03	10,838.12	0.00	1,163.50	2,787.78	10,438.39	14,219.60	16,399.21	15,576.03
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1,391.25	1,859.88	5,181.88	7,058.63	8,412.25	9,260.57	0.00	2,356.13	4,331.72	9,599.94	12,251.06	13,887.24	9,694.40
Birmingham, AL	-	x	-	100	0.00	819.58	1,149.17	7,117.22	10,429.86	12,796.84	14,165.53	0.00	-19.67	1,438.57	12,872.97	18,470.69	21,575.27	24,445.89
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	3,642.93	5,108.12	31,650.92	46,383.75	56,910.78	62,997.82	0.00	-92.87	6,389.96	57,246.75	82,143.60	95,951.35	108,731.60
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	493.29	691.65	4,283.06	6,276.51	7,700.90	8,524.55	0.00	-11.62	866.02	7,746.82	11,115.33	12,983.57	14,710.49
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	875.62	1,227.82	7,609.72	11,152.04	13,683.13	15,146.66	0.00	-23.05	1,535.32	13,763.56	19,749.85	23,069.79	26,144.41
Canton-Massillon, OH	-	x	-	100	0.00	318.89	441.25	2,323.14	3,369.83	4,118.54	4,555.71	0.00	146.84	681.91	4,216.59	5,951.66	6,924.67	7,455.47
Charleston, WV	-	x	-	100	0.00	234.34	328.61	2,037.51	2,986.05	3,663.80	4,055.69	0.00	-6.50	410.63	3,685.18	5,288.22	6,177.22	7,001.33
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	1,423.81	1,995.89	12,326.60	18,060.98	22,158.43	24,528.11	0.00	-21.10	2,509.48	22,296.47	31,983.61	37,357.14	42,294.54
Chattanooga, AL-TN-GA	-	x	-	100	0.00	419.78	588.60	3,645.87	5,342.85	6,555.39	7,256.53	0.00	-10.26	736.67	6,594.30	9,461.91	11,052.31	12,523.30
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	6,322.12	8,798.44	49,882.26	72,710.24	89,030.69	98,515.61	0.00	1,586.45	12,471.54	90,387.89	128,584.36	149,889.28	165,438.28
Chico, CA	x	-	100	-	0.00	151.66	212.64	1,316.54	1,929.27	2,367.08	2,620.25	0.00	-3.47	266.33	2,381.25	3,416.61	3,990.85	4,521.41
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	1,452.75	2,036.88	12,609.31	18,477.71	22,670.86	25,095.58	0.00	-32.66	2,551.70	22,806.78	32,722.75	38,222.44	43,302.41
Clearfield and Indiana Cos.	x	-	100	-	0.00	137.03	192.16	1,191.53	1,746.24	2,142.60	2,371.77	0.00	-3.82	240.11	2,155.09	3,092.55	3,612.45	4,094.44
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	2,088.98	2,929.25	18,155.95	26,607.65	32,646.61	36,138.46	0.00	-55.43	3,662.50	32,838.31	47,121.21	55,042.33	62,379.18
Columbus, OH	x	x	100	100	0.00	1,354.50	1,898.99	11,746.13	17,211.99	21,117.53	23,376.05	0.00	-26.85	2,381.97	21,245.86	30,480.87	35,603.13	40,325.88
Dallas-Fort Worth, TX	x	-	100	-	0.00	5,502.26	7,712.87	47,622.91	69,776.24	85,605.75	94,760.57	0.00	-77.10	9,701.32	86,141.19	123,564.09	144,323.15	163,386.68
Dayton-Springfield, OH	-	x	-	100	0.00	633.54	888.37	5,506.06	8,069.14	9,900.53	10,959.48	0.00	-16.74	1,110.81	9,958.70	14,290.15	16,692.33	18,917.15
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	2,633.05	3,683.77	22,246.36	32,552.70	39,918.02	44,182.86	0.00	151.20	4,791.22	40,257.57	57,626.64	67,274.64	75,683.67
Detroit-Ann Arbor, MI	x	x	100	100	0.00	3,911.86	5,477.08	33,370.39	48,855.78	59,921.65	66,326.13	0.00	113.96	7,030.67	60,377.09	86,499.16	101,001.25	113,914.22
Door Co., WI	x	-	100	-	0.00	25.71	36.05	223.46	327.48	401.80	444.78	0.00	-0.68	45.08	404.16	579.95	677.44	767.73
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	1.08	1.52	9.39	13.76	16.89	18.69	0.00	-0.03	1.89	16.99	24.38	28.47	32.27
Evansville, IN	-	x	-	100	0.00	271.65	380.90	2,359.88	3,458.34	4,243.22	4,697.06	0.00	-6.83	476.56	4,268.31	6,124.56	7,154.03	8,106.68
Greater Connecticut, CT	x	-	100	-	0.00	1,387.01	1,944.77	12,043.32	17,648.65	21,653.83	23,969.82	0.00	-32.77	2,434.97	21,782.90	31,254.72	36,507.96	41,364.10
Greene	x	-	100	-	0.00	31.77	44.55	276.38	405.05	496.99	550.15	0.00	-0.93	55.64	499.87	717.34	837.94	949.84
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	627.34	879.61	5,446.93	7,982.08	9,793.53	10,840.99	0.00	-14.74	1,101.40	9,851.94	14,135.79	16,511.70	18,707.80

**Table B1-20
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

CO 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	567.98	796.41	4,933.57	7,229.94	8,870.77	9,819.56	0.00	-14.06	996.61	8,923.34	12,803.87	14,956.04	16,947.04
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	3.91	5.48	33.94	49.74	61.03	67.56	0.00	-0.10	6.85	61.39	88.09	102.90	116.61
Hickory, NC	-	x	-	100	0.00	147.47	206.75	1,279.64	1,875.16	2,300.68	2,546.74	0.00	-3.21	259.10	2,314.52	3,320.76	3,878.86	4,394.12
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	6,230.55	8,549.57	39,937.83	57,427.71	69,950.66	77,326.69	0.00	4,757.20	14,816.61	72,702.90	101,189.18	117,328.58	120,535.41
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	553.90	758.80	3,454.66	4,957.47	6,033.76	6,669.00	0.00	456.12	1,343.47	6,293.14	8,730.42	10,114.74	10,273.87
Imperial Co., CA	x	-	100	-	0.00	175.77	246.38	1,520.61	2,227.92	2,733.32	3,025.62	0.00	-2.21	310.11	2,750.54	3,945.31	4,608.09	5,216.13
Indianapolis, IN	-	x	-	100	0.00	1,264.45	1,772.74	10,965.29	16,067.80	19,713.73	21,822.10	0.00	-25.09	2,223.58	19,833.51	28,454.63	33,236.38	37,645.26
Jamestown, NY	x	-	100	-	0.00	116.57	163.46	1,013.13	1,484.75	1,821.73	2,016.58	0.00	-3.09	204.38	1,832.43	2,629.44	3,071.45	3,480.85
Jefferson Co., NY	x	-	100	-	0.00	108.55	152.18	941.43	1,379.52	1,692.55	1,873.57	0.00	-2.19	190.86	1,702.82	2,443.01	2,853.56	3,232.18
Johnstown, PA	-	x	-	100	0.00	95.53	133.96	830.74	1,217.49	1,493.83	1,653.62	0.00	-2.70	167.35	1,502.53	2,156.15	2,518.63	2,854.77
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	92.51	129.65	798.48	1,169.74	1,435.03	1,588.48	0.00	-0.53	163.72	1,444.37	2,071.37	2,419.23	2,736.84
Knoxville, TN	x	x	100	100	0.00	858.22	1,203.29	7,448.54	10,915.07	13,392.02	14,824.34	0.00	-19.15	1,507.53	13,472.38	19,329.83	22,578.56	25,579.01
Lancaster, PA	-	x	-	100	0.00	335.09	469.85	2,910.39	4,265.05	5,232.98	5,792.68	0.00	-8.21	588.04	5,264.04	7,553.17	8,822.75	9,997.04
Las Vegas, NV	x	-	100	-	0.00	1,118.30	1,567.33	9,659.54	14,151.47	17,361.18	19,217.67	0.00	-8.92	1,977.07	17,473.00	25,059.59	29,268.46	33,117.37
Libby, MT	-	x	-	100	0.00	5.50	7.72	47.79	70.03	85.92	95.11	0.00	-0.13	9.66	86.43	124.01	144.86	164.13
Liberty-Clairton, PA	-	x	-	100	0.00	10.77	15.10	93.71	137.34	168.52	186.55	0.00	-0.32	18.86	169.49	243.24	284.13	322.09
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	12,814.71	17,865.55	103,498.32	151,066.91	185,070.33	204,806.62	0.00	2,388.36	24,625.07	187,454.86	267,249.70	311,692.10	346,348.16
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	574.49	805.35	4,975.54	7,290.32	8,944.33	9,900.87	0.00	-9.16	1,012.04	8,999.74	12,910.27	15,079.42	17,074.06
Louisville, KY-IN	-	x	-	100	0.00	879.67	1,233.51	7,645.42	11,204.39	13,747.38	15,217.78	0.00	-23.30	1,542.32	13,828.12	19,842.59	23,178.14	26,267.57
Macon, GA	-	x	-	100	0.00	163.94	229.88	1,424.81	2,088.07	2,561.98	2,836.01	0.00	-4.33	287.44	2,577.03	3,697.89	4,319.51	4,895.23
Manitowoc Co., WI	x	-	100	-	0.00	83.97	117.75	729.80	1,069.52	1,312.26	1,452.62	0.00	-2.21	147.24	1,319.98	1,894.08	2,212.48	2,507.36
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	82.50	115.64	713.85	1,045.90	1,283.17	1,420.39	0.00	-1.09	145.50	1,291.23	1,852.14	2,163.30	2,448.89
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	323.29	453.13	2,794.80	4,094.64	5,023.44	5,560.63	0.00	-3.39	570.90	5,055.40	7,250.92	8,468.89	9,584.66
Memphis, TN-AR	x	-	100	-	0.00	949.68	1,317.11	7,147.38	10,388.78	12,706.87	14,057.74	0.00	358.03	1,968.10	12,963.77	18,358.20	21,376.45	23,257.93
Milwaukee-Racine, WI	x	-	100	-	0.00	1,380.20	1,935.31	11,991.00	17,572.51	21,560.66	23,866.73	0.00	-34.97	2,421.15	21,688.05	31,120.13	36,351.17	41,192.41
Nevada (Western Part), CA	x	-	100	-	0.00	78.23	109.67	678.47	994.19	1,219.78	1,350.24	0.00	-1.59	137.54	1,227.18	1,760.63	2,056.50	2,329.38
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	11,666.36	16,332.77	99,401.11	145,518.32	178,473.94	197,548.48	0.00	381.29	21,000.39	179,850.54	257,635.79	300,822.44	339,175.68
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	124.20	174.17	1,079.91	1,582.65	1,941.87	2,149.58	0.00	-3.45	217.64	1,953.20	2,802.84	3,274.03	3,710.81
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	6,558.58	9,100.06	49,663.29	72,213.11	88,338.97	97,732.98	0.00	2,367.75	13,508.95	90,066.74	127,621.85	148,625.67	162,017.13
Phoenix-Mesa	x	-	100	-	0.00	3,103.67	4,350.28	26,837.53	39,319.90	48,239.14	53,397.73	0.00	-34.77	5,479.14	48,545.03	69,629.20	81,325.52	92,045.60

Table B1-20
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

CO 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	1,541.15	2,161.15	13,401.39	19,640.34	24,098.23	26,675.80	0.00	-43.25	2,700.15	24,238.61	34,782.60	40,630.01	46,051.73
Poughkeepsie, NY	x	x	100	100	0.00	1,001.83	1,404.62	8,692.84	12,738.30	15,628.91	17,300.46	0.00	-21.60	1,760.40	15,723.05	22,558.56	26,349.80	29,849.51
Providence (All RI), RI	x	-	100	-	0.00	723.40	1,014.36	6,285.55	9,211.37	11,301.95	12,510.78	0.00	-18.58	1,268.79	11,368.61	16,312.95	19,055.07	21,593.46
Reading, PA	-	x	-	100	0.00	294.39	412.75	2,554.35	3,743.08	4,592.47	5,083.64	0.00	-6.32	517.33	4,620.15	6,628.71	7,742.74	8,771.03
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	591.18	828.29	5,085.52	7,448.78	9,137.48	10,114.43	0.00	2.54	1,050.90	9,199.81	13,189.62	15,403.59	17,410.78
Rochester, NY	x	-	100	-	0.00	1,013.62	1,421.28	8,805.30	12,903.88	15,832.43	17,525.82	0.00	-25.37	1,778.34	15,926.12	22,852.16	26,693.36	30,247.60
Rome, GA	-	x	-	100	0.00	88.58	124.21	769.75	1,128.07	1,384.09	1,532.13	0.00	-2.30	155.35	1,392.25	1,997.76	2,333.58	2,644.49
Sacramento Metro, CA	x	-	50	-	0.00	1,708.62	2,395.30	14,804.89	21,693.15	26,615.07	29,461.46	0.00	-29.67	3,008.03	26,778.81	38,416.17	44,871.19	50,812.71
San Diego, CA	x	-	100	-	0.00	2,382.60	3,340.93	20,704.35	30,342.07	37,228.48	41,210.37	0.00	-61.99	4,178.26	37,447.67	53,734.60	62,767.23	71,130.68
San Francisco Bay Area, CA	x	-	100	-	0.00	5,856.85	8,158.98	46,823.02	68,303.19	83,658.81	92,576.49	0.00	1,257.82	11,386.16	84,822.28	120,815.19	140,874.40	156,082.94
San Joaquin Valley, CA	x	x	50	100	0.00	3,596.43	5,032.41	30,448.71	44,560.07	54,644.49	60,483.19	0.00	184.75	6,527.02	55,098.63	78,885.10	92,096.21	103,664.54
Sheboygan, WI	x	-	100	-	0.00	94.07	131.91	817.06	1,197.36	1,469.09	1,626.22	0.00	-2.30	165.09	1,477.81	2,120.46	2,476.87	2,806.53
Springfield (Western MA), MA	x	-	100	-	0.00	727.79	1,020.48	6,320.79	9,262.80	11,364.94	12,580.49	0.00	-17.70	1,277.28	11,432.45	16,403.92	19,161.15	21,711.15
St. Louis, MO-IL	x	x	100	100	0.00	2,698.24	3,758.67	21,559.16	31,448.46	38,518.08	42,623.85	0.00	583.67	5,248.90	39,055.95	55,625.79	64,860.65	71,851.27
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	103.35	143.31	776.03	1,127.80	1,379.38	1,526.01	0.00	39.58	214.66	1,407.61	1,992.89	2,320.41	2,522.83
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.01	0.04	0.06	0.07	0.08	0.00	0.00	0.01	0.07	0.10	0.11	0.13
Ventura Co., CA	x	-	100	-	0.00	502.52	704.41	4,348.48	6,371.24	7,816.59	8,652.50	0.00	-6.71	886.29	7,865.64	11,282.55	13,177.99	14,917.82
Washington, DC-MD-VA	x	x	100	100	0.00	3,840.00	5,383.58	33,296.61	48,790.33	59,861.15	66,263.25	0.00	-74.87	6,753.85	60,225.50	86,403.14	100,922.82	114,307.05
Wheeling, WV-OH	-	x	-	100	0.00	133.28	186.90	1,158.92	1,698.44	2,083.94	2,306.84	0.00	-3.71	233.55	2,096.10	3,007.89	3,513.56	3,982.33
York, PA	-	x	-	100	0.00	311.44	436.63	2,700.09	3,956.47	4,854.20	5,373.35	0.00	-5.92	547.89	4,883.82	7,006.52	8,183.91	9,268.86

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-21
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	15.53	20.72	32.58	41.50	50.31	53.83	0.00	20.86	33.64	42.55	51.27	54.05	-3.69
Allegan Co., MI	x	-	100	-	0.00	1.70	2.27	3.56	4.54	5.50	5.89	0.00	2.28	3.68	4.65	5.61	5.91	-0.40
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.55	2.06	3.24	4.13	5.01	5.36	0.00	2.08	3.35	4.23	5.10	5.38	-0.37
Atlanta, GA	x	x	100	100	0.00	82.56	110.14	173.13	220.58	267.37	286.09	0.00	110.86	178.81	226.16	272.50	287.25	-19.63
Baltimore, MD	x	x	100	100	0.00	34.39	45.88	72.13	91.90	111.40	119.20	0.00	46.18	74.49	94.22	113.53	119.68	-8.15
Baton Rouge, LA	x	-	100	-	0.00	8.01	10.68	16.79	21.39	25.93	27.74	0.00	10.75	17.34	21.93	26.42	27.86	-1.90
Beaumont/Port Arthur, TX	x	-	100	-	0.00	4.99	6.66	10.47	13.35	16.18	17.31	0.00	6.71	10.82	13.68	16.49	17.38	-1.18
Birmingham, AL	-	x	-	100	0.00	12.52	16.70	26.25	33.44	40.54	43.37	0.00	16.81	27.11	34.29	41.32	43.55	-2.98
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	55.90	74.58	117.24	149.37	181.06	193.74	0.00	75.07	121.08	153.15	184.53	194.53	-13.27
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	7.32	9.77	15.35	19.55	23.69	25.35	0.00	9.84	15.87	20.06	24.16	25.46	-1.80
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	13.44	17.93	28.19	35.92	43.54	46.58	0.00	18.05	29.11	36.82	44.37	46.77	-3.19
Canton-Massillon, OH	-	x	-	100	0.00	3.83	5.11	8.03	10.23	12.40	13.27	0.00	5.14	8.30	10.49	12.64	13.33	-0.91
Charleston, WV	-	x	-	100	0.00	3.60	4.80	7.54	9.61	11.65	12.46	0.00	4.83	7.79	9.85	11.87	12.51	-0.85
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	20.11	26.83	42.10	53.57	64.90	69.45	0.00	27.02	43.59	55.04	66.25	69.75	-5.16
Chattanooga, AL-TN-GA	-	x	-	100	0.00	6.35	8.47	13.31	16.95	20.55	21.98	0.00	8.52	13.75	17.39	20.95	22.08	-1.53
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	83.61	111.54	175.28	223.27	270.60	289.55	0.00	112.29	181.12	229.01	275.87	290.75	-20.19
Chico, CA	x	-	100	-	0.00	2.32	3.10	4.87	6.21	7.52	8.05	0.00	3.12	5.03	6.36	7.67	8.08	-0.55
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	22.03	29.39	46.19	58.84	71.32	76.32	0.00	29.59	47.72	60.35	72.70	76.63	-5.28
Clearfield and Indiana Cos.	x	-	100	-	0.00	2.10	2.81	4.41	5.62	6.82	7.29	0.00	2.83	4.56	5.77	6.95	7.32	-0.50
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	32.06	42.77	67.24	85.67	103.84	111.11	0.00	43.06	69.44	87.83	105.83	111.56	-7.61
Columbus, OH	x	x	100	100	0.00	20.71	27.62	43.42	55.32	67.06	71.76	0.00	27.81	44.85	56.72	68.35	72.05	-4.92
Dallas-Fort Worth, TX	x	-	100	-	0.00	83.92	111.96	176.00	224.24	271.81	290.84	0.00	112.70	181.77	229.91	277.02	292.02	-19.94
Dayton-Springfield, OH	-	x	-	100	0.00	9.72	12.96	20.38	25.96	31.47	33.68	0.00	13.05	21.05	26.62	32.07	33.81	-2.31
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	38.86	51.85	81.50	103.84	125.87	134.68	0.00	52.19	84.18	106.47	128.28	135.23	-9.24
Detroit-Ann Arbor, MI	x	x	100	100	0.00	58.53	78.09	122.75	156.39	189.57	202.84	0.00	78.60	126.77	160.35	193.20	203.67	-13.90
Door Co., WI	x	-	100	-	0.00	0.39	0.53	0.83	1.05	1.28	1.37	0.00	0.53	0.85	1.08	1.30	1.37	-0.09
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.02	0.02	0.03	0.04	0.05	0.06	0.00	0.02	0.04	0.04	0.05	0.06	0.00
Evansville, IN	-	x	-	100	0.00	3.93	5.24	8.23	10.48	12.69	13.58	0.00	5.28	8.52	10.76	12.95	13.64	-0.99
Greater Connecticut, CT	x	-	100	-	0.00	21.33	28.45	44.73	56.99	69.08	73.92	0.00	28.64	46.19	58.43	70.40	74.22	-5.05
Greene	x	-	100	-	0.00	0.49	0.65	1.02	1.30	1.58	1.69	0.00	0.66	1.06	1.34	1.61	1.70	-0.12
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	9.61	12.82	20.15	25.67	31.12	33.30	0.00	12.90	20.81	26.32	31.72	33.44	-2.28

**Table B1-21
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	8.71	11.62	18.26	23.27	28.20	30.18	0.00	11.69	18.86	23.85	28.74	30.30	-2.07
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.06	0.08	0.12	0.16	0.19	0.20	0.00	0.08	0.13	0.16	0.19	0.20	-0.01
Hickory, NC	-	x	-	100	0.00	2.26	3.02	4.74	6.04	7.33	7.84	0.00	3.04	4.90	6.20	7.47	7.87	-0.54
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	61.92	82.60	129.85	165.43	200.53	214.57	0.00	83.15	134.11	169.62	204.37	215.44	-14.71
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	4.33	5.78	9.04	11.48	13.89	14.87	0.00	5.82	9.40	11.84	14.22	14.94	-1.25
Imperial Co., CA	x	-	100	-	0.00	2.68	3.57	5.62	7.16	8.68	9.29	0.00	3.60	5.80	7.34	8.84	9.32	-0.64
Indianapolis, IN	-	x	-	100	0.00	19.34	25.80	40.55	51.66	62.62	67.01	0.00	25.97	41.88	52.97	63.83	67.28	-4.59
Jamestown, NY	x	-	100	-	0.00	1.79	2.39	3.75	4.78	5.79	6.20	0.00	2.40	3.87	4.90	5.91	6.23	-0.42
Jefferson Co., NY	x	-	100	-	0.00	1.66	2.22	3.49	4.44	5.38	5.76	0.00	2.23	3.60	4.55	5.49	5.79	-0.39
Johnstown, PA	-	x	-	100	0.00	1.47	1.96	3.08	3.93	4.76	5.10	0.00	1.97	3.18	4.03	4.85	5.12	-0.35
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	1.49	1.99	3.14	4.00	4.85	5.19	0.00	2.01	3.24	4.10	4.94	5.21	-0.33
Knoxville, TN	x	x	100	100	0.00	13.12	17.51	27.52	35.06	42.50	45.47	0.00	17.62	28.42	35.95	43.31	45.66	-3.12
Lancaster, PA	-	x	-	100	0.00	5.14	6.85	10.77	13.72	16.63	17.80	0.00	6.90	11.12	14.07	16.95	17.87	-1.22
Las Vegas, NV	x	-	100	-	0.00	16.97	22.63	35.58	45.33	54.94	58.79	0.00	22.78	36.75	46.48	56.00	59.03	-4.04
Libby, MT	-	x	-	100	0.00	0.08	0.11	0.18	0.23	0.27	0.29	0.00	0.11	0.18	0.23	0.28	0.29	-0.02
Liberty-Clairton, PA	-	x	-	100	0.00	0.17	0.23	0.36	0.45	0.55	0.59	0.00	0.23	0.37	0.47	0.56	0.59	-0.04
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	177.85	237.27	372.97	475.19	576.00	616.33	0.00	238.83	385.21	487.22	587.04	618.84	-42.27
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	8.81	11.76	18.48	23.55	28.54	30.54	0.00	11.83	19.08	24.14	29.09	30.67	-2.08
Louisville, KY-IN	-	x	-	100	0.00	13.25	17.68	27.77	35.38	42.88	45.88	0.00	17.79	28.70	36.29	43.71	46.07	-3.21
Macon, GA	-	x	-	100	0.00	2.46	3.28	5.16	6.57	7.96	8.52	0.00	3.30	5.33	6.74	8.12	8.55	-0.60
Manitowoc Co., WI	x	-	100	-	0.00	1.30	1.73	2.72	3.47	4.20	4.50	0.00	1.74	2.81	3.55	4.28	4.52	-0.31
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	1.26	1.68	2.64	3.37	4.08	4.36	0.00	1.69	2.73	3.45	4.16	4.38	-0.30
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	4.92	6.57	10.32	13.15	15.94	17.06	0.00	6.61	10.66	13.49	16.25	17.13	-1.17
Memphis, TN-AR	x	-	100	-	0.00	11.95	15.94	25.06	31.92	38.69	41.40	0.00	16.04	25.88	32.73	39.44	41.57	-2.84
Milwaukee-Racine, WI	x	-	100	-	0.00	21.18	28.26	44.43	56.60	68.61	73.42	0.00	28.45	45.88	58.03	69.93	73.71	-5.03
Nevada (Western Part), CA	x	-	100	-	0.00	1.20	1.60	2.51	3.20	3.88	4.15	0.00	1.61	2.59	3.28	3.95	4.17	-0.28
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	174.38	232.64	365.71	465.95	564.80	604.35	0.00	234.17	377.69	477.72	575.62	606.80	-41.39
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	1.89	2.53	3.97	5.06	6.13	6.56	0.00	2.54	4.10	5.19	6.25	6.59	-0.45
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	83.41	111.28	174.94	222.89	270.18	289.10	0.00	112.01	180.66	228.52	275.35	290.27	-19.77
Phoenix-Mesa	x	-	100	-	0.00	46.53	62.08	97.55	124.26	150.60	161.15	0.00	62.50	100.80	127.46	153.54	161.82	-11.23

**Table B1-21
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	23.62	31.51	49.53	63.10	76.49	81.84	0.00	31.72	51.15	64.70	77.95	82.17	-5.62
Poughkeepsie, NY	x	x	100	100	0.00	15.34	20.46	32.16	40.97	49.67	53.15	0.00	20.59	33.21	42.01	50.62	53.36	-3.64
Providence (All RI), RI	x	-	100	-	0.00	11.10	14.81	23.27	29.65	35.94	38.46	0.00	14.90	24.04	30.40	36.63	38.62	-2.64
Reading, PA	-	x	-	100	0.00	4.51	6.01	9.45	12.04	14.59	15.62	0.00	6.05	9.76	12.34	14.87	15.68	-1.07
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	8.97	11.97	18.82	23.98	29.07	31.10	0.00	12.05	19.44	24.59	29.62	31.23	-2.12
Rochester, NY	x	-	100	-	0.00	15.54	20.73	32.59	41.52	50.33	53.85	0.00	20.87	33.66	42.57	51.29	54.07	-3.69
Rome, GA	-	x	-	100	0.00	1.36	1.81	2.85	3.63	4.40	4.71	0.00	1.82	2.94	3.72	4.48	4.73	-0.32
Sacramento Metro, CA	x	-	50	-	0.00	26.08	34.79	54.69	69.68	84.46	90.37	0.00	35.02	56.48	71.44	86.08	90.74	-6.20
San Diego, CA	x	-	100	-	0.00	36.54	48.74	76.62	97.62	118.33	126.61	0.00	49.06	79.13	100.09	120.60	127.13	-8.68
San Francisco Bay Area, CA	x	-	100	-	0.00	76.91	102.61	161.14	205.18	248.63	266.06	0.00	103.31	166.65	210.60	253.61	267.18	-19.05
San Joaquin Valley, CA	x	x	50	100	0.00	53.12	70.87	111.40	141.93	172.04	184.09	0.00	71.34	115.07	145.53	175.35	184.84	-12.65
Sheboygan, WI	x	-	100	-	0.00	1.45	1.93	3.04	3.87	4.69	5.02	0.00	1.94	3.14	3.97	4.78	5.04	-0.34
Springfield (Western MA), MA	x	-	100	-	0.00	11.15	14.88	23.39	29.80	36.12	38.65	0.00	14.98	24.15	30.55	36.81	38.80	-2.65
St. Louis, MO-IL	x	x	100	100	0.00	37.16	49.58	77.94	99.31	120.39	128.82	0.00	49.90	80.48	101.81	122.68	129.34	-8.77
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	1.30	1.73	2.72	3.46	4.20	4.49	0.00	1.74	2.81	3.55	4.28	4.51	-0.31
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	7.66	10.22	16.07	20.47	24.82	26.55	0.00	10.29	16.60	20.99	25.29	26.66	-1.82
Washington, DC-MD-VA	x	x	100	100	0.00	58.96	78.66	123.66	157.57	191.00	204.37	0.00	79.18	127.70	161.54	194.65	205.20	-13.95
Wheeling, WV-OH	-	x	-	100	0.00	2.05	2.73	4.29	5.47	6.62	7.09	0.00	2.75	4.43	5.60	6.75	7.12	-0.49
York, PA	-	x	-	100	0.00	4.76	6.35	9.99	12.73	15.43	16.51	0.00	6.40	10.32	13.05	15.72	16.57	-1.13

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-22
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	39.32	52.51	85.50	105.67	122.32	132.23	0.00	67.50	109.95	131.90	147.42	157.54	-12.32
Allegan Co., MI	x	-	100	-	0.00	4.30	5.74	9.35	11.55	13.37	14.46	0.00	7.38	12.02	14.42	16.12	17.23	-1.35
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	4.17	5.57	9.08	11.24	13.01	14.07	0.00	7.16	11.66	14.01	15.67	16.76	-1.23
Atlanta, GA	x	x	100	100	0.00	228.40	304.83	497.22	615.28	712.67	770.59	0.00	391.71	637.75	766.55	858.03	917.79	-65.55
Baltimore, MD	x	x	100	100	0.00	86.60	115.64	188.30	232.71	269.37	291.20	0.00	148.67	242.17	290.51	324.66	346.94	-27.24
Baton Rouge, LA	x	-	100	-	0.00	20.45	27.30	44.47	54.96	63.63	68.79	0.00	35.10	57.17	68.60	76.68	81.95	-6.35
Beaumont/Port Arthur, TX	x	-	100	-	0.00	12.27	16.38	26.66	32.94	38.12	41.20	0.00	21.06	34.31	41.14	45.96	49.10	-3.95
Birmingham, AL	-	x	-	100	0.00	30.75	41.07	66.83	82.56	95.54	103.28	0.00	52.81	86.03	103.13	115.19	123.06	-9.96
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	135.42	180.88	294.28	363.47	420.60	454.65	0.00	232.60	378.95	454.17	507.19	541.76	-44.32
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	18.39	24.56	39.97	49.37	57.13	61.75	0.00	31.59	51.46	61.68	68.88	73.58	-6.00
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	32.36	43.23	70.32	86.84	100.48	108.62	0.00	55.59	90.56	108.52	121.18	129.43	-10.66
Canton-Massillon, OH	-	x	-	100	0.00	9.26	12.37	20.12	24.85	28.75	31.08	0.00	15.90	25.91	31.05	34.67	37.03	-3.04
Charleston, WV	-	x	-	100	0.00	8.48	11.33	18.42	22.74	26.31	28.43	0.00	14.57	23.74	28.43	31.73	33.89	-2.85
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	55.38	73.95	120.44	148.87	172.33	186.30	0.00	95.07	154.85	185.80	207.68	221.96	-17.24
Chattanooga, AL-TN-GA	-	x	-	100	0.00	15.65	20.90	34.01	42.01	48.61	52.55	0.00	26.88	43.79	52.49	58.62	62.62	-5.10
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	208.53	278.52	453.25	559.92	647.99	700.47	0.00	358.13	583.43	699.44	781.26	834.63	-67.43
Chico, CA	x	-	100	-	0.00	5.83	7.79	12.68	15.66	18.13	19.60	0.00	10.01	16.30	19.56	21.85	23.35	-1.84
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	54.53	72.83	118.52	146.41	169.44	183.16	0.00	93.65	152.57	182.90	204.29	218.24	-17.65
Clearfield and Indiana Cos.	x	-	100	-	0.00	4.96	6.63	10.77	13.30	15.39	16.63	0.00	8.52	13.89	16.63	18.56	19.82	-1.67
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	76.86	102.68	167.01	206.25	238.64	257.96	0.00	132.04	215.14	257.78	287.81	307.39	-25.42
Columbus, OH	x	x	100	100	0.00	53.21	71.05	115.72	143.06	165.61	179.04	0.00	91.33	148.75	178.51	199.56	213.30	-16.44
Dallas-Fort Worth, TX	x	-	100	-	0.00	226.33	302.11	492.55	609.30	705.63	762.93	0.00	388.26	632.22	759.50	849.79	908.74	-66.59
Dayton-Springfield, OH	-	x	-	100	0.00	23.37	31.21	50.77	62.70	72.56	78.43	0.00	40.14	65.40	78.37	87.50	93.46	-7.71
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	101.35	135.31	220.46	272.59	315.60	341.21	0.00	173.92	283.25	340.03	380.23	406.47	-30.85
Detroit-Ann Arbor, MI	x	x	100	100	0.00	142.66	190.55	310.06	382.99	443.20	479.09	0.00	245.03	399.19	478.49	534.40	570.87	-46.43
Door Co., WI	x	-	100	-	0.00	0.95	1.27	2.06	2.54	2.94	3.18	0.00	1.63	2.65	3.18	3.55	3.79	-0.31
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.04	0.05	0.09	0.11	0.12	0.13	0.00	0.07	0.11	0.13	0.15	0.16	-0.01
Evansville, IN	-	x	-	100	0.00	9.73	13.00	21.14	26.09	30.19	32.63	0.00	16.72	27.25	32.63	36.42	38.88	-3.30
Greater Connecticut, CT	x	-	100	-	0.00	53.03	70.82	115.29	142.46	164.88	178.24	0.00	91.05	148.32	177.88	198.75	212.37	-16.86
Greene	x	-	100	-	0.00	1.13	1.51	2.45	3.03	3.50	3.78	0.00	1.94	3.16	3.79	4.22	4.51	-0.39
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	23.95	31.99	52.08	64.35	74.48	80.51	0.00	41.13	67.00	80.35	89.78	95.93	-7.62

**Table B1-22
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	21.38	28.55	46.46	57.40	66.43	71.81	0.00	36.71	59.81	71.70	80.09	85.56	-6.91
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.14	0.19	0.31	0.39	0.45	0.48	0.00	0.25	0.40	0.48	0.54	0.57	-0.05
Hickory, NC	-	x	-	100	0.00	5.75	7.67	12.49	15.44	17.88	19.33	0.00	9.86	16.06	19.27	21.54	23.02	-1.79
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	157.21	209.93	341.86	422.53	489.12	528.77	0.00	269.88	439.58	527.39	589.46	629.97	-49.13
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	10.41	13.92	22.55	27.75	32.05	34.63	0.00	17.93	29.25	34.86	38.77	41.30	-4.19
Imperial Co., CA	x	-	100	-	0.00	7.40	9.88	16.11	19.94	23.09	24.97	0.00	12.69	20.67	24.84	27.80	29.74	-2.13
Indianapolis, IN	-	x	-	100	0.00	49.56	66.18	107.79	133.25	154.26	166.76	0.00	85.07	138.57	166.28	185.88	198.67	-15.34
Jamestown, NY	x	-	100	-	0.00	4.30	5.74	9.34	11.53	13.34	14.42	0.00	7.38	12.03	14.41	16.09	17.19	-1.42
Jefferson Co., NY	x	-	100	-	0.00	4.29	5.73	9.34	11.55	13.37	14.45	0.00	7.37	12.00	14.41	16.11	17.22	-1.32
Johnstown, PA	-	x	-	100	0.00	3.44	4.60	7.48	9.24	10.69	11.55	0.00	5.92	9.64	11.55	12.89	13.76	-1.16
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	4.27	5.70	9.30	11.53	13.36	14.45	0.00	7.31	11.90	14.34	16.07	17.20	-1.12
Knoxville, TN	x	x	100	100	0.00	33.11	44.22	72.00	88.98	102.99	111.34	0.00	56.85	92.60	111.08	124.14	132.66	-10.43
Lancaster, PA	-	x	-	100	0.00	12.66	16.90	27.51	33.99	39.33	42.52	0.00	21.73	35.41	42.45	47.42	50.66	-4.07
Las Vegas, NV	x	-	100	-	0.00	48.50	64.72	105.63	130.76	151.50	163.82	0.00	83.16	135.37	162.81	182.33	195.09	-13.50
Libby, MT	-	x	-	100	0.00	0.21	0.28	0.45	0.56	0.65	0.70	0.00	0.36	0.58	0.70	0.78	0.84	-0.07
Liberty-Clairton, PA	-	x	-	100	0.00	0.39	0.52	0.84	1.04	1.20	1.30	0.00	0.66	1.08	1.30	1.45	1.54	-0.13
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	460.50	614.85	1,001.65	1,238.35	1,433.70	1,550.00	0.00	790.35	1,287.21	1,545.01	1,727.44	1,846.51	-141.16
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	23.52	31.40	51.19	63.32	73.33	79.28	0.00	40.36	65.71	78.94	88.31	94.43	-6.96
Louisville, KY-IN	-	x	-	100	0.00	31.94	42.67	69.39	85.68	99.12	107.14	0.00	54.88	89.43	107.12	119.56	127.68	-10.71
Macon, GA	-	x	-	100	0.00	5.95	7.95	12.92	15.95	18.46	19.95	0.00	10.22	16.65	19.95	22.26	23.77	-2.00
Manitowoc Co., WI	x	-	100	-	0.00	3.12	4.16	6.77	8.36	9.68	10.46	0.00	5.35	8.72	10.45	11.67	12.47	-1.02
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	3.45	4.61	7.52	9.30	10.77	11.65	0.00	5.92	9.65	11.59	12.97	13.88	-1.00
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	13.76	18.37	29.97	37.09	42.96	46.45	0.00	23.60	38.42	46.20	51.72	55.33	-3.91
Memphis, TN-AR	x	-	100	-	0.00	28.98	38.71	62.98	77.79	90.02	97.30	0.00	49.78	81.10	97.20	108.55	115.95	-9.48
Milwaukee-Racine, WI	x	-	100	-	0.00	51.55	68.86	112.04	138.39	160.15	173.12	0.00	88.54	144.25	172.91	193.11	206.28	-16.79
Nevada (Western Part), CA	x	-	100	-	0.00	3.09	4.13	6.72	8.31	9.62	10.40	0.00	5.30	8.64	10.37	11.59	12.39	-0.95
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	425.48	568.30	924.73	1,142.27	1,321.88	1,428.92	0.00	730.75	1,190.50	1,427.05	1,593.86	1,702.64	-138.24
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	4.48	5.98	9.73	12.01	13.89	15.02	0.00	7.70	12.54	15.02	16.76	17.90	-1.51
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	209.78	280.14	456.14	563.72	652.52	705.40	0.00	360.16	586.66	703.74	786.46	840.43	-66.03
Phoenix-Mesa	x	-	100	-	0.00	130.42	174.07	283.91	351.31	406.92	439.98	0.00	223.67	364.18	437.71	489.92	524.03	-37.52

**Table B1-22
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	55.46	74.10	120.47	148.72	172.05	185.96	0.00	95.31	155.30	185.98	207.56	221.62	-18.77
Poughkeepsie, NY	x	x	100	100	0.00	39.04	52.13	84.90	104.94	121.48	131.33	0.00	67.02	109.16	130.98	146.40	156.47	-12.17
Providence (All RI), RI	x	-	100	-	0.00	26.93	35.97	58.53	72.29	83.65	90.43	0.00	46.26	75.36	90.33	100.87	107.75	-8.80
Reading, PA	-	x	-	100	0.00	11.49	15.34	24.99	30.88	35.75	38.65	0.00	19.72	32.12	38.54	43.08	46.05	-3.57
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	27.56	36.76	60.07	74.43	86.27	93.30	0.00	47.21	76.82	92.53	103.75	111.09	-7.10
Rochester, NY	x	-	100	-	0.00	38.01	50.77	82.62	102.06	118.10	127.67	0.00	65.28	106.36	127.49	142.40	152.12	-12.33
Rome, GA	-	x	-	100	0.00	3.29	4.39	7.15	8.83	10.21	11.04	0.00	5.65	9.20	11.03	12.32	13.16	-1.08
Sacramento Metro, CA	x	-	50	-	0.00	68.75	91.79	149.58	184.97	214.18	231.56	0.00	117.97	192.12	230.69	258.01	275.84	-20.71
San Diego, CA	x	-	100	-	0.00	88.33	117.99	191.95	237.07	274.33	296.53	0.00	151.73	247.20	296.25	330.81	353.35	-28.99
San Francisco Bay Area, CA	x	-	100	-	0.00	188.44	251.76	409.33	505.32	584.60	631.88	0.00	323.80	527.63	631.89	705.23	753.04	-63.62
San Joaquin Valley, CA	x	x	50	100	0.00	145.07	193.64	315.76	390.66	452.46	489.21	0.00	248.84	405.18	486.86	544.83	582.69	-42.25
Sheboygan, WI	x	-	100	-	0.00	3.57	4.76	7.75	9.58	11.08	11.98	0.00	6.12	9.98	11.96	13.36	14.28	-1.14
Springfield (Western MA), MA	x	-	100	-	0.00	27.53	36.77	59.85	73.94	85.58	92.51	0.00	47.28	77.03	92.36	103.17	110.23	-8.85
St. Louis, MO-IL	x	x	100	100	0.00	90.88	121.38	197.55	244.05	282.45	305.32	0.00	156.07	254.26	304.84	340.52	363.80	-29.28
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	3.01	4.03	6.54	8.08	9.34	10.10	0.00	5.18	8.44	10.10	11.27	12.03	-1.03
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	18.72	25.00	40.69	50.26	58.16	62.87	0.00	32.15	52.38	62.79	70.13	74.91	-6.08
Washington, DC-MD-VA	x	x	100	100	0.00	150.44	200.88	327.18	404.44	468.21	506.17	0.00	258.23	420.59	504.71	564.20	603.02	-46.59
Wheeling, WV-OH	-	x	-	100	0.00	4.82	6.45	10.48	12.94	14.97	16.18	0.00	8.29	13.51	16.18	18.06	19.28	-1.62
York, PA	-	x	-	100	0.00	12.45	16.62	27.08	33.48	38.76	41.91	0.00	21.36	34.78	41.76	46.70	49.92	-3.78

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-23
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)							
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	
Albany-Schenectady-Troy, NY	x	-	100	-	0.00		59.36	79.09	129.72	159.23	182.07	197.49	0.00	119.87	193.05	227.52	247.68	265.22	-22.60
Allegan Co., MI	x	-	100	-	0.00		6.48	8.64	14.17	17.39	19.89	21.57	0.00	13.09	21.09	24.85	27.05	28.97	-2.47
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00		6.72	8.95	14.71	18.10	20.71	22.47	0.00	13.55	21.82	25.79	28.14	30.17	-2.25
Atlanta, GA	x	x	100	100	0.00	381.16	507.10	834.56	1,027.09	1,175.93	1,276.27	0.00	767.68	1,235.45	1,461.99	1,597.31	1,713.43	-120.22	
Baltimore, MD	x	x	100	100	0.00	130.09	173.33	284.26	348.88	398.89	432.66	0.00	262.73	423.15	498.58	542.66	581.06	-49.96	
Baton Rouge, LA	x	-	100	-	0.00	31.31	41.71	68.44	84.05	96.12	104.27	0.00	63.21	101.79	120.02	130.72	140.02	-11.64	
Beaumont/Port Arthur, TX	x	-	100	-	0.00	17.96	23.94	39.23	48.11	54.98	59.63	0.00	36.31	58.49	68.83	74.83	80.09	-7.25	
Birmingham, AL	-	x	-	100	0.00	45.29	60.37	98.90	121.29	138.62	150.33	0.00	91.54	147.46	173.53	188.67	201.92	-18.27	
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	196.14	261.49	428.16	524.88	599.73	650.34	0.00	396.59	638.95	751.42	816.47	873.54	-81.28	
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	27.52	36.68	60.11	73.73	84.27	91.39	0.00	55.62	89.59	105.46	114.68	122.74	-11.00	
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	46.42	61.89	101.30	124.15	141.84	153.80	0.00	93.88	151.26	177.81	193.13	206.59	-19.54	
Canton-Massillon, OH	-	x	-	100	0.00	13.33	17.78	29.10	35.67	40.75	44.19	0.00	26.96	43.44	51.08	55.49	59.36	-5.57	
Charleston, WV	-	x	-	100	0.00	11.92	15.90	26.01	31.85	36.37	39.44	0.00	24.13	38.89	45.66	49.55	52.98	-5.23	
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	91.21	121.43	199.52	245.24	280.60	304.46	0.00	183.93	296.10	349.71	381.42	408.81	-31.62	
Chattanooga, AL-TN-GA	-	x	-	100	0.00	23.05	30.72	50.32	61.71	70.52	76.48	0.00	46.58	75.04	88.30	95.99	102.72	-9.36	
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	312.17	416.04	681.85	836.47	956.11	1,036.97	0.00	630.76	1,016.01	1,196.22	1,301.11	1,392.72	-123.67	
Chico, CA	x	-	100	-	0.00	8.72	11.62	19.05	23.38	26.73	29.00	0.00	17.62	28.37	33.42	36.37	38.94	-3.38	
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	81.63	108.79	178.30	218.72	250.01	271.15	0.00	164.94	265.69	312.80	340.22	364.17	-32.37	
Clearfield and Indiana Cos.	x	-	100	-	0.00	6.96	9.29	15.19	18.60	21.24	23.03	0.00	14.09	22.71	26.66	28.93	30.93	-3.06	
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	109.90	146.55	239.84	293.89	335.74	364.04	0.00	222.30	358.19	420.98	457.18	489.00	-46.63	
Columbus, OH	x	x	100	100	0.00	81.97	109.17	179.18	220.06	251.68	273.04	0.00	165.43	266.38	314.19	342.28	366.65	-30.15	
Dallas-Fort Worth, TX	x	-	100	-	0.00	366.88	488.28	802.87	987.41	1,130.09	1,226.34	0.00	739.43	1,190.22	1,406.92	1,535.65	1,646.54	-122.14	
Dayton-Springfield, OH	-	x	-	100	0.00	33.48	44.65	73.07	89.55	102.31	110.93	0.00	67.72	109.12	128.26	139.30	149.01	-14.14	
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	158.57	211.14	346.75	426.05	487.38	528.77	0.00	319.89	515.04	607.90	662.64	710.04	-56.58	
Detroit-Ann Arbor, MI	x	x	100	100	0.00	207.55	276.68	453.13	555.57	634.85	688.45	0.00	419.59	675.97	795.16	864.21	924.71	-85.16	
Door Co., WI	x	-	100	-	0.00	1.36	1.81	2.96	3.63	4.15	4.50	0.00	2.75	4.42	5.20	5.65	6.04	-0.57	
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.06	0.08	0.12	0.15	0.17	0.19	0.00	0.11	0.18	0.22	0.24	0.25	-0.02	
Evansville, IN	-	x	-	100	0.00	14.38	19.17	31.38	38.46	43.94	47.64	0.00	29.08	46.86	55.08	59.83	63.99	-6.06	
Greater Connecticut, CT	x	-	100	-	0.00	78.59	104.74	171.68	210.63	240.77	261.14	0.00	158.78	255.76	301.18	327.63	350.73	-30.92	
Greene	x	-	100	-	0.00	1.56	2.08	3.39	4.15	4.74	5.14	0.00	3.15	5.08	5.96	6.46	6.90	-0.71	
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	35.59	47.43	77.75	95.39	109.04	118.27	0.00	71.91	115.82	136.39	148.38	158.84	-13.99	

**Table B1-23
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)							
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00		31.29	41.70	68.31	83.78	95.74	103.83	0.00	63.23	101.87	119.87	130.32	139.46	-12.67
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00		0.21	0.28	0.46	0.56	0.64	0.69	0.00	0.42	0.68	0.80	0.87	0.93	-0.09
Hickory, NC	-	x	-	100	0.00		8.70	11.59	19.01	23.34	26.68	28.95	0.00	17.56	28.28	33.34	36.30	38.87	-3.28
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00		240.40	320.24	525.43	645.13	737.72	800.26	0.00	485.33	781.58	921.44	1,003.43	1,074.69	-90.11
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00		14.94	19.96	32.51	39.69	45.26	49.03	0.00	30.32	48.90	57.15	61.76	65.90	-7.68
Imperial Co., CA	x	-	100	-	0.00		12.19	16.22	26.68	32.83	37.59	40.79	0.00	24.55	39.52	46.75	51.06	54.77	-3.90
Indianapolis, IN	-	x	-	100	0.00		76.28	101.61	166.76	204.79	234.22	254.08	0.00	153.97	247.93	292.41	318.53	341.20	-28.14
Jamestown, NY	x	-	100	-	0.00		6.15	8.20	13.42	16.45	18.79	20.38	0.00	12.44	20.04	23.56	25.59	27.37	-2.60
Jefferson Co., NY	x	-	100	-	0.00		6.61	8.81	14.46	17.75	20.31	22.03	0.00	13.34	21.49	25.35	27.62	29.58	-2.42
Johnstown, PA	-	x	-	100	0.00		4.81	6.41	10.48	12.84	14.66	15.89	0.00	9.73	15.68	18.41	19.97	21.35	-2.13
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00		7.27	9.66	15.93	19.63	22.49	24.42	0.00	14.62	23.52	27.89	30.53	32.77	-2.05
Knoxville, TN	x	x	100	100	0.00		49.85	66.42	108.93	133.70	152.87	165.81	0.00	100.68	162.15	191.07	207.96	222.68	-19.12
Lancaster, PA	-	x	-	100	0.00		18.58	24.77	40.58	49.78	56.89	61.70	0.00	37.56	60.50	71.21	77.43	82.86	-7.47
Las Vegas, NV	x	-	100	-	0.00		82.66	109.94	181.07	222.99	255.38	277.21	0.00	166.38	267.71	317.12	346.77	372.14	-24.76
Libby, MT	-	x	-	100	0.00		0.31	0.41	0.67	0.82	0.94	1.02	0.00	0.62	1.00	1.18	1.28	1.37	-0.12
Liberty-Clairton, PA	-	x	-	100	0.00		0.52	0.70	1.14	1.39	1.59	1.73	0.00	1.06	1.71	2.00	2.17	2.32	-0.24
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00		716.70	954.44	1,567.06	1,925.08	2,202.00	2,388.95	0.00	1,446.11	2,328.45	2,747.47	2,994.16	3,207.96	-258.91
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00		37.58	50.02	82.22	101.09	115.68	125.52	0.00	75.76	121.95	144.09	157.22	168.54	-12.76
Louisville, KY-IN	-	x	-	100	0.00		45.92	61.24	100.20	122.77	140.24	152.06	0.00	92.90	149.69	175.89	190.98	204.25	-19.64
Macon, GA	-	x	-	100	0.00		8.57	11.43	18.70	22.91	26.17	28.37	0.00	17.33	27.93	32.82	35.64	38.11	-3.66
Manitowoc Co., WI	x	-	100	-	0.00		4.46	5.95	9.74	11.93	13.63	14.78	0.00	9.02	14.54	17.09	18.56	19.86	-1.87
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00		5.65	7.52	12.37	15.22	17.43	18.91	0.00	11.39	18.33	21.68	23.68	25.39	-1.83
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00		23.00	30.59	50.36	61.98	70.97	77.03	0.00	46.31	74.52	88.21	96.39	103.41	-7.17
Memphis, TN-AR	x	-	100	-	0.00		41.89	55.85	91.45	112.10	128.09	138.90	0.00	84.71	136.47	160.49	174.38	186.56	-17.39
Milwaukee-Racine, WI	x	-	100	-	0.00		74.85	99.78	163.41	200.34	228.93	248.25	0.00	151.33	243.79	286.76	311.64	333.45	-30.79
Nevada (Western Part), CA	x	-	100	-	0.00		4.75	6.33	10.39	12.77	14.60	15.84	0.00	9.59	15.45	18.22	19.85	21.27	-1.74
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00		618.89	825.04	1,351.23	1,656.75	1,893.20	2,053.06	0.00	1,251.17	2,015.65	2,371.16	2,577.13	2,757.59	-253.55
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00		6.31	8.42	13.77	16.86	19.26	20.88	0.00	12.78	20.59	24.18	26.23	28.05	-2.77
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00		315.08	419.80	688.43	844.94	966.03	1,047.83	0.00	636.32	1,024.84	1,207.51	1,314.25	1,407.23	-121.12
Phoenix-Mesa	x	-	100	-	0.00		217.92	289.93	477.15	587.22	672.31	729.67	0.00	438.92	706.37	835.87	913.22	979.61	-68.81

**Table B1-23
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00													
Poughkeepsie, NY	x	x	100	100	0.00	77.67	103.61	169.39	207.42	236.86	256.78	0.00	157.22	253.38	297.44	322.67	344.96	-34.43
Providence (All RI), RI	x	-	100	-	0.00	38.95	51.93	85.03	104.24	119.11	129.16	0.00	78.76	126.90	149.23	162.15	173.49	-16.14
Reading, PA	-	x	-	100	0.00	17.46	23.26	38.16	46.86	53.58	58.12	0.00	35.25	56.77	66.93	72.88	78.06	-6.56
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00													
Rochester, NY	x	-	100	-	0.00	50.43	67.00	110.60	136.42	156.37	169.80	0.00	101.33	162.97	193.55	212.13	227.89	-13.02
Rome, GA	-	x	-	100	0.00	55.44	73.90	121.04	148.42	169.60	183.93	0.00	112.06	180.53	212.39	230.87	247.04	-22.61
Sacramento Metro, CA	x	-	50	-	0.00	4.74	6.33	10.36	12.69	14.50	15.73	0.00	9.59	15.46	18.18	19.75	21.13	-1.98
San Diego, CA	x	-	100	-	0.00	108.53	144.50	237.39	291.75	333.80	362.17	0.00	218.89	352.40	416.11	453.76	486.31	-37.99
San Francisco Bay Area, CA	x	-	100	-	0.00	127.25	169.66	277.75	340.43	388.96	421.77	0.00	257.32	414.59	487.46	529.57	566.53	-53.17
San Joaquin Valley, CA	x	x	50	100	0.00	275.44	367.29	601.10	736.61	841.50	912.44	0.00	557.13	897.69	1,055.10	1,145.86	1,225.64	-116.68
Sheboygan, WI	x	-	100	-	0.00	236.48	314.70	517.59	636.69	728.78	790.88	0.00	476.52	766.99	906.93	990.20	1,061.84	-77.49
Springfield (Western MA), MA	x	-	100	-	0.00	5.23	6.98	11.43	14.02	16.02	17.38	0.00	10.58	17.04	20.06	21.81	23.34	-2.10
St. Louis, MO-IL	x	x	100	100	0.00	40.52	54.00	88.49	108.53	124.04	134.53	0.00	81.88	131.90	155.25	168.82	180.69	-16.23
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	132.91	177.16	290.23	355.93	406.78	441.15	0.00	268.63	432.75	509.25	553.66	592.52	-53.71
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	4.17	5.57	9.09	11.13	12.71	13.78	0.00	8.45	13.61	15.97	17.32	18.51	-1.89
Ventura Co., CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Washington, DC-MD-VA	x	x	100	100	0.00	27.25	36.33	59.50	72.95	83.37	90.41	0.00	55.09	88.75	104.41	113.48	121.43	-11.15
Wheeling, WV-OH	-	x	-	100	0.00	231.55	308.41	506.16	621.61	710.92	771.22	0.00	467.35	752.57	887.56	966.84	1,035.67	-85.45
York, PA	-	x	-	100	0.00	6.78	9.04	14.79	18.11	20.68	22.42	0.00	13.72	22.11	25.96	28.17	30.12	-2.98
	-	x	-	100	0.00	19.39	25.82	42.40	52.09	59.59	64.65	0.00	39.11	62.98	74.33	81.02	86.81	-6.93

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-24
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	82.23	109.32	180.12	219.71	248.98	270.68	0.00	185.57	296.33	345.15	369.52	396.07	-36.51
Allegan Co., MI	x	-	100	-	0.00	8.95	11.89	19.59	23.90	27.08	29.44	0.00	20.19	32.24	37.54	40.19	43.08	-3.99
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	10.60	14.06	23.27	28.49	32.34	35.20	0.00	23.83	38.01	44.54	47.94	51.50	-3.63
Atlanta, GA	x	x	100	100	0.00	662.48	877.90	1,456.15	1,785.59	2,028.91	2,208.85	0.00	1,486.09	2,370.20	2,784.78	3,005.47	3,232.20	-194.21
Baltimore, MD	x	x	100	100	0.00	178.57	237.43	391.07	476.89	540.36	587.42	0.00	403.10	643.74	749.46	802.05	859.52	-80.70
Baton Rouge, LA	x	-	100	-	0.00	45.33	60.23	99.37	121.33	137.57	149.60	0.00	102.19	163.14	190.34	204.10	218.90	-18.81
Beaumont/Port Arthur, TX	x	-	100	-	0.00	23.43	31.18	51.25	62.39	70.63	76.74	0.00	52.98	84.64	98.27	104.90	112.29	-11.71
Birmingham, AL	-	x	-	100	0.00	60.83	80.94	133.12	162.14	183.61	199.53	0.00	137.50	219.64	255.22	272.64	291.96	-29.52
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	251.38	334.74	549.63	668.58	756.61	821.95	0.00	569.05	909.25	1,054.31	1,124.03	1,202.67	-131.31
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	37.38	49.73	81.82	99.70	112.92	122.72	0.00	84.46	134.91	156.85	167.65	179.57	-17.76
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	57.88	77.12	126.49	153.74	173.91	188.89	0.00	131.15	209.60	242.72	258.45	276.38	-31.57
Canton-Massillon, OH	-	x	-	100	0.00	16.76	22.33	36.63	44.54	50.39	54.73	0.00	37.96	60.66	70.28	74.87	80.08	-9.00
Charleston, WV	-	x	-	100	0.00	14.34	19.12	31.30	37.98	42.93	46.61	0.00	32.54	52.03	60.09	63.84	68.20	-8.46
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	151.22	200.58	332.05	406.54	461.58	502.31	0.00	339.83	542.19	635.39	684.13	735.02	-51.08
Chattanooga, AL-TN-GA	-	x	-	100	0.00	30.51	40.61	66.76	81.28	92.03	100.00	0.00	69.00	110.23	128.01	136.67	146.33	-15.12
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	434.35	577.63	951.07	1,159.45	1,313.56	1,427.85	0.00	980.82	1,566.43	1,822.84	1,949.90	2,089.26	-199.79
Chico, CA	x	-	100	-	0.00	11.84	15.74	25.92	31.59	35.79	38.90	0.00	26.73	42.69	49.67	53.13	56.93	-5.46
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	115.52	153.61	252.99	308.50	349.56	380.00	0.00	260.79	416.47	484.85	518.85	556.02	-52.29
Clearfield and Indiana Cos.	x	-	100	-	0.00	8.31	11.08	18.14	22.01	24.87	27.00	0.00	18.86	30.16	34.83	36.98	39.51	-4.94
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	136.59	182.00	298.45	362.66	410.19	445.50	0.00	309.55	494.73	572.71	609.62	651.84	-75.33
Columbus, OH	x	x	100	100	0.00	120.25	159.73	263.63	322.02	365.18	397.16	0.00	270.95	432.53	504.92	541.71	581.14	-48.70
Dallas-Fort Worth, TX	x	-	100	-	0.00	599.91	795.58	1,317.54	1,613.60	1,832.33	1,994.19	0.00	1,347.64	2,150.00	2,520.87	2,715.49	2,918.05	-197.31
Dayton-Springfield, OH	-	x	-	100	0.00	41.68	55.53	91.07	110.68	125.19	135.97	0.00	94.44	150.93	174.75	186.05	198.95	-22.85
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	240.42	319.19	527.39	644.75	731.49	795.73	0.00	541.18	863.75	1,009.75	1,084.75	1,164.35	-91.40
Detroit-Ann Arbor, MI	x	x	100	100	0.00	267.66	356.36	585.34	712.24	806.13	875.82	0.00	605.70	967.75	1,122.69	1,197.47	1,281.49	-137.57
Door Co., WI	x	-	100	-	0.00	1.69	2.25	3.68	4.48	5.06	5.50	0.00	3.82	6.11	7.07	7.53	8.05	-0.93
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.07	0.09	0.16	0.19	0.21	0.23	0.00	0.16	0.26	0.30	0.32	0.34	-0.04
Evansville, IN	-	x	-	100	0.00	19.08	25.40	41.72	50.76	57.46	62.42	0.00	43.17	68.97	80.02	85.35	91.34	-9.79
Greater Connecticut, CT	x	-	100	-	0.00	104.74	139.34	229.25	279.31	316.34	343.81	0.00	236.67	378.03	439.48	469.69	503.06	-49.95
Greene	x	-	100	-	0.00	1.79	2.39	3.90	4.73	5.34	5.79	0.00	4.07	6.51	7.50	7.94	8.48	-1.15
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	47.66	63.40	104.33	127.12	143.99	156.49	0.00	107.69	172.00	200.00	213.78	228.98	-22.59

**Table B1-24
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Diesel PM 10 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	40.67	54.13	88.96	108.29	122.59	133.20	0.00	91.99	146.97	170.60	182.07	194.89	-20.47
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.27	0.36	0.59	0.71	0.81	0.88	0.00	0.61	0.97	1.12	1.20	1.28	-0.14
Hickory, NC	-	x	-	100	0.00	12.09	16.07	26.49	32.31	36.62	39.82	0.00	27.28	43.56	50.75	54.35	58.26	-5.31
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	352.62	468.47	772.93	943.85	1,070.21	1,163.84	0.00	794.77	1,268.81	1,480.51	1,587.71	1,702.97	-145.56
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	18.72	25.00	40.79	49.37	55.72	60.45	0.00	42.60	68.14	78.38	82.94	88.45	-12.41
Imperial Co., CA	x	-	100	-	0.00	20.04	26.56	44.02	53.94	61.27	66.69	0.00	44.99	71.76	84.21	90.78	97.59	-6.30
Indianapolis, IN	-	x	-	100	0.00	112.16	148.98	245.89	300.34	340.59	370.41	0.00	252.71	403.42	470.94	505.24	542.01	-45.46
Jamestown, NY	x	-	100	-	0.00	7.63	10.17	16.68	20.27	22.93	24.90	0.00	17.30	27.65	32.01	34.08	36.44	-4.20
Jefferson Co., NY	x	-	100	-	0.00	9.51	12.63	20.84	25.45	28.86	31.38	0.00	21.42	34.20	39.91	42.81	45.92	-3.90
Johnstown, PA	-	x	-	100	0.00	5.67	7.56	12.37	15.00	16.95	18.40	0.00	12.87	20.59	23.75	25.21	26.92	-3.45
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	12.76	16.90	28.07	34.46	39.18	42.67	0.00	28.59	45.58	53.66	58.01	62.44	-3.31
Knoxville, TN	x	x	100	100	0.00	68.75	91.40	150.57	183.63	208.07	226.20	0.00	155.17	247.80	288.54	308.83	330.98	-30.89
Lancaster, PA	-	x	-	100	0.00	24.30	32.34	53.15	64.72	73.27	79.62	0.00	54.94	87.78	101.93	108.82	116.50	-12.07
Las Vegas, NV	x	-	100	-	0.00	145.47	192.71	319.89	392.52	446.14	485.79	0.00	326.10	520.02	611.63	660.73	710.86	-39.99
Libby, MT	-	x	-	100	0.00	0.41	0.54	0.89	1.08	1.23	1.33	0.00	0.92	1.47	1.71	1.82	1.95	-0.20
Liberty-Clairton, PA	-	x	-	100	0.00	0.58	0.77	1.26	1.53	1.73	1.87	0.00	1.32	2.11	2.43	2.57	2.74	-0.39
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	1,082.35	1,437.14	2,373.95	2,901.57	3,291.55	3,580.40	0.00	2,436.97	3,889.70	4,545.56	4,881.56	5,239.03	-418.26
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	58.77	77.97	129.01	157.87	179.20	195.00	0.00	132.13	210.84	246.90	265.65	285.33	-20.62
Louisville, KY-IN	-	x	-	100	0.00	57.64	76.80	125.95	153.06	173.12	188.02	0.00	130.63	208.77	241.69	257.29	275.11	-31.72
Macon, GA	-	x	-	100	0.00	10.78	14.36	23.55	28.62	32.37	35.16	0.00	24.42	39.03	45.19	48.11	51.45	-5.91
Manitowoc Co., WI	x	-	100	-	0.00	5.54	7.38	12.10	14.71	16.64	18.07	0.00	12.55	20.06	23.23	24.73	26.45	-3.03
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	9.21	12.21	20.23	24.78	28.14	30.63	0.00	20.68	32.99	38.70	41.70	44.82	-2.96
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	39.21	51.96	86.18	105.67	120.07	130.72	0.00	87.97	140.30	164.82	177.87	191.28	-11.57
Memphis, TN-AR	x	-	100	-	0.00	53.07	70.68	116.03	141.10	159.66	173.44	0.00	120.17	192.03	222.58	237.21	253.77	-28.09
Milwaukee-Racine, WI	x	-	100	-	0.00	96.00	127.82	209.92	255.39	289.04	314.01	0.00	217.28	347.17	402.65	429.37	459.46	-49.75
Nevada (Western Part), CA	x	-	100	-	0.00	6.82	9.06	14.96	18.26	20.71	22.52	0.00	15.38	24.55	28.65	30.72	32.95	-2.81
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	794.98	1,058.45	1,738.47	2,115.25	2,394.04	2,600.98	0.00	1,799.07	2,874.49	3,334.44	3,556.31	3,805.73	-409.60
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	7.60	10.13	16.59	20.13	22.75	24.70	0.00	17.25	27.57	31.85	33.83	36.14	-4.48
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	433.66	576.60	949.73	1,158.18	1,312.33	1,426.63	0.00	978.90	1,563.26	1,820.07	1,947.85	2,087.48	-195.66
Phoenix-Mesa	x	-	100	-	0.00	368.81	488.83	810.51	993.60	1,128.83	1,228.85	0.00	827.60	1,320.05	1,550.21	1,672.33	1,798.16	-111.16

Table B1-24
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Diesel PM 10 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	92.54	123.43	201.96	244.98	276.84	300.53	0.00	210.12	335.96	387.81	411.70	439.72	-55.61
Poughkeepsie, NY	x	x	100	100	0.00	82.86	110.13	181.53	221.50	251.05	272.96	0.00	186.92	298.46	347.81	372.55	399.40	-36.05
Providence (All RI), RI	x	-	100	-	0.00	49.43	65.83	108.06	131.42	148.71	161.54	0.00	111.91	178.83	207.29	220.94	236.37	-26.08
Reading, PA	-	x	-	100	0.00	24.46	32.51	53.60	65.40	74.13	80.60	0.00	55.18	88.10	102.69	110.00	117.93	-10.59
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	102.18	135.16	225.06	276.81	315.01	343.22	0.00	228.43	364.06	429.91	466.12	502.24	-21.03
Rochester, NY	x	-	100	-	0.00	71.59	95.30	156.57	190.54	215.67	234.32	0.00	161.98	258.79	300.28	320.35	342.86	-36.53
Rome, GA	-	x	-	100	0.00	5.99	7.97	13.08	15.91	18.00	19.55	0.00	13.55	21.66	25.10	26.74	28.61	-3.19
Sacramento Metro, CA	x	-	50	-	0.00	166.34	220.79	364.99	446.39	506.54	551.08	0.00	374.27	597.29	698.71	751.06	806.37	-61.36
San Diego, CA	x	-	100	-	0.00	160.05	213.19	349.83	425.32	481.19	522.68	0.00	362.51	579.30	671.17	715.00	764.78	-85.90
San Francisco Bay Area, CA	x	-	100	-	0.00	357.77	476.45	782.16	951.28	1,076.43	1,169.35	0.00	810.01	1,294.32	1,500.43	1,599.27	1,710.98	-188.49
San Joaquin Valley, CA	x	x	50	100	0.00	382.44	507.17	839.96	1,028.77	1,168.25	1,271.47	0.00	859.07	1,370.53	1,607.08	1,731.30	1,860.51	-125.19
Sheboygan, WI	x	-	100	-	0.00	6.84	9.10	14.96	18.21	20.62	22.40	0.00	15.46	24.70	28.68	30.62	32.78	-3.39
Springfield (Western MA), MA	x	-	100	-	0.00	53.21	70.81	116.43	141.77	160.52	174.44	0.00	120.32	192.20	223.24	238.39	255.23	-26.22
St. Louis, MO-IL	x	x	100	100	0.00	174.26	231.92	381.22	464.12	525.46	570.97	0.00	394.08	629.56	731.02	780.39	835.45	-86.77
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	4.84	6.46	10.56	12.80	14.46	15.69	0.00	11.01	17.61	20.29	21.51	22.96	-3.05
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	35.01	46.62	76.57	93.16	105.44	114.56	0.00	79.23	126.59	146.86	156.63	167.62	-18.02
Washington, DC-MD-VA	x	x	100	100	0.00	345.27	458.58	757.05	924.88	1,048.94	1,140.85	0.00	777.80	1,241.60	1,449.84	1,555.90	1,669.34	-138.04
Wheeling, WV-OH	-	x	-	100	0.00	8.11	10.82	17.71	21.49	24.29	26.37	0.00	18.42	29.45	34.01	36.12	38.58	-4.81
York, PA	-	x	-	100	0.00	28.53	37.89	62.57	76.46	86.72	94.33	0.00	64.25	102.56	119.81	128.63	138.03	-11.19

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-25
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Formaldehyde 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.11	-0.17	-0.38	-0.54	-0.68	-0.74	0.00	-0.11	-0.17	-0.38	-0.54	-0.68	-0.74
Allegan Co., MI	x	-	100	-	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	-0.01	-0.02	-0.04	-0.05	-0.07	-0.07	0.00	-0.01	-0.02	-0.04	-0.05	-0.07	-0.07
Atlanta, GA	x	x	100	100	0.00	-0.61	-0.88	-2.04	-2.85	-3.60	-3.94	0.00	-0.61	-0.88	-2.04	-2.85	-3.60	-3.94
Baltimore, MD	x	x	100	100	0.00	-0.25	-0.36	-0.85	-1.18	-1.50	-1.64	0.00	-0.25	-0.36	-0.85	-1.18	-1.50	-1.64
Baton Rouge, LA	x	-	100	-	0.00	2.02	2.69	4.26	5.48	6.68	7.14	0.00	2.72	4.38	5.57	6.76	7.17	-0.38
Beaumont/Port Arthur, TX	x	-	100	-	0.00	4.16	5.54	8.86	11.43	13.94	14.90	0.00	5.56	8.93	11.48	14.00	14.93	-0.24
Birmingham, AL	-	x	-	100	0.00	-0.09	-0.13	-0.31	-0.43	-0.55	-0.60	0.00	-0.09	-0.13	-0.31	-0.43	-0.55	-0.60
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-0.41	-0.59	-1.38	-1.93	-2.44	-2.66	0.00	-0.41	-0.59	-1.38	-1.93	-2.44	-2.66
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.06	-0.08	-0.19	-0.26	-0.33	-0.36	0.00	-0.06	-0.08	-0.19	-0.26	-0.33	-0.36
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.10	-0.14	-0.33	-0.46	-0.59	-0.64	0.00	-0.10	-0.14	-0.33	-0.46	-0.59	-0.64
Canton-Massillon, OH	-	x	-	100	0.00	0.24	0.32	0.49	0.62	0.75	0.80	0.00	0.33	0.54	0.66	0.79	0.82	-0.18
Charleston, WV	-	x	-	100	0.00	-0.03	-0.04	-0.09	-0.12	-0.16	-0.17	0.00	-0.03	-0.04	-0.09	-0.12	-0.16	-0.17
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.16	-0.23	-0.54	-0.75	-0.95	-1.04	0.00	-0.16	-0.23	-0.54	-0.75	-0.95	-1.04
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.05	-0.07	-0.16	-0.22	-0.28	-0.31	0.00	-0.05	-0.07	-0.16	-0.22	-0.28	-0.31
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	2.41	3.15	4.41	5.47	6.55	6.92	0.00	3.43	5.61	6.31	7.34	7.27	-4.05
Chico, CA	x	-	100	-	0.00	-0.02	-0.02	-0.06	-0.08	-0.10	-0.11	0.00	-0.02	-0.02	-0.06	-0.08	-0.10	-0.11
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.16	-0.24	-0.55	-0.77	-0.97	-1.06	0.00	-0.16	-0.24	-0.55	-0.77	-0.97	-1.06
Clearfield and Indiana Cos.	x	-	100	-	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.24	-0.34	-0.79	-1.10	-1.40	-1.53	0.00	-0.24	-0.34	-0.79	-1.10	-1.40	-1.53
Columbus, OH	x	x	100	100	0.00	-0.15	-0.22	-0.51	-0.71	-0.90	-0.99	0.00	-0.15	-0.22	-0.51	-0.71	-0.90	-0.99
Dallas-Fort Worth, TX	x	-	100	-	0.00	-0.62	-0.89	-2.07	-2.89	-3.66	-4.00	0.00	-0.62	-0.89	-2.07	-2.89	-3.66	-4.00
Dayton-Springfield, OH	-	x	-	100	0.00	-0.07	-0.10	-0.24	-0.34	-0.42	-0.46	0.00	-0.07	-0.10	-0.24	-0.34	-0.42	-0.46
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.06	0.05	-0.21	-0.37	-0.51	-0.59	0.00	0.18	0.34	0.01	-0.16	-0.43	-1.85
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.06	-0.13	-0.65	-0.99	-1.29	-1.44	0.00	0.07	0.18	-0.41	-0.76	-1.21	-2.79
Door Co., WI	x	-	100	-	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02	0.00	0.00	0.00	-0.01	-0.01	-0.02	-0.02
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.03	-0.04	-0.10	-0.14	-0.18	-0.20	0.00	-0.03	-0.04	-0.10	-0.14	-0.18	-0.20
Greater Connecticut, CT	x	-	100	-	0.00	-0.16	-0.23	-0.52	-0.73	-0.93	-1.01	0.00	-0.16	-0.23	-0.52	-0.73	-0.93	-1.01
Greene	x	-	100	-	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	0.00	0.00	-0.01	-0.01	-0.02	-0.02	-0.02
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.07	-0.10	-0.24	-0.33	-0.42	-0.46	0.00	-0.07	-0.10	-0.24	-0.33	-0.42	-0.46

**Table B1-25
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Formaldehyde 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.06	-0.09	-0.22	-0.30	-0.38	-0.42	0.00	-0.06	-0.09	-0.22	-0.30	-0.38	-0.42
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	-0.02	-0.02	-0.06	-0.08	-0.10	-0.11	0.00	-0.02	-0.02	-0.06	-0.08	-0.10	-0.11
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	8.12	10.78	16.85	21.60	26.28	28.03	0.00	10.99	17.74	22.23	26.87	28.30	-2.95
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	0.79	1.05	1.64	2.11	2.56	2.73	0.00	1.06	1.72	2.16	2.61	2.76	-0.25
Imperial Co., CA	x	-	100	-	0.00	-0.02	-0.03	-0.07	-0.09	-0.12	-0.13	0.00	-0.02	-0.03	-0.07	-0.09	-0.12	-0.13
Indianapolis, IN	-	x	-	100	0.00	-0.14	-0.21	-0.48	-0.67	-0.84	-0.92	0.00	-0.14	-0.21	-0.48	-0.67	-0.84	-0.92
Jamestown, NY	x	-	100	-	0.00	-0.01	-0.02	-0.04	-0.06	-0.08	-0.09	0.00	-0.01	-0.02	-0.04	-0.06	-0.08	-0.09
Jefferson Co., NY	x	-	100	-	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08	0.00	-0.01	-0.02	-0.04	-0.06	-0.07	-0.08
Johnstown, PA	-	x	-	100	0.00	-0.01	-0.02	-0.04	-0.05	-0.06	-0.07	0.00	-0.01	-0.02	-0.04	-0.05	-0.06	-0.07
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.07	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.07
Knoxville, TN	x	x	100	100	0.00	-0.10	-0.14	-0.32	-0.45	-0.57	-0.63	0.00	-0.10	-0.14	-0.32	-0.45	-0.57	-0.63
Lancaster, PA	-	x	-	100	0.00	-0.04	-0.05	-0.13	-0.18	-0.22	-0.24	0.00	-0.04	-0.05	-0.13	-0.18	-0.22	-0.24
Las Vegas, NV	x	-	100	-	0.00	-0.13	-0.18	-0.42	-0.59	-0.74	-0.81	0.00	-0.13	-0.18	-0.42	-0.59	-0.74	-0.81
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	3.31	4.27	5.50	6.64	7.84	8.20	0.00	4.85	8.01	8.39	9.48	8.93	-8.48
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.06	-0.09	-0.22	-0.30	-0.38	-0.42	0.00	-0.06	-0.09	-0.22	-0.30	-0.38	-0.42
Louisville, KY-IN	-	x	-	100	0.00	-0.10	-0.14	-0.33	-0.47	-0.59	-0.64	0.00	-0.10	-0.14	-0.33	-0.47	-0.59	-0.64
Macon, GA	-	x	-	100	0.00	-0.02	-0.03	-0.06	-0.09	-0.11	-0.12	0.00	-0.02	-0.03	-0.06	-0.09	-0.11	-0.12
Manitowoc Co., WI	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.06	-0.06	0.00	-0.01	-0.01	-0.03	-0.04	-0.06	-0.06
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.04	-0.05	-0.12	-0.17	-0.21	-0.23	0.00	-0.04	-0.05	-0.12	-0.17	-0.21	-0.23
Memphis, TN-AR	x	-	100	-	0.00	0.58	0.77	1.14	1.44	1.74	1.85	0.00	0.81	1.31	1.56	1.85	1.90	-0.57
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.16	-0.22	-0.52	-0.73	-0.92	-1.01	0.00	-0.16	-0.22	-0.52	-0.73	-0.92	-1.01
Nevada (Western Part), CA	x	-	100	-	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06	0.00	-0.01	-0.01	-0.03	-0.04	-0.05	-0.06
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.10	-0.27	-1.77	-2.73	-3.60	-4.03	0.00	0.29	0.69	-1.02	-2.00	-3.32	-8.31
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	-0.01	-0.02	-0.05	-0.07	-0.08	-0.09	0.00	-0.01	-0.02	-0.05	-0.07	-0.08	-0.09
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	3.80	5.00	7.40	9.34	11.28	11.97	0.00	5.28	8.58	10.17	12.05	12.32	-3.97
Phoenix-Mesa	x	-	100	-	0.00	-0.35	-0.50	-1.17	-1.63	-2.06	-2.25	0.00	-0.35	-0.50	-1.17	-1.63	-2.06	-2.25

Table B1-25
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Formaldehyde 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.17	-0.25	-0.58	-0.82	-1.03	-1.13	0.00	-0.17	-0.25	-0.58	-0.82	-1.03	-1.13
Poughkeepsie, NY	x	x	100	100	0.00	-0.11	-0.16	-0.38	-0.53	-0.67	-0.73	0.00	-0.11	-0.16	-0.38	-0.53	-0.67	-0.73
Providence (All RI), RI	x	-	100	-	0.00	-0.08	-0.12	-0.27	-0.38	-0.48	-0.53	0.00	-0.08	-0.12	-0.27	-0.38	-0.48	-0.53
Reading, PA	-	x	-	100	0.00	-0.03	-0.05	-0.11	-0.16	-0.20	-0.21	0.00	-0.03	-0.05	-0.11	-0.16	-0.20	-0.21
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.07	-0.10	-0.22	-0.31	-0.39	-0.43	0.00	-0.07	-0.10	-0.22	-0.31	-0.39	-0.43
Rochester, NY	x	-	100	-	0.00	-0.11	-0.17	-0.38	-0.54	-0.68	-0.74	0.00	-0.11	-0.17	-0.38	-0.54	-0.68	-0.74
Rome, GA	-	x	-	100	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.06	0.00	-0.01	-0.01	-0.03	-0.05	-0.06	-0.06
Sacramento Metro, CA	x	-	50	-	0.00	-0.19	-0.28	-0.64	-0.90	-1.14	-1.24	0.00	-0.19	-0.28	-0.64	-0.90	-1.14	-1.24
San Diego, CA	x	-	100	-	0.00	-0.27	-0.39	-0.90	-1.26	-1.59	-1.74	0.00	-0.27	-0.39	-0.90	-1.26	-1.59	-1.74
San Francisco Bay Area, CA	x	-	100	-	0.00	1.88	2.44	3.31	4.06	4.84	5.09	0.00	2.70	4.44	4.85	5.58	5.42	-3.82
San Joaquin Valley, CA	x	x	50	100	0.00	0.02	-0.01	-0.43	-0.69	-0.93	-1.05	0.00	0.16	0.32	-0.17	-0.44	-0.83	-2.54
Sheboygan, WI	x	-	100	-	0.00	-0.01	-0.02	-0.04	-0.05	-0.06	-0.07	0.00	-0.01	-0.02	-0.04	-0.05	-0.06	-0.07
Springfield (Western MA), MA	x	-	100	-	0.00	-0.08	-0.12	-0.28	-0.38	-0.49	-0.53	0.00	-0.08	-0.12	-0.28	-0.38	-0.49	-0.53
St. Louis, MO-IL	x	x	100	100	0.00	0.87	1.13	1.53	1.88	2.24	2.36	0.00	1.25	2.05	2.24	2.58	2.51	-1.76
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.06	0.09	0.13	0.16	0.20	0.21	0.00	0.09	0.15	0.17	0.21	0.21	-0.06
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.05	-0.07	-0.17	-0.24	-0.30	-0.33	0.00	-0.04	-0.06	-0.16	-0.23	-0.30	-0.37
Washington, DC-MD-VA	x	x	100	100	0.00	-0.43	-0.62	-1.45	-2.02	-2.56	-2.80	0.00	-0.43	-0.62	-1.45	-2.02	-2.56	-2.80
Wheeling, WV-OH	-	x	-	100	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10	0.00	-0.02	-0.02	-0.05	-0.07	-0.09	-0.10
York, PA	-	x	-	100	0.00	-0.04	-0.05	-0.12	-0.16	-0.21	-0.23	0.00	-0.04	-0.05	-0.12	-0.16	-0.21	-0.23

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-26
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Formaldehyde 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.30	-0.41	-0.69	-0.81	-0.90	-1.00	0.00	-0.39	-0.55	-1.07	-1.28	-1.39	-1.55
Allegan Co., MI	x	-	100	-	0.00	-0.03	-0.04	-0.08	-0.09	-0.10	-0.11	0.00	-0.04	-0.06	-0.12	-0.14	-0.15	-0.17
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	-0.03	-0.04	-0.07	-0.08	-0.09	-0.10	0.00	-0.04	-0.05	-0.11	-0.13	-0.14	-0.15
Atlanta, GA	x	x	100	100	0.00	-1.59	-2.16	-3.68	-4.33	-4.77	-5.32	0.00	-2.07	-2.92	-5.72	-6.81	-7.39	-8.25
Baltimore, MD	x	x	100	100	0.00	-0.66	-0.90	-1.53	-1.80	-1.98	-2.21	0.00	-0.86	-1.21	-2.38	-2.83	-3.07	-3.43
Baton Rouge, LA	x	-	100	-	0.00	5.18	6.87	11.40	14.32	16.72	18.10	0.00	8.85	14.38	17.43	19.81	21.38	-0.80
Beaumont/Port Arthur, TX	x	-	100	-	0.00	10.64	14.12	23.44	29.41	34.31	37.16	0.00	18.09	29.34	35.87	40.79	44.05	-0.50
Birmingham, AL	-	x	-	100	0.00	-0.24	-0.33	-0.56	-0.66	-0.73	-0.81	0.00	-0.31	-0.44	-0.87	-1.04	-1.12	-1.25
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-1.07	-1.46	-2.49	-2.93	-3.23	-3.60	0.00	-1.40	-1.97	-3.87	-4.60	-4.99	-5.58
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.15	-0.20	-0.34	-0.40	-0.44	-0.49	0.00	-0.19	-0.27	-0.52	-0.62	-0.68	-0.75
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.26	-0.35	-0.60	-0.70	-0.78	-0.87	0.00	-0.34	-0.47	-0.93	-1.11	-1.20	-1.34
Canton-Massillon, OH	-	x	-	100	0.00	0.62	0.82	1.36	1.72	2.02	2.18	0.00	1.09	1.78	2.08	2.36	2.54	-0.38
Charleston, WV	-	x	-	100	0.00	-0.07	-0.09	-0.16	-0.19	-0.21	-0.23	0.00	-0.09	-0.13	-0.25	-0.30	-0.32	-0.36
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.42	-0.57	-0.97	-1.14	-1.25	-1.40	0.00	-0.54	-0.77	-1.50	-1.79	-1.94	-2.17
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.12	-0.17	-0.29	-0.34	-0.37	-0.41	0.00	-0.16	-0.23	-0.45	-0.53	-0.58	-0.64
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	6.15	8.10	13.36	17.04	20.16	21.69	0.00	11.07	18.39	20.36	22.85	24.65	-8.49
Chico, CA	x	-	100	-	0.00	-0.04	-0.06	-0.10	-0.12	-0.13	-0.15	0.00	-0.06	-0.08	-0.16	-0.19	-0.21	-0.23
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.43	-0.58	-0.99	-1.17	-1.28	-1.43	0.00	-0.56	-0.78	-1.54	-1.83	-1.99	-2.22
Clearfield and Indiana Cos.	x	-	100	-	0.00	-0.04	-0.06	-0.09	-0.11	-0.12	-0.14	0.00	-0.05	-0.07	-0.15	-0.17	-0.19	-0.21
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.61	-0.84	-1.43	-1.68	-1.85	-2.06	0.00	-0.80	-1.13	-2.22	-2.64	-2.86	-3.20
Columbus, OH	x	x	100	100	0.00	-0.40	-0.54	-0.92	-1.09	-1.20	-1.33	0.00	-0.52	-0.73	-1.43	-1.71	-1.85	-2.07
Dallas-Fort Worth, TX	x	-	100	-	0.00	-1.61	-2.20	-3.74	-4.40	-4.85	-5.41	0.00	-2.10	-2.96	-5.81	-6.92	-7.50	-8.38
Dayton-Springfield, OH	-	x	-	100	0.00	-0.19	-0.25	-0.43	-0.51	-0.56	-0.63	0.00	-0.24	-0.34	-0.67	-0.80	-0.87	-0.97
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.15	0.17	0.24	0.44	0.64	0.63	0.00	0.55	1.09	0.33	0.24	0.24	-3.88
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.17	-0.27	-0.50	-0.43	-0.31	-0.44	0.00	0.16	0.56	-0.83	-1.16	-1.28	-5.84
Door Co., WI	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.02	-0.02	-0.03	0.00	-0.01	-0.01	-0.03	-0.03	-0.04	-0.04
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.08	-0.11	-0.19	-0.22	-0.24	-0.27	0.00	-0.10	-0.15	-0.29	-0.34	-0.37	-0.42
Greater Connecticut, CT	x	-	100	-	0.00	-0.41	-0.56	-0.95	-1.11	-1.23	-1.37	0.00	-0.53	-0.75	-1.47	-1.75	-1.90	-2.12
Greene	x	-	100	-	0.00	-0.01	-0.01	-0.02	-0.03	-0.03	-0.03	0.00	-0.01	-0.02	-0.03	-0.04	-0.04	-0.05
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.18	-0.25	-0.43	-0.50	-0.56	-0.62	0.00	-0.24	-0.34	-0.67	-0.79	-0.86	-0.96

Table B1-26
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Formaldehyde 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.17	-0.23	-0.39	-0.46	-0.50	-0.56	0.00	-0.22	-0.31	-0.60	-0.72	-0.78	-0.87
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01
Hickory, NC	-	x	-	100	0.00	-0.04	-0.06	-0.10	-0.12	-0.13	-0.15	0.00	-0.06	-0.08	-0.16	-0.19	-0.20	-0.23
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	20.79	27.54	45.68	57.49	67.25	72.74	0.00	35.73	58.23	69.85	79.24	85.55	-6.18
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	2.02	2.67	4.43	5.58	6.52	7.05	0.00	3.46	5.63	6.78	7.69	8.30	-0.53
Imperial Co., CA	x	-	100	-	0.00	-0.05	-0.07	-0.12	-0.14	-0.15	-0.17	0.00	-0.07	-0.09	-0.19	-0.22	-0.24	-0.27
Indianapolis, IN	-	x	-	100	0.00	-0.37	-0.51	-0.86	-1.01	-1.12	-1.25	0.00	-0.48	-0.68	-1.34	-1.59	-1.73	-1.93
Jamestown, NY	x	-	100	-	0.00	-0.03	-0.05	-0.08	-0.09	-0.10	-0.12	0.00	-0.04	-0.06	-0.12	-0.15	-0.16	-0.18
Jefferson Co., NY	x	-	100	-	0.00	-0.03	-0.04	-0.07	-0.09	-0.10	-0.11	0.00	-0.04	-0.06	-0.11	-0.14	-0.15	-0.17
Johnstown, PA	-	x	-	100	0.00	-0.03	-0.04	-0.07	-0.08	-0.08	-0.09	0.00	-0.04	-0.05	-0.10	-0.12	-0.13	-0.15
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	-0.03	-0.04	-0.06	-0.07	-0.08	-0.09	0.00	-0.04	-0.05	-0.10	-0.12	-0.13	-0.14
Knoxville, TN	x	x	100	100	0.00	-0.25	-0.34	-0.59	-0.69	-0.76	-0.85	0.00	-0.33	-0.46	-0.91	-1.08	-1.17	-1.31
Lancaster, PA	-	x	-	100	0.00	-0.10	-0.13	-0.23	-0.27	-0.30	-0.33	0.00	-0.13	-0.18	-0.36	-0.42	-0.46	-0.51
Las Vegas, NV	x	-	100	-	0.00	-0.33	-0.45	-0.76	-0.89	-0.98	-1.10	0.00	-0.43	-0.60	-1.18	-1.40	-1.52	-1.70
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.02
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	8.42	11.04	18.15	23.36	27.85	29.84	0.00	15.62	26.24	27.59	30.74	33.13	-17.77
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.17	-0.23	-0.39	-0.46	-0.51	-0.56	0.00	-0.22	-0.31	-0.61	-0.72	-0.78	-0.88
Louisville, KY-IN	-	x	-	100	0.00	-0.26	-0.35	-0.60	-0.71	-0.78	-0.87	0.00	-0.34	-0.48	-0.93	-1.11	-1.21	-1.35
Macon, GA	-	x	-	100	0.00	-0.05	-0.07	-0.11	-0.13	-0.15	-0.16	0.00	-0.06	-0.09	-0.17	-0.21	-0.22	-0.25
Manitowoc Co., WI	x	-	100	-	0.00	-0.02	-0.03	-0.06	-0.07	-0.07	-0.08	0.00	-0.03	-0.05	-0.09	-0.11	-0.12	-0.13
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	-0.02	-0.03	-0.06	-0.07	-0.07	-0.08	0.00	-0.03	-0.04	-0.09	-0.10	-0.11	-0.13
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.09	-0.13	-0.22	-0.26	-0.28	-0.32	0.00	-0.12	-0.17	-0.34	-0.41	-0.44	-0.49
Memphis, TN-AR	x	-	100	-	0.00	1.49	1.97	3.25	4.12	4.84	5.23	0.00	2.61	4.30	4.96	5.60	6.05	-1.19
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.41	-0.55	-0.94	-1.11	-1.22	-1.36	0.00	-0.53	-0.75	-1.46	-1.74	-1.89	-2.11
Nevada (Western Part), CA	x	-	100	-	0.00	-0.02	-0.03	-0.05	-0.06	-0.07	-0.08	0.00	-0.03	-0.04	-0.08	-0.10	-0.11	-0.12
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	-0.31	-0.54	-1.08	-0.76	-0.29	-0.63	0.00	0.79	2.19	-1.82	-2.72	-3.00	-17.40
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	-0.04	-0.05	-0.08	-0.10	-0.11	-0.12	0.00	-0.05	-0.07	-0.13	-0.16	-0.17	-0.19
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	9.71	12.82	21.21	26.88	31.63	34.11	0.00	17.10	28.14	32.38	36.53	39.42	-8.31
Phoenix-Mesa	x	-	100	-	0.00	-0.91	-1.24	-2.11	-2.48	-2.73	-3.05	0.00	-1.18	-1.67	-3.27	-3.90	-4.23	-4.72
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.45	-0.62	-1.05	-1.24	-1.37	-1.52	0.00	-0.59	-0.83	-1.64	-1.95	-2.11	-2.36

Table B1-26
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Formaldehyde 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Poughkeepsie, NY	x	x	100	100	0.00	-0.29	-0.40	-0.68	-0.80	-0.89	-0.99	0.00	-0.38	-0.54	-1.06	-1.26	-1.37	-1.53
Providence (All RI), RI	x	-	100	-	0.00	-0.21	-0.29	-0.49	-0.58	-0.64	-0.71	0.00	-0.28	-0.39	-0.77	-0.91	-0.99	-1.11
Reading, PA	-	x	-	100	0.00	-0.09	-0.12	-0.20	-0.24	-0.26	-0.29	0.00	-0.11	-0.16	-0.31	-0.37	-0.40	-0.45
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.17	-0.23	-0.40	-0.47	-0.52	-0.58	0.00	-0.22	-0.32	-0.62	-0.74	-0.80	-0.89
Rochester, NY	x	-	100	-	0.00	-0.30	-0.41	-0.69	-0.82	-0.90	-1.00	0.00	-0.39	-0.55	-1.08	-1.28	-1.39	-1.55
Rome, GA	-	x	-	100	0.00	-0.03	-0.04	-0.06	-0.07	-0.08	-0.09	0.00	-0.03	-0.05	-0.09	-0.11	-0.12	-0.14
Sacramento Metro, CA	x	-	50	-	0.00	-0.50	-0.68	-1.16	-1.37	-1.51	-1.68	0.00	-0.65	-0.92	-1.81	-2.15	-2.33	-2.61
San Diego, CA	x	-	100	-	0.00	-0.70	-0.96	-1.63	-1.92	-2.11	-2.35	0.00	-0.91	-1.29	-2.53	-3.01	-3.27	-3.65
San Francisco Bay Area, CA	x	-	100	-	0.00	4.78	6.29	10.36	13.26	15.74	16.91	0.00	8.72	14.55	15.77	17.65	19.03	-8.01
San Joaquin Valley, CA	x	x	50	100	0.00	0.04	0.01	-0.04	0.13	0.34	0.27	0.00	0.46	1.03	-0.11	-0.33	-0.37	-5.32
Sheboygan, WI	x	-	100	-	0.00	-0.03	-0.04	-0.06	-0.08	-0.08	-0.09	0.00	-0.04	-0.05	-0.10	-0.12	-0.13	-0.14
Springfield (Western MA), MA	x	-	100	-	0.00	-0.21	-0.29	-0.50	-0.59	-0.64	-0.72	0.00	-0.28	-0.39	-0.77	-0.92	-1.00	-1.11
St. Louis, MO-IL	x	x	100	100	0.00	2.21	2.91	4.79	6.13	7.27	7.81	0.00	4.03	6.72	7.29	8.16	8.80	-3.69
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.17	0.22	0.36	0.46	0.54	0.58	0.00	0.29	0.48	0.55	0.63	0.67	-0.13
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.12	-0.17	-0.28	-0.33	-0.36	-0.40	0.00	-0.15	-0.20	-0.44	-0.53	-0.57	-0.77
Washington, DC-MD-VA	x	x	100	100	0.00	-1.13	-1.54	-2.62	-3.08	-3.39	-3.78	0.00	-1.47	-2.07	-4.06	-4.84	-5.25	-5.86
Wheeling, WV-OH	-	x	-	100	0.00	-0.04	-0.05	-0.09	-0.11	-0.12	-0.13	0.00	-0.05	-0.07	-0.14	-0.17	-0.18	-0.20
York, PA	-	x	-	100	0.00	-0.09	-0.12	-0.21	-0.25	-0.28	-0.31	0.00	-0.12	-0.17	-0.33	-0.39	-0.43	-0.48

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-27
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Formaldehyde 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.41	-0.54	-0.42	-0.33	-0.25	-0.30	0.00	-0.74	-0.92	-1.01	-1.01	-0.97	-1.08
Allegan Co., MI	x	-	100	-	0.00	-0.04	-0.06	-0.05	-0.04	-0.03	-0.03	0.00	-0.08	-0.10	-0.11	-0.11	-0.11	-0.12
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	-0.04	-0.05	-0.04	-0.03	-0.03	-0.03	0.00	-0.07	-0.09	-0.10	-0.10	-0.10	-0.11
Atlanta, GA	x	x	100	100	0.00	-2.17	-2.85	-2.24	-1.76	-1.34	-1.61	0.00	-3.94	-4.90	-5.38	-5.38	-5.14	-5.75
Baltimore, MD	x	x	100	100	0.00	-0.90	-1.18	-0.93	-0.73	-0.56	-0.67	0.00	-1.64	-2.04	-2.23	-2.23	-2.14	-2.39
Baton Rouge, LA	x	-	100	-	0.00	7.94	10.50	17.80	22.28	25.73	27.99	0.00	15.83	25.52	30.86	34.36	37.23	-0.56
Beaumont/Port Arthur, TX	x	-	100	-	0.00	16.28	21.52	36.14	45.09	51.99	56.56	0.00	32.40	52.05	62.86	69.91	75.64	-0.35
Birmingham, AL	-	x	-	100	0.00	-0.33	-0.43	-0.34	-0.27	-0.20	-0.24	0.00	-0.60	-0.75	-0.82	-0.82	-0.78	-0.87
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-1.46	-1.93	-1.52	-1.19	-0.90	-1.09	0.00	-2.66	-3.32	-3.63	-3.64	-3.48	-3.89
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.20	-0.26	-0.21	-0.16	-0.12	-0.15	0.00	-0.36	-0.45	-0.49	-0.49	-0.47	-0.53
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.35	-0.46	-0.36	-0.29	-0.22	-0.26	0.00	-0.64	-0.80	-0.87	-0.87	-0.84	-0.93
Canton-Massillon, OH	-	x	-	100	0.00	0.96	1.27	2.25	2.85	3.32	3.60	0.00	1.93	3.17	3.85	4.31	4.69	-0.27
Charleston, WV	-	x	-	100	0.00	-0.09	-0.12	-0.10	-0.08	-0.06	-0.07	0.00	-0.17	-0.21	-0.23	-0.23	-0.22	-0.25
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.57	-0.75	-0.59	-0.46	-0.35	-0.42	0.00	-1.04	-1.29	-1.41	-1.41	-1.35	-1.51
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.17	-0.22	-0.17	-0.14	-0.10	-0.13	0.00	-0.31	-0.38	-0.42	-0.42	-0.40	-0.45
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	9.67	12.78	23.98	30.94	36.35	39.41	0.00	19.60	32.88	40.26	45.37	49.75	-5.91
Chico, CA	x	-	100	-	0.00	-0.06	-0.08	-0.06	-0.05	-0.04	-0.05	0.00	-0.11	-0.14	-0.15	-0.15	-0.14	-0.16
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.58	-0.77	-0.60	-0.47	-0.36	-0.43	0.00	-1.06	-1.32	-1.45	-1.45	-1.38	-1.55
Clearfield and Indiana Cos.	x	-	100	-	0.00	-0.06	-0.07	-0.06	-0.04	-0.03	-0.04	0.00	-0.10	-0.12	-0.14	-0.14	-0.13	-0.15
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-0.84	-1.11	-0.87	-0.68	-0.52	-0.62	0.00	-1.53	-1.90	-2.09	-2.09	-1.99	-2.23
Columbus, OH	x	x	100	100	0.00	-0.54	-0.72	-0.56	-0.44	-0.34	-0.40	0.00	-0.99	-1.23	-1.35	-1.35	-1.29	-1.44
Dallas-Fort Worth, TX	x	-	100	-	0.00	-2.20	-2.90	-2.28	-1.79	-1.36	-1.63	0.00	-4.00	-4.98	-5.46	-5.46	-5.22	-5.84
Dayton-Springfield, OH	-	x	-	100	0.00	-0.25	-0.34	-0.26	-0.21	-0.16	-0.19	0.00	-0.46	-0.58	-0.63	-0.63	-0.60	-0.68
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.35	0.47	1.97	2.95	3.72	3.98	0.00	0.87	2.06	2.75	3.34	3.92	-2.70
Detroit-Ann Arbor, MI	x	x	100	100	0.00	-0.08	-0.09	1.64	2.77	3.68	3.90	0.00	0.11	1.18	1.81	2.43	3.11	-4.07
Door Co., WI	x	-	100	-	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	-0.02	-0.02	-0.03	-0.03	-0.02	-0.03
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.11	-0.14	-0.11	-0.09	-0.07	-0.08	0.00	-0.20	-0.25	-0.27	-0.27	-0.26	-0.29
Greater Connecticut, CT	x	-	100	-	0.00	-0.56	-0.73	-0.58	-0.45	-0.34	-0.41	0.00	-1.01	-1.26	-1.38	-1.38	-1.32	-1.48
Greene	x	-	100	-	0.00	-0.01	-0.02	-0.01	-0.01	-0.01	-0.01	0.00	-0.02	-0.03	-0.03	-0.03	-0.03	-0.03
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.25	-0.33	-0.26	-0.20	-0.16	-0.19	0.00	-0.46	-0.57	-0.63	-0.63	-0.60	-0.67

**Table B1-27
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Formaldehyde 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.23	-0.30	-0.24	-0.19	-0.14	-0.17	0.00	-0.42	-0.52	-0.57	-0.57	-0.54	-0.61
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hickory, NC	-	x	-	100	0.00	-0.06	-0.08	-0.06	-0.05	-0.04	-0.04	0.00	-0.11	-0.13	-0.15	-0.15	-0.14	-0.16
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	31.97	42.26	72.58	91.20	105.58	114.78	0.00	63.86	103.47	125.32	139.74	151.62	-4.31
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	3.10	4.10	7.01	8.80	10.18	11.07	0.00	6.19	10.01	12.12	13.51	14.65	-0.37
Imperial Co., CA	x	-	100	-	0.00	-0.07	-0.09	-0.07	-0.06	-0.04	-0.05	0.00	-0.13	-0.16	-0.17	-0.17	-0.17	-0.19
Indianapolis, IN	-	x	-	100	0.00	-0.51	-0.67	-0.52	-0.41	-0.31	-0.38	0.00	-0.92	-1.15	-1.26	-1.26	-1.20	-1.35
Jamestown, NY	x	-	100	-	0.00	-0.05	-0.06	-0.05	-0.04	-0.03	-0.03	0.00	-0.09	-0.11	-0.12	-0.12	-0.11	-0.12
Jefferson Co., NY	x	-	100	-	0.00	-0.04	-0.06	-0.05	-0.04	-0.03	-0.03	0.00	-0.08	-0.10	-0.11	-0.11	-0.10	-0.12
Johnstown, PA	-	x	-	100	0.00	-0.04	-0.05	-0.04	-0.03	-0.02	-0.03	0.00	-0.07	-0.09	-0.10	-0.10	-0.09	-0.10
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	-0.04	-0.05	-0.04	-0.03	-0.02	-0.03	0.00	-0.07	-0.08	-0.09	-0.09	-0.09	-0.10
Knoxville, TN	x	x	100	100	0.00	-0.34	-0.45	-0.36	-0.28	-0.21	-0.26	0.00	-0.63	-0.78	-0.86	-0.86	-0.82	-0.91
Lancaster, PA	-	x	-	100	0.00	-0.13	-0.18	-0.14	-0.11	-0.08	-0.10	0.00	-0.24	-0.30	-0.33	-0.33	-0.32	-0.36
Las Vegas, NV	x	-	100	-	0.00	-0.45	-0.59	-0.46	-0.36	-0.28	-0.33	0.00	-0.81	-1.01	-1.11	-1.11	-1.06	-1.18
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01
Liberty-Clairton, PA	-	x	-	100	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	13.42	17.76	35.14	46.01	54.49	58.98	0.00	27.48	47.11	58.05	65.81	72.62	-12.38
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.23	-0.30	-0.24	-0.19	-0.14	-0.17	0.00	-0.42	-0.52	-0.57	-0.57	-0.55	-0.61
Louisville, KY-IN	-	x	-	100	0.00	-0.35	-0.47	-0.37	-0.29	-0.22	-0.26	0.00	-0.64	-0.80	-0.88	-0.88	-0.84	-0.94
Macon, GA	-	x	-	100	0.00	-0.07	-0.09	-0.07	-0.05	-0.04	-0.05	0.00	-0.12	-0.15	-0.16	-0.16	-0.16	-0.17
Manitowoc Co., WI	x	-	100	-	0.00	-0.03	-0.04	-0.03	-0.03	-0.02	-0.03	0.00	-0.06	-0.08	-0.08	-0.08	-0.08	-0.09
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	-0.03	-0.04	-0.03	-0.03	-0.02	-0.02	0.00	-0.06	-0.07	-0.08	-0.08	-0.08	-0.09
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.13	-0.17	-0.13	-0.11	-0.08	-0.10	0.00	-0.23	-0.29	-0.32	-0.32	-0.31	-0.34
Memphis, TN-AR	x	-	100	-	0.00	2.31	3.06	5.48	6.97	8.13	8.83	0.00	4.65	7.66	9.33	10.46	11.40	-0.83
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.55	-0.73	-0.57	-0.45	-0.34	-0.41	0.00	-1.01	-1.26	-1.38	-1.38	-1.32	-1.47
Nevada (Western Part), CA	x	-	100	-	0.00	-0.03	-0.04	-0.03	-0.03	-0.02	-0.02	0.00	-0.06	-0.07	-0.08	-0.08	-0.07	-0.08
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	0.07	0.11	5.52	9.05	11.89	12.62	0.00	0.91	4.44	6.52	8.50	10.62	-12.12
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	-0.05	-0.07	-0.05	-0.04	-0.03	-0.04	0.00	-0.09	-0.11	-0.12	-0.12	-0.12	-0.13
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	15.10	19.97	35.94	45.82	53.48	58.05	0.00	30.40	50.18	61.13	68.54	74.80	-5.79
Phoenix-Mesa	x	-	100	-	0.00	-1.24	-1.63	-1.28	-1.01	-0.77	-0.92	0.00	-2.26	-2.81	-3.08	-3.08	-2.94	-3.29

**Table B1-27
Emission Reductions ^{a/} by Nonattainment Area with Alternative CAFE Standards**

Formaldehyde 2025

Nonattainment Area	Status ^{b/}		General Conformity Threshold ^{c/}		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.62	-0.82	-0.64	-0.50	-0.38	-0.46	0.00	-1.13	-1.40	-1.54	-1.54	-1.47	-1.65
Poughkeepsie, NY	x	x	100	100	0.00	-0.40	-0.53	-0.42	-0.33	-0.25	-0.30	0.00	-0.73	-0.91	-1.00	-1.00	-0.95	-1.07
Providence (All RI), RI	x	-	100	-	0.00	-0.29	-0.38	-0.30	-0.24	-0.18	-0.22	0.00	-0.53	-0.66	-0.72	-0.72	-0.69	-0.77
Reading, PA	-	x	-	100	0.00	-0.12	-0.16	-0.12	-0.10	-0.07	-0.09	0.00	-0.21	-0.27	-0.29	-0.29	-0.28	-0.31
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.23	-0.31	-0.24	-0.19	-0.14	-0.17	0.00	-0.43	-0.53	-0.58	-0.58	-0.56	-0.62
Rochester, NY	x	-	100	-	0.00	-0.41	-0.54	-0.42	-0.33	-0.25	-0.30	0.00	-0.74	-0.92	-1.01	-1.01	-0.97	-1.08
Rome, GA	-	x	-	100	0.00	-0.04	-0.05	-0.04	-0.03	-0.02	-0.03	0.00	-0.06	-0.08	-0.09	-0.09	-0.08	-0.09
Sacramento Metro, CA	x	-	50	-	0.00	-0.68	-0.90	-0.71	-0.56	-0.42	-0.51	0.00	-1.25	-1.55	-1.70	-1.70	-1.62	-1.82
San Diego, CA	x	-	100	-	0.00	-0.96	-1.26	-0.99	-0.78	-0.59	-0.71	0.00	-1.74	-2.17	-2.38	-2.38	-2.27	-2.54
San Francisco Bay Area, CA	x	-	100	-	0.00	7.56	10.00	19.18	24.90	29.36	31.80	0.00	15.39	26.06	31.99	36.14	39.73	-5.58
San Joaquin Valley, CA	x	x	50	100	0.00	0.22	0.30	2.13	3.32	4.27	4.55	0.00	0.68	2.00	2.77	3.46	4.18	-3.70
Sheboygan, WI	x	-	100	-	0.00	-0.04	-0.05	-0.04	-0.03	-0.02	-0.03	0.00	-0.07	-0.09	-0.09	-0.09	-0.09	-0.10
Springfield (Western MA), MA	x	-	100	-	0.00	-0.29	-0.38	-0.30	-0.24	-0.18	-0.22	0.00	-0.53	-0.66	-0.73	-0.73	-0.69	-0.78
St. Louis, MO-IL	x	x	100	100	0.00	3.49	4.62	8.86	11.50	13.56	14.69	0.00	7.11	12.04	14.78	16.69	18.35	-2.57
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.26	0.34	0.61	0.78	0.90	0.98	0.00	0.52	0.85	1.04	1.16	1.27	-0.09
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.16	-0.21	-0.12	-0.05	0.01	-0.01	0.00	-0.28	-0.32	-0.34	-0.32	-0.29	-0.53
Washington, DC-MD-VA	x	x	100	100	0.00	-1.54	-2.03	-1.59	-1.25	-0.95	-1.14	0.00	-2.80	-3.49	-3.82	-3.82	-3.65	-4.08
Wheeling, WV-OH	-	x	-	100	0.00	-0.05	-0.07	-0.06	-0.04	-0.03	-0.04	0.00	-0.10	-0.12	-0.13	-0.13	-0.13	-0.14
York, PA	-	x	-	100	0.00	-0.12	-0.16	-0.13	-0.10	-0.08	-0.09	0.00	-0.23	-0.28	-0.31	-0.31	-0.30	-0.33

^{a/} Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

^{b/} Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

^{c/} Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-28
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

Formaldehyde 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	-0.49	-0.59	0.57	1.09	1.44	1.54	0.00	-1.39	-1.31	0.90	1.72	2.14	2.46
Allegan Co., MI	x	-	100	-	0.00	-0.05	-0.06	0.06	0.12	0.16	0.17	0.00	-0.15	-0.14	0.10	0.19	0.23	0.27
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	-0.05	-0.06	0.06	0.11	0.14	0.15	0.00	-0.14	-0.13	0.09	0.17	0.21	0.24
Atlanta, GA	x	x	100	100	0.00	-2.60	-3.12	3.05	5.78	7.65	8.18	0.00	-7.38	-6.94	4.81	9.15	11.38	13.07
Baltimore, MD	x	x	100	100	0.00	-1.08	-1.30	1.27	2.40	3.18	3.40	0.00	-3.07	-2.88	2.00	3.80	4.73	5.43
Baton Rouge, LA	x	-	100	-	0.00	11.50	15.17	26.29	32.76	37.51	40.93	0.00	25.33	40.77	49.99	55.16	59.84	1.27
Beaumont/Port Arthur, TX	x	-	100	-	0.00	23.50	30.96	52.52	65.18	74.49	81.30	0.00	51.99	83.02	100.00	109.83	118.95	0.79
Birmingham, AL	-	x	-	100	0.00	-0.39	-0.47	0.46	0.88	1.16	1.24	0.00	-1.12	-1.06	0.73	1.39	1.73	1.99
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	-1.76	-2.11	2.06	3.91	5.17	5.53	0.00	-4.99	-4.69	3.25	6.19	7.70	8.83
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	-0.24	-0.29	0.28	0.53	0.70	0.75	0.00	-0.68	-0.63	0.44	0.84	1.04	1.20
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	-0.42	-0.51	0.50	0.94	1.24	1.33	0.00	-1.20	-1.13	0.78	1.49	1.85	2.12
Canton-Massillon, OH	-	x	-	100	0.00	1.41	1.88	3.54	4.47	5.16	5.62	0.00	3.06	5.09	6.69	7.51	8.20	0.61
Charleston, WV	-	x	-	100	0.00	-0.11	-0.14	0.13	0.25	0.33	0.36	0.00	-0.32	-0.30	0.21	0.40	0.50	0.57
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	-0.68	-0.82	0.80	1.52	2.01	2.15	0.00	-1.94	-1.83	1.26	2.41	2.99	3.44
Chattanooga, AL-TN-GA	-	x	-	100	0.00	-0.20	-0.24	0.24	0.45	0.60	0.64	0.00	-0.57	-0.54	0.37	0.71	0.89	1.02
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	14.47	19.36	41.06	52.92	61.51	66.98	0.00	30.41	53.32	77.20	88.60	97.41	13.44
Chico, CA	x	-	100	-	0.00	-0.07	-0.09	0.09	0.16	0.21	0.23	0.00	-0.21	-0.20	0.14	0.26	0.32	0.37
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	-0.70	-0.84	0.82	1.56	2.06	2.20	0.00	-1.99	-1.87	1.29	2.46	3.06	3.52
Clearfield and Indiana Cos.	x	-	100	-	0.00	-0.07	-0.08	0.08	0.15	0.19	0.21	0.00	-0.19	-0.18	0.12	0.23	0.29	0.33
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	-1.01	-1.21	1.18	2.24	2.97	3.17	0.00	-2.86	-2.69	1.87	3.55	4.42	5.07
Columbus, OH	x	x	100	100	0.00	-0.65	-0.78	0.76	1.45	1.92	2.05	0.00	-1.85	-1.74	1.21	2.30	2.85	3.28
Dallas-Fort Worth, TX	x	-	100	-	0.00	-2.64	-3.17	3.10	5.87	7.77	8.31	0.00	-7.50	-7.05	4.89	9.30	11.56	13.28
Dayton-Springfield, OH	-	x	-	100	0.00	-0.31	-0.37	0.36	0.68	0.90	0.96	0.00	-0.87	-0.82	0.57	1.08	1.34	1.54
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	0.75	1.13	5.81	8.13	9.78	10.60	0.00	0.91	3.70	10.59	13.43	15.23	6.15
Detroit-Ann Arbor, MI	x	x	100	100	0.00	0.26	0.56	6.81	9.85	11.99	12.98	0.00	-0.57	2.50	12.27	16.19	18.57	9.26
Door Co., WI	x	-	100	-	0.00	-0.01	-0.01	0.01	0.03	0.04	0.04	0.00	-0.04	-0.03	0.02	0.04	0.05	0.06
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evansville, IN	-	x	-	100	0.00	-0.13	-0.16	0.15	0.29	0.39	0.41	0.00	-0.37	-0.35	0.24	0.46	0.57	0.66
Greater Connecticut, CT	x	-	100	-	0.00	-0.67	-0.80	0.78	1.49	1.97	2.10	0.00	-1.90	-1.79	1.24	2.35	2.93	3.36
Greene	x	-	100	-	0.00	-0.02	-0.02	0.02	0.03	0.05	0.05	0.00	-0.04	-0.04	0.03	0.05	0.07	0.08
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	-0.30	-0.36	0.35	0.67	0.89	0.95	0.00	-0.86	-0.81	0.56	1.06	1.32	1.52

Table B1-28
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Formaldehyde 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	-0.27	-0.33	0.32	0.61	0.81	0.86	0.00	-0.78	-0.73	0.51	0.96	1.20	1.38
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	-0.01	-0.01	0.00	0.01	0.01	0.01
Hickory, NC	-	x	-	100	0.00	-0.07	-0.09	0.08	0.16	0.21	0.22	0.00	-0.20	-0.19	0.13	0.25	0.31	0.36
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	46.47	61.42	109.42	137.04	157.28	171.55	0.00	101.81	165.59	207.71	230.55	250.61	9.79
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	4.50	5.94	10.52	13.16	15.09	16.46	0.00	9.87	16.01	19.97	22.14	24.05	0.83
Imperial Co., CA	x	-	100	-	0.00	-0.08	-0.10	0.10	0.19	0.25	0.27	0.00	-0.24	-0.23	0.16	0.30	0.37	0.42
Indianapolis, IN	-	x	-	100	0.00	-0.61	-0.73	0.71	1.35	1.79	1.92	0.00	-1.73	-1.62	1.13	2.14	2.66	3.06
Jamestown, NY	x	-	100	-	0.00	-0.06	-0.07	0.07	0.13	0.17	0.18	0.00	-0.16	-0.15	0.10	0.20	0.25	0.28
Jefferson Co., NY	x	-	100	-	0.00	-0.05	-0.06	0.06	0.12	0.15	0.16	0.00	-0.15	-0.14	0.10	0.18	0.23	0.26
Johnstown, PA	-	x	-	100	0.00	-0.05	-0.06	0.05	0.10	0.14	0.15	0.00	-0.13	-0.12	0.09	0.16	0.20	0.23
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	-0.04	-0.05	0.05	0.10	0.13	0.14	0.00	-0.13	-0.12	0.08	0.16	0.19	0.22
Knoxville, TN	x	x	100	100	0.00	-0.41	-0.50	0.49	0.92	1.22	1.30	0.00	-1.17	-1.10	0.76	1.46	1.81	2.08
Lancaster, PA	-	x	-	100	0.00	-0.16	-0.19	0.19	0.36	0.48	0.51	0.00	-0.46	-0.43	0.30	0.57	0.71	0.81
Las Vegas, NV	x	-	100	-	0.00	-0.53	-0.64	0.63	1.19	1.57	1.69	0.00	-1.52	-1.43	0.99	1.89	2.34	2.69
Libby, MT	-	x	-	100	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	-0.01	-0.01	0.00	0.01	0.01	0.01
Liberty-Clairton, PA	-	x	-	100	0.00	-0.01	-0.01	0.01	0.01	0.02	0.02	0.00	-0.01	-0.01	0.01	0.02	0.02	0.03
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	20.47	27.60	64.24	83.88	98.04	106.67	0.00	41.89	76.99	120.23	140.13	154.83	28.14
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	-0.28	-0.33	0.32	0.61	0.81	0.87	0.00	-0.78	-0.74	0.51	0.97	1.21	1.39
Louisville, KY-IN	-	x	-	100	0.00	-0.42	-0.51	0.50	0.94	1.25	1.34	0.00	-1.21	-1.13	0.79	1.50	1.86	2.13
Macon, GA	-	x	-	100	0.00	-0.08	-0.10	0.09	0.18	0.23	0.25	0.00	-0.22	-0.21	0.15	0.28	0.35	0.40
Manitowoc Co., WI	x	-	100	-	0.00	-0.04	-0.05	0.05	0.09	0.12	0.13	0.00	-0.12	-0.11	0.07	0.14	0.18	0.20
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	-0.04	-0.05	0.05	0.09	0.12	0.12	0.00	-0.11	-0.11	0.07	0.14	0.17	0.20
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	-0.15	-0.19	0.18	0.34	0.46	0.49	0.00	-0.44	-0.41	0.29	0.55	0.68	0.78
Memphis, TN-AR	x	-	100	-	0.00	3.41	4.53	8.81	11.20	12.95	14.11	0.00	7.32	12.34	16.64	18.80	20.56	1.89
Milwaukee-Racine, WI	x	-	100	-	0.00	-0.67	-0.80	0.78	1.48	1.96	2.10	0.00	-1.89	-1.78	1.23	2.34	2.92	3.35
Nevada (Western Part), CA	x	-	100	-	0.00	-0.04	-0.05	0.04	0.08	0.11	0.12	0.00	-0.11	-0.10	0.07	0.13	0.16	0.19
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	1.21	2.21	21.22	30.51	37.04	40.09	0.00	-0.75	8.93	38.31	50.18	57.42	27.56
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	-0.06	-0.07	0.07	0.13	0.18	0.19	0.00	-0.17	-0.16	0.11	0.21	0.26	0.30
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	22.29	29.65	58.19	74.09	85.66	93.34	0.00	47.78	80.87	109.84	124.29	136.00	13.16
Phoenix-Mesa	x	-	100	-	0.00	-1.49	-1.79	1.75	3.31	4.38	4.68	0.00	-4.22	-3.97	2.75	5.24	6.52	7.48

Table B1-28
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

Formaldehyde 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	-0.74	-0.89	0.87	1.66	2.19	2.34	0.00	-2.11	-1.99	1.38	2.62	3.26	3.74
Poughkeepsie, NY	x	x	100	100	0.00	-0.48	-0.58	0.57	1.07	1.42	1.52	0.00	-1.37	-1.29	0.89	1.70	2.11	2.43
Providence (All RI), RI	x	-	100	-	0.00	-0.35	-0.42	0.41	0.78	1.03	1.10	0.00	-0.99	-0.93	0.65	1.23	1.53	1.75
Reading, PA	-	x	-	100	0.00	-0.14	-0.17	0.17	0.32	0.42	0.45	0.00	-0.40	-0.38	0.26	0.50	0.62	0.71
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	-0.28	-0.34	0.33	0.63	0.83	0.89	0.00	-0.80	-0.75	0.52	0.99	1.23	1.41
Rochester, NY	x	-	100	-	0.00	-0.49	-0.59	0.57	1.09	1.44	1.54	0.00	-1.39	-1.31	0.90	1.72	2.14	2.46
Rome, GA	-	x	-	100	0.00	-0.04	-0.05	0.05	0.10	0.13	0.13	0.00	-0.12	-0.11	0.08	0.15	0.19	0.21
Sacramento Metro, CA	x	-	50	-	0.00	-0.82	-0.99	0.96	1.83	2.42	2.59	0.00	-2.33	-2.19	1.52	2.89	3.60	4.13
San Diego, CA	x	-	100	-	0.00	-1.15	-1.38	1.35	2.56	3.38	3.62	0.00	-3.26	-3.07	2.13	4.05	5.03	5.78
San Francisco Bay Area, CA	x	-	100	-	0.00	11.41	15.31	33.78	43.78	51.01	55.52	0.00	23.71	42.39	63.38	73.23	80.68	12.68
San Joaquin Valley, CA	x	x	50	100	0.00	0.66	1.06	7.13	10.12	12.23	13.24	0.00	0.41	3.75	12.93	16.68	19.00	8.42
Sheboygan, WI	x	-	100	-	0.00	-0.05	-0.05	0.05	0.10	0.13	0.14	0.00	-0.13	-0.12	0.08	0.16	0.20	0.23
Springfield (Western MA), MA	x	-	100	-	0.00	-0.35	-0.42	0.41	0.78	1.03	1.10	0.00	-1.00	-0.94	0.65	1.24	1.54	1.76
St. Louis, MO-IL	x	x	100	100	0.00	5.27	7.07	15.59	20.21	23.54	25.63	0.00	10.96	19.58	29.26	33.80	37.24	5.84
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	0.38	0.50	0.98	1.24	1.44	1.56	0.00	0.82	1.37	1.85	2.09	2.28	0.20
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	-0.18	-0.21	0.41	0.70	0.89	0.96	0.00	-0.55	-0.44	0.69	1.12	1.35	1.21
Washington, DC-MD-VA	x	x	100	100	0.00	-1.85	-2.22	2.17	4.11	5.43	5.82	0.00	-5.25	-4.93	3.42	6.51	8.09	9.29
Wheeling, WV-OH	-	x	-	100	0.00	-0.06	-0.08	0.08	0.14	0.19	0.20	0.00	-0.18	-0.17	0.12	0.23	0.28	0.32
York, PA	-	x	-	100	0.00	-0.15	-0.18	0.18	0.33	0.44	0.47	0.00	-0.43	-0.40	0.28	0.53	0.66	0.75

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-29
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	7.39	9.97	23.58	35.90	48.23	50.80	0.00	10.57	17.69	29.55	41.74	50.47	16.42
Allegan Co., MI	x	-	100	-	0.00	0.81	1.09	2.58	3.93	5.28	5.56	0.00	1.16	1.94	3.23	4.57	5.52	1.80
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.74	0.99	2.35	3.57	4.80	5.05	0.00	1.05	1.76	2.94	4.15	5.02	1.63
Atlanta, GA	x	x	100	100	0.00	39.27	52.98	125.35	190.87	256.42	270.06	0.00	56.19	94.02	157.05	221.90	268.31	87.35
Baltimore, MD	x	x	100	100	0.00	16.37	22.09	52.20	79.46	106.73	112.41	0.00	23.42	39.18	65.40	92.38	111.68	36.29
Baton Rouge, LA	x	-	100	-	0.00	256.32	341.76	553.12	717.11	877.78	937.84	0.00	342.38	550.52	714.34	874.95	938.23	8.46
Beaumont/Port Arthur, TX	x	-	100	-	0.00	510.79	680.96	1,096.77	1,418.12	1,732.78	1,851.89	0.00	681.78	1,095.76	1,417.10	1,731.74	1,852.90	5.27
Birmingham, AL	-	x	-	100	0.00	5.95	8.03	19.01	28.96	38.92	40.98	0.00	8.52	14.25	23.82	33.67	40.72	13.28
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	26.60	35.89	84.86	129.19	173.54	182.77	0.00	38.06	63.68	106.32	150.20	181.59	59.05
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	3.46	4.67	11.18	17.08	23.00	24.21	0.00	4.96	8.31	13.99	19.84	24.05	7.99
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	6.40	8.63	20.40	31.06	41.73	43.95	0.00	9.15	15.31	25.57	36.12	43.66	14.20
Canton-Massillon, OH	-	x	-	100	0.00	34.80	46.42	76.46	100.08	123.28	131.58	0.00	46.61	75.06	98.58	121.74	131.57	4.05
Charleston, WV	-	x	-	100	0.00	1.71	2.31	5.46	8.31	11.17	11.76	0.00	2.45	4.10	6.84	9.66	11.69	3.80
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	9.37	12.66	30.91	47.55	64.20	67.56	0.00	13.50	22.67	38.65	55.12	67.10	22.97
Chattanooga, AL-TN-GA	-	x	-	100	0.00	3.01	4.06	9.66	14.73	19.80	20.85	0.00	4.31	7.22	12.10	17.12	20.72	6.80
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	408.04	544.59	916.55	1,213.46	1,505.57	1,605.13	0.00	548.35	884.96	1,179.41	1,470.80	1,604.13	89.85
Chico, CA	x	-	100	-	0.00	1.11	1.49	3.53	5.37	7.21	7.60	0.00	1.58	2.65	4.42	6.24	7.55	2.46
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	10.46	14.11	33.50	51.06	68.64	72.29	0.00	14.97	25.06	41.96	59.35	71.82	23.52
Clearfield and Indiana Cos.	x	-	100	-	0.00	1.00	1.35	3.19	4.86	6.53	6.88	0.00	1.43	2.40	4.00	5.65	6.84	2.22
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	15.26	20.58	48.67	74.10	99.54	104.84	0.00	21.83	36.52	60.98	86.15	104.16	33.88
Columbus, OH	x	x	100	100	0.00	9.85	13.29	31.44	47.87	64.31	67.73	0.00	14.09	23.58	39.39	55.65	67.29	21.90
Dallas-Fort Worth, TX	x	-	100	-	0.00	39.93	53.87	127.42	194.00	260.62	274.48	0.00	57.13	95.59	159.64	225.54	272.70	88.74
Dayton-Springfield, OH	-	x	-	100	0.00	4.62	6.24	14.75	22.46	30.18	31.78	0.00	6.61	11.07	18.48	26.11	31.57	10.27
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	60.95	81.55	149.98	207.32	264.13	280.42	0.00	83.11	135.31	191.49	247.97	279.69	41.11
Detroit-Ann Arbor, MI	x	x	100	100	0.00	73.02	97.79	185.63	260.26	334.32	354.50	0.00	100.12	163.52	236.40	309.96	353.36	61.87
Door Co., WI	x	-	100	-	0.00	0.19	0.25	0.60	0.91	1.23	1.29	0.00	0.27	0.45	0.75	1.06	1.28	0.42
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.01	0.02	0.04	0.05	0.05	0.00	0.01	0.02	0.03	0.04	0.05	0.02
Evansville, IN	-	x	-	100	0.00	1.84	2.49	6.02	9.24	12.46	13.11	0.00	2.65	4.44	7.53	10.72	13.02	4.40
Greater Connecticut, CT	x	-	100	-	0.00	10.16	13.70	32.36	49.25	66.14	69.66	0.00	14.53	24.30	40.55	57.26	69.21	22.47
Greene	x	-	100	-	0.00	0.23	0.31	0.74	1.13	1.52	1.60	0.00	0.33	0.56	0.93	1.31	1.59	0.52
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	4.57	6.17	14.59	22.21	29.84	31.43	0.00	6.54	10.94	18.28	25.82	31.22	10.16

**Table B1-29
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	4.14	5.59	13.22	20.13	27.04	28.47	0.00	5.93	9.92	16.56	23.40	28.29	9.20
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.03	0.04	0.09	0.14	0.18	0.19	0.00	0.04	0.07	0.11	0.16	0.19	0.06
Hickory, NC	-	x	-	100	0.00	1.08	1.45	3.43	5.23	7.02	7.39	0.00	1.54	2.58	4.30	6.08	7.34	2.39
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	1,070.17	1,427.09	2,323.57	3,022.40	3,707.56	3,959.91	0.00	1,430.79	2,301.90	2,999.14	3,683.81	3,960.88	65.47
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	102.23	136.32	221.64	288.08	353.20	377.27	0.00	136.64	219.81	286.12	351.20	377.38	5.58
Imperial Co., CA	x	-	100	-	0.00	1.27	1.72	4.07	6.19	8.32	8.76	0.00	1.82	3.05	5.10	7.20	8.71	2.83
Indianapolis, IN	-	x	-	100	0.00	9.20	12.41	29.36	44.70	60.05	63.24	0.00	13.16	22.02	36.78	51.97	62.83	20.45
Jamestown, NY	x	-	100	-	0.00	0.85	1.15	2.72	4.13	5.55	5.85	0.00	1.22	2.04	3.40	4.81	5.81	1.89
Jefferson Co., NY	x	-	100	-	0.00	0.79	1.07	2.52	3.84	5.16	5.43	0.00	1.13	1.89	3.16	4.47	5.40	1.76
Johnstown, PA	-	x	-	100	0.00	0.70	0.94	2.23	3.40	4.56	4.80	0.00	1.00	1.68	2.80	3.95	4.77	1.55
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.72	0.97	2.25	3.40	4.54	4.79	0.00	1.03	1.72	2.82	3.96	4.76	1.49
Knoxville, TN	x	x	100	100	0.00	6.24	8.42	19.93	30.34	40.77	42.94	0.00	8.93	14.94	24.96	35.28	42.66	13.89
Lancaster, PA	-	x	-	100	0.00	2.44	3.30	7.80	11.87	15.95	16.80	0.00	3.50	5.85	9.77	13.80	16.69	5.43
Las Vegas, NV	x	-	100	-	0.00	8.07	10.88	25.77	39.25	52.74	55.54	0.00	11.54	19.32	32.28	45.63	55.18	17.99
Libby, MT	-	x	-	100	0.00	0.04	0.05	0.13	0.19	0.26	0.28	0.00	0.06	0.10	0.16	0.23	0.27	0.09
Liberty-Clairton, PA	-	x	-	100	0.00	0.08	0.11	0.26	0.39	0.52	0.55	0.00	0.12	0.19	0.32	0.45	0.55	0.17
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	644.83	860.95	1,470.21	1,961.06	2,444.63	2,604.33	0.00	868.56	1,403.71	1,889.35	2,371.42	2,601.80	188.11
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	4.20	5.66	13.37	20.34	27.32	28.77	0.00	6.00	10.04	16.75	23.65	28.59	9.27
Louisville, KY-IN	-	x	-	100	0.00	6.27	8.47	20.17	30.79	41.41	43.60	0.00	8.99	15.06	25.26	35.77	43.32	14.27
Macon, GA	-	x	-	100	0.00	1.16	1.57	3.75	5.72	7.70	8.11	0.00	1.67	2.79	4.69	6.65	8.05	2.66
Manitowoc Co., WI	x	-	100	-	0.00	0.62	0.83	1.97	2.99	4.02	4.23	0.00	0.88	1.48	2.47	3.48	4.21	1.36
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.60	0.81	1.91	2.91	3.91	4.12	0.00	0.86	1.43	2.40	3.38	4.09	1.33
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	2.34	3.16	7.47	11.38	15.29	16.10	0.00	3.35	5.61	9.36	13.23	16.00	5.21
Memphis, TN-AR	x	-	100	-	0.00	86.99	116.06	192.33	252.57	311.74	332.63	0.00	116.63	187.94	247.84	306.92	332.56	12.63
Milwaukee-Racine, WI	x	-	100	-	0.00	10.08	13.60	32.16	48.95	65.76	69.25	0.00	14.42	24.13	40.29	56.91	68.81	22.37
Nevada (Western Part), CA	x	-	100	-	0.00	0.57	0.77	1.82	2.77	3.72	3.92	0.00	0.82	1.36	2.28	3.22	3.89	1.27
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	226.64	303.44	572.46	800.41	1,026.56	1,088.77	0.00	310.40	506.63	729.37	954.03	1,085.39	184.21
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.90	1.21	2.88	4.38	5.89	6.21	0.00	1.29	2.15	3.60	5.10	6.17	2.02
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	575.09	767.27	1,273.56	1,673.88	2,067.20	2,205.52	0.00	771.16	1,242.93	1,640.89	2,033.51	2,204.94	87.99
Phoenix-Mesa	x	-	100	-	0.00	22.05	29.75	70.83	108.06	145.32	153.02	0.00	31.59	52.89	88.70	125.55	152.02	49.99

**Table B1-29
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	11.23	15.15	35.87	54.62	73.38	77.28	0.00	16.07	26.90	44.93	63.50	76.78	25.01
Poughkeepsie, NY	x	x	100	100	0.00	7.30	9.84	23.28	35.45	47.62	50.15	0.00	10.44	17.47	29.17	41.21	49.83	16.21
Providence (All RI), RI	x	-	100	-	0.00	5.28	7.12	16.85	25.65	34.46	36.29	0.00	7.56	12.64	21.11	29.82	36.05	11.73
Reading, PA	-	x	-	100	0.00	2.14	2.89	6.84	10.42	13.99	14.74	0.00	3.07	5.13	8.57	12.11	14.64	4.76
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	4.27	5.76	13.62	20.72	27.83	29.32	0.00	6.11	10.23	17.06	24.10	29.13	9.46
Rochester, NY	x	-	100	-	0.00	7.39	9.97	23.59	35.92	48.25	50.82	0.00	10.58	17.70	29.56	41.76	50.49	16.43
Rome, GA	-	x	-	100	0.00	0.65	0.87	2.06	3.14	4.22	4.44	0.00	0.92	1.55	2.58	3.65	4.41	1.44
Sacramento Metro, CA	x	-	50	-	0.00	12.41	16.73	39.60	60.30	81.01	85.31	0.00	17.75	29.70	49.61	70.10	84.76	27.60
San Diego, CA	x	-	100	-	0.00	17.38	23.45	55.47	84.45	113.46	119.49	0.00	24.87	41.61	69.50	98.19	118.72	38.63
San Francisco Bay Area, CA	x	-	100	-	0.00	335.55	447.92	758.86	1,008.13	1,253.53	1,335.96	0.00	451.41	728.97	975.91	1,220.63	1,334.92	84.77
San Joaquin Valley, CA	x	x	50	100	0.00	75.40	100.92	188.11	261.60	334.47	354.91	0.00	103.05	168.00	239.91	312.32	353.90	56.30
Sheboygan, WI	x	-	100	-	0.00	0.69	0.93	2.20	3.34	4.49	4.73	0.00	0.99	1.65	2.75	3.89	4.70	1.52
Springfield (Western MA), MA	x	-	100	-	0.00	5.31	7.16	16.93	25.78	34.63	36.47	0.00	7.59	12.70	21.21	29.97	36.24	11.79
St. Louis, MO-IL	x	x	100	100	0.00	155.94	208.16	352.49	468.15	582.02	620.31	0.00	209.76	338.73	453.32	566.88	619.83	39.02
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	9.65	12.88	21.32	27.99	34.54	36.86	0.00	12.94	20.85	27.48	34.02	36.85	1.37
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	4.91	6.60	14.34	21.21	28.07	29.63	0.00	6.90	11.44	18.08	24.87	29.47	8.10
Washington, DC-MD-VA	x	x	100	100	0.00	28.09	37.88	89.46	136.13	182.83	192.56	0.00	40.17	67.19	112.10	158.29	191.32	62.08
Wheeling, WV-OH	-	x	-	100	0.00	0.97	1.31	3.11	4.73	6.35	6.69	0.00	1.39	2.33	3.89	5.50	6.65	2.16
York, PA	-	x	-	100	0.00	2.27	3.06	7.23	11.01	14.79	15.58	0.00	3.24	5.43	9.06	12.80	15.47	5.03

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-30
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	24.93	35.54	122.97	183.27	234.84	253.08	0.00	37.99	67.95	158.40	219.54	268.28	181.53
Allegan Co., MI	x	-	100	-	0.00	2.73	3.89	13.45	20.04	25.69	27.68	0.00	4.15	7.43	17.32	24.01	29.34	19.86
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	2.64	3.74	12.57	18.66	23.86	25.72	0.00	4.05	7.19	16.28	22.43	27.33	18.05
Atlanta, GA	x	x	100	100	0.00	144.12	204.29	679.43	1,006.61	1,286.18	1,386.31	0.00	221.61	393.06	881.33	1,211.86	1,474.67	965.54
Baltimore, MD	x	x	100	100	0.00	54.92	78.30	271.38	404.56	518.44	558.72	0.00	83.66	149.68	349.47	484.51	592.19	401.21
Baton Rouge, LA	x	-	100	-	0.00	659.74	876.68	1,489.17	1,882.03	2,205.54	2,388.78	0.00	1,116.89	1,813.06	2,263.46	2,595.59	2,819.08	93.52
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1,310.02	1,739.08	2,909.25	3,656.78	4,270.99	4,626.74	0.00	2,220.81	3,600.57	4,442.32	5,067.01	5,481.93	58.20
Birmingham, AL	-	x	-	100	0.00	19.53	27.90	98.05	146.46	187.86	202.45	0.00	29.66	53.23	125.97	175.11	214.33	146.77
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	86.08	123.05	434.33	649.19	832.99	897.63	0.00	130.56	234.53	557.56	775.76	949.96	652.80
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	11.69	16.70	58.85	87.94	112.83	121.59	0.00	17.73	31.84	75.57	105.11	128.69	88.32
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	20.58	29.43	104.17	155.76	199.90	215.42	0.00	31.19	56.06	133.66	186.07	227.92	156.97
Canton-Massillon, OH	-	x	-	100	0.00	90.35	120.49	215.91	277.87	329.24	356.37	0.00	152.20	248.19	323.06	377.26	415.10	44.76
Charleston, WV	-	x	-	100	0.00	5.40	7.73	27.65	41.40	53.17	57.30	0.00	8.16	14.71	35.42	49.40	60.57	42.03
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	35.10	50.01	172.51	256.99	329.23	354.81	0.00	53.53	95.68	222.34	307.96	376.22	253.93
Chattanooga, AL-TN-GA	-	x	-	100	0.00	9.95	14.21	50.09	74.86	96.04	103.50	0.00	15.09	27.10	64.32	89.47	109.54	75.19
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,076.14	1,441.37	2,744.08	3,599.60	4,313.13	4,665.48	0.00	1,801.93	2,954.73	4,036.22	4,807.45	5,362.36	993.26
Chico, CA	x	-	100	-	0.00	3.70	5.27	18.32	27.32	35.02	37.74	0.00	5.63	10.08	23.59	32.71	40.00	27.15
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	34.64	49.48	173.76	259.53	332.90	358.74	0.00	52.61	94.39	223.26	310.32	379.81	259.98
Clearfield and Indiana Cos.	x	-	100	-	0.00	3.16	4.52	16.17	24.22	31.10	33.51	0.00	4.77	8.60	20.71	28.89	35.43	24.58
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	48.89	69.94	248.09	371.08	476.30	513.25	0.00	74.07	133.20	318.21	443.16	542.95	374.51
Columbus, OH	x	x	100	100	0.00	33.71	48.00	165.02	245.70	314.69	339.14	0.00	51.45	91.89	212.81	294.56	359.71	242.11
Dallas-Fort Worth, TX	x	-	100	-	0.00	143.01	203.01	682.74	1,013.23	1,295.70	1,396.50	0.00	219.35	389.95	883.87	1,218.09	1,484.04	980.94
Dayton-Springfield, OH	-	x	-	100	0.00	14.86	21.26	75.31	112.63	144.55	155.77	0.00	22.52	40.49	96.62	134.52	164.80	113.57
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	172.92	235.59	551.38	764.13	943.94	1,019.30	0.00	282.56	473.83	769.22	973.61	1,129.51	454.39
Detroit-Ann Arbor, MI	x	x	100	100	0.00	206.36	283.07	711.10	1,001.17	1,247.07	1,346.01	0.00	333.86	565.04	975.98	1,258.57	1,476.70	683.92
Door Co., WI	x	-	100	-	0.00	0.60	0.86	3.06	4.57	5.87	6.32	0.00	0.91	1.64	3.92	5.46	6.69	4.61
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.03	0.04	0.13	0.19	0.25	0.26	0.00	0.04	0.07	0.16	0.23	0.28	0.19
Evansville, IN	-	x	-	100	0.00	6.20	8.89	31.90	47.80	61.40	66.17	0.00	9.37	16.89	40.84	57.00	69.92	48.67
Greater Connecticut, CT	x	-	100	-	0.00	33.65	48.01	167.22	249.47	319.80	344.64	0.00	51.20	91.71	215.16	298.59	365.13	248.34
Greene	x	-	100	-	0.00	0.72	1.03	3.72	5.58	7.17	7.73	0.00	1.09	1.96	4.76	6.65	8.17	5.70
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	15.20	21.69	75.59	112.78	144.58	155.81	0.00	23.13	41.43	97.25	134.98	165.07	112.32

**Table B1-30
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	13.58	19.39	68.05	101.63	130.35	140.47	0.00	20.62	37.00	87.45	121.53	148.73	101.75
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.09	0.13	0.46	0.69	0.89	0.96	0.00	0.14	0.25	0.59	0.83	1.01	0.70
Hickory, NC	-	x	-	100	0.00	3.64	5.19	17.91	26.69	34.19	36.84	0.00	5.55	9.93	23.08	31.98	39.07	26.38
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	2,765.34	3,679.16	6,366.27	8,097.68	9,527.01	10,316.18	0.00	4,673.70	7,598.56	9,623.28	11,105.94	12,117.83	723.67
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	263.57	350.57	604.04	767.20	901.82	976.58	0.00	445.63	724.25	914.22	1,053.54	1,148.34	61.68
Imperial Co., CA	x	-	100	-	0.00	4.67	6.62	22.03	32.64	41.70	44.95	0.00	7.18	12.74	28.57	39.29	47.81	31.32
Indianapolis, IN	-	x	-	100	0.00	31.41	44.73	153.90	229.19	293.56	316.37	0.00	47.92	85.60	198.44	274.73	335.53	226.01
Jamestown, NY	x	-	100	-	0.00	2.73	3.91	13.85	20.72	26.59	28.66	0.00	4.14	7.45	17.77	24.75	30.32	20.90
Jefferson Co., NY	x	-	100	-	0.00	2.72	3.87	13.27	19.74	25.28	27.24	0.00	4.15	7.41	17.12	23.68	28.90	19.41
Johnstown, PA	-	x	-	100	0.00	2.19	3.14	11.26	16.86	21.66	23.34	0.00	3.32	5.98	14.42	20.11	24.67	17.14
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	2.68	3.78	12.07	17.76	22.62	24.39	0.00	4.16	7.32	15.77	21.50	26.04	16.43
Knoxville, TN	x	x	100	100	0.00	21.00	29.94	103.83	154.80	198.38	213.79	0.00	31.99	57.24	133.70	185.38	226.59	153.57
Lancaster, PA	-	x	-	100	0.00	8.04	11.48	40.20	60.03	76.98	82.96	0.00	12.21	21.90	51.68	71.80	87.85	60.02
Las Vegas, NV	x	-	100	-	0.00	30.56	43.23	141.85	209.72	267.69	288.55	0.00	47.13	83.36	184.45	252.93	307.31	198.83
Libby, MT	-	x	-	100	0.00	0.13	0.19	0.66	0.99	1.27	1.36	0.00	0.20	0.36	0.85	1.18	1.44	0.99
Liberty-Clairton, PA	-	x	-	100	0.00	0.25	0.35	1.27	1.90	2.44	2.63	0.00	0.37	0.67	1.62	2.26	2.78	1.93
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	1,726.56	2,319.11	4,584.64	6,081.31	7,333.47	7,929.68	0.00	2,879.51	4,739.03	6,674.58	8,044.56	9,044.84	2,079.41
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	14.87	21.11	71.18	105.67	135.15	145.67	0.00	22.79	40.54	92.11	127.00	154.77	102.51
Louisville, KY-IN	-	x	-	100	0.00	20.33	29.11	103.91	155.56	199.75	215.24	0.00	30.76	55.39	133.14	185.64	227.58	157.71
Macon, GA	-	x	-	100	0.00	3.79	5.42	19.36	28.98	37.22	40.10	0.00	5.73	10.31	24.80	34.58	42.40	29.39
Manitowoc Co., WI	x	-	100	-	0.00	1.98	2.83	10.01	14.96	19.20	20.69	0.00	3.00	5.40	12.85	17.88	21.89	15.05
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	2.18	3.09	10.31	15.29	19.54	21.06	0.00	3.35	5.95	13.37	18.40	22.40	14.70
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	8.68	12.30	40.69	60.24	76.95	82.94	0.00	13.36	23.67	52.83	72.57	88.26	57.54
Memphis, TN-AR	x	-	100	-	0.00	226.69	302.68	551.96	714.40	849.33	919.12	0.00	381.22	622.63	821.74	965.20	1,066.33	139.64
Milwaukee-Racine, WI	x	-	100	-	0.00	32.76	46.82	164.87	246.36	316.06	340.59	0.00	49.72	89.26	211.74	294.47	360.51	247.31
Nevada (Western Part), CA	x	-	100	-	0.00	1.96	2.79	9.55	14.22	18.21	19.63	0.00	2.99	5.34	12.33	17.05	20.82	13.99
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	638.29	874.48	2,169.84	3,046.87	3,789.96	4,090.97	0.00	1,034.50	1,747.94	2,986.40	3,838.88	4,495.67	2,036.35
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	2.85	4.09	14.63	21.92	28.15	30.34	0.00	4.31	7.77	18.74	26.15	32.07	22.28
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1,504.36	2,009.31	3,680.24	4,770.01	5,675.56	6,141.69	0.00	2,528.81	4,131.82	5,472.14	6,436.77	7,118.35	972.72
Phoenix-Mesa	x	-	100	-	0.00	82.31	116.68	388.47	575.63	735.56	792.81	0.00	126.53	224.47	503.81	692.91	843.27	552.62

**Table B1-30
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	35.33	50.62	181.46	271.83	349.16	376.24	0.00	53.38	96.23	232.34	324.23	397.66	276.49
Poughkeepsie, NY	x	x	100	100	0.00	24.75	35.26	121.69	181.30	232.27	250.32	0.00	37.74	67.45	156.83	217.25	265.41	179.21
Providence (All RI), RI	x	-	100	-	0.00	17.12	24.47	86.31	128.99	165.50	178.35	0.00	25.97	46.64	110.81	154.15	188.75	129.64
Reading, PA	-	x	-	100	0.00	7.28	10.37	35.78	53.30	68.28	73.59	0.00	11.11	19.85	46.12	63.88	78.03	52.66
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	17.29	24.36	77.28	113.65	144.69	155.99	0.00	26.86	47.20	101.12	137.69	166.66	104.53
Rochester, NY	x	-	100	-	0.00	24.15	34.50	121.27	181.16	232.38	250.42	0.00	36.67	65.80	155.79	216.59	265.11	181.60
Rome, GA	-	x	-	100	0.00	2.09	2.99	10.56	15.78	20.25	21.82	0.00	3.17	5.70	13.55	18.86	23.09	15.88
Sacramento Metro, CA	x	-	50	-	0.00	43.50	61.84	210.18	312.41	399.81	430.89	0.00	66.56	118.59	271.58	375.07	457.48	305.07
San Diego, CA	x	-	100	-	0.00	56.16	80.29	283.79	424.27	544.44	586.69	0.00	85.15	153.01	364.23	506.90	620.81	427.05
San Francisco Bay Area, CA	x	-	100	-	0.00	886.78	1,189.35	2,305.67	3,040.94	3,655.13	3,953.02	0.00	1,482.05	2,434.43	3,374.55	4,042.45	4,526.56	937.09
San Joaquin Valley, CA	x	x	50	100	0.00	220.05	300.39	718.20	1,000.21	1,238.78	1,337.49	0.00	358.52	602.84	996.94	1,269.09	1,477.48	622.38
Sheboygan, WI	x	-	100	-	0.00	2.26	3.23	11.30	16.87	21.64	23.32	0.00	3.44	6.17	14.53	20.19	24.70	16.85
Springfield (Western MA), MA	x	-	100	-	0.00	17.48	24.96	87.38	130.44	167.28	180.27	0.00	26.57	47.64	112.33	156.04	190.91	130.35
St. Louis, MO-IL	x	x	100	100	0.00	411.77	552.22	1,069.22	1,409.68	1,694.05	1,832.13	0.00	688.27	1,130.43	1,565.42	1,874.53	2,098.48	431.38
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	25.06	33.46	60.91	78.80	93.65	101.34	0.00	42.15	68.83	90.73	106.51	117.62	15.15
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	15.13	21.29	66.92	98.25	125.00	134.76	0.00	23.55	41.31	87.71	119.19	144.11	89.56
Washington, DC-MD-VA	x	x	100	100	0.00	95.33	135.77	467.24	695.82	891.27	960.52	0.00	145.45	259.83	602.44	834.07	1,018.68	686.28
Wheeling, WV-OH	-	x	-	100	0.00	3.07	4.40	15.73	23.55	30.25	32.59	0.00	4.64	8.37	20.15	28.10	34.46	23.91
York, PA	-	x	-	100	0.00	7.88	11.21	38.21	56.83	72.75	78.40	0.00	12.04	21.48	49.35	68.20	83.21	55.65

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-31
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	50.80	70.75	283.72	416.66	520.65	568.64	0.00	68.57	137.21	424.05	584.18	695.21	584.25
Allegan Co., MI	x	-	100	-	0.00	5.55	7.73	31.02	45.56	56.93	62.18	0.00	7.49	14.99	46.36	63.88	76.02	63.91
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	5.54	7.68	29.29	42.78	53.32	58.23	0.00	7.79	15.21	44.05	60.19	71.40	58.09
Atlanta, GA	x	x	100	100	0.00	309.31	427.95	1,595.47	2,323.84	2,893.30	3,159.48	0.00	442.46	854.49	2,405.98	3,274.48	3,878.67	3,107.53
Baltimore, MD	x	x	100	100	0.00	111.62	155.48	625.59	919.05	1,148.60	1,254.47	0.00	150.23	301.15	934.65	1,288.28	1,533.44	1,291.25
Baton Rouge, LA	x	-	100	-	0.00	1,015.23	1,343.48	2,332.36	2,938.41	3,406.08	3,707.59	0.00	2,002.37	3,224.99	4,026.52	4,533.64	4,935.43	300.97
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2,006.16	2,652.28	4,489.35	5,613.48	6,479.95	7,052.19	0.00	3,979.44	6,390.08	7,797.34	8,702.99	9,431.86	187.32
Birmingham, AL	-	x	-	100	0.00	39.46	55.06	225.81	332.42	415.82	454.16	0.00	52.22	105.78	336.62	465.39	554.60	472.37
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	172.33	240.71	997.37	1,469.82	1,839.43	2,009.10	0.00	225.97	460.38	1,485.02	2,056.42	2,452.09	2,101.01
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	23.90	33.35	136.24	200.48	250.73	273.85	0.00	31.74	64.16	203.18	280.74	334.47	284.25
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	40.99	57.29	238.83	352.19	440.88	481.55	0.00	53.45	109.28	355.36	492.56	587.54	505.19
Canton-Massillon, OH	-	x	-	100	0.00	140.85	187.02	353.60	456.13	535.50	583.24	0.00	272.12	443.09	598.63	693.21	765.30	144.06
Charleston, WV	-	x	-	100	0.00	10.67	14.94	63.29	93.48	117.10	127.91	0.00	13.71	28.30	94.00	130.61	155.94	135.29
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	75.95	105.41	407.66	596.28	743.78	812.28	0.00	105.63	207.51	611.96	838.06	995.07	817.25
Chattanooga, AL-TN-GA	-	x	-	100	0.00	20.12	28.08	115.48	170.04	212.72	232.34	0.00	26.57	53.89	172.09	238.02	283.68	241.99
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,712.85	2,283.27	4,724.02	6,231.31	7,401.04	8,065.15	0.00	3,228.88	5,326.88	7,844.77	9,336.98	10,444.41	3,196.74
Chico, CA	x	-	100	-	0.00	7.50	10.46	42.22	62.05	77.56	84.71	0.00	10.07	20.22	63.05	86.96	103.53	87.37
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	70.73	98.64	401.85	591.15	739.23	807.39	0.00	94.18	190.05	599.51	827.97	986.28	836.73
Clearfield and Indiana Cos.	x	-	100	-	0.00	6.24	8.73	37.00	54.65	68.46	74.78	0.00	8.01	16.53	54.94	76.35	91.16	79.12
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	97.30	136.02	568.72	838.92	1,050.30	1,147.20	0.00	126.52	259.12	845.92	1,173.05	1,399.50	1,205.35
Columbus, OH	x	x	100	100	0.00	69.42	96.56	382.08	560.30	699.69	764.15	0.00	94.77	188.32	571.98	786.26	934.93	779.21
Dallas-Fort Worth, TX	x	-	100	-	0.00	302.07	418.69	1,594.02	2,327.39	2,900.85	3,167.87	0.00	425.32	829.31	2,397.51	3,274.64	3,884.22	3,157.10
Dayton-Springfield, OH	-	x	-	100	0.00	29.60	41.37	172.68	254.66	318.81	348.22	0.00	38.55	78.87	256.89	356.14	424.84	365.53
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	299.37	404.65	1,090.81	1,517.18	1,849.57	2,017.88	0.00	514.12	892.65	1,724.45	2,199.21	2,537.13	1,462.43
Detroit-Ann Arbor, MI	x	x	100	100	0.00	358.63	487.53	1,438.55	2,030.31	2,492.10	2,719.69	0.00	590.92	1,050.28	2,241.47	2,916.56	3,393.14	2,201.15
Door Co., WI	x	-	100	-	0.00	1.20	1.68	7.01	10.33	12.94	14.13	0.00	1.56	3.20	10.42	14.45	17.24	14.83
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.05	0.07	0.29	0.43	0.54	0.59	0.00	0.07	0.13	0.44	0.61	0.72	0.62
Evansville, IN	-	x	-	100	0.00	12.70	17.75	74.04	109.18	136.68	149.29	0.00	16.56	33.86	110.15	152.69	182.14	156.64
Greater Connecticut, CT	x	-	100	-	0.00	67.94	94.72	384.68	565.70	707.31	772.52	0.00	90.69	182.72	574.09	792.49	943.84	799.27
Greene	x	-	100	-	0.00	1.41	1.98	8.51	12.58	15.77	17.23	0.00	1.79	3.72	12.61	17.56	20.99	18.35
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	30.75	42.87	174.04	255.93	319.98	349.48	0.00	41.07	82.73	259.75	358.54	427.00	361.49

**Table B1-31
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	27.29	38.08	156.40	230.26	288.05	314.62	0.00	36.07	73.12	233.10	322.34	384.16	327.47
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.18	0.26	1.07	1.57	1.97	2.15	0.00	0.24	0.49	1.59	2.20	2.63	2.25
Hickory, NC	-	x	-	100	0.00	7.43	10.34	41.33	60.67	75.80	82.78	0.00	10.05	20.08	61.79	85.08	101.23	84.91
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	4,279.34	5,669.51	10,142.37	12,888.14	15,009.59	16,341.76	0.00	8,381.34	13,548.77	17,386.98	19,775.64	21,638.64	2,329.09
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	406.75	538.75	957.33	1,214.19	1,412.60	1,537.90	0.00	797.92	1,288.79	1,643.70	1,865.33	2,038.76	198.52
Imperial Co., CA	x	-	100	-	0.00	9.93	13.74	51.52	75.09	93.51	102.12	0.00	14.14	27.38	77.64	105.76	125.32	100.79
Indianapolis, IN	-	x	-	100	0.00	64.67	89.96	356.38	522.67	652.73	712.88	0.00	88.19	175.36	533.42	733.40	872.14	727.41
Jamestown, NY	x	-	100	-	0.00	5.44	7.60	31.76	46.84	58.64	64.05	0.00	7.08	14.49	47.24	65.50	78.14	67.26
Jefferson Co., NY	x	-	100	-	0.00	5.59	7.77	30.68	44.98	56.16	61.34	0.00	7.65	15.17	45.94	63.13	75.05	62.46
Johnstown, PA	-	x	-	100	0.00	4.32	6.05	25.73	38.03	47.64	52.04	0.00	5.52	11.43	38.20	53.11	63.43	55.16
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	5.73	7.90	28.18	40.83	50.72	55.38	0.00	8.46	16.03	42.74	57.72	68.17	52.88
Knoxville, TN	x	x	100	100	0.00	42.76	59.56	239.54	351.89	439.76	480.30	0.00	57.57	115.38	357.89	493.27	587.12	494.26
Lancaster, PA	-	x	-	100	0.00	16.17	22.57	92.43	136.05	170.17	185.86	0.00	21.43	43.38	137.80	190.48	226.97	193.17
Las Vegas, NV	x	-	100	-	0.00	66.19	91.42	334.06	485.40	603.71	659.22	0.00	96.07	183.91	505.05	684.97	810.25	639.92
Libby, MT	-	x	-	100	0.00	0.27	0.37	1.52	2.24	2.80	3.06	0.00	0.36	0.72	2.27	3.13	3.73	3.17
Liberty-Clairton, PA	-	x	-	100	0.00	0.48	0.67	2.88	4.26	5.34	5.83	0.00	0.60	1.25	4.27	5.94	7.10	6.22
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	2,797.21	3,737.84	8,146.54	10,873.42	12,992.08	14,161.70	0.00	5,191.19	8,636.68	13,386.62	16,171.98	18,215.64	6,692.44
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	31.11	43.15	165.57	241.96	301.70	329.47	0.00	43.54	85.21	248.79	340.26	403.80	329.92
Louisville, KY-IN	-	x	-	100	0.00	40.76	57.00	239.01	352.67	441.60	482.34	0.00	52.85	108.43	355.38	493.05	588.33	507.57
Macon, GA	-	x	-	100	0.00	7.60	10.63	44.56	65.74	82.32	89.91	0.00	9.86	20.23	66.25	91.91	109.67	94.59
Manitowoc Co., WI	x	-	100	-	0.00	3.94	5.50	22.92	33.79	42.30	46.20	0.00	5.14	10.50	34.10	47.26	56.37	48.45
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	4.62	6.40	24.10	35.14	43.77	47.80	0.00	6.56	12.72	36.29	49.48	58.64	47.32
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	18.60	25.73	95.46	138.96	172.97	188.88	0.00	26.70	51.46	144.04	195.87	231.94	185.20
Memphis, TN-AR	x	-	100	-	0.00	355.16	472.12	916.91	1,190.97	1,403.30	1,528.67	0.00	681.38	1,113.61	1,543.18	1,802.06	1,997.59	449.41
Milwaukee-Racine, WI	x	-	100	-	0.00	65.61	91.62	378.57	557.73	697.89	762.26	0.00	86.25	175.45	563.84	780.45	930.46	795.96
Nevada (Western Part), CA	x	-	100	-	0.00	4.02	5.59	22.10	32.40	40.45	44.18	0.00	5.50	10.92	33.08	45.47	54.06	45.01
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	1,104.18	1,499.66	4,363.64	6,145.36	7,535.55	8,223.38	0.00	1,831.79	3,243.17	6,813.96	8,839.64	10,271.31	6,553.85
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	5.65	7.91	33.53	49.54	62.05	67.78	0.00	7.26	14.99	49.80	69.21	82.63	71.70
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	2,366.51	3,146.67	6,149.46	8,000.10	9,434.15	10,277.36	0.00	4,532.55	7,414.34	10,335.63	12,092.82	13,417.43	3,130.64
Phoenix-Mesa	x	-	100	-	0.00	176.89	244.75	912.86	1,329.66	1,655.53	1,807.84	0.00	252.97	488.62	1,376.52	1,873.55	2,219.30	1,778.59

**Table B1-31
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	69.76	97.68	415.28	613.62	768.82	839.77	0.00	89.28	184.68	616.52	857.14	1,023.60	889.85
Poughkeepsie, NY	x	x	100	100	0.00	50.55	70.36	280.96	412.42	515.24	562.72	0.00	68.47	136.71	420.14	578.39	688.14	576.78
Providence (All RI), RI	x	-	100	-	0.00	34.22	47.81	198.07	291.90	365.30	399.00	0.00	44.88	91.43	294.92	408.40	486.98	417.25
Reading, PA	-	x	-	100	0.00	14.88	20.71	82.62	121.27	151.49	165.45	0.00	20.18	40.26	123.57	170.08	202.34	169.48
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	38.96	53.57	184.83	266.66	330.60	360.95	0.00	58.79	109.97	281.55	377.93	445.25	336.43
Rochester, NY	x	-	100	-	0.00	48.46	67.65	278.61	410.32	513.36	560.70	0.00	63.90	129.73	415.12	574.30	684.55	584.47
Rome, GA	-	x	-	100	0.00	4.18	5.83	24.22	35.71	44.69	48.81	0.00	5.47	11.15	36.06	49.95	59.57	51.10
Sacramento Metro, CA	x	-	50	-	0.00	90.62	125.82	488.38	714.65	891.60	973.71	0.00	125.66	247.30	732.81	1,004.16	1,192.58	981.85
San Diego, CA	x	-	100	-	0.00	112.10	156.63	651.06	959.78	1,201.31	1,312.13	0.00	146.56	299.14	969.03	1,342.56	1,601.18	1,374.45
San Francisco Bay Area, CA	x	-	100	-	0.00	1,415.74	1,889.53	4,014.25	5,327.47	6,347.22	6,917.74	0.00	2,648.03	4,387.02	6,630.16	7,952.02	8,927.06	3,015.97
San Joaquin Valley, CA	x	x	50	100	0.00	390.18	528.00	1,450.18	2,023.39	2,470.35	2,695.32	0.00	664.68	1,159.31	2,285.51	2,927.27	3,383.20	2,003.10
Sheboygan, WI	x	-	100	-	0.00	4.55	6.35	25.97	38.22	47.80	52.21	0.00	6.04	12.21	38.73	53.52	63.77	54.23
Springfield (Western MA), MA	x	-	100	-	0.00	35.22	49.13	200.94	295.72	369.86	403.96	0.00	46.73	94.51	299.64	414.08	493.37	419.52
St. Louis, MO-IL	x	x	100	100	0.00	657.03	876.84	1,859.65	2,467.06	2,938.71	3,202.82	0.00	1,229.54	2,036.44	3,072.55	3,683.33	4,134.03	1,388.37
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	39.14	52.03	100.82	130.89	154.18	167.95	0.00	75.14	122.76	169.77	198.11	219.54	48.75
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	28.80	39.84	148.24	215.86	268.73	293.45	0.00	41.26	79.61	223.60	304.21	360.29	288.26
Washington, DC-MD-VA	x	x	100	100	0.00	196.32	273.08	1,082.01	1,586.92	1,981.83	2,164.44	0.00	267.69	532.31	1,619.51	2,226.72	2,647.96	2,208.74
Wheeling, WV-OH	-	x	-	100	0.00	6.07	8.50	35.99	53.17	66.60	72.75	0.00	7.80	16.09	53.46	74.28	88.69	76.95
York, PA	-	x	-	100	0.00	16.28	22.63	88.55	129.69	161.86	176.77	0.00	22.43	44.33	132.73	182.12	216.41	179.10

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-32
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	93.64	130.37	571.67	816.27	992.51	1,093.71	0.00	92.16	250.32	1,029.40	1,409.27	1,630.06	1,557.35
Allegan Co., MI	x	-	100	-	0.00	10.21	14.22	62.47	89.21	108.47	119.54	0.00	10.02	27.28	112.48	154.02	178.16	170.35
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	10.76	14.87	60.05	85.13	103.22	113.69	0.00	12.38	30.00	108.46	146.81	169.31	154.84
Atlanta, GA	x	x	100	100	0.00	632.58	870.61	3,338.36	4,710.38	5,700.14	6,276.96	0.00	788.47	1,806.01	6,042.39	8,117.30	9,342.73	8,283.29
Baltimore, MD	x	x	100	100	0.00	205.06	285.64	1,259.27	1,798.86	2,187.64	2,410.76	0.00	199.49	546.56	2,267.10	3,105.90	3,593.14	3,441.91
Baton Rouge, LA	x	-	100	-	0.00	1,474.75	1,945.79	3,451.19	4,330.53	4,976.48	5,437.40	0.00	3,210.18	5,161.10	6,544.11	7,316.78	7,972.38	802.26
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2,896.86	3,817.24	6,527.22	8,119.61	9,291.81	10,145.78	0.00	6,385.56	10,193.26	12,415.87	13,697.21	14,856.97	499.32
Birmingham, AL	-	x	-	100	0.00	72.33	100.96	454.72	650.69	791.87	872.72	0.00	67.02	190.47	818.03	1,123.79	1,301.01	1,259.11
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	310.24	433.94	1,997.16	2,862.77	3,486.24	3,842.57	0.00	272.69	806.73	3,590.12	4,945.47	5,729.37	5,600.35
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	43.99	61.36	274.66	392.83	477.97	526.75	0.00	41.36	116.25	494.21	678.39	785.21	757.68
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	73.07	102.33	476.83	684.16	833.47	918.71	0.00	62.18	188.58	856.79	1,182.07	1,369.97	1,346.60
Canton-Massillon, OH	-	x	-	100	0.00	207.04	274.40	548.03	705.49	820.54	898.20	0.00	430.57	710.64	1,029.33	1,197.41	1,321.72	384.00
Charleston, WV	-	x	-	100	0.00	18.87	26.49	126.15	181.31	221.02	243.65	0.00	15.11	48.05	226.51	313.34	363.39	360.61
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	152.61	210.86	847.53	1,201.10	1,456.05	1,603.81	0.00	176.88	426.47	1,531.13	2,071.26	2,388.31	2,178.43
Chattanooga, AL-TN-GA	-	x	-	100	0.00	36.66	51.21	232.09	332.28	404.45	445.76	0.00	33.48	96.21	417.43	573.91	664.55	645.03
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	2,581.78	3,438.65	7,707.32	10,138.51	11,908.19	13,054.94	0.00	5,092.38	8,669.75	14,356.60	17,272.12	19,266.23	8,521.09
Chico, CA	x	-	100	-	0.00	13.73	19.13	84.88	121.31	147.56	162.61	0.00	13.17	36.46	152.77	209.47	242.38	232.88
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	132.76	184.95	815.75	1,165.34	1,417.22	1,561.77	0.00	129.02	353.77	1,468.60	2,012.09	2,327.78	2,230.34
Clearfield and Indiana Cos.	x	-	100	-	0.00	10.99	15.43	73.68	105.91	129.12	142.34	0.00	8.74	27.94	132.28	183.04	212.29	210.89
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	173.42	242.95	1,135.68	1,629.87	1,985.78	2,188.90	0.00	146.34	446.74	2,040.44	2,816.15	3,264.14	3,212.91
Columbus, OH	x	x	100	100	0.00	131.21	182.20	776.43	1,105.99	1,343.50	1,480.29	0.00	136.93	356.16	1,399.56	1,908.76	2,205.62	2,077.03
Dallas-Fort Worth, TX	x	-	100	-	0.00	598.96	826.93	3,294.88	4,665.71	5,654.24	6,227.74	0.00	704.14	1,680.63	5,954.50	8,044.83	9,273.20	8,415.42
Dayton-Springfield, OH	-	x	-	100	0.00	52.75	73.88	344.75	494.69	602.69	664.33	0.00	44.72	136.02	619.43	854.73	990.65	974.35
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	494.64	669.07	2,006.85	2,756.54	3,298.97	3,626.87	0.00	807.69	1,544.64	3,673.83	4,729.96	5,381.46	3,898.18
Detroit-Ann Arbor, MI	x	x	100	100	0.00	582.46	793.66	2,662.04	3,704.86	4,458.23	4,905.32	0.00	856.46	1,753.33	4,846.55	6,370.63	7,289.68	5,867.28
Door Co., WI	x	-	100	-	0.00	2.14	2.99	13.98	20.07	24.45	26.95	0.00	1.81	5.51	25.13	34.67	40.19	39.54
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.09	0.13	0.59	0.84	1.03	1.13	0.00	0.08	0.23	1.06	1.46	1.69	1.66
Evansville, IN	-	x	-	100	0.00	23.33	32.62	149.34	213.99	260.55	287.17	0.00	20.77	60.85	268.51	369.64	428.16	417.54
Greater Connecticut, CT	x	-	100	-	0.00	123.46	172.25	771.81	1,103.98	1,343.28	1,480.40	0.00	115.80	326.10	1,388.72	1,906.52	2,206.80	2,130.51
Greene	x	-	100	-	0.00	2.47	3.47	16.91	24.34	29.70	32.74	0.00	1.84	6.19	30.34	42.08	48.84	48.92
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	56.01	78.13	349.46	499.78	608.08	670.14	0.00	52.76	148.10	628.81	863.07	998.95	963.57

Table B1-32
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

NOx 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	49.24	68.81	313.25	448.63	546.15	601.95	0.00	44.47	128.88	563.31	774.92	897.44	872.88
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.33	0.46	2.14	3.07	3.74	4.12	0.00	0.29	0.86	3.85	5.30	6.14	6.01
Hickory, NC	-	x	-	100	0.00	13.69	19.06	83.26	118.86	144.50	159.23	0.00	13.58	36.67	149.95	205.19	237.31	226.32
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	6,260.12	8,272.32	15,305.75	19,389.65	22,383.23	24,473.61	0.00	13,419.01	21,764.21	28,921.04	32,816.43	35,932.71	6,208.32
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	592.12	782.18	1,434.13	1,813.13	2,091.07	2,286.02	0.00	1,273.55	2,061.57	2,711.87	3,067.57	3,355.42	529.17
Imperial Co., CA	x	-	100	-	0.00	19.65	27.10	106.36	150.40	182.17	200.63	0.00	23.65	55.52	192.33	259.28	298.69	268.66
Indianapolis, IN	-	x	-	100	0.00	122.42	170.01	724.69	1,032.31	1,254.01	1,381.68	0.00	127.70	332.27	1,306.28	1,781.60	2,058.71	1,938.96
Jamestown, NY	x	-	100	-	0.00	9.68	13.57	63.39	90.97	110.83	122.17	0.00	8.18	24.96	113.89	157.18	182.18	179.29
Jefferson Co., NY	x	-	100	-	0.00	10.44	14.50	62.06	88.43	107.44	118.38	0.00	10.80	28.27	111.84	152.63	176.39	166.48
Johnstown, PA	-	x	-	100	0.00	7.59	10.66	51.20	73.64	89.79	98.98	0.00	5.92	19.22	91.91	127.27	147.64	147.04
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	11.65	15.99	58.78	82.60	99.79	109.86	0.00	15.39	33.87	106.57	142.24	163.44	140.96
Knoxville, TN	x	x	100	100	0.00	78.73	109.65	482.54	689.21	838.11	923.59	0.00	76.88	210.04	868.79	1,189.95	1,376.55	1,317.48
Lancaster, PA	-	x	-	100	0.00	29.23	40.83	185.19	265.15	322.75	355.71	0.00	26.64	76.67	333.07	457.97	530.31	514.91
Las Vegas, NV	x	-	100	-	0.00	135.68	186.41	699.43	984.82	1,190.75	1,311.08	0.00	174.36	390.99	1,267.10	1,696.57	1,950.97	1,705.75
Libby, MT	-	x	-	100	0.00	0.48	0.68	3.05	4.37	5.31	5.86	0.00	0.45	1.27	5.49	7.54	8.73	8.45
Liberty-Clairton, PA	-	x	-	100	0.00	0.82	1.16	5.70	8.21	10.02	11.05	0.00	0.59	2.04	10.22	14.19	16.48	16.59
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	4,317.42	5,766.61	13,728.75	18,244.14	21,525.75	23,614.82	0.00	8,249.73	14,313.76	25,470.86	31,134.67	34,896.26	17,839.07
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	60.25	83.33	339.13	481.15	583.54	642.80	0.00	68.39	167.36	612.37	829.86	957.34	879.42
Louisville, KY-IN	-	x	-	100	0.00	73.10	102.40	478.40	686.54	836.44	921.99	0.00	61.79	188.38	859.53	1,186.21	1,374.89	1,352.94
Macon, GA	-	x	-	100	0.00	13.64	19.11	89.20	128.00	155.95	171.90	0.00	11.56	35.18	160.27	221.16	256.33	252.13
Manitowoc Co., WI	x	-	100	-	0.00	7.00	9.80	45.71	65.59	79.91	88.08	0.00	5.95	18.06	82.14	113.33	131.35	129.14
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	9.11	12.56	49.67	70.29	85.15	93.79	0.00	10.84	25.65	89.79	121.18	139.64	126.13
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	37.54	51.67	198.60	280.29	339.21	373.54	0.00	46.63	107.06	359.43	483.03	556.00	493.67
Memphis, TN-AR	x	-	100	-	0.00	524.71	696.44	1,441.47	1,868.68	2,180.42	2,387.99	0.00	1,074.54	1,789.44	2,700.24	3,175.54	3,517.32	1,197.93
Milwaukee-Racine, WI	x	-	100	-	0.00	117.99	165.00	757.63	1,085.80	1,322.18	1,457.30	0.00	104.32	307.24	1,362.03	1,875.68	2,172.83	2,121.66
Nevada (Western Part), CA	x	-	100	-	0.00	7.51	10.43	44.69	63.68	77.38	85.26	0.00	7.75	20.31	80.53	109.92	127.04	119.98
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	1,784.71	2,429.53	8,037.75	11,169.34	13,432.12	14,777.78	0.00	2,661.90	5,398.41	14,643.09	19,201.38	21,956.98	17,469.64
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	10.00	14.04	66.86	96.10	117.15	129.14	0.00	8.01	25.47	120.06	166.07	192.60	191.13
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	3,518.33	4,671.24	9,738.56	12,642.26	14,760.61	16,167.32	0.00	7,181.86	11,982.59	18,233.07	21,488.70	23,817.61	8,344.88
Phoenix-Mesa	x	-	100	-	0.00	355.87	490.14	1,897.00	2,679.01	3,243.09	3,571.46	0.00	437.56	1,011.84	3,432.26	4,617.32	5,316.34	4,740.92

**Table B1-32
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

NOx 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	123.07	172.83	827.45	1,189.66	1,450.48	1,599.02	0.00	97.03	312.31	1,485.45	2,056.12	2,384.96	2,371.95
Poughkeepsie, NY	x	x	100	100	0.00	93.44	130.03	566.58	808.58	982.96	1,083.16	0.00	93.21	250.66	1,020.47	1,395.89	1,614.23	1,537.43
Providence (All RI), RI	x	-	100	-	0.00	61.32	85.79	395.97	567.72	691.42	762.10	0.00	53.50	159.17	711.73	980.77	1,136.34	1,112.20
Reading, PA	-	x	-	100	0.00	27.53	38.30	166.64	237.78	289.05	318.51	0.00	27.54	73.90	300.15	410.49	474.67	451.76
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	86.69	118.23	401.70	559.86	674.09	741.76	0.00	125.73	259.75	730.91	962.91	1,102.49	896.76
Rochester, NY	x	-	100	-	0.00	87.29	122.02	557.78	799.10	972.92	1,072.33	0.00	78.05	227.92	1,002.90	1,380.34	1,598.78	1,557.94
Rome, GA	-	x	-	100	0.00	7.47	10.45	48.40	69.42	84.55	93.19	0.00	6.46	19.35	86.99	119.92	138.96	136.21
Sacramento Metro, CA	x	-	50	-	0.00	174.19	241.25	997.95	1,417.89	1,720.61	1,895.50	0.00	192.18	480.03	1,800.87	2,446.07	2,823.49	2,617.17
San Diego, CA	x	-	100	-	0.00	200.32	280.42	1,300.70	1,865.57	2,272.42	2,504.77	0.00	172.56	518.48	2,337.53	3,223.11	3,734.93	3,663.67
San Francisco Bay Area, CA	x	-	100	-	0.00	2,132.54	2,844.85	6,600.45	8,734.01	10,285.61	11,280.61	0.00	4,132.10	7,109.78	12,266.37	14,894.37	16,660.53	8,039.23
San Joaquin Valley, CA	x	x	50	100	0.00	664.02	898.67	2,718.96	3,738.69	4,476.41	4,921.66	0.00	1,076.40	2,068.13	4,975.22	6,416.34	7,303.59	5,339.36
Sheboygan, WI	x	-	100	-	0.00	8.22	11.47	52.01	74.46	90.64	99.89	0.00	7.50	21.56	93.54	128.61	148.92	144.55
Springfield (Western MA), MA	x	-	100	-	0.00	63.75	89.02	402.78	576.57	701.76	773.43	0.00	58.45	167.45	724.47	995.83	1,153.04	1,118.26
St. Louis, MO-IL	x	x	100	100	0.00	989.78	1,320.26	3,056.36	4,042.80	4,760.21	5,220.56	0.00	1,920.11	3,301.46	5,680.81	6,893.86	7,709.97	3,700.78
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	57.58	76.42	157.83	204.52	238.59	261.30	0.00	118.03	196.45	295.70	347.53	384.85	129.94
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Ventura Co., CA	x	-	100	-	0.00	50.01	69.35	290.49	413.19	501.62	552.65	0.00	53.93	136.96	523.96	712.93	823.31	768.36
Washington, DC-MD-VA	x	x	100	100	0.00	374.55	519.95	2,206.69	3,142.25	3,816.53	4,205.00	0.00	394.00	1,018.86	3,978.30	5,422.72	6,265.20	5,887.52
Wheeling, WV-OH	-	x	-	100	0.00	10.71	15.03	71.70	103.06	125.64	138.50	0.00	8.54	27.24	128.74	178.11	206.57	205.11
York, PA	-	x	-	100	0.00	30.69	42.58	179.64	255.67	310.47	342.06	0.00	32.65	83.74	323.93	441.19	509.62	477.40

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-33
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	1.19	1.97	19.90	34.91	48.48	52.11	0.00	1.26	2.14	20.03	35.03	48.53	51.36
Allegan Co., MI	x	-	100	-	0.00	0.13	0.22	2.18	3.82	5.30	5.70	0.00	0.14	0.23	2.19	3.83	5.31	5.62
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.12	0.20	1.98	3.47	4.82	5.18	0.00	0.13	0.21	1.99	3.48	4.83	5.11
Atlanta, GA	x	x	100	100	0.00	6.33	10.47	105.85	185.67	257.88	277.16	0.00	6.70	11.37	106.53	186.34	258.14	273.19
Baltimore, MD	x	x	100	100	0.00	2.63	4.35	43.98	77.15	107.16	115.17	0.00	2.79	4.73	44.27	77.43	107.27	113.52
Baton Rouge, LA	x	-	100	-	0.00	48.49	64.84	112.83	150.45	186.70	199.71	0.00	64.54	103.76	142.88	179.87	197.97	26.46
Beaumont/Port Arthur, TX	x	-	100	-	0.00	96.78	129.14	212.90	277.90	341.17	364.76	0.00	129.03	207.38	273.32	337.05	363.82	16.47
Birmingham, AL	-	x	-	100	0.00	0.96	1.59	16.09	28.22	39.20	42.13	0.00	1.02	1.73	16.19	28.32	39.24	41.53
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	4.28	7.08	71.57	125.53	174.36	187.39	0.00	4.53	7.69	72.03	125.99	174.53	184.70
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	0.58	0.95	9.68	16.97	23.58	25.34	0.00	0.61	1.03	9.74	17.03	23.60	24.99
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	1.03	1.70	17.21	30.18	41.92	45.06	0.00	1.09	1.85	17.32	30.29	41.97	44.41
Canton-Massillon, OH	-	x	-	100	0.00	6.55	8.82	18.30	25.91	33.07	35.42	0.00	8.65	13.93	22.25	29.77	34.56	12.66
Charleston, WV	-	x	-	100	0.00	0.28	0.46	4.61	8.08	11.23	12.07	0.00	0.29	0.49	4.64	8.11	11.24	11.89
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	1.64	2.73	27.79	48.77	67.75	72.82	0.00	1.73	2.94	27.96	48.94	67.81	71.85
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.49	0.81	8.24	14.46	20.08	21.58	0.00	0.52	0.88	8.29	14.51	20.10	21.27
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	76.36	103.88	258.51	384.22	501.19	537.27	0.00	100.08	161.44	302.96	427.74	517.86	281.03
Chico, CA	x	-	100	-	0.00	0.18	0.29	2.98	5.22	7.25	7.79	0.00	0.19	0.32	3.00	5.24	7.26	7.68
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	1.70	2.82	28.49	49.98	69.43	74.62	0.00	1.80	3.05	28.68	50.17	69.50	73.56
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.16	0.27	2.69	4.73	6.57	7.06	0.00	0.17	0.29	2.71	4.74	6.57	6.96
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	2.46	4.06	41.06	72.02	100.03	107.51	0.00	2.60	4.41	41.32	72.28	100.13	105.96
Columbus, OH	x	x	100	100	0.00	1.59	2.63	26.54	46.56	64.66	69.50	0.00	1.68	2.85	26.71	46.73	64.73	68.50
Dallas-Fort Worth, TX	x	-	100	-	0.00	6.44	10.64	107.54	188.63	262.00	281.58	0.00	6.81	11.55	108.24	189.32	262.26	277.54
Dayton-Springfield, OH	-	x	-	100	0.00	0.75	1.23	12.45	21.84	30.33	32.60	0.00	0.79	1.34	12.53	21.92	30.36	32.13
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	11.03	15.66	67.06	109.65	148.56	159.50	0.00	13.90	22.61	72.43	114.91	150.57	128.56
Detroit-Ann Arbor, MI	x	x	100	100	0.00	13.05	18.84	93.32	155.21	211.60	227.25	0.00	16.18	26.42	99.18	160.94	213.79	193.51
Door Co., WI	x	-	100	-	0.00	0.03	0.05	0.51	0.89	1.23	1.32	0.00	0.03	0.05	0.51	0.89	1.23	1.30
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.02	0.04	0.05	0.06	0.00	0.00	0.00	0.02	0.04	0.05	0.05
Evansville, IN	-	x	-	100	0.00	0.32	0.52	5.33	9.35	12.99	13.96	0.00	0.33	0.57	5.36	9.38	13.00	13.77
Greater Connecticut, CT	x	-	100	-	0.00	1.63	2.70	27.23	47.76	66.33	71.29	0.00	1.73	2.93	27.40	47.93	66.40	70.27
Greene	x	-	100	-	0.00	0.04	0.06	0.63	1.10	1.52	1.64	0.00	0.04	0.07	0.63	1.10	1.52	1.61
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	0.74	1.22	12.31	21.60	30.00	32.24	0.00	0.78	1.32	12.39	21.68	30.03	31.78

**Table B1-33
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	0.67	1.10	11.15	19.57	27.18	29.21	0.00	0.71	1.20	11.23	19.64	27.20	28.79
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.00	0.01	0.08	0.13	0.19	0.20	0.00	0.00	0.01	0.08	0.14	0.19	0.20
Hickory, NC	-	x	-	100	0.00	0.17	0.29	2.89	5.07	7.05	7.57	0.00	0.18	0.31	2.91	5.09	7.05	7.46
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	202.08	270.91	502.09	685.11	859.83	920.19	0.00	268.33	431.62	626.19	806.61	906.36	204.75
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	19.41	26.00	47.47	64.43	80.66	86.31	0.00	25.78	41.47	59.42	76.13	85.14	17.45
Imperial Co., CA	x	-	100	-	0.00	0.21	0.34	3.43	6.02	8.36	8.99	0.00	0.22	0.37	3.46	6.04	8.37	8.86
Indianapolis, IN	-	x	-	100	0.00	1.48	2.45	24.78	43.46	60.37	64.88	0.00	1.57	2.66	24.94	43.62	60.43	63.95
Jamestown, NY	x	-	100	-	0.00	0.14	0.23	2.29	4.02	5.58	6.00	0.00	0.15	0.25	2.31	4.03	5.59	5.91
Jefferson Co., NY	x	-	100	-	0.00	0.13	0.21	2.13	3.73	5.18	5.57	0.00	0.13	0.23	2.14	3.75	5.19	5.49
Johnstown, PA	-	x	-	100	0.00	0.11	0.19	1.88	3.30	4.58	4.92	0.00	0.12	0.20	1.89	3.31	4.58	4.85
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.11	0.18	1.80	3.16	4.39	4.72	0.00	0.12	0.20	1.82	3.18	4.40	4.65
Knoxville, TN	x	x	100	100	0.00	1.01	1.67	16.83	29.53	41.02	44.08	0.00	1.07	1.81	16.94	29.64	41.06	43.45
Lancaster, PA	-	x	-	100	0.00	0.39	0.65	6.58	11.54	16.03	17.23	0.00	0.42	0.71	6.62	11.58	16.05	16.98
Las Vegas, NV	x	-	100	-	0.00	1.30	2.16	21.80	38.23	53.10	57.07	0.00	1.38	2.34	21.94	38.37	53.16	56.26
Libby, MT	-	x	-	100	0.00	0.01	0.01	0.11	0.19	0.26	0.28	0.00	0.01	0.01	0.11	0.19	0.26	0.28
Liberty-Clairton, PA	-	x	-	100	0.00	0.01	0.02	0.21	0.37	0.52	0.56	0.00	0.01	0.02	0.21	0.37	0.52	0.55
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	119.86	164.16	455.52	693.74	914.18	980.41	0.00	156.17	252.23	523.53	760.33	939.68	588.34
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	0.67	1.11	11.24	19.71	27.38	29.43	0.00	0.71	1.21	11.31	19.79	27.41	29.00
Louisville, KY-IN	-	x	-	100	0.00	1.03	1.71	17.28	30.32	42.11	45.26	0.00	1.09	1.85	17.39	30.43	42.15	44.62
Macon, GA	-	x	-	100	0.00	0.19	0.32	3.22	5.65	7.85	8.43	0.00	0.20	0.34	3.24	5.67	7.86	8.32
Manitowoc Co., WI	x	-	100	-	0.00	0.10	0.16	1.65	2.90	4.02	4.32	0.00	0.10	0.18	1.66	2.91	4.03	4.26
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.10	0.16	1.61	2.83	3.93	4.22	0.00	0.10	0.17	1.62	2.84	3.93	4.16
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.38	0.62	6.31	11.07	15.37	16.52	0.00	0.40	0.68	6.35	11.11	15.38	16.28
Memphis, TN-AR	x	-	100	-	0.00	16.33	22.07	48.34	69.51	89.37	95.75	0.00	21.54	34.70	58.09	79.06	93.03	39.51
Milwaukee-Racine, WI	x	-	100	-	0.00	1.62	2.68	27.11	47.56	66.05	70.99	0.00	1.72	2.91	27.29	47.73	66.12	69.97
Nevada (Western Part), CA	x	-	100	-	0.00	0.09	0.15	1.53	2.69	3.74	4.01	0.00	0.10	0.16	1.54	2.70	3.74	3.96
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	40.60	58.40	281.59	466.94	635.89	682.88	0.00	50.48	82.38	300.10	485.07	642.83	576.16
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.15	0.24	2.44	4.28	5.95	6.39	0.00	0.15	0.26	2.46	4.30	5.96	6.30
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	107.90	145.88	324.12	467.91	602.70	645.74	0.00	142.21	229.11	388.39	530.84	626.80	275.22
Phoenix-Mesa	x	-	100	-	0.00	3.62	5.98	60.56	106.24	147.57	158.60	0.00	3.82	6.48	60.95	106.62	147.71	156.36

**Table B1-33
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	1.81	3.00	30.31	53.17	73.84	79.36	0.00	1.92	3.25	30.51	53.36	73.92	78.23
Poughkeepsie, NY	x	x	100	100	0.00	1.18	1.94	19.65	34.46	47.86	51.44	0.00	1.24	2.11	19.77	34.59	47.91	50.71
Providence (All RI), RI	x	-	100	-	0.00	0.85	1.41	14.21	24.93	34.63	37.21	0.00	0.90	1.53	14.30	25.02	34.66	36.68
Reading, PA	-	x	-	100	0.00	0.35	0.57	5.77	10.13	14.06	15.12	0.00	0.37	0.62	5.81	10.16	14.08	14.90
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	0.69	1.13	11.46	20.10	27.92	30.01	0.00	0.73	1.23	11.53	20.18	27.95	29.58
Rochester, NY	x	-	100	-	0.00	1.19	1.97	19.91	34.92	48.50	52.13	0.00	1.26	2.14	20.04	35.05	48.55	51.38
Rome, GA	-	x	-	100	0.00	0.10	0.17	1.74	3.05	4.24	4.56	0.00	0.11	0.19	1.75	3.06	4.24	4.49
Sacramento Metro, CA	x	-	50	-	0.00	2.00	3.31	33.44	58.66	81.48	87.57	0.00	2.12	3.59	33.66	58.88	81.56	86.32
San Diego, CA	x	-	100	-	0.00	2.80	4.63	46.82	82.12	114.06	122.59	0.00	2.96	5.03	47.12	82.42	114.18	120.83
San Francisco Bay Area, CA	x	-	100	-	0.00	62.87	85.78	224.24	337.12	441.87	473.77	0.00	82.19	132.64	260.43	372.55	455.44	265.14
San Joaquin Valley, CA	x	x	50	100	0.00	13.59	19.42	88.59	145.98	198.34	212.98	0.00	17.00	27.71	94.99	152.24	200.74	176.09
Sheboygan, WI	x	-	100	-	0.00	0.11	0.18	1.85	3.24	4.50	4.84	0.00	0.12	0.20	1.86	3.25	4.51	4.77
Springfield (Western MA), MA	x	-	100	-	0.00	0.86	1.41	14.29	25.07	34.81	37.42	0.00	0.90	1.53	14.38	25.16	34.85	36.88
St. Louis, MO-IL	x	x	100	100	0.00	29.04	39.62	103.45	155.47	203.76	218.47	0.00	37.97	61.28	120.17	171.85	210.03	122.05
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	1.81	2.45	5.33	7.65	9.83	10.53	0.00	2.39	3.85	6.41	8.71	10.24	4.29
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	0.83	1.29	10.33	17.89	24.73	26.58	0.00	0.94	1.57	10.55	18.10	24.81	25.34
Washington, DC-MD-VA	x	x	100	100	0.00	4.51	7.45	75.24	131.98	183.31	197.01	0.00	4.77	8.09	75.73	132.46	183.49	194.17
Wheeling, WV-OH	-	x	-	100	0.00	0.16	0.26	2.62	4.60	6.39	6.86	0.00	0.17	0.28	2.64	4.61	6.39	6.76
York, PA	-	x	-	100	0.00	0.37	0.60	6.10	10.70	14.86	15.97	0.00	0.39	0.66	6.14	10.74	14.88	15.75

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-34
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	6.42	8.05	60.42	95.03	121.73	134.21	0.00	2.45	8.89	82.37	126.94	156.92	173.68
Allegan Co., MI	x	-	100	-	0.00	0.70	0.88	6.61	10.40	13.32	14.68	0.00	0.27	0.97	9.01	13.89	17.16	19.00
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.64	0.80	6.01	9.46	12.11	13.36	0.00	0.25	0.89	8.20	12.63	15.62	17.27
Atlanta, GA	x	x	100	100	0.00	34.39	43.13	321.90	506.17	648.29	714.69	0.00	13.43	47.99	438.98	676.14	835.66	923.76
Baltimore, MD	x	x	100	100	0.00	14.18	17.78	133.52	210.03	269.03	296.60	0.00	5.40	19.65	182.04	280.54	346.79	383.84
Baton Rouge, LA	x	-	100	-	0.00	125.95	166.88	301.44	387.86	457.91	497.29	0.00	209.29	341.67	456.08	536.03	589.08	89.47
Beaumont/Port Arthur, TX	x	-	100	-	0.00	248.97	330.22	563.60	712.80	834.70	905.05	0.00	419.63	681.53	859.22	988.26	1,073.59	55.68
Birmingham, AL	-	x	-	100	0.00	5.18	6.49	48.82	76.80	98.38	108.46	0.00	1.95	7.15	66.55	102.58	126.81	140.42
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	23.01	28.83	217.09	341.54	437.51	482.34	0.00	8.66	31.77	295.96	456.19	563.97	624.55
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	3.11	3.90	29.37	46.21	59.19	65.26	0.00	1.17	4.30	40.04	61.72	76.30	84.50
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	5.53	6.93	52.19	82.12	105.19	115.97	0.00	2.08	7.63	71.16	109.68	135.59	150.17
Canton-Massillon, OH	-	x	-	100	0.00	17.59	23.23	50.18	67.67	81.61	88.98	0.00	27.76	46.20	74.31	92.74	105.04	42.82
Charleston, WV	-	x	-	100	0.00	1.48	1.85	13.97	21.98	28.16	31.05	0.00	0.55	2.04	19.05	29.36	36.30	40.22
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	8.98	11.26	84.52	132.95	170.30	187.75	0.00	3.43	12.45	115.24	177.58	219.52	242.94
Chattanooga, AL-TN-GA	-	x	-	100	0.00	2.65	3.32	25.01	39.34	50.39	55.56	0.00	1.00	3.66	34.09	52.54	64.96	71.93
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	213.97	281.34	724.77	1,014.21	1,242.39	1,358.70	0.00	316.76	540.24	1,053.94	1,380.90	1,599.77	950.28
Chico, CA	x	-	100	-	0.00	0.96	1.20	9.03	14.21	18.20	20.07	0.00	0.36	1.33	12.32	18.98	23.46	25.97
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	9.17	11.49	86.47	136.04	174.26	192.12	0.00	3.46	12.67	117.89	181.71	224.63	248.73
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.86	1.08	8.17	12.86	16.47	18.16	0.00	0.32	1.19	11.14	17.17	21.23	23.52
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	13.19	16.53	124.52	195.91	250.97	276.68	0.00	4.95	18.20	169.76	261.67	323.50	358.31
Columbus, OH	x	x	100	100	0.00	8.57	10.75	80.60	126.78	162.39	179.03	0.00	3.28	11.89	109.90	169.34	209.32	231.63
Dallas-Fort Worth, TX	x	-	100	-	0.00	34.87	43.72	326.87	514.04	658.39	725.84	0.00	13.52	48.56	445.73	686.64	848.68	938.49
Dayton-Springfield, OH	-	x	-	100	0.00	4.00	5.01	37.76	59.41	76.11	83.91	0.00	1.50	5.52	51.48	79.36	98.11	108.66
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	36.73	47.56	196.77	294.97	371.29	408.06	0.00	41.17	79.05	275.87	397.03	478.40	434.73
Detroit-Ann Arbor, MI	x	x	100	100	0.00	46.05	59.33	275.82	418.47	529.09	581.96	0.00	46.31	93.61	384.10	562.17	681.81	654.32
Door Co., WI	x	-	100	-	0.00	0.16	0.20	1.53	2.41	3.09	3.41	0.00	0.06	0.22	2.09	3.22	3.98	4.41
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.01	0.06	0.10	0.13	0.14	0.00	0.00	0.01	0.09	0.14	0.17	0.19
Evansville, IN	-	x	-	100	0.00	1.71	2.14	16.18	25.45	32.60	35.95	0.00	0.64	2.36	22.05	33.99	42.03	46.56
Greater Connecticut, CT	x	-	100	-	0.00	8.77	11.00	82.63	129.98	166.50	183.56	0.00	3.33	12.14	112.66	173.62	214.63	237.60
Greene	x	-	100	-	0.00	0.20	0.25	1.89	2.98	3.82	4.21	0.00	0.07	0.28	2.58	3.98	4.92	5.46
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	3.97	4.97	37.37	58.79	75.30	83.02	0.00	1.50	5.49	50.95	78.52	97.07	107.46

**Table B1-34
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	3.59	4.50	33.84	53.24	68.20	75.19	0.00	1.36	4.96	46.14	71.12	87.92	97.34
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.02	0.03	0.23	0.37	0.47	0.52	0.00	0.01	0.03	0.32	0.49	0.60	0.67
Hickory, NC	-	x	-	100	0.00	0.93	1.17	8.78	13.81	17.69	19.51	0.00	0.36	1.29	11.97	18.45	22.81	25.24
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	531.04	702.77	1,354.92	1,775.62	2,114.07	2,299.62	0.00	867.15	1,424.75	2,033.19	2,445.75	2,720.26	692.36
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	50.85	67.31	127.79	166.77	198.18	215.50	0.00	83.38	136.79	192.13	229.89	255.00	59.01
Imperial Co., CA	x	-	100	-	0.00	1.12	1.40	10.44	16.42	21.03	23.18	0.00	0.44	1.56	14.24	21.93	27.10	29.96
Indianapolis, IN	-	x	-	100	0.00	8.00	10.03	75.24	118.34	151.59	167.12	0.00	3.06	11.10	102.59	158.08	195.40	216.23
Jamestown, NY	x	-	100	-	0.00	0.74	0.92	6.95	10.93	14.00	15.44	0.00	0.28	1.02	9.47	14.60	18.05	19.99
Jefferson Co., NY	x	-	100	-	0.00	0.69	0.86	6.46	10.16	13.02	14.35	0.00	0.26	0.95	8.81	13.57	16.78	18.57
Johnstown, PA	-	x	-	100	0.00	0.60	0.76	5.70	8.96	11.48	12.66	0.00	0.22	0.83	7.77	11.97	14.80	16.40
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.59	0.74	5.49	8.63	11.05	12.18	0.00	0.24	0.83	7.49	11.53	14.24	15.72
Knoxville, TN	x	x	100	100	0.00	5.43	6.81	51.11	80.39	102.98	113.53	0.00	2.07	7.52	69.68	107.38	132.74	146.93
Lancaster, PA	-	x	-	100	0.00	2.12	2.65	19.97	31.41	40.23	44.36	0.00	0.80	2.93	27.22	41.95	51.86	57.42
Las Vegas, NV	x	-	100	-	0.00	7.10	8.91	66.33	104.29	133.56	147.24	0.00	2.80	9.94	90.46	139.31	172.16	190.23
Libby, MT	-	x	-	100	0.00	0.03	0.04	0.33	0.52	0.66	0.73	0.00	0.01	0.05	0.45	0.69	0.85	0.94
Liberty-Clairton, PA	-	x	-	100	0.00	0.07	0.09	0.64	1.01	1.30	1.43	0.00	0.03	0.09	0.88	1.35	1.67	1.85
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	345.74	453.38	1,292.05	1,840.84	2,271.61	2,487.64	0.00	489.77	850.09	1,861.71	2,498.71	2,925.57	1,989.42
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	3.64	4.57	34.15	53.71	68.80	75.84	0.00	1.41	5.07	46.57	71.75	88.68	98.07
Louisville, KY-IN	-	x	-	100	0.00	5.55	6.95	52.42	82.48	105.66	116.49	0.00	2.08	7.65	71.47	110.17	136.20	150.88
Macon, GA	-	x	-	100	0.00	1.03	1.30	9.77	15.37	19.69	21.71	0.00	0.39	1.43	13.32	20.53	25.38	28.12
Manitowoc Co., WI	x	-	100	-	0.00	0.53	0.66	5.01	7.88	10.09	11.12	0.00	0.20	0.73	6.82	10.52	13.00	14.40
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.52	0.66	4.90	7.71	9.87	10.88	0.00	0.20	0.73	6.68	10.29	12.72	14.07
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	2.05	2.57	19.19	30.17	38.64	42.60	0.00	0.80	2.87	26.17	40.30	49.81	55.05
Memphis, TN-AR	x	-	100	-	0.00	44.41	58.57	133.48	182.18	220.84	241.04	0.00	68.84	115.34	196.50	249.13	284.29	133.59
Milwaukee-Racine, WI	x	-	100	-	0.00	8.72	10.93	82.25	129.40	165.76	182.75	0.00	3.29	12.04	112.13	172.84	213.67	236.61
Nevada (Western Part), CA	x	-	100	-	0.00	0.50	0.62	4.66	7.32	9.38	10.34	0.00	0.19	0.69	6.35	9.78	12.09	13.38
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	141.57	182.57	831.05	1,258.29	1,589.71	1,748.32	0.00	145.43	290.97	1,158.66	1,690.91	2,048.52	1,948.22
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.78	0.98	7.40	11.65	14.93	16.46	0.00	0.29	1.08	10.09	15.56	19.24	21.31
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	294.40	388.13	896.82	1,227.73	1,490.14	1,626.85	0.00	454.15	762.31	1,318.35	1,677.99	1,918.36	930.63
Phoenix-Mesa	x	-	100	-	0.00	19.68	24.68	184.23	289.69	371.03	409.04	0.00	7.68	27.46	251.24	386.97	478.27	528.71

Table B1-34
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

PM 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	9.72	12.18	91.89	144.59	185.22	204.20	0.00	3.63	13.39	125.27	193.12	238.76	264.52
Poughkeepsie, NY	x	x	100	100	0.00	6.34	7.95	59.65	93.83	120.19	132.50	0.00	2.42	8.79	81.33	125.33	154.92	171.46
Providence (All RI), RI	x	-	100	-	0.00	4.57	5.73	43.11	67.83	86.89	95.79	0.00	1.72	6.31	58.78	90.60	112.00	124.03
Reading, PA	-	x	-	100	0.00	1.86	2.34	17.53	27.57	35.32	38.93	0.00	0.71	2.58	23.90	36.83	45.52	50.38
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	3.76	4.72	34.93	54.90	70.30	77.50	0.00	1.52	5.30	47.65	73.34	90.62	100.01
Rochester, NY	x	-	100	-	0.00	6.40	8.03	60.40	95.02	121.72	134.20	0.00	2.42	8.85	82.35	126.92	156.91	173.74
Rome, GA	-	x	-	100	0.00	0.56	0.70	5.28	8.31	10.64	11.73	0.00	0.21	0.77	7.20	11.09	13.72	15.19
Sacramento Metro, CA	x	-	50	-	0.00	10.82	13.57	101.61	159.81	204.69	225.66	0.00	4.17	15.04	138.55	213.46	263.85	291.87
San Diego, CA	x	-	100	-	0.00	15.05	18.86	142.01	223.42	286.20	315.53	0.00	5.66	20.77	193.60	298.42	368.93	408.57
San Francisco Bay Area, CA	x	-	100	-	0.00	178.34	234.21	631.92	891.83	1,096.30	1,199.70	0.00	258.93	445.01	914.96	1,212.50	1,411.77	896.54
San Joaquin Valley, CA	x	x	50	100	0.00	46.49	60.08	261.11	393.49	496.26	545.61	0.00	49.92	97.79	365.01	529.18	639.47	595.45
Sheboygan, WI	x	-	100	-	0.00	0.59	0.75	5.61	8.82	11.30	12.45	0.00	0.23	0.82	7.64	11.78	14.56	16.12
Springfield (Western MA), MA	x	-	100	-	0.00	4.60	5.77	43.36	68.22	87.38	96.34	0.00	1.74	6.36	59.12	91.12	112.64	124.71
St. Louis, MO-IL	x	x	100	100	0.00	82.35	108.16	291.47	411.26	505.50	553.17	0.00	119.63	205.57	422.06	559.15	650.97	412.71
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	4.92	6.49	14.70	20.04	24.29	26.50	0.00	7.64	12.79	21.66	27.42	31.26	14.49
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	3.77	4.77	31.14	48.56	62.01	68.33	0.00	2.23	6.05	42.68	64.95	79.93	85.69
Washington, DC-MD-VA	x	x	100	100	0.00	24.29	30.45	228.46	359.34	460.28	507.44	0.00	9.29	33.69	311.49	479.99	593.32	656.58
Wheeling, WV-OH	-	x	-	100	0.00	0.84	1.05	7.95	12.50	16.02	17.66	0.00	0.31	1.16	10.83	16.70	20.65	22.87
York, PA	-	x	-	100	0.00	1.97	2.47	18.53	29.15	37.33	41.16	0.00	0.76	2.74	25.27	38.93	48.12	53.24

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-35
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	11.24	13.31	95.24	146.72	184.30	204.94	0.00	-0.47	14.77	156.11	236.00	283.16	318.70
Allegan Co., MI	x	-	100	-	0.00	1.23	1.46	10.42	16.05	20.16	22.42	0.00	-0.05	1.62	17.08	25.81	30.97	34.86
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.13	1.34	9.49	14.62	18.36	20.41	0.00	-0.03	1.50	15.56	23.51	28.20	31.69
Atlanta, GA	x	x	100	100	0.00	60.66	71.91	508.43	782.71	982.94	1,092.99	0.00	-0.83	81.29	833.62	1,258.89	1,510.01	1,695.11
Baltimore, MD	x	x	100	100	0.00	24.84	29.40	210.45	324.22	407.27	452.89	0.00	-1.08	32.61	344.97	521.53	625.75	704.36
Baton Rouge, LA	x	-	100	-	0.00	193.26	254.59	463.43	591.84	689.69	752.78	0.00	372.59	605.47	802.20	923.84	1,013.44	164.18
Beaumont/Port Arthur, TX	x	-	100	-	0.00	381.02	503.02	864.76	1,086.40	1,256.46	1,368.70	0.00	750.45	1,208.38	1,503.16	1,690.81	1,837.42	102.18
Birmingham, AL	-	x	-	100	0.00	9.06	10.71	76.92	118.52	148.89	165.57	0.00	-0.45	11.83	126.08	190.66	228.77	257.67
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	40.21	47.56	341.98	526.99	662.03	736.21	0.00	-2.15	52.41	560.53	847.71	1,017.22	1,146.06
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	5.45	6.45	46.30	71.33	89.61	99.65	0.00	-0.27	7.13	75.88	114.74	137.68	155.05
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	9.66	11.42	82.21	126.69	159.15	176.99	0.00	-0.54	12.57	134.74	203.79	244.54	275.57
Canton-Massillon, OH	-	x	-	100	0.00	27.24	35.61	77.56	103.55	123.05	134.99	0.00	48.54	81.66	132.68	162.88	183.03	78.58
Charleston, WV	-	x	-	100	0.00	2.58	3.05	22.00	33.91	42.60	47.37	0.00	-0.16	3.35	36.06	54.55	65.46	73.80
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	15.83	18.76	133.45	205.52	258.13	287.04	0.00	-0.45	21.01	218.78	330.57	396.58	445.80
Chattanooga, AL-TN-GA	-	x	-	100	0.00	4.64	5.49	39.40	60.71	76.27	84.81	0.00	-0.24	6.06	64.58	97.66	117.19	132.00
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	334.86	434.04	1,125.28	1,555.52	1,875.58	2,065.03	0.00	541.03	952.58	1,906.60	2,461.05	2,814.31	1,743.77
Chico, CA	x	-	100	-	0.00	1.68	1.99	14.24	21.93	27.55	30.64	0.00	-0.07	2.20	23.34	35.28	42.33	47.66
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	16.06	19.00	136.30	210.00	263.80	293.35	0.00	-0.77	21.02	223.41	337.80	405.32	456.42
Clearfield and Indiana Cos.	x	-	100	-	0.00	1.51	1.78	12.87	19.83	24.91	27.70	0.00	-0.09	1.96	21.09	31.90	38.28	43.16
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	23.03	27.24	196.12	302.24	379.70	422.24	0.00	-1.30	29.96	321.44	486.19	583.42	657.50
Columbus, OH	x	x	100	100	0.00	15.03	17.80	127.10	195.78	245.91	273.46	0.00	-0.56	19.82	208.35	314.91	377.82	425.05
Dallas-Fort Worth, TX	x	-	100	-	0.00	61.36	72.71	515.95	794.47	997.78	1,109.51	0.00	-1.37	81.75	845.90	1,277.84	1,532.88	1,722.15
Dayton-Springfield, OH	-	x	-	100	0.00	6.99	8.26	59.48	91.66	115.15	128.06	0.00	-0.39	9.09	97.49	147.45	176.94	199.39
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	59.80	75.14	308.35	454.41	561.73	622.26	0.00	61.76	137.93	512.63	726.18	855.25	797.73
Detroit-Ann Arbor, MI	x	x	100	100	0.00	75.69	94.18	432.46	644.53	800.06	887.17	0.00	64.49	161.94	716.46	1,031.74	1,221.02	1,200.69
Door Co., WI	x	-	100	-	0.00	0.28	0.34	2.41	3.72	4.67	5.20	0.00	-0.02	0.37	3.96	5.98	7.18	8.09
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.01	0.10	0.16	0.20	0.22	0.00	0.00	0.02	0.17	0.25	0.30	0.34
Evansville, IN	-	x	-	100	0.00	2.99	3.54	25.49	39.28	49.35	54.88	0.00	-0.17	3.90	41.78	63.19	75.83	85.45
Greater Connecticut, CT	x	-	100	-	0.00	15.35	18.16	130.21	200.62	252.02	280.25	0.00	-0.72	20.10	213.44	322.71	387.21	435.99
Greene	x	-	100	-	0.00	0.35	0.41	2.98	4.60	5.78	6.42	0.00	-0.02	0.45	4.89	7.40	8.88	10.01
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	6.94	8.22	58.89	90.74	113.98	126.75	0.00	-0.32	9.09	96.53	145.96	175.13	197.19

**Table B1-35
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	6.28	7.43	53.32	82.16	103.21	114.78	0.00	-0.32	8.20	87.40	132.17	158.59	178.63
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.04	0.05	0.37	0.57	0.71	0.79	0.00	0.00	0.06	0.60	0.91	1.09	1.23
Hickory, NC	-	x	-	100	0.00	1.63	1.94	13.84	21.32	26.79	29.79	0.00	-0.07	2.15	22.69	34.30	41.15	46.32
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	817.47	1,074.10	2,087.49	2,712.66	3,185.96	3,484.48	0.00	1,534.74	2,523.00	3,597.16	4,247.34	4,704.53	1,270.48
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	78.20	102.81	196.76	254.68	298.59	326.42	0.00	147.76	242.23	339.41	398.49	440.43	108.29
Imperial Co., CA	x	-	100	-	0.00	1.97	2.33	16.49	25.38	31.87	35.44	0.00	-0.03	2.63	27.03	40.82	48.97	54.98
Indianapolis, IN	-	x	-	100	0.00	14.03	16.61	118.64	182.76	229.55	255.27	0.00	-0.53	18.49	194.49	293.96	352.69	396.79
Jamestown, NY	x	-	100	-	0.00	1.29	1.52	10.94	16.87	21.19	23.56	0.00	-0.07	1.67	17.94	27.13	32.56	36.69
Jefferson Co., NY	x	-	100	-	0.00	1.21	1.43	10.19	15.69	19.71	21.92	0.00	-0.04	1.59	16.70	25.24	30.29	34.07
Johnstown, PA	-	x	-	100	0.00	1.05	1.24	8.97	13.82	17.37	19.31	0.00	-0.07	1.36	14.70	22.24	26.69	30.09
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	1.04	1.24	8.67	13.35	16.76	18.64	0.00	0.01	1.42	14.23	21.47	25.74	28.85
Knoxville, TN	x	x	100	100	0.00	9.51	11.25	80.56	124.11	155.90	173.36	0.00	-0.41	12.48	132.05	199.63	239.52	269.61
Lancaster, PA	-	x	-	100	0.00	3.70	4.38	31.46	48.47	60.89	67.71	0.00	-0.18	4.84	51.56	77.97	93.56	105.37
Las Vegas, NV	x	-	100	-	0.00	12.54	14.88	104.82	161.33	202.59	225.26	0.00	-0.06	16.91	171.87	259.47	311.20	349.07
Libby, MT	-	x	-	100	0.00	0.06	0.07	0.52	0.80	1.00	1.11	0.00	0.00	0.08	0.85	1.28	1.54	1.73
Liberty-Clairton, PA	-	x	-	100	0.00	0.12	0.14	1.01	1.56	1.96	2.18	0.00	-0.01	0.15	1.66	2.51	3.01	3.39
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	545.16	702.68	2,011.24	2,827.24	3,432.02	3,785.02	0.00	822.63	1,497.10	3,391.33	4,485.16	5,170.42	3,650.62
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	6.40	7.59	53.90	83.00	104.24	115.91	0.00	-0.16	8.51	88.36	133.49	160.14	179.97
Louisville, KY-IN	-	x	-	100	0.00	9.69	11.47	82.57	127.26	159.87	177.79	0.00	-0.56	12.60	135.34	204.71	245.65	276.87
Macon, GA	-	x	-	100	0.00	1.81	2.14	15.39	23.72	29.79	33.13	0.00	-0.10	2.35	25.22	38.15	45.78	51.60
Manitowoc Co., WI	x	-	100	-	0.00	0.93	1.10	7.88	12.15	15.26	16.97	0.00	-0.05	1.21	12.92	19.54	23.45	26.43
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.92	1.09	7.74	11.91	14.96	16.64	0.00	-0.02	1.23	12.69	19.16	22.98	25.81
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	3.62	4.29	30.31	46.66	58.59	65.15	0.00	-0.04	4.86	49.70	75.04	90.01	101.03
Memphis, TN-AR	x	-	100	-	0.00	68.96	89.94	206.57	278.95	333.11	365.87	0.00	119.58	203.71	352.30	439.64	496.93	245.15
Milwaukee-Racine, WI	x	-	100	-	0.00	15.24	18.03	129.57	199.67	250.83	278.93	0.00	-0.80	19.88	212.38	321.18	385.40	434.18
Nevada (Western Part), CA	x	-	100	-	0.00	0.87	1.03	7.34	11.31	14.21	15.80	0.00	-0.03	1.15	12.04	18.19	21.83	24.55
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	232.16	289.41	1,302.68	1,937.81	2,403.74	2,665.00	0.00	205.55	503.88	2,159.45	3,101.10	3,667.04	3,575.02
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	1.37	1.62	11.66	17.97	22.58	25.11	0.00	-0.08	1.77	19.11	28.91	34.69	39.11
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	457.66	596.49	1,388.74	1,880.59	2,248.34	2,470.17	0.00	787.83	1,346.58	2,366.61	2,965.29	3,356.45	1,707.71
Phoenix-Mesa	x	-	100	-	0.00	34.71	41.16	290.99	447.97	562.57	625.56	0.00	-0.48	46.52	477.11	720.51	864.24	970.19

**Table B1-35
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	16.96	20.05	144.69	223.01	280.17	311.57	0.00	-1.05	21.97	237.13	358.74	430.50	485.40
Poughkeepsie, NY	x	x	100	100	0.00	11.11	13.15	94.04	144.87	181.97	202.35	0.00	-0.45	14.61	154.15	233.02	279.58	314.62
Providence (All RI), RI	x	-	100	-	0.00	7.99	9.45	67.92	104.66	131.48	146.21	0.00	-0.43	10.41	111.32	168.35	202.01	227.60
Reading, PA	-	x	-	100	0.00	3.26	3.87	27.63	42.57	53.47	59.46	0.00	-0.13	4.30	45.30	68.47	82.15	92.45
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	6.69	7.94	55.31	85.07	106.79	118.74	0.00	0.15	9.18	90.71	136.80	164.03	183.51
Rochester, NY	x	-	100	-	0.00	11.20	13.25	95.16	146.63	184.20	204.84	0.00	-0.58	14.62	155.98	235.87	283.03	318.82
Rome, GA	-	x	-	100	0.00	0.98	1.16	8.32	12.82	16.10	17.90	0.00	-0.05	1.27	13.63	20.62	24.74	27.87
Sacramento Metro, CA	x	-	50	-	0.00	19.01	22.52	160.30	246.88	310.08	344.80	0.00	-0.57	25.19	262.79	397.09	476.38	535.58
San Diego, CA	x	-	100	-	0.00	26.29	31.10	223.69	344.71	433.05	481.57	0.00	-1.44	34.24	366.64	554.50	665.39	749.74
San Francisco Bay Area, CA	x	-	100	-	0.00	279.87	361.85	981.95	1,368.27	1,655.13	1,823.78	0.00	438.73	783.72	1,659.96	2,167.58	2,488.31	1,645.16
San Joaquin Valley, CA	x	x	50	100	0.00	76.20	95.39	409.74	606.71	751.31	832.63	0.00	73.26	170.73	680.20	970.26	1,145.06	1,092.66
Sheboygan, WI	x	-	100	-	0.00	1.04	1.23	8.83	13.61	17.10	19.01	0.00	-0.05	1.36	14.48	21.89	26.27	29.58
Springfield (Western MA), MA	x	-	100	-	0.00	8.05	9.52	68.32	105.28	132.25	147.06	0.00	-0.39	10.52	111.99	169.34	203.20	228.84
St. Louis, MO-IL	x	x	100	100	0.00	129.23	167.09	452.90	630.95	763.17	840.91	0.00	202.74	362.03	765.66	999.50	1,147.28	757.33
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	7.63	9.96	22.75	30.68	36.62	40.22	0.00	13.28	22.59	38.81	48.35	54.62	26.59
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	6.46	7.77	49.00	74.90	93.82	104.26	0.00	1.58	10.20	80.54	120.34	143.93	157.24
Washington, DC-MD-VA	x	x	100	100	0.00	42.60	50.44	360.24	554.92	697.02	775.10	0.00	-1.61	56.15	590.54	892.59	1,070.91	1,204.83
Wheeling, WV-OH	-	x	-	100	0.00	1.47	1.74	12.51	19.29	24.23	26.95	0.00	-0.09	1.90	20.51	31.03	37.23	41.97
York, PA	-	x	-	100	0.00	3.46	4.10	29.23	45.02	56.54	62.88	0.00	-0.11	4.58	47.92	72.41	86.87	97.70

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-36
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	17.39	20.26	140.38	212.59	263.29	294.26	0.00	-6.12	22.17	257.69	386.25	456.19	518.47
Allegan Co., MI	x	-	100	-	0.00	1.90	2.22	15.35	23.25	28.80	32.19	0.00	-0.67	2.42	28.19	42.25	49.90	56.71
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.76	2.06	14.03	21.22	26.28	29.36	0.00	-0.54	2.32	25.75	38.55	45.51	51.55
Atlanta, GA	x	x	100	100	0.00	95.42	111.62	753.12	1,138.73	1,409.57	1,575.10	0.00	-26.07	128.25	1,382.96	2,067.91	2,441.02	2,757.65
Baltimore, MD	x	x	100	100	0.00	38.39	44.73	310.16	469.73	581.78	650.20	0.00	-13.62	48.86	569.36	853.46	1,008.02	1,145.87
Baton Rouge, LA	x	-	100	-	0.00	279.15	366.26	670.20	850.09	981.36	1,074.74	0.00	595.88	964.53	1,271.79	1,447.30	1,585.96	267.09
Beaumont/Port Arthur, TX	x	-	100	-	0.00	549.46	722.76	1,248.55	1,558.93	1,786.85	1,952.63	0.00	1,203.87	1,925.71	2,375.50	2,636.70	2,865.72	166.23
Birmingham, AL	-	x	-	100	0.00	13.99	16.29	113.33	171.67	212.64	237.66	0.00	-5.11	17.67	208.04	311.94	368.46	419.18
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	61.96	72.11	503.54	762.90	945.02	1,056.20	0.00	-23.29	77.70	924.26	1,386.32	1,637.61	1,864.45
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	8.43	9.81	68.22	103.33	127.99	143.05	0.00	-3.05	10.67	125.23	187.76	221.77	252.24
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	14.86	17.29	121.00	183.35	227.12	253.85	0.00	-5.67	18.57	222.10	333.19	393.60	448.31
Canton-Massillon, OH	-	x	-	100	0.00	39.52	51.40	112.58	148.99	175.21	192.94	0.00	76.61	129.75	212.07	258.02	288.65	127.84
Charleston, WV	-	x	-	100	0.00	3.97	4.61	32.37	49.06	60.78	67.93	0.00	-1.55	4.92	59.41	89.16	105.33	120.05
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	24.80	28.96	197.40	298.66	369.77	413.21	0.00	-7.52	32.67	362.45	542.46	640.47	725.24
Chattanooga, AL-TN-GA	-	x	-	100	0.00	7.16	8.33	58.04	87.92	108.91	121.72	0.00	-2.64	9.02	106.54	159.76	188.72	214.74
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	489.10	629.68	1,639.85	2,242.99	2,673.75	2,956.06	0.00	839.94	1,511.02	3,070.79	3,933.52	4,465.85	2,836.81
Chico, CA	x	-	100	-	0.00	2.59	3.02	20.98	31.77	39.35	43.98	0.00	-0.93	3.29	38.51	57.73	68.19	77.53
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	24.88	28.98	200.98	304.37	376.98	421.32	0.00	-8.83	31.65	368.93	553.03	653.18	742.52
Clearfield and Indiana Cos.	x	-	100	-	0.00	2.32	2.70	18.93	28.69	35.54	39.72	0.00	-0.91	2.87	34.74	52.13	61.59	70.21
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	35.45	41.24	288.66	437.40	541.85	605.60	0.00	-13.58	44.23	529.83	794.87	939.00	1,069.63
Columbus, OH	x	x	100	100	0.00	23.33	27.21	187.53	283.90	351.58	392.92	0.00	-7.86	30.06	344.27	515.77	609.10	691.48
Dallas-Fort Worth, TX	x	-	100	-	0.00	95.99	112.15	763.03	1,154.29	1,429.08	1,596.98	0.00	-28.59	126.94	1,401.02	2,096.50	2,475.21	2,801.63
Dayton-Springfield, OH	-	x	-	100	0.00	10.75	12.51	87.55	132.66	164.33	183.67	0.00	-4.11	13.42	160.69	241.07	284.78	324.38
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	89.41	111.14	452.90	657.87	802.64	893.30	0.00	86.39	217.33	838.43	1,178.77	1,371.27	1,297.77
Detroit-Ann Arbor, MI	x	x	100	100	0.00	113.30	139.26	634.60	931.88	1,141.51	1,271.86	0.00	82.87	252.08	1,172.28	1,675.94	1,957.58	1,953.32
Door Co., WI	x	-	100	-	0.00	0.44	0.51	3.55	5.38	6.67	7.45	0.00	-0.17	0.54	6.52	9.78	11.56	13.16
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.02	0.02	0.15	0.23	0.28	0.31	0.00	-0.01	0.02	0.27	0.41	0.49	0.55
Evansville, IN	-	x	-	100	0.00	4.62	5.38	37.55	56.89	70.47	78.76	0.00	-1.73	5.81	68.93	103.38	122.12	139.01
Greater Connecticut, CT	x	-	100	-	0.00	23.69	27.59	191.82	290.55	359.88	402.21	0.00	-8.60	29.98	352.11	527.94	623.58	709.28
Greene	x	-	100	-	0.00	0.54	0.62	4.39	6.65	8.24	9.21	0.00	-0.22	0.66	8.05	12.09	14.28	16.29
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	10.72	12.48	86.76	131.42	162.77	181.92	0.00	-3.88	13.57	159.27	238.79	282.05	320.79

**Table B1-36
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	9.68	11.26	78.52	118.96	147.35	164.69	0.00	-3.59	12.18	144.14	216.16	255.34	290.60
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.07	0.08	0.54	0.82	1.01	1.13	0.00	-0.03	0.08	0.99	1.49	1.76	2.00
Hickory, NC	-	x	-	100	0.00	2.53	2.95	20.40	30.90	38.27	42.77	0.00	-0.89	3.23	37.46	56.14	66.31	75.35
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	1,183.06	1,547.49	3,024.16	3,900.17	4,535.74	4,978.33	0.00	2,444.84	4,017.17	5,722.49	6,685.44	7,387.31	2,066.85
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	113.08	148.02	284.84	365.97	424.91	466.14	0.00	235.52	385.57	539.35	626.37	690.85	176.17
Imperial Co., CA	x	-	100	-	0.00	3.08	3.60	24.39	36.88	45.66	51.02	0.00	-0.89	4.09	44.78	66.98	79.08	89.44
Indianapolis, IN	-	x	-	100	0.00	21.78	25.39	175.06	265.03	328.21	366.80	0.00	-7.34	28.05	321.37	481.48	568.61	645.51
Jamestown, NY	x	-	100	-	0.00	1.98	2.30	16.11	24.41	30.24	33.79	0.00	-0.76	2.47	29.57	44.36	52.40	59.69
Jefferson Co., NY	x	-	100	-	0.00	1.87	2.18	15.03	22.75	28.17	31.49	0.00	-0.63	2.40	27.59	41.33	48.81	55.42
Johnstown, PA	-	x	-	100	0.00	1.61	1.88	13.19	20.00	24.77	27.69	0.00	-0.64	2.00	24.22	36.34	42.94	48.95
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	1.64	1.93	12.86	19.43	24.05	26.87	0.00	-0.40	2.25	23.62	35.28	41.64	46.93
Knoxville, TN	x	x	100	100	0.00	14.70	17.13	118.73	179.81	222.71	248.90	0.00	-5.20	18.72	217.96	326.71	385.87	438.61
Lancaster, PA	-	x	-	100	0.00	5.71	6.65	46.33	70.19	86.94	97.16	0.00	-2.11	7.20	85.04	127.53	150.64	171.42
Las Vegas, NV	x	-	100	-	0.00	19.77	23.14	155.35	234.82	290.64	324.76	0.00	-5.11	26.82	285.28	426.38	503.26	567.87
Libby, MT	-	x	-	100	0.00	0.09	0.11	0.76	1.15	1.43	1.60	0.00	-0.03	0.12	1.40	2.09	2.47	2.81
Liberty-Clairton, PA	-	x	-	100	0.00	0.18	0.21	1.49	2.25	2.79	3.12	0.00	-0.07	0.22	2.73	4.10	4.84	5.52
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	800.37	1,023.81	2,938.31	4,082.92	4,897.71	5,424.67	0.00	1,262.74	2,374.66	5,486.21	7,201.93	8,231.43	5,938.92
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	9.98	11.65	79.62	120.48	149.18	166.71	0.00	-3.10	13.09	146.19	218.85	258.41	292.77
Louisville, KY-IN	-	x	-	100	0.00	14.93	17.37	121.56	184.19	228.17	255.02	0.00	-5.71	18.63	223.12	334.72	395.42	450.42
Macon, GA	-	x	-	100	0.00	2.78	3.24	22.65	34.33	42.52	47.53	0.00	-1.06	3.47	41.58	62.38	73.69	83.94
Manitowoc Co., WI	x	-	100	-	0.00	1.43	1.66	11.60	17.58	21.78	24.34	0.00	-0.54	1.78	21.30	31.95	37.75	42.99
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	1.44	1.68	11.44	17.31	21.43	23.95	0.00	-0.42	1.91	21.01	31.44	37.11	41.99
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	5.68	6.65	44.88	67.86	84.00	93.86	0.00	-1.56	7.63	82.41	123.23	145.46	164.35
Memphis, TN-AR	x	-	100	-	0.00	100.23	129.97	300.18	401.59	474.40	523.11	0.00	187.86	323.45	564.39	698.40	785.19	398.81
Milwaukee-Racine, WI	x	-	100	-	0.00	23.48	27.33	190.78	289.05	358.05	400.17	0.00	-8.80	29.47	350.19	525.25	620.45	706.34
Nevada (Western Part), CA	x	-	100	-	0.00	1.35	1.57	10.83	16.39	20.30	22.69	0.00	-0.46	1.73	19.88	29.79	35.18	39.94
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	347.10	427.50	1,911.11	2,801.40	3,429.36	3,820.26	0.00	268.40	785.00	3,531.59	5,035.15	5,877.45	5,815.94
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	2.10	2.44	17.16	26.00	32.21	36.00	0.00	-0.82	2.61	31.49	47.25	55.83	63.63
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	665.87	862.76	2,019.47	2,708.83	3,203.40	3,533.43	0.00	1,236.89	2,138.99	3,795.11	4,715.59	5,307.89	2,778.15
Phoenix-Mesa	x	-	100	-	0.00	54.48	63.71	430.75	651.38	806.34	901.04	0.00	-15.22	72.93	790.97	1,182.94	1,396.44	1,578.33

**Table B1-36
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

PM 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	26.06	30.30	212.87	322.62	399.68	446.72	0.00	-10.26	32.27	390.69	586.32	692.68	789.66
Poughkeepsie, NY	x	x	100	100	0.00	17.19	20.03	138.63	209.93	259.99	290.57	0.00	-5.99	21.97	254.49	381.41	450.46	511.84
Providence (All RI), RI	x	-	100	-	0.00	12.30	14.31	99.99	151.49	187.66	209.73	0.00	-4.64	15.41	183.53	275.29	325.19	370.27
Reading, PA	-	x	-	100	0.00	5.05	5.89	40.74	61.69	76.40	85.39	0.00	-1.76	6.46	74.79	112.08	132.37	150.40
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	10.73	12.61	82.41	124.37	153.84	171.87	0.00	-1.94	15.28	151.39	225.70	266.25	298.55
Rochester, NY	x	-	100	-	0.00	17.26	20.09	140.12	212.29	262.96	293.89	0.00	-6.43	21.69	257.21	385.75	455.67	518.66
Rome, GA	-	x	-	100	0.00	1.51	1.75	12.24	18.55	22.98	25.68	0.00	-0.57	1.88	22.47	33.71	39.82	45.35
Sacramento Metro, CA	x	-	50	-	0.00	29.59	34.53	236.72	358.26	443.62	495.76	0.00	-9.47	38.55	434.60	650.79	768.47	871.30
San Diego, CA	x	-	100	-	0.00	40.48	47.10	329.28	498.92	618.04	690.76	0.00	-15.36	50.63	604.40	906.65	1,071.02	1,219.70
San Francisco Bay Area, CA	x	-	100	-	0.00	409.17	525.22	1,431.44	1,972.86	2,358.91	2,610.28	0.00	676.54	1,241.16	2,676.75	3,469.55	3,951.91	2,676.40
San Joaquin Valley, CA	x	x	50	100	0.00	114.57	141.83	602.88	879.47	1,074.70	1,196.60	0.00	100.84	269.85	1,115.15	1,578.13	1,838.79	1,777.56
Sheboygan, WI	x	-	100	-	0.00	1.60	1.87	13.01	19.70	24.41	27.28	0.00	-0.59	2.02	23.88	35.80	42.29	48.12
Springfield (Western MA), MA	x	-	100	-	0.00	12.41	14.45	100.63	152.44	188.82	211.03	0.00	-4.56	15.65	184.72	277.00	327.19	372.29
St. Louis, MO-IL	x	x	100	100	0.00	188.93	242.54	660.22	909.76	1,087.70	1,203.58	0.00	312.71	573.38	1,234.64	1,599.83	1,822.10	1,232.05
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	11.09	14.38	33.04	44.16	52.14	57.49	0.00	20.86	35.85	62.14	76.76	86.26	43.26
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	9.86	11.68	72.09	108.40	133.91	149.56	0.00	-0.18	15.46	132.54	196.48	231.48	255.80
Washington, DC-MD-VA	x	x	100	100	0.00	66.19	77.19	531.69	804.90	996.77	1,113.96	0.00	-22.15	85.40	976.09	1,462.27	1,726.84	1,960.05
Wheeling, WV-OH	-	x	-	100	0.00	2.26	2.62	18.41	27.90	34.57	38.64	0.00	-0.88	2.80	33.79	50.71	59.91	68.29
York, PA	-	x	-	100	0.00	5.37	6.27	43.13	65.29	80.85	90.35	0.00	-1.78	6.95	79.18	118.60	140.06	158.94

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-37
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	2.42	3.29	6.43	8.87	11.19	12.00	0.00	3.25	5.29	7.98	10.38	11.77	3.10
Allegan Co., MI	x	-	100	-	0.00	0.26	0.36	0.70	0.97	1.22	1.31	0.00	0.36	0.58	0.87	1.14	1.29	0.34
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.24	0.33	0.64	0.88	1.11	1.19	0.00	0.32	0.53	0.79	1.03	1.17	0.31
Atlanta, GA	x	x	100	100	0.00	12.87	17.49	34.20	47.15	59.48	63.80	0.00	17.25	28.12	42.41	55.19	62.56	16.48
Baltimore, MD	x	x	100	100	0.00	5.36	7.29	14.24	19.63	24.76	26.56	0.00	7.19	11.71	17.66	22.98	26.05	6.85
Baton Rouge, LA	x	-	100	-	0.00	206.10	274.78	442.18	571.33	697.71	745.79	0.00	275.01	441.95	571.28	697.72	746.12	1.60
Beaumont/Port Arthur, TX	x	-	100	-	0.00	413.23	550.89	885.69	1,143.96	1,396.77	1,492.99	0.00	551.39	886.04	1,144.51	1,397.36	1,493.82	0.99
Birmingham, AL	-	x	-	100	0.00	1.95	2.65	5.19	7.15	9.03	9.68	0.00	2.62	4.26	6.43	8.37	9.49	2.51
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	8.72	11.84	23.15	31.91	40.26	43.19	0.00	11.68	19.04	28.71	37.36	42.35	11.15
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	1.14	1.55	3.05	4.22	5.32	5.71	0.00	1.53	2.50	3.78	4.93	5.60	1.51
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	2.10	2.85	5.57	7.67	9.68	10.38	0.00	2.81	4.58	6.90	8.98	10.18	2.68
Canton-Massillon, OH	-	x	-	100	0.00	27.35	36.47	58.90	76.20	93.12	99.54	0.00	36.50	58.66	76.03	92.98	99.55	0.76
Charleston, WV	-	x	-	100	0.00	0.56	0.76	1.49	2.05	2.59	2.78	0.00	0.75	1.22	1.85	2.40	2.72	0.72
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	3.14	4.27	8.46	11.71	14.81	15.88	0.00	4.21	6.86	10.47	13.67	15.56	4.34
Chattanooga, AL-TN-GA	-	x	-	100	0.00	0.99	1.35	2.64	3.64	4.59	4.92	0.00	1.33	2.16	3.27	4.25	4.83	1.28
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	311.93	416.16	675.07	874.85	1,070.08	1,144.01	0.00	416.29	669.33	870.58	1,066.27	1,143.39	16.96
Chico, CA	x	-	100	-	0.00	0.36	0.49	0.96	1.33	1.67	1.79	0.00	0.49	0.79	1.19	1.55	1.76	0.46
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	3.44	4.67	9.14	12.61	15.91	17.07	0.00	4.60	7.51	11.33	14.76	16.73	4.44
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.33	0.45	0.87	1.20	1.52	1.63	0.00	0.44	0.72	1.08	1.41	1.59	0.42
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	5.00	6.79	13.28	18.31	23.09	24.77	0.00	6.70	10.92	16.47	21.43	24.29	6.39
Columbus, OH	x	x	100	100	0.00	3.23	4.39	8.58	11.82	14.92	16.00	0.00	4.33	7.05	10.64	13.84	15.69	4.13
Dallas-Fort Worth, TX	x	-	100	-	0.00	13.09	17.78	34.76	47.92	60.46	64.85	0.00	17.54	28.58	43.11	56.09	63.59	16.75
Dayton-Springfield, OH	-	x	-	100	0.00	1.52	2.06	4.03	5.55	7.00	7.51	0.00	2.03	3.31	4.99	6.49	7.36	1.94
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	40.51	54.16	89.90	117.50	144.36	154.40	0.00	54.09	87.10	115.34	142.40	153.90	7.76
Detroit-Ann Arbor, MI	x	x	100	100	0.00	45.77	61.25	102.75	134.81	165.95	177.53	0.00	61.13	98.51	131.52	162.98	176.73	11.68
Door Co., WI	x	-	100	-	0.00	0.06	0.08	0.16	0.23	0.28	0.30	0.00	0.08	0.13	0.20	0.26	0.30	0.08
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.00
Evansville, IN	-	x	-	100	0.00	0.61	0.83	1.65	2.28	2.88	3.09	0.00	0.82	1.34	2.04	2.66	3.02	0.83
Greater Connecticut, CT	x	-	100	-	0.00	3.33	4.52	8.83	12.17	15.35	16.46	0.00	4.46	7.26	10.95	14.24	16.14	4.24
Greene	x	-	100	-	0.00	0.08	0.10	0.20	0.28	0.35	0.38	0.00	0.10	0.17	0.25	0.33	0.37	0.10
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	1.50	2.04	3.98	5.49	6.92	7.43	0.00	2.01	3.27	4.94	6.42	7.28	1.92

**Table B1-37
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	1.36	1.84	3.61	4.97	6.27	6.73	0.00	1.82	2.97	4.47	5.82	6.60	1.74
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.01	0.01	0.02	0.03	0.04	0.05	0.00	0.01	0.02	0.03	0.04	0.04	0.01
Hickory, NC	-	x	-	100	0.00	0.35	0.48	0.94	1.29	1.63	1.75	0.00	0.47	0.77	1.16	1.51	1.71	0.45
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	853.95	1,138.63	1,834.42	2,371.22	2,896.44	3,096.10	0.00	1,139.49	1,831.33	2,369.36	2,894.94	3,097.03	12.36
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	82.03	109.38	176.16	227.69	278.11	297.27	0.00	109.46	175.91	227.55	278.00	297.37	1.05
Imperial Co., CA	x	-	100	-	0.00	0.42	0.57	1.11	1.53	1.93	2.07	0.00	0.56	0.91	1.38	1.79	2.03	0.53
Indianapolis, IN	-	x	-	100	0.00	3.01	4.10	8.01	11.04	13.93	14.94	0.00	4.04	6.59	9.93	12.92	14.65	3.86
Jamestown, NY	x	-	100	-	0.00	0.28	0.38	0.74	1.02	1.29	1.38	0.00	0.37	0.61	0.92	1.20	1.36	0.36
Jefferson Co., NY	x	-	100	-	0.00	0.26	0.35	0.69	0.95	1.20	1.28	0.00	0.35	0.57	0.85	1.11	1.26	0.33
Johnstown, PA	-	x	-	100	0.00	0.23	0.31	0.61	0.84	1.06	1.14	0.00	0.31	0.50	0.75	0.98	1.11	0.29
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.23	0.32	0.61	0.84	1.06	1.14	0.00	0.31	0.51	0.76	0.99	1.11	0.28
Knoxville, TN	x	x	100	100	0.00	2.05	2.78	5.44	7.50	9.46	10.14	0.00	2.74	4.47	6.74	8.77	9.95	2.62
Lancaster, PA	-	x	-	100	0.00	0.80	1.09	2.13	2.93	3.70	3.97	0.00	1.07	1.75	2.64	3.43	3.89	1.02
Las Vegas, NV	x	-	100	-	0.00	2.65	3.59	7.03	9.69	12.23	13.12	0.00	3.55	5.78	8.72	11.35	12.86	3.39
Libby, MT	-	x	-	100	0.00	0.01	0.02	0.03	0.05	0.06	0.07	0.00	0.02	0.03	0.04	0.06	0.06	0.02
Liberty-Clairton, PA	-	x	-	100	0.00	0.03	0.04	0.07	0.10	0.12	0.13	0.00	0.04	0.06	0.09	0.11	0.13	0.03
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	482.21	643.54	1,047.33	1,358.96	1,663.28	1,778.31	0.00	643.59	1,035.03	1,349.66	1,654.95	1,776.64	35.50
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	1.37	1.87	3.65	5.03	6.34	6.80	0.00	1.84	3.00	4.52	5.88	6.67	1.75
Louisville, KY-IN	-	x	-	100	0.00	2.07	2.81	5.51	7.60	9.59	10.29	0.00	2.77	4.51	6.83	8.89	10.09	2.69
Macon, GA	-	x	-	100	0.00	0.38	0.52	1.02	1.41	1.78	1.91	0.00	0.51	0.84	1.27	1.65	1.87	0.50
Manitowoc Co., WI	x	-	100	-	0.00	0.20	0.27	0.54	0.74	0.93	1.00	0.00	0.27	0.44	0.67	0.87	0.98	0.26
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.20	0.27	0.52	0.72	0.91	0.97	0.00	0.26	0.43	0.65	0.84	0.95	0.25
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.77	1.04	2.04	2.81	3.55	3.80	0.00	1.03	1.68	2.53	3.29	3.73	0.98
Memphis, TN-AR	x	-	100	-	0.00	67.83	90.47	146.27	189.32	231.42	247.39	0.00	90.51	145.50	188.77	230.93	247.35	2.38
Milwaukee-Racine, WI	x	-	100	-	0.00	3.30	4.49	8.77	12.09	15.26	16.36	0.00	4.43	7.22	10.88	14.15	16.05	4.22
Nevada (Western Part), CA	x	-	100	-	0.00	0.19	0.25	0.50	0.68	0.86	0.93	0.00	0.25	0.41	0.62	0.80	0.91	0.24
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	143.72	192.29	321.88	421.97	519.23	555.46	0.00	191.94	309.26	412.20	510.40	553.09	34.77
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.30	0.40	0.79	1.08	1.37	1.47	0.00	0.40	0.64	0.97	1.27	1.44	0.38
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	447.34	596.67	965.03	1,249.25	1,527.13	1,632.54	0.00	596.97	959.65	1,245.34	1,523.69	1,632.24	16.61
Phoenix-Mesa	x	-	100	-	0.00	7.26	9.86	19.34	26.68	33.67	36.12	0.00	9.73	15.86	23.97	31.21	35.41	9.43

**Table B1-37
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	3.68	5.00	9.79	13.49	17.02	18.26	0.00	4.94	8.04	12.13	15.79	17.90	4.72
Poughkeepsie, NY	x	x	100	100	0.00	2.39	3.25	6.35	8.76	11.05	11.85	0.00	3.20	5.22	7.88	10.25	11.62	3.06
Providence (All RI), RI	x	-	100	-	0.00	1.73	2.35	4.60	6.34	7.99	8.57	0.00	2.32	3.78	5.70	7.42	8.41	2.21
Reading, PA	-	x	-	100	0.00	0.70	0.95	1.87	2.57	3.25	3.48	0.00	0.94	1.53	2.31	3.01	3.41	0.90
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	1.40	1.90	3.71	5.12	6.46	6.93	0.00	1.88	3.06	4.61	5.99	6.79	1.78
Rochester, NY	x	-	100	-	0.00	2.42	3.29	6.44	8.87	11.19	12.01	0.00	3.25	5.29	7.98	10.39	11.77	3.10
Rome, GA	-	x	-	100	0.00	0.21	0.29	0.56	0.78	0.98	1.05	0.00	0.28	0.46	0.70	0.91	1.03	0.27
Sacramento Metro, CA	x	-	50	-	0.00	4.07	5.52	10.80	14.89	18.79	20.16	0.00	5.45	8.88	13.40	17.43	19.76	5.21
San Diego, CA	x	-	100	-	0.00	5.70	7.74	15.13	20.86	26.32	28.23	0.00	7.64	12.44	18.77	24.42	27.68	7.29
San Francisco Bay Area, CA	x	-	100	-	0.00	254.85	340.06	552.41	716.28	876.36	936.94	0.00	340.13	546.93	712.16	872.69	936.27	16.00
San Joaquin Valley, CA	x	x	50	100	0.00	48.96	65.48	109.16	142.89	175.70	187.94	0.00	65.38	105.31	139.92	173.01	187.23	10.63
Sheboygan, WI	x	-	100	-	0.00	0.23	0.31	0.60	0.83	1.04	1.12	0.00	0.30	0.49	0.74	0.97	1.10	0.29
Springfield (Western MA), MA	x	-	100	-	0.00	1.74	2.36	4.62	6.37	8.03	8.62	0.00	2.33	3.80	5.73	7.45	8.45	2.23
St. Louis, MO-IL	x	x	100	100	0.00	117.93	157.36	255.61	331.43	405.50	433.53	0.00	157.39	253.09	329.54	403.81	433.22	7.37
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	7.53	10.05	16.24	21.02	25.69	27.46	0.00	10.05	16.16	20.96	25.64	27.46	0.26
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	2.22	2.99	5.37	7.21	8.99	9.63	0.00	2.97	4.81	6.78	8.59	9.51	1.53
Washington, DC-MD-VA	x	x	100	100	0.00	9.19	12.49	24.40	33.63	42.43	45.51	0.00	12.32	20.08	30.27	39.37	44.63	11.72
Wheeling, WV-OH	-	x	-	100	0.00	0.32	0.43	0.85	1.17	1.47	1.58	0.00	0.43	0.70	1.05	1.37	1.55	0.41
York, PA	-	x	-	100	0.00	0.74	1.01	1.97	2.72	3.43	3.68	0.00	1.00	1.62	2.45	3.18	3.61	0.95

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-38
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	6.37	8.59	17.60	23.11	27.53	29.89	0.00	10.41	17.49	26.45	31.89	35.51	10.49
Allegan Co., MI	x	-	100	-	0.00	0.70	0.94	1.93	2.53	3.01	3.27	0.00	1.14	1.91	2.89	3.49	3.88	1.15
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.67	0.91	1.84	2.41	2.87	3.11	0.00	1.10	1.85	2.77	3.33	3.70	1.04
Atlanta, GA	x	x	100	100	0.00	36.89	49.65	100.21	131.15	156.02	169.38	0.00	60.44	101.23	150.77	181.08	201.22	55.78
Baltimore, MD	x	x	100	100	0.00	14.04	18.93	38.80	50.94	60.69	65.89	0.00	22.93	38.53	58.31	70.31	78.28	23.18
Baton Rouge, LA	x	-	100	-	0.00	528.02	700.71	1,165.65	1,461.96	1,705.11	1,847.34	0.00	895.48	1,451.32	1,783.49	2,030.15	2,192.93	5.40
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1,058.45	1,404.52	2,334.08	2,926.67	3,413.01	3,697.66	0.00	1,795.31	2,909.26	3,571.57	4,064.25	4,389.37	3.36
Birmingham, AL	-	x	-	100	0.00	4.99	6.73	13.88	18.24	21.74	23.60	0.00	8.15	13.70	20.84	25.17	28.04	8.48
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	22.00	29.67	61.27	80.54	96.01	104.25	0.00	35.87	60.36	92.01	111.14	123.85	37.71
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	2.99	4.03	8.31	10.93	13.02	14.14	0.00	4.87	8.20	12.48	15.08	16.80	5.10
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	5.26	7.09	14.66	19.28	22.99	24.96	0.00	8.57	14.43	22.02	26.60	29.65	9.07
Canton-Massillon, OH	-	x	-	100	0.00	70.03	92.95	155.22	194.86	227.38	246.35	0.00	118.69	192.47	237.41	270.56	292.45	2.59
Charleston, WV	-	x	-	100	0.00	1.38	1.86	3.86	5.08	6.06	6.58	0.00	2.25	3.78	5.80	7.01	7.82	2.43
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	8.98	12.10	24.76	32.49	38.70	42.01	0.00	14.67	24.63	37.20	44.84	49.91	14.67
Chattanooga, AL-TN-GA	-	x	-	100	0.00	2.54	3.43	7.07	9.30	11.08	12.04	0.00	4.15	6.97	10.63	12.83	14.30	4.34
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	799.43	1,061.50	1,781.47	2,239.17	2,614.31	2,832.69	0.00	1,353.87	2,197.15	2,723.44	3,108.50	3,362.74	57.38
Chico, CA	x	-	100	-	0.00	0.95	1.27	2.62	3.43	4.09	4.44	0.00	1.54	2.59	3.93	4.74	5.28	1.57
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	8.85	11.94	24.60	32.33	38.54	41.84	0.00	14.44	24.29	36.96	44.62	49.71	15.02
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.81	1.09	2.26	2.97	3.55	3.85	0.00	1.31	2.21	3.39	4.10	4.57	1.42
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	12.49	16.85	34.87	45.85	54.67	59.36	0.00	20.36	34.28	52.36	63.27	70.53	21.63
Columbus, OH	x	x	100	100	0.00	8.62	11.62	23.74	31.15	37.10	40.28	0.00	14.09	23.66	35.68	42.99	47.85	13.99
Dallas-Fort Worth, TX	x	-	100	-	0.00	36.59	49.27	99.86	130.80	155.66	168.99	0.00	59.90	100.42	150.19	180.57	200.76	56.66
Dayton-Springfield, OH	-	x	-	100	0.00	3.80	5.12	10.59	13.93	16.61	18.03	0.00	6.19	10.42	15.91	19.22	21.42	6.56
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	104.64	139.18	239.54	302.92	354.69	384.43	0.00	176.50	287.55	365.34	420.17	456.42	26.25
Detroit-Ann Arbor, MI	x	x	100	100	0.00	117.04	155.80	271.35	344.11	403.46	437.35	0.00	197.02	321.58	413.40	477.12	519.27	39.51
Door Co., WI	x	-	100	-	0.00	0.15	0.21	0.43	0.57	0.67	0.73	0.00	0.25	0.42	0.65	0.78	0.87	0.27
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.00	0.01	0.02	0.03	0.03	0.04	0.01
Evansville, IN	-	x	-	100	0.00	1.58	2.14	4.44	5.85	6.98	7.58	0.00	2.58	4.35	6.67	8.07	9.00	2.81
Greater Connecticut, CT	x	-	100	-	0.00	8.60	11.60	23.82	31.29	37.28	40.48	0.00	14.04	23.61	35.79	43.18	48.09	14.35
Greene	x	-	100	-	0.00	0.18	0.25	0.52	0.68	0.81	0.88	0.00	0.30	0.50	0.78	0.94	1.05	0.33
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	3.89	5.24	10.76	14.14	16.85	18.29	0.00	6.34	10.66	16.17	19.51	21.73	6.49

Table B1-38
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

SOx 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	3.47	4.68	9.64	12.67	15.10	16.39	0.00	5.66	9.52	14.48	17.48	19.48	5.88
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.02	0.03	0.07	0.09	0.10	0.11	0.00	0.04	0.06	0.10	0.12	0.13	0.04
Hickory, NC	-	x	-	100	0.00	0.93	1.25	2.57	3.37	4.02	4.36	0.00	1.52	2.56	3.86	4.65	5.18	1.52
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	2,188.06	2,903.90	4,836.88	6,068.34	7,078.69	7,669.28	0.00	3,709.99	6,014.01	7,399.70	8,426.42	9,104.05	41.80
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	210.09	278.82	464.27	582.43	679.38	736.05	0.00	356.24	577.45	710.29	808.76	873.75	3.56
Imperial Co., CA	x	-	100	-	0.00	1.20	1.61	3.25	4.25	5.06	5.49	0.00	1.96	3.28	4.89	5.87	6.52	1.81
Indianapolis, IN	-	x	-	100	0.00	8.03	10.82	22.13	29.03	34.58	37.54	0.00	13.12	22.04	33.26	40.07	44.60	13.06
Jamestown, NY	x	-	100	-	0.00	0.70	0.94	1.95	2.56	3.05	3.32	0.00	1.14	1.92	2.93	3.54	3.94	1.21
Jefferson Co., NY	x	-	100	-	0.00	0.70	0.94	1.91	2.51	2.99	3.24	0.00	1.14	1.91	2.88	3.46	3.85	1.12
Johnstown, PA	-	x	-	100	0.00	0.56	0.76	1.57	2.07	2.47	2.68	0.00	0.91	1.54	2.36	2.85	3.18	0.99
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.69	0.92	1.84	2.40	2.85	3.09	0.00	1.13	1.89	2.77	3.31	3.67	0.95
Knoxville, TN	x	x	100	100	0.00	5.37	7.24	14.84	19.48	23.21	25.20	0.00	8.77	14.73	22.30	26.89	29.94	8.87
Lancaster, PA	-	x	-	100	0.00	2.05	2.77	5.70	7.49	8.93	9.70	0.00	3.35	5.64	8.57	10.34	11.52	3.47
Las Vegas, NV	x	-	100	-	0.00	7.82	10.53	21.14	27.64	32.86	35.67	0.00	12.83	21.47	31.81	38.16	42.38	11.49
Libby, MT	-	x	-	100	0.00	0.03	0.05	0.09	0.12	0.15	0.16	0.00	0.06	0.09	0.14	0.17	0.19	0.06
Liberty-Clairton, PA	-	x	-	100	0.00	0.06	0.08	0.18	0.23	0.28	0.30	0.00	0.10	0.17	0.26	0.32	0.36	0.11
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	1,238.70	1,645.17	2,770.93	3,485.91	4,071.62	4,411.91	0.00	2,096.60	3,404.36	4,234.66	4,838.67	5,237.55	120.12
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	3.80	5.12	10.39	13.61	16.20	17.59	0.00	6.23	10.44	15.63	18.79	20.90	5.92
Louisville, KY-IN	-	x	-	100	0.00	5.20	7.01	14.54	19.13	22.81	24.77	0.00	8.46	14.25	21.83	26.39	29.43	9.11
Macon, GA	-	x	-	100	0.00	0.97	1.31	2.71	3.56	4.25	4.61	0.00	1.58	2.65	4.06	4.92	5.48	1.70
Manitowoc Co., WI	x	-	100	-	0.00	0.51	0.68	1.41	1.85	2.21	2.40	0.00	0.83	1.39	2.12	2.56	2.85	0.87
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.56	0.75	1.52	1.99	2.36	2.57	0.00	0.91	1.53	2.28	2.74	3.05	0.85
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	2.22	2.99	6.02	7.88	9.37	10.18	0.00	3.64	6.10	9.06	10.88	12.09	3.32
Memphis, TN-AR	x	-	100	-	0.00	173.67	230.54	385.51	484.13	565.00	612.17	0.00	294.28	477.32	589.56	672.17	726.70	8.07
Milwaukee-Racine, WI	x	-	100	-	0.00	8.37	11.29	23.30	30.62	36.50	39.63	0.00	13.66	22.97	34.99	42.25	47.08	14.29
Nevada (Western Part), CA	x	-	100	-	0.00	0.50	0.67	1.38	1.81	2.15	2.34	0.00	0.82	1.37	2.07	2.49	2.77	0.81
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	367.59	489.25	850.07	1,077.40	1,262.89	1,368.93	0.00	619.04	1,010.03	1,295.39	1,493.98	1,625.33	117.63
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.73	0.98	2.04	2.69	3.21	3.48	0.00	1.19	2.00	3.07	3.71	4.14	1.29
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1,146.51	1,522.04	2,546.09	3,197.69	3,731.99	4,043.56	0.00	1,942.68	3,151.17	3,893.55	4,439.63	4,800.12	56.19
Phoenix-Mesa	x	-	100	-	0.00	21.07	28.36	57.25	74.93	89.15	96.78	0.00	34.51	57.81	86.13	103.46	114.97	31.92

**Table B1-38
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	9.03	12.18	25.30	33.30	39.72	43.13	0.00	14.70	24.76	37.98	45.95	51.24	15.97
Poughkeepsie, NY	x	x	100	100	0.00	6.33	8.53	17.46	22.91	27.29	29.63	0.00	10.34	17.36	26.23	31.62	35.20	10.35
Providence (All RI), RI	x	-	100	-	0.00	4.38	5.90	12.18	16.01	19.09	20.72	0.00	7.13	12.00	18.29	22.09	24.62	7.49
Reading, PA	-	x	-	100	0.00	1.86	2.51	5.14	6.74	8.03	8.72	0.00	3.04	5.11	7.72	9.30	10.35	3.04
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	4.43	5.96	11.81	15.41	18.30	19.87	0.00	7.29	12.16	17.80	21.28	23.60	6.04
Rochester, NY	x	-	100	-	0.00	6.17	8.32	17.16	22.55	26.88	29.18	0.00	10.07	16.94	25.77	31.12	34.67	10.49
Rome, GA	-	x	-	100	0.00	0.53	0.72	1.49	1.96	2.33	2.53	0.00	0.87	1.47	2.24	2.70	3.01	0.92
Sacramento Metro, CA	x	-	50	-	0.00	11.13	14.99	30.50	39.98	47.60	51.67	0.00	18.20	30.53	45.85	55.19	61.39	17.62
San Diego, CA	x	-	100	-	0.00	14.35	19.36	39.99	52.58	62.68	68.06	0.00	23.40	39.38	60.06	72.55	80.86	24.67
San Francisco Bay Area, CA	x	-	100	-	0.00	652.71	866.77	1,456.98	1,832.03	2,139.36	2,318.10	0.00	1,105.11	1,793.89	2,227.05	2,543.16	2,751.89	54.13
San Joaquin Valley, CA	x	x	50	100	0.00	127.64	169.82	293.51	371.54	435.25	471.77	0.00	215.13	350.72	447.48	515.28	560.11	35.95
Sheboygan, WI	x	-	100	-	0.00	0.58	0.78	1.61	2.11	2.51	2.73	0.00	0.94	1.59	2.41	2.91	3.24	0.97
Springfield (Western MA), MA	x	-	100	-	0.00	4.47	6.03	12.40	16.29	19.42	21.08	0.00	7.29	12.26	18.63	22.49	25.05	7.53
St. Louis, MO-IL	x	x	100	100	0.00	301.98	401.02	674.05	847.55	989.72	1,072.41	0.00	511.30	829.96	1,030.31	1,176.53	1,273.08	24.92
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	19.26	25.57	42.76	53.69	62.66	67.89	0.00	32.64	52.95	65.39	74.54	80.59	0.87
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	5.67	7.59	14.25	18.37	21.71	23.55	0.00	9.42	15.57	21.56	25.42	27.97	5.17
Washington, DC-MD-VA	x	x	100	100	0.00	24.38	32.85	67.16	88.13	104.96	113.96	0.00	39.84	66.89	100.95	121.64	135.39	39.64
Wheeling, WV-OH	-	x	-	100	0.00	0.78	1.06	2.20	2.89	3.45	3.74	0.00	1.28	2.15	3.30	3.99	4.45	1.38
York, PA	-	x	-	100	0.00	2.02	2.71	5.53	7.25	8.63	9.37	0.00	3.30	5.53	8.31	10.01	11.14	3.21

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-39
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	9.73	13.04	27.01	35.09	41.20	44.92	0.00	18.17	30.69	46.80	55.30	61.17	19.22
Allegan Co., MI	x	-	100	-	0.00	1.06	1.42	2.95	3.84	4.50	4.91	0.00	1.98	3.35	5.11	6.04	6.69	2.10
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.09	1.46	2.97	3.84	4.50	4.91	0.00	2.06	3.46	5.14	6.04	6.67	1.91
Atlanta, GA	x	x	100	100	0.00	61.89	82.73	166.05	214.55	251.26	273.89	0.00	116.77	195.50	287.91	337.46	372.24	102.25
Baltimore, MD	x	x	100	100	0.00	21.34	28.59	59.32	77.09	90.51	98.69	0.00	39.81	67.27	102.78	121.49	134.41	42.49
Baton Rouge, LA	x	-	100	-	0.00	807.16	1,066.75	1,786.97	2,227.11	2,566.10	2,792.50	0.00	1,604.68	2,574.02	3,112.54	3,461.30	3,743.79	9.90
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1,617.79	2,137.95	3,577.70	4,457.87	5,135.87	5,588.91	0.00	3,217.08	5,159.33	6,231.78	6,927.72	7,492.16	6.16
Birmingham, AL	-	x	-	100	0.00	7.45	9.99	20.91	27.22	31.98	34.87	0.00	13.86	23.47	36.23	42.92	47.52	15.54
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	32.32	43.34	91.20	118.81	139.65	152.28	0.00	59.99	101.79	157.97	187.38	207.57	69.13
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	4.52	6.07	12.68	16.49	19.38	21.13	0.00	8.42	14.26	21.96	26.00	28.79	9.35
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	7.66	10.27	21.67	28.25	33.21	36.22	0.00	14.20	24.11	37.54	44.56	49.38	16.62
Canton-Massillon, OH	-	x	-	100	0.00	106.94	141.36	237.73	296.53	341.81	371.98	0.00	212.38	340.95	414.02	461.00	498.87	4.74
Charleston, WV	-	x	-	100	0.00	1.97	2.65	5.63	7.35	8.64	9.43	0.00	3.65	6.21	9.75	11.60	12.86	4.45
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	14.88	19.91	40.58	52.57	61.64	67.20	0.00	27.93	46.96	70.33	82.77	91.42	26.89
Chattanooga, AL-TN-GA	-	x	-	100	0.00	3.79	5.09	10.66	13.88	16.31	17.78	0.00	7.05	11.95	18.47	21.88	24.23	7.96
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,221.49	1,615.17	2,730.06	3,409.23	3,931.77	4,279.06	0.00	2,422.81	3,893.65	4,754.03	5,302.09	5,741.25	105.19
Chico, CA	x	-	100	-	0.00	1.43	1.92	3.99	5.18	6.08	6.63	0.00	2.67	4.51	6.91	8.17	9.04	2.87
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	13.41	17.98	37.53	48.82	57.34	62.53	0.00	24.98	42.28	65.01	76.96	85.19	27.53
Clearfield and Indiana Cos.	x	-	100	-	0.00	1.15	1.55	3.29	4.29	5.05	5.51	0.00	2.13	3.62	5.70	6.78	7.51	2.60
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	18.13	24.33	51.42	67.04	78.83	85.96	0.00	33.61	57.10	89.06	105.76	117.20	39.66
Columbus, OH	x	x	100	100	0.00	13.41	17.96	36.98	48.00	56.32	61.40	0.00	25.09	42.30	64.08	75.60	83.59	25.64
Dallas-Fort Worth, TX	x	-	100	-	0.00	59.73	79.89	161.73	209.29	245.27	267.38	0.00	112.36	188.57	280.37	329.36	363.59	103.88
Dayton-Springfield, OH	-	x	-	100	0.00	5.52	7.41	15.65	20.40	23.98	26.15	0.00	10.24	17.39	27.10	32.18	35.65	12.03
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	160.77	212.90	369.13	463.51	535.91	583.40	0.00	316.77	511.85	642.36	722.20	784.43	48.12
Detroit-Ann Arbor, MI	x	x	100	100	0.00	177.65	235.43	413.39	520.47	602.51	655.98	0.00	348.84	565.24	719.14	811.69	882.94	72.43
Door Co., WI	x	-	100	-	0.00	0.22	0.30	0.63	0.83	0.97	1.06	0.00	0.42	0.71	1.10	1.30	1.45	0.49
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.01	0.03	0.03	0.04	0.04	0.00	0.02	0.03	0.05	0.05	0.06	0.02
Evansville, IN	-	x	-	100	0.00	2.37	3.18	6.72	8.75	10.29	11.22	0.00	4.40	7.47	11.63	13.81	15.30	5.15
Greater Connecticut, CT	x	-	100	-	0.00	12.91	17.30	36.06	46.90	55.08	60.06	0.00	24.05	40.69	62.47	73.92	81.81	26.30
Greene	x	-	100	-	0.00	0.26	0.35	0.74	0.97	1.14	1.25	0.00	0.48	0.81	1.29	1.53	1.70	0.60
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	5.85	7.83	16.32	21.23	24.93	27.19	0.00	10.89	18.42	28.28	33.46	37.04	11.89

**Table B1-39
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	5.15	6.90	14.46	18.82	22.12	24.12	0.00	9.57	16.22	25.05	29.68	32.86	10.77
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.03	0.05	0.10	0.13	0.15	0.16	0.00	0.06	0.11	0.17	0.20	0.22	0.07
Hickory, NC	-	x	-	100	0.00	1.43	1.91	3.95	5.13	6.02	6.57	0.00	2.66	4.49	6.84	8.08	8.94	2.79
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	3,344.94	4,421.02	7,415.53	9,244.67	10,653.25	11,593.29	0.00	6,647.69	10,666.28	12,915.85	14,369.16	15,544.44	76.64
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	321.02	424.28	711.44	886.86	1,021.95	1,112.13	0.00	638.03	1,023.66	1,239.14	1,378.43	1,491.12	6.53
Imperial Co., CA	x	-	100	-	0.00	1.98	2.65	5.33	6.88	8.06	8.79	0.00	3.73	6.26	9.23	10.83	11.95	3.32
Indianapolis, IN	-	x	-	100	0.00	12.49	16.72	34.44	44.71	52.46	57.20	0.00	23.35	39.38	59.68	70.42	77.87	23.93
Jamestown, NY	x	-	100	-	0.00	1.01	1.36	2.88	3.75	4.41	4.81	0.00	1.88	3.20	4.98	5.91	6.55	2.21
Jefferson Co., NY	x	-	100	-	0.00	1.08	1.45	2.98	3.86	4.53	4.94	0.00	2.02	3.41	5.16	6.09	6.73	2.06
Johnstown, PA	-	x	-	100	0.00	0.80	1.07	2.28	2.97	3.50	3.81	0.00	1.47	2.50	3.94	4.69	5.20	1.82
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	1.17	1.57	3.09	3.98	4.66	5.08	0.00	2.23	3.71	5.37	6.26	6.89	1.74
Knoxville, TN	x	x	100	100	0.00	8.18	10.96	22.73	29.53	34.67	37.81	0.00	15.26	25.78	39.37	46.54	51.49	16.26
Lancaster, PA	-	x	-	100	0.00	3.06	4.10	8.57	11.16	13.11	14.30	0.00	5.69	9.63	14.85	17.59	19.48	6.36
Las Vegas, NV	x	-	100	-	0.00	13.39	17.89	35.62	45.96	53.79	58.63	0.00	25.33	42.32	61.77	72.25	79.64	21.06
Libby, MT	-	x	-	100	0.00	0.05	0.07	0.14	0.18	0.22	0.24	0.00	0.09	0.16	0.25	0.29	0.32	0.10
Liberty-Clairton, PA	-	x	-	100	0.00	0.09	0.12	0.25	0.33	0.39	0.42	0.00	0.16	0.27	0.43	0.52	0.57	0.20
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	1,896.55	2,508.30	4,255.08	5,317.87	6,135.19	6,677.36	0.00	3,758.24	6,044.42	7,408.92	8,272.66	8,961.87	220.21
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	6.12	8.19	16.64	21.55	25.26	27.53	0.00	11.51	19.33	28.85	33.91	37.45	10.86
Louisville, KY-IN	-	x	-	100	0.00	7.58	10.17	21.53	28.08	33.02	36.01	0.00	14.04	23.87	37.29	44.30	49.10	16.70
Macon, GA	-	x	-	100	0.00	1.41	1.90	4.02	5.24	6.16	6.72	0.00	2.62	4.45	6.96	8.26	9.16	3.11
Manitowoc Co., WI	x	-	100	-	0.00	0.74	0.99	2.08	2.71	3.19	3.48	0.00	1.36	2.32	3.61	4.28	4.74	1.59
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.92	1.23	2.48	3.20	3.75	4.09	0.00	1.73	2.90	4.29	5.04	5.56	1.56
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	3.73	4.99	9.99	12.91	15.11	16.47	0.00	7.05	11.79	17.33	20.30	22.38	6.09
Memphis, TN-AR	x	-	100	-	0.00	265.16	350.54	590.34	736.60	849.19	924.16	0.00	526.44	845.38	1,028.10	1,145.26	1,239.55	14.79
Milwaukee-Racine, WI	x	-	100	-	0.00	12.33	16.53	34.74	45.24	53.17	57.98	0.00	22.90	38.83	60.17	71.35	79.03	26.19
Nevada (Western Part), CA	x	-	100	-	0.00	0.78	1.04	2.14	2.78	3.26	3.56	0.00	1.46	2.45	3.71	4.38	4.84	1.48
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	558.16	739.59	1,295.41	1,630.12	1,886.59	2,053.98	0.00	1,096.72	1,776.11	2,253.65	2,541.75	2,764.07	215.65
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	1.04	1.40	2.98	3.89	4.58	4.99	0.00	1.93	3.29	5.16	6.14	6.81	2.36
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1,752.17	2,316.43	3,902.44	4,869.73	5,614.22	6,109.90	0.00	3,478.35	5,586.13	6,796.18	7,571.59	8,195.36	103.01
Phoenix-Mesa	x	-	100	-	0.00	35.39	47.30	94.96	122.70	143.69	156.64	0.00	66.76	111.78	164.65	192.99	212.88	58.52

Table B1-39
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

SOx 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	12.85	17.25	36.78	48.02	56.49	61.61	0.00	23.75	40.44	63.68	75.78	84.04	29.28
Poughkeepsie, NY	x	x	100	100	0.00	9.71	13.01	26.89	34.93	41.00	44.70	0.00	18.14	30.62	46.59	55.03	60.86	18.98
Providence (All RI), RI	x	-	100	-	0.00	6.42	8.61	18.11	23.60	27.73	30.24	0.00	11.92	20.22	31.37	37.21	41.22	13.73
Reading, PA	-	x	-	100	0.00	2.86	3.83	7.92	10.28	12.07	13.16	0.00	5.34	9.02	13.72	16.20	17.92	5.58
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	8.12	10.83	21.11	27.13	31.70	34.55	0.00	15.46	25.69	36.63	42.60	46.86	11.07
Rochester, NY	x	-	100	-	0.00	9.13	12.24	25.67	33.42	39.28	42.83	0.00	16.96	28.75	44.46	52.70	58.37	19.23
Rome, GA	-	x	-	100	0.00	0.78	1.05	2.21	2.88	3.38	3.69	0.00	1.45	2.46	3.83	4.54	5.03	1.68
Sacramento Metro, CA	x	-	50	-	0.00	17.71	23.71	48.39	62.72	73.54	80.18	0.00	33.23	55.90	83.88	98.74	109.09	32.31
San Diego, CA	x	-	100	-	0.00	20.98	28.14	59.30	77.27	90.83	99.05	0.00	38.92	66.06	102.71	121.88	135.03	45.23
San Francisco Bay Area, CA	x	-	100	-	0.00	996.27	1,317.47	2,230.51	2,786.41	3,214.02	3,497.97	0.00	1,975.24	3,175.46	3,883.96	4,333.99	4,693.91	99.24
San Joaquin Valley, CA	x	x	50	100	0.00	197.73	261.90	455.91	572.95	662.70	721.46	0.00	389.17	629.38	793.28	892.98	970.38	65.91
Sheboygan, WI	x	-	100	-	0.00	0.86	1.15	2.41	3.14	3.69	4.02	0.00	1.60	2.71	4.18	4.95	5.48	1.78
Springfield (Western MA), MA	x	-	100	-	0.00	6.66	8.93	18.67	24.30	28.55	31.13	0.00	12.40	20.99	32.35	38.31	42.42	13.80
St. Louis, MO-IL	x	x	100	100	0.00	460.91	609.50	1,031.84	1,288.99	1,486.79	1,618.14	0.00	913.82	1,469.08	1,796.74	2,004.88	2,171.37	45.68
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	29.39	38.85	65.41	81.62	94.09	102.40	0.00	58.34	93.69	113.92	126.90	137.34	1.60
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	8.50	11.33	21.51	27.51	32.07	34.95	0.00	16.33	26.95	37.34	43.13	47.32	9.48
Washington, DC-MD-VA	x	x	100	100	0.00	37.90	50.75	104.55	135.71	159.26	173.64	0.00	70.88	119.53	181.18	213.78	236.37	72.68
Wheeling, WV-OH	-	x	-	100	0.00	1.12	1.50	3.20	4.18	4.92	5.36	0.00	2.07	3.53	5.54	6.59	7.31	2.53
York, PA	-	x	-	100	0.00	3.17	4.24	8.69	11.27	13.21	14.41	0.00	5.94	9.99	15.06	17.74	19.61	5.89

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-40
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

SOx 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	13.60	18.16	38.17	49.22	57.22	62.56	0.00	27.75	47.09	72.69	85.08	93.82	31.34
Allegan Co., MI	x	-	100	-	0.00	1.48	1.98	4.16	5.36	6.23	6.82	0.00	3.02	5.12	7.92	9.27	10.22	3.43
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.73	2.30	4.62	5.92	6.86	7.50	0.00	3.59	6.01	8.81	10.19	11.20	3.12
Atlanta, GA	x	x	100	100	0.00	107.18	142.49	280.10	357.30	413.40	451.78	0.00	224.86	373.38	533.53	613.49	673.24	166.69
Baltimore, MD	x	x	100	100	0.00	29.57	39.50	83.26	107.44	124.92	136.59	0.00	60.25	102.35	158.59	185.76	204.91	69.27
Baton Rouge, LA	x	-	100	-	0.00	1,163.31	1,532.13	2,578.40	3,194.74	3,648.86	3,982.96	0.00	2,577.91	4,103.21	4,912.11	5,386.18	5,829.91	16.14
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2,331.10	3,069.99	5,161.00	6,393.28	7,301.35	7,969.82	0.00	5,167.46	8,222.85	9,832.21	10,777.27	11,663.89	10.05
Birmingham, AL	-	x	-	100	0.00	10.12	13.53	28.92	37.40	43.52	47.59	0.00	20.50	34.99	55.08	64.74	71.48	25.34
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	42.04	56.28	122.06	158.20	184.29	201.52	0.00	84.59	145.14	232.49	274.25	303.09	112.70
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	6.21	8.30	17.67	22.83	26.57	29.05	0.00	12.60	21.48	33.65	39.51	43.62	15.25
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	9.71	13.01	28.47	36.95	43.07	47.10	0.00	19.46	33.50	54.23	64.11	70.90	27.10
Canton-Massillon, OH	-	x	-	100	0.00	153.75	202.54	342.22	424.37	484.87	529.29	0.00	340.29	542.15	651.96	715.85	775.13	7.73
Charleston, WV	-	x	-	100	0.00	2.42	3.25	7.23	9.40	10.97	12.00	0.00	4.81	8.34	13.76	16.34	18.09	7.26
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	24.63	32.79	65.78	84.21	97.57	106.65	0.00	51.24	85.63	125.30	144.89	159.25	43.84
Chattanooga, AL-TN-GA	-	x	-	100	0.00	5.08	6.80	14.59	18.88	21.98	24.04	0.00	10.28	17.57	27.80	32.70	36.12	12.98
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,758.41	2,317.10	3,935.30	4,885.11	5,584.23	6,096.02	0.00	3,885.42	6,198.12	7,497.05	8,245.94	8,933.46	171.48
Chico, CA	x	-	100	-	0.00	1.96	2.62	5.55	7.17	8.33	9.11	0.00	3.99	6.79	10.57	12.39	13.67	4.69
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	19.13	25.56	53.89	69.54	80.86	88.41	0.00	38.98	66.22	102.64	120.24	132.63	44.88
Clearfield and Indiana Cos.	x	-	100	-	0.00	1.40	1.88	4.20	5.47	6.38	6.98	0.00	2.79	4.83	8.00	9.50	10.52	4.24
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	22.94	30.73	67.42	87.52	102.03	111.58	0.00	45.91	79.10	128.40	151.88	167.98	64.66
Columbus, OH	x	x	100	100	0.00	19.77	26.38	54.52	70.14	81.44	89.03	0.00	40.64	68.58	103.85	121.03	133.32	41.80
Dallas-Fort Worth, TX	x	-	100	-	0.00	97.56	129.86	259.51	331.97	384.56	420.31	0.00	203.35	339.40	494.31	570.97	627.38	169.35
Dayton-Springfield, OH	-	x	-	100	0.00	7.00	9.37	20.53	26.65	31.07	33.97	0.00	14.01	24.13	39.11	46.24	51.14	19.61
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	233.76	308.48	537.48	670.62	768.36	838.96	0.00	512.26	822.39	1,023.91	1,135.69	1,233.44	78.45
Detroit-Ann Arbor, MI	x	x	100	100	0.00	251.48	332.14	586.91	734.31	842.37	919.87	0.00	548.52	883.80	1,118.06	1,245.71	1,354.72	118.07
Door Co., WI	x	-	100	-	0.00	0.28	0.38	0.83	1.08	1.26	1.38	0.00	0.57	0.98	1.58	1.87	2.07	0.80
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.02	0.04	0.05	0.05	0.06	0.00	0.02	0.04	0.07	0.08	0.09	0.03
Evansville, IN	-	x	-	100	0.00	3.19	4.26	9.22	11.94	13.90	15.20	0.00	6.42	11.00	17.55	20.69	22.86	8.40
Greater Connecticut, CT	x	-	100	-	0.00	17.40	23.27	49.56	64.05	74.52	81.48	0.00	35.31	60.19	94.39	110.84	122.35	42.87
Greene	x	-	100	-	0.00	0.30	0.41	0.93	1.21	1.41	1.55	0.00	0.60	1.05	1.77	2.11	2.33	0.98
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	7.92	10.58	22.51	29.09	33.84	37.01	0.00	16.07	27.38	42.88	50.34	55.56	19.39

**Table B1-40
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

SOx 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	6.78	9.08	19.54	25.29	29.44	32.20	0.00	13.70	23.43	37.21	43.81	48.39	17.57
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.04	0.06	0.13	0.17	0.20	0.22	0.00	0.09	0.15	0.25	0.29	0.32	0.12
Hickory, NC	-	x	-	100	0.00	2.00	2.67	5.59	7.21	8.38	9.17	0.00	4.08	6.92	10.66	12.46	13.74	4.55
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	4,821.82	6,351.04	10,702.22	13,264.05	15,151.35	16,538.85	0.00	10,680.80	17,005.84	20,388.75	22,366.46	24,212.30	124.94
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	462.22	608.80	1,025.58	1,270.99	1,451.79	1,584.74	0.00	1,023.97	1,630.22	1,953.82	2,143.12	2,319.91	10.65
Imperial Co., CA	x	-	100	-	0.00	3.25	4.33	8.59	10.97	12.71	13.89	0.00	6.80	11.32	16.36	18.86	20.71	5.41
Indianapolis, IN	-	x	-	100	0.00	18.44	24.61	50.87	65.43	75.98	83.06	0.00	37.91	63.97	96.88	112.92	124.38	39.02
Jamestown, NY	x	-	100	-	0.00	1.28	1.72	3.77	4.89	5.70	6.23	0.00	2.57	4.42	7.17	8.48	9.38	3.61
Jefferson Co., NY	x	-	100	-	0.00	1.56	2.09	4.33	5.57	6.46	7.07	0.00	3.21	5.42	8.24	9.61	10.58	3.35
Johnstown, PA	-	x	-	100	0.00	0.96	1.29	2.89	3.76	4.39	4.80	0.00	1.90	3.30	5.50	6.53	7.24	2.96
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	2.05	2.73	5.28	6.71	7.76	8.47	0.00	4.34	7.17	10.05	11.50	12.61	2.84
Knoxville, TN	x	x	100	100	0.00	11.38	15.20	32.01	41.29	48.01	52.49	0.00	23.20	39.39	60.96	71.39	78.74	26.51
Lancaster, PA	-	x	-	100	0.00	4.05	5.42	11.63	15.05	17.52	19.15	0.00	8.18	13.99	22.15	26.06	28.78	10.36
Las Vegas, NV	x	-	100	-	0.00	23.47	31.19	60.78	77.42	89.52	97.82	0.00	49.41	81.83	115.77	132.81	145.64	34.33
Libby, MT	-	x	-	100	0.00	0.07	0.09	0.19	0.25	0.29	0.32	0.00	0.14	0.23	0.37	0.43	0.48	0.17
Liberty-Clairton, PA	-	x	-	100	0.00	0.10	0.13	0.31	0.40	0.47	0.51	0.00	0.19	0.34	0.58	0.69	0.77	0.33
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	2,741.84	3,613.74	6,159.79	7,652.13	8,750.15	9,552.39	0.00	6,051.41	9,661.97	11,734.84	12,922.68	14,005.18	358.99
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	9.59	12.77	25.78	33.03	38.29	41.85	0.00	19.90	33.33	49.10	56.86	62.53	17.70
Louisville, KY-IN	-	x	-	100	0.00	9.68	12.97	28.43	36.91	43.03	47.05	0.00	19.38	33.38	54.15	64.05	70.83	27.23
Macon, GA	-	x	-	100	0.00	1.81	2.42	5.31	6.89	8.04	8.79	0.00	3.62	6.24	10.11	11.96	13.23	5.07
Manitowoc Co., WI	x	-	100	-	0.00	0.93	1.25	2.73	3.54	4.12	4.51	0.00	1.86	3.21	5.19	6.14	6.79	2.60
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	1.50	1.99	3.96	5.07	5.87	6.41	0.00	3.12	5.21	7.55	8.71	9.57	2.54
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	6.35	8.44	16.60	21.18	24.51	26.78	0.00	13.31	22.10	31.62	36.37	39.91	9.93
Memphis, TN-AR	x	-	100	-	0.00	381.07	502.04	849.47	1,053.69	1,204.07	1,314.38	0.00	843.02	1,343.58	1,618.31	1,777.73	1,925.24	24.11
Milwaukee-Racine, WI	x	-	100	-	0.00	16.05	21.48	46.51	60.26	70.19	76.75	0.00	32.31	55.40	88.58	104.44	115.42	42.70
Nevada (Western Part), CA	x	-	100	-	0.00	1.12	1.50	3.11	4.00	4.64	5.08	0.00	2.31	3.89	5.92	6.90	7.61	2.41
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	790.35	1,043.69	1,839.49	2,300.34	2,638.26	2,880.93	0.00	1,725.37	2,778.14	3,504.24	3,901.13	4,241.51	351.56
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	1.28	1.72	3.83	4.98	5.81	6.36	0.00	2.55	4.42	7.29	8.66	9.59	3.85
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	2,522.43	3,323.23	5,625.04	6,977.89	7,974.04	8,704.60	0.00	5,579.57	8,893.34	10,716.19	11,773.32	12,750.65	167.93
Phoenix-Mesa	x	-	100	-	0.00	59.74	79.44	156.77	200.11	231.59	253.10	0.00	125.14	208.05	298.61	343.72	377.31	95.41

Table B1-40
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

SOx 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	15.65	21.00	46.93	61.09	71.30	77.98	0.00	31.05	53.87	89.38	106.19	117.59	47.73
Poughkeepsie, NY	x	x	100	100	0.00	13.69	18.27	38.25	49.30	57.30	62.65	0.00	27.97	47.41	72.86	85.19	93.92	30.94
Providence (All RI), RI	x	-	100	-	0.00	8.27	11.08	24.07	31.21	36.36	39.76	0.00	16.63	28.55	45.85	54.11	59.81	22.38
Reading, PA	-	x	-	100	0.00	4.04	5.39	11.28	14.54	16.89	18.47	0.00	8.26	13.99	21.48	25.11	27.69	9.09
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	16.32	21.64	40.76	51.61	59.51	65.02	0.00	34.80	57.06	77.64	88.20	96.46	18.05
Rochester, NY	x	-	100	-	0.00	11.95	15.99	34.52	44.71	52.07	56.94	0.00	24.10	41.28	65.76	77.48	85.60	31.35
Rome, GA	-	x	-	100	0.00	1.00	1.34	2.92	3.79	4.42	4.83	0.00	2.01	3.46	5.57	6.58	7.27	2.74
Sacramento Metro, CA	x	-	50	-	0.00	27.21	36.26	73.78	94.66	109.80	120.02	0.00	56.30	94.51	140.53	163.11	179.46	52.67
San Diego, CA	x	-	100	-	0.00	26.82	35.92	78.35	101.63	118.43	129.51	0.00	53.83	92.55	149.22	176.26	194.87	73.73
San Francisco Bay Area, CA	x	-	100	-	0.00	1,430.14	1,884.71	3,206.38	3,981.63	4,552.16	4,969.43	0.00	3,158.35	5,040.38	6,108.39	6,722.37	7,284.09	161.78
San Joaquin Valley, CA	x	x	50	100	0.00	291.70	385.02	673.16	840.49	963.28	1,051.82	0.00	638.49	1,025.96	1,282.39	1,423.97	1,547.04	107.45
Sheboygan, WI	x	-	100	-	0.00	1.14	1.52	3.27	4.23	4.93	5.39	0.00	2.30	3.94	6.23	7.33	8.09	2.91
Springfield (Western MA), MA	x	-	100	-	0.00	8.86	11.85	25.41	32.87	38.26	41.84	0.00	17.93	30.63	48.39	56.92	62.86	22.50
St. Louis, MO-IL	x	x	100	100	0.00	661.76	872.10	1,483.56	1,842.24	2,106.21	2,299.27	0.00	1,461.47	2,332.31	2,826.30	3,110.32	3,370.20	74.47
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	42.18	55.56	94.00	116.60	133.24	145.45	0.00	93.31	148.71	179.09	196.72	213.04	2.61
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	11.64	15.45	29.74	37.80	43.66	47.71	0.00	24.62	40.62	56.65	64.75	70.94	15.46
Washington, DC-MD-VA	x	x	100	100	0.00	56.74	75.68	156.07	200.68	232.98	254.69	0.00	116.72	196.81	297.26	346.23	381.32	118.48
Wheeling, WV-OH	-	x	-	100	0.00	1.37	1.84	4.10	5.33	6.22	6.80	0.00	2.72	4.72	7.80	9.26	10.25	4.13
York, PA	-	x	-	100	0.00	4.68	6.25	12.84	16.50	19.15	20.93	0.00	9.65	16.25	24.45	28.46	31.33	9.61

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-41
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

VOC 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	2.46	3.55	21.43	37.23	52.22	55.53	0.00	3.34	5.70	23.09	38.85	52.84	45.96
Allegan Co., MI	x	-	100	-	0.00	0.27	0.39	2.34	4.07	5.71	6.07	0.00	0.37	0.62	2.53	4.25	5.78	5.03
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	0.24	0.35	2.13	3.70	5.19	5.52	0.00	0.33	0.57	2.30	3.86	5.25	4.57
Atlanta, GA	x	x	100	100	0.00	13.05	18.85	113.95	197.97	277.73	295.32	0.00	17.76	30.27	122.78	206.61	281.04	244.46
Baltimore, MD	x	x	100	100	0.00	5.44	7.85	47.38	82.30	115.45	122.77	0.00	7.40	12.61	51.06	85.90	116.83	101.58
Baton Rouge, LA	x	-	100	-	0.00	257.94	343.99	560.92	729.30	893.89	955.31	0.00	344.21	553.27	722.53	887.53	954.49	23.68
Beaumont/Port Arthur, TX	x	-	100	-	0.00	517.58	690.06	1,114.02	1,441.72	1,762.35	1,883.64	0.00	690.64	1,109.87	1,438.22	1,759.12	1,883.92	14.74
Birmingham, AL	-	x	-	100	0.00	1.98	2.86	17.31	30.08	42.20	44.87	0.00	2.69	4.59	18.65	31.39	42.70	37.16
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	8.84	12.76	77.08	133.89	187.82	199.72	0.00	12.03	20.50	83.05	139.74	190.06	165.28
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	1.16	1.67	10.34	18.00	25.28	26.88	0.00	1.57	2.69	11.13	18.77	25.57	22.36
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	2.13	3.07	18.53	32.19	45.16	48.02	0.00	2.89	4.93	19.97	33.60	45.70	39.74
Canton-Massillon, OH	-	x	-	100	0.00	34.12	45.56	77.09	101.91	126.10	134.71	0.00	45.55	73.27	98.50	122.87	134.12	11.33
Charleston, WV	-	x	-	100	0.00	0.57	0.82	4.96	8.62	12.09	12.86	0.00	0.77	1.32	5.35	9.00	12.24	10.64
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	3.17	4.60	29.40	51.33	72.14	76.70	0.00	4.32	7.39	31.55	53.43	72.95	64.29
Chattanooga, AL-TN-GA	-	x	-	100	0.00	1.00	1.45	8.84	15.38	21.58	22.95	0.00	1.37	2.33	9.52	16.04	21.84	19.04
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	387.70	518.33	919.06	1,239.14	1,549.92	1,655.09	0.00	517.68	833.62	1,162.54	1,477.53	1,641.22	251.48
Chico, CA	x	-	100	-	0.00	0.37	0.53	3.20	5.57	7.81	8.30	0.00	0.50	0.85	3.45	5.81	7.90	6.87
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	3.48	5.03	30.61	53.21	74.67	79.40	0.00	4.74	8.08	32.97	55.52	75.55	65.82
Clearfield and Indiana Cos.	x	-	100	-	0.00	0.33	0.48	2.90	5.04	7.07	7.52	0.00	0.45	0.77	3.13	5.26	7.16	6.22
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	5.07	7.32	44.21	76.81	107.75	114.57	0.00	6.90	11.76	47.64	80.16	109.03	94.82
Columbus, OH	x	x	100	100	0.00	3.27	4.73	28.58	49.64	69.64	74.06	0.00	4.46	7.59	30.79	51.81	70.47	61.30
Dallas-Fort Worth, TX	x	-	100	-	0.00	13.27	19.16	115.79	201.15	282.19	300.06	0.00	18.06	30.77	124.76	209.93	285.55	248.36
Dayton-Springfield, OH	-	x	-	100	0.00	1.54	2.22	13.41	23.29	32.67	34.74	0.00	2.09	3.56	14.45	24.31	33.06	28.76
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	49.31	66.41	146.10	212.59	276.50	294.82	0.00	65.95	106.79	177.29	243.12	288.19	115.04
Detroit-Ann Arbor, MI	x	x	100	100	0.00	55.17	74.57	179.11	267.29	351.85	375.00	0.00	73.86	119.91	214.12	301.57	364.98	173.16
Door Co., WI	x	-	100	-	0.00	0.06	0.09	0.54	0.95	1.33	1.41	0.00	0.08	0.14	0.59	0.99	1.34	1.17
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.00	0.00	0.02	0.04	0.06	0.06	0.00	0.00	0.01	0.02	0.04	0.06	0.05
Evansville, IN	-	x	-	100	0.00	0.62	0.90	5.66	9.87	13.87	14.75	0.00	0.84	1.44	6.08	10.28	14.03	12.32
Greater Connecticut, CT	x	-	100	-	0.00	3.37	4.87	29.34	50.96	71.49	76.01	0.00	4.59	7.82	31.62	53.19	72.34	62.88
Greene	x	-	100	-	0.00	0.08	0.11	0.67	1.17	1.64	1.74	0.00	0.10	0.18	0.73	1.22	1.66	1.44
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	1.52	2.19	13.26	23.03	32.31	34.36	0.00	2.07	3.52	14.28	24.04	32.70	28.44

Table B1-41
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

VOC 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	1.38	1.99	12.01	20.87	29.27	31.13	0.00	1.87	3.19	12.94	21.78	29.62	25.76
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.01	0.01	0.08	0.14	0.20	0.21	0.00	0.01	0.02	0.09	0.15	0.20	0.18
Hickory, NC	-	x	-	100	0.00	0.36	0.52	3.12	5.41	7.59	8.07	0.00	0.49	0.83	3.36	5.65	7.68	6.68
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	1,067.66	1,424.36	2,351.75	3,075.15	3,781.43	4,040.73	0.00	1,424.85	2,290.87	3,020.91	3,730.29	4,032.35	183.22
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	102.61	136.88	225.32	294.23	361.52	386.33	0.00	136.94	220.15	289.63	357.19	385.64	15.62
Imperial Co., CA	x	-	100	-	0.00	0.42	0.61	3.70	6.42	9.01	9.58	0.00	0.58	0.98	3.98	6.70	9.12	7.93
Indianapolis, IN	-	x	-	100	0.00	3.06	4.41	26.68	46.35	65.02	69.14	0.00	4.16	7.09	28.75	48.37	65.79	57.22
Jamestown, NY	x	-	100	-	0.00	0.28	0.41	2.47	4.29	6.01	6.39	0.00	0.38	0.66	2.66	4.47	6.08	5.29
Jefferson Co., NY	x	-	100	-	0.00	0.26	0.38	2.29	3.98	5.58	5.94	0.00	0.36	0.61	2.47	4.15	5.65	4.91
Johnstown, PA	-	x	-	100	0.00	0.23	0.34	2.02	3.52	4.93	5.25	0.00	0.32	0.54	2.18	3.67	4.99	4.34
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	0.24	0.34	1.97	3.41	4.78	5.08	0.00	0.32	0.55	2.13	3.57	4.84	4.16
Knoxville, TN	x	x	100	100	0.00	2.07	3.00	18.12	31.48	44.17	46.97	0.00	2.82	4.81	19.52	32.86	44.69	38.88
Lancaster, PA	-	x	-	100	0.00	0.81	1.17	7.09	12.31	17.27	18.36	0.00	1.11	1.88	7.63	12.85	17.47	15.20
Las Vegas, NV	x	-	100	-	0.00	2.68	3.87	23.45	40.75	57.17	60.79	0.00	3.65	6.22	25.27	42.53	57.85	50.34
Libby, MT	-	x	-	100	0.00	0.01	0.02	0.12	0.20	0.28	0.30	0.00	0.02	0.03	0.13	0.21	0.29	0.25
Liberty-Clairton, PA	-	x	-	100	0.00	0.03	0.04	0.23	0.40	0.56	0.59	0.00	0.04	0.06	0.25	0.42	0.57	0.49
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	597.57	799.73	1,465.39	2,001.85	2,521.63	2,692.00	0.00	798.09	1,286.17	1,841.05	2,369.63	2,662.49	526.47
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	1.39	2.01	12.11	21.04	29.51	31.38	0.00	1.90	3.23	13.06	21.96	29.87	25.95
Louisville, KY-IN	-	x	-	100	0.00	2.09	3.03	18.53	32.23	45.23	48.09	0.00	2.85	4.86	19.95	33.61	45.76	39.93
Macon, GA	-	x	-	100	0.00	0.39	0.56	3.45	6.00	8.42	8.96	0.00	0.53	0.90	3.71	6.26	8.52	7.44
Manitowoc Co., WI	x	-	100	-	0.00	0.21	0.30	1.78	3.09	4.34	4.61	0.00	0.28	0.48	1.92	3.23	4.39	3.81
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	0.20	0.29	1.74	3.02	4.23	4.50	0.00	0.27	0.46	1.87	3.15	4.28	3.72
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	0.78	1.12	6.79	11.80	16.55	17.60	0.00	1.06	1.81	7.32	12.32	16.75	14.57
Memphis, TN-AR	x	-	100	-	0.00	84.54	112.91	193.55	257.30	319.34	341.11	0.00	112.85	181.59	246.59	309.23	339.23	35.35
Milwaukee-Racine, WI	x	-	100	-	0.00	3.35	4.84	29.20	50.73	71.16	75.67	0.00	4.56	7.77	31.47	52.94	72.01	62.62
Nevada (Western Part), CA	x	-	100	-	0.00	0.19	0.27	1.65	2.87	4.02	4.28	0.00	0.26	0.44	1.78	2.99	4.07	3.54
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	173.59	234.46	553.24	821.62	1,079.09	1,150.18	0.00	232.35	377.01	663.33	929.40	1,120.37	515.57
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	0.30	0.43	2.63	4.56	6.40	6.81	0.00	0.41	0.69	2.83	4.76	6.48	5.64
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	557.39	744.51	1,280.76	1,705.17	2,118.12	2,262.46	0.00	744.09	1,197.40	1,630.51	2,047.59	2,249.27	246.28
Phoenix-Mesa	x	-	100	-	0.00	7.35	10.63	64.97	112.98	158.55	168.60	0.00	10.01	17.07	69.94	117.85	160.42	139.92

Table B1-41
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

VOC 2015

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	3.73	5.39	32.62	56.68	79.52	84.55	0.00	5.08	8.66	35.15	59.15	80.46	70.00
Poughkeepsie, NY	x	x	100	100	0.00	2.42	3.50	21.16	36.75	51.56	54.82	0.00	3.30	5.62	22.79	38.35	52.17	45.37
Providence (All RI), RI	x	-	100	-	0.00	1.75	2.53	15.31	26.59	37.30	39.66	0.00	2.39	4.07	16.49	27.75	37.74	32.82
Reading, PA	-	x	-	100	0.00	0.71	1.03	6.22	10.80	15.15	16.11	0.00	0.97	1.65	6.70	11.27	15.33	13.33
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	1.42	2.05	12.35	21.45	30.09	31.99	0.00	1.93	3.29	13.31	22.39	30.45	26.47
Rochester, NY	x	-	100	-	0.00	2.46	3.55	21.44	37.24	52.24	55.55	0.00	3.34	5.70	23.10	38.87	52.87	45.98
Rome, GA	-	x	-	100	0.00	0.21	0.31	1.87	3.26	4.57	4.86	0.00	0.29	0.50	2.02	3.40	4.62	4.02
Sacramento Metro, CA	x	-	50	-	0.00	4.12	5.95	36.00	62.55	87.75	93.31	0.00	5.61	9.56	38.79	65.28	88.79	77.24
San Diego, CA	x	-	100	-	0.00	5.78	8.34	50.41	87.57	122.85	130.63	0.00	7.86	13.40	54.31	91.39	124.31	108.12
San Francisco Bay Area, CA	x	-	100	-	0.00	316.42	423.22	761.34	1,032.52	1,295.56	1,383.30	0.00	422.54	680.66	960.15	1,227.16	1,370.11	237.26
San Joaquin Valley, CA	x	x	50	100	0.00	59.37	80.07	182.61	268.58	351.13	374.32	0.00	79.44	128.76	220.21	305.39	365.23	157.58
Sheboygan, WI	x	-	100	-	0.00	0.23	0.33	1.99	3.46	4.85	5.16	0.00	0.31	0.53	2.15	3.61	4.91	4.27
Springfield (Western MA), MA	x	-	100	-	0.00	1.76	2.55	15.39	26.73	37.50	39.87	0.00	2.40	4.09	16.58	27.90	37.94	33.00
St. Louis, MO-IL	x	x	100	100	0.00	146.38	195.79	352.02	477.30	598.83	639.39	0.00	195.47	314.88	443.99	567.34	633.32	109.22
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	9.39	12.54	21.46	28.51	35.38	37.79	0.00	12.53	20.17	27.35	34.28	37.58	3.83
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	2.50	3.46	13.33	21.92	30.11	32.04	0.00	3.36	5.57	14.95	23.51	30.72	22.68
Washington, DC-MD-VA	x	x	100	100	0.00	9.33	13.46	81.10	140.84	197.56	210.08	0.00	12.69	21.62	87.40	147.01	199.92	173.75
Wheeling, WV-OH	-	x	-	100	0.00	0.32	0.47	2.82	4.90	6.88	7.31	0.00	0.44	0.75	3.04	5.12	6.96	6.05
York, PA	-	x	-	100	0.00	0.75	1.09	6.57	11.41	16.01	17.02	0.00	1.02	1.75	7.08	11.91	16.20	14.09

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-42
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

VOC 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	12.38	17.95	106.50	166.99	217.27	235.88	0.00	12.35	26.95	134.13	202.50	254.47	248.98
Allegan Co., MI	x	-	100	-	0.00	1.35	1.96	11.65	18.27	23.77	25.80	0.00	1.35	2.95	14.67	22.15	27.83	27.24
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	1.27	1.84	10.69	16.72	21.74	23.61	0.00	1.30	2.80	13.48	20.30	25.48	24.76
Atlanta, GA	x	x	100	100	0.00	69.05	99.70	573.50	897.04	1,165.98	1,265.81	0.00	71.14	152.16	724.22	1,089.35	1,366.79	1,324.31
Baltimore, MD	x	x	100	100	0.00	27.31	39.60	235.26	368.92	480.04	521.15	0.00	27.22	59.43	296.27	447.35	562.21	550.28
Baton Rouge, LA	x	-	100	-	0.00	663.85	881.66	1,504.01	1,902.88	2,230.59	2,416.86	0.00	1,121.63	1,821.03	2,286.65	2,627.41	2,855.82	128.26
Beaumont/Port Arthur, TX	x	-	100	-	0.00	1,327.62	1,762.13	2,951.61	3,711.30	4,335.02	4,696.70	0.00	2,249.26	3,646.84	4,507.45	5,144.51	5,567.10	79.83
Birmingham, AL	-	x	-	100	0.00	9.84	14.28	85.72	134.53	175.11	190.11	0.00	9.69	21.31	107.86	163.05	205.02	201.30
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	43.52	63.22	380.78	597.76	778.13	844.78	0.00	42.74	94.18	478.98	724.38	910.98	895.37
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	5.90	8.57	51.54	80.90	105.31	114.33	0.00	5.80	12.77	64.84	98.05	123.30	121.14
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	10.43	15.16	91.48	143.64	186.99	203.01	0.00	10.22	22.55	115.06	174.05	218.91	215.29
Canton-Massillon, OH	-	x	-	100	0.00	88.84	118.25	215.33	278.23	330.00	357.64	0.00	148.56	242.43	322.40	379.13	418.25	61.39
Charleston, WV	-	x	-	100	0.00	2.76	4.02	24.43	38.38	49.98	54.26	0.00	2.68	5.95	30.71	46.49	58.49	57.65
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	17.38	25.19	149.11	233.76	304.13	330.18	0.00	17.39	37.87	187.83	283.50	356.22	348.28
Chattanooga, AL-TN-GA	-	x	-	100	0.00	5.02	7.29	43.88	68.87	89.65	97.33	0.00	4.94	10.87	55.20	83.46	104.96	103.13
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,025.86	1,369.55	2,694.53	3,561.38	4,276.33	4,635.63	0.00	1,692.86	2,781.00	3,965.51	4,784.86	5,363.08	1,362.33
Chico, CA	x	-	100	-	0.00	1.84	2.67	15.91	24.95	32.46	35.24	0.00	1.83	4.01	20.03	30.25	38.02	37.23
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	17.43	25.31	151.86	238.33	310.21	336.78	0.00	17.19	37.78	191.09	288.87	363.21	356.58
Clearfield and Indiana Cos.	x	-	100	-	0.00	1.62	2.35	14.29	22.45	29.23	31.73	0.00	1.57	3.48	17.96	27.19	34.21	33.72
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	24.83	36.08	218.15	342.55	445.97	484.17	0.00	24.28	53.66	274.33	415.05	522.06	513.67
Columbus, OH	x	x	100	100	0.00	16.64	24.10	142.32	223.07	290.19	315.04	0.00	16.69	36.30	179.32	270.56	339.92	332.07
Dallas-Fort Worth, TX	x	-	100	-	0.00	69.20	100.03	580.55	908.73	1,181.52	1,282.68	0.00	70.66	151.97	732.57	1,103.07	1,384.65	1,345.43
Dayton-Springfield, OH	-	x	-	100	0.00	7.54	10.96	66.18	103.91	135.28	146.86	0.00	7.38	16.30	83.23	125.90	158.36	155.78
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	142.03	192.26	511.32	724.84	901.68	978.09	0.00	219.28	372.67	710.26	932.99	1,097.15	623.23
Detroit-Ann Arbor, MI	x	x	100	100	0.00	163.34	222.46	658.44	951.61	1,194.64	1,296.10	0.00	244.50	422.30	898.94	1,210.75	1,442.36	938.04
Door Co., WI	x	-	100	-	0.00	0.31	0.44	2.69	4.22	5.49	5.96	0.00	0.30	0.66	3.38	5.11	6.43	6.32
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.01	0.02	0.11	0.18	0.23	0.25	0.00	0.01	0.03	0.14	0.21	0.27	0.27
Evansville, IN	-	x	-	100	0.00	3.18	4.63	28.26	44.40	57.82	62.77	0.00	3.08	6.86	35.51	53.77	67.67	66.76
Greater Connecticut, CT	x	-	100	-	0.00	16.81	24.38	145.41	228.10	296.83	322.25	0.00	16.68	36.52	183.07	276.54	347.60	340.62
Greene	x	-	100	-	0.00	0.37	0.54	3.31	5.20	6.77	7.35	0.00	0.36	0.80	4.15	6.29	7.92	7.82
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	7.60	11.02	65.75	103.15	134.23	145.73	0.00	7.54	16.50	82.78	125.05	157.19	154.05

**Table B1-42
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

VOC 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	6.83	9.91	59.45	93.29	121.43	131.83	0.00	6.74	14.80	74.81	113.07	142.17	139.55
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.05	0.07	0.41	0.64	0.83	0.91	0.00	0.05	0.10	0.51	0.78	0.98	0.96
Hickory, NC	-	x	-	100	0.00	1.80	2.61	15.49	24.28	31.59	34.30	0.00	1.80	3.93	19.51	29.45	37.00	36.18
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	2,759.05	3,667.10	6,397.03	8,153.66	9,597.97	10,400.34	0.00	4,645.70	7,555.37	9,674.09	11,205.91	12,244.09	992.57
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	264.81	351.90	610.59	776.89	913.60	989.96	0.00	446.26	725.46	924.55	1,068.89	1,166.47	84.60
Imperial Co., CA	x	-	100	-	0.00	2.24	3.23	18.60	29.09	37.81	41.05	0.00	2.31	4.93	23.49	35.33	44.33	42.95
Indianapolis, IN	-	x	-	100	0.00	15.51	22.48	132.82	208.19	270.84	294.04	0.00	15.55	33.83	167.34	252.51	317.25	310.00
Jamestown, NY	x	-	100	-	0.00	1.39	2.02	12.18	19.12	24.89	27.02	0.00	1.36	3.00	15.31	23.17	29.14	28.66
Jefferson Co., NY	x	-	100	-	0.00	1.34	1.94	11.42	17.89	23.28	25.27	0.00	1.35	2.92	14.39	21.70	27.27	26.62
Johnstown, PA	-	x	-	100	0.00	1.12	1.64	9.96	15.64	20.37	22.12	0.00	1.09	2.42	12.51	18.95	23.84	23.51
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	1.24	1.78	9.90	15.44	20.05	21.76	0.00	1.32	2.76	12.54	18.78	23.52	22.54
Knoxville, TN	x	x	100	100	0.00	10.45	15.15	90.04	141.20	183.73	199.46	0.00	10.41	22.73	113.39	171.21	215.17	210.63
Lancaster, PA	-	x	-	100	0.00	4.04	5.86	35.08	55.05	71.65	77.79	0.00	3.99	8.75	44.15	66.73	83.90	82.32
Las Vegas, NV	x	-	100	-	0.00	14.46	20.86	118.64	185.40	240.89	261.52	0.00	15.06	32.01	149.96	225.26	282.47	272.71
Libby, MT	-	x	-	100	0.00	0.07	0.10	0.58	0.90	1.18	1.28	0.00	0.07	0.14	0.73	1.10	1.38	1.35
Liberty-Clairton, PA	-	x	-	100	0.00	0.13	0.18	1.12	1.76	2.30	2.49	0.00	0.12	0.27	1.41	2.14	2.69	2.65
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	1,602.07	2,143.23	4,438.49	5,948.11	7,194.44	7,800.01	0.00	2,618.55	4,322.44	6,461.67	7,923.43	8,966.64	2,852.06
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	7.21	10.43	60.62	94.90	123.40	133.97	0.00	7.35	15.82	76.48	115.19	144.61	140.60
Louisville, KY-IN	-	x	-	100	0.00	10.39	15.10	91.71	144.05	187.57	203.63	0.00	10.11	22.40	115.28	174.50	219.55	216.30
Macon, GA	-	x	-	100	0.00	1.93	2.81	17.09	26.84	34.95	37.95	0.00	1.88	4.17	21.48	32.52	40.91	40.31
Manitowoc Co., WI	x	-	100	-	0.00	1.00	1.46	8.78	13.78	17.94	19.48	0.00	0.98	2.17	11.04	16.70	21.00	20.65
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	1.05	1.51	8.72	13.65	17.74	19.26	0.00	1.08	2.31	11.01	16.57	20.80	20.17
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	4.14	5.98	34.24	53.53	69.57	75.53	0.00	4.28	9.14	43.25	65.02	81.56	78.93
Memphis, TN-AR	x	-	100	-	0.00	221.01	294.43	548.06	712.87	848.64	919.78	0.00	368.25	602.03	816.49	967.36	1,072.20	191.52
Milwaukee-Racine, WI	x	-	100	-	0.00	16.53	24.00	144.35	226.57	294.93	320.19	0.00	16.26	35.80	181.60	274.59	345.30	339.21
Nevada (Western Part), CA	x	-	100	-	0.00	0.96	1.40	8.23	12.89	16.77	18.21	0.00	0.97	2.10	10.37	15.64	19.65	19.18
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	510.27	694.14	2,013.25	2,899.55	3,634.13	3,942.66	0.00	768.59	1,323.18	2,757.29	3,696.81	4,393.77	2,792.99
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	1.46	2.13	12.94	20.33	26.48	28.75	0.00	1.42	3.15	16.27	24.63	30.99	30.56
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	1,460.10	1,945.58	3,642.67	4,746.31	5,655.55	6,129.82	0.00	2,430.43	3,975.35	5,419.67	6,433.73	7,139.67	1,334.15
Phoenix-Mesa	x	-	100	-	0.00	39.47	57.00	328.13	513.28	667.18	724.31	0.00	40.63	86.95	414.33	623.29	782.07	757.96

**Table B1-42
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

VOC 2020

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	18.12	26.36	160.58	252.30	328.55	356.70	0.00	17.57	39.03	201.81	305.59	384.53	379.22
Poughkeepsie, NY	x	x	100	100	0.00	12.26	17.77	105.22	164.96	214.62	233.00	0.00	12.26	26.71	132.54	200.05	251.38	245.80
Providence (All RI), RI	x	-	100	-	0.00	8.65	12.56	75.63	118.73	154.55	167.79	0.00	8.50	18.72	95.14	143.88	180.94	177.81
Reading, PA	-	x	-	100	0.00	3.60	5.22	30.92	48.48	63.07	68.47	0.00	3.61	7.86	38.96	58.79	73.88	72.23
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	7.95	11.42	63.13	98.42	127.75	138.68	0.00	8.50	17.77	79.99	119.74	149.92	143.37
Rochester, NY	x	-	100	-	0.00	12.16	17.66	106.05	166.44	216.65	235.20	0.00	11.98	26.36	133.44	201.73	253.66	249.08
Rome, GA	-	x	-	100	0.00	1.06	1.54	9.26	14.54	18.92	20.54	0.00	1.04	2.29	11.65	17.61	22.15	21.78
Sacramento Metro, CA	x	-	50	-	0.00	21.25	30.75	179.95	281.86	366.57	397.96	0.00	21.51	46.51	226.91	342.01	429.49	418.42
San Diego, CA	x	-	100	-	0.00	28.43	41.30	249.00	390.93	508.91	552.49	0.00	27.88	61.50	313.20	473.71	595.78	585.74
San Francisco Bay Area, CA	x	-	100	-	0.00	840.89	1,123.64	2,262.31	3,009.14	3,625.38	3,930.24	0.00	1,381.77	2,274.76	3,313.04	4,027.05	4,533.64	1,285.29
San Joaquin Valley, CA	x	x	50	100	0.00	174.70	237.02	656.63	937.99	1,171.11	1,270.45	0.00	266.70	455.92	905.94	1,201.80	1,420.56	853.64
Sheboygan, WI	x	-	100	-	0.00	1.14	1.65	9.85	15.46	20.12	21.85	0.00	1.12	2.46	12.40	18.74	23.56	23.11
Springfield (Western MA), MA	x	-	100	-	0.00	8.77	12.73	76.21	119.59	155.64	168.97	0.00	8.67	19.03	95.92	144.96	182.24	178.78
St. Louis, MO-IL	x	x	100	100	0.00	388.88	519.62	1,045.37	1,390.16	1,674.66	1,815.48	0.00	639.11	1,052.07	1,531.15	1,860.66	2,094.41	591.67
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	24.51	32.65	60.63	78.81	93.78	101.64	0.00	40.86	66.78	90.38	106.99	118.53	20.77
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	9.29	13.07	59.55	91.18	117.45	127.48	0.00	11.49	22.04	76.90	112.11	138.73	122.84
Washington, DC-MD-VA	x	x	100	100	0.00	47.10	68.24	403.26	632.12	822.36	892.79	0.00	47.21	102.71	508.08	766.68	963.27	941.28
Wheeling, WV-OH	-	x	-	100	0.00	1.57	2.29	13.90	21.83	28.43	30.86	0.00	1.53	3.39	17.47	26.44	33.27	32.79
York, PA	-	x	-	100	0.00	3.86	5.59	32.79	51.37	66.82	72.54	0.00	3.90	8.44	41.34	62.33	78.28	76.33

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

Table B1-43
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

VOC 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	29.61	40.94	243.31	371.13	470.36	515.77	0.00	19.79	60.33	359.81	527.65	639.32	662.33
Allegan Co., MI	x	-	100	-	0.00	3.24	4.48	26.61	40.59	51.45	56.41	0.00	2.16	6.59	39.35	57.71	69.93	72.45
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	3.08	4.25	24.49	37.28	47.20	51.75	0.00	2.24	6.43	36.30	53.05	64.20	65.85
Atlanta, GA	x	x	100	100	0.00	168.37	232.12	1,318.21	2,003.96	2,536.30	2,780.86	0.00	126.90	355.60	1,955.70	2,853.06	3,450.79	3,522.81
Baltimore, MD	x	x	100	100	0.00	65.25	90.23	537.35	819.73	1,038.96	1,139.27	0.00	43.37	132.75	794.52	1,165.37	1,412.11	1,463.81
Baton Rouge, LA	x	-	100	-	0.00	1,020.30	1,349.25	2,346.88	2,958.97	3,430.89	3,735.53	0.00	2,009.03	3,236.37	4,054.97	4,572.92	4,980.61	341.20
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2,032.64	2,686.70	4,549.95	5,690.53	6,569.41	7,150.13	0.00	4,029.99	6,471.57	7,904.88	8,827.28	9,567.95	212.36
Birmingham, AL	-	x	-	100	0.00	23.49	32.50	195.73	298.82	378.86	415.44	0.00	15.10	47.34	289.18	424.68	514.80	535.49
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	103.59	143.40	868.60	1,326.68	1,682.30	1,844.78	0.00	65.43	207.76	1,282.82	1,885.12	2,285.69	2,381.78
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	14.18	19.62	117.88	179.94	228.12	250.15	0.00	9.18	28.63	174.19	255.74	309.99	322.24
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	24.78	34.32	208.58	318.66	404.11	443.15	0.00	15.49	49.56	307.98	452.75	549.02	572.70
Canton-Massillon, OH	-	x	-	100	0.00	138.32	183.23	349.59	452.32	531.64	579.50	0.00	265.44	432.71	593.16	690.79	763.97	163.31
Charleston, WV	-	x	-	100	0.00	6.55	9.08	55.67	85.10	107.95	118.38	0.00	3.98	13.00	82.15	120.88	146.63	153.37
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	42.78	59.06	343.36	522.89	662.26	726.15	0.00	30.39	88.73	508.55	743.90	900.57	926.47
Chattanooga, AL-TN-GA	-	x	-	100	0.00	12.01	16.62	100.21	153.01	194.00	212.74	0.00	7.69	24.17	148.04	217.45	263.61	274.32
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	1,626.12	2,158.80	4,567.56	6,062.68	7,218.61	7,876.78	0.00	3,020.11	4,999.46	7,605.86	9,152.75	10,273.85	3,623.95
Chico, CA	x	-	100	-	0.00	4.40	6.09	36.33	55.43	70.25	77.04	0.00	2.91	8.94	53.71	78.79	95.48	99.04
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	41.84	57.88	347.22	529.96	671.83	736.71	0.00	27.22	84.61	513.14	753.26	912.99	948.55
Clearfield and Indiana Cos.	x	-	100	-	0.00	3.83	5.31	32.55	49.76	63.13	69.22	0.00	2.32	7.60	48.03	70.68	85.74	89.69
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	58.99	81.69	497.35	759.91	963.75	1,056.84	0.00	36.67	117.80	734.27	1,079.62	1,309.27	1,366.43
Columbus, OH	x	x	100	100	0.00	39.95	55.21	325.54	496.26	628.79	689.48	0.00	27.32	81.95	481.67	705.71	854.81	883.34
Dallas-Fort Worth, TX	x	-	100	-	0.00	167.66	231.35	1,331.75	2,026.60	2,566.01	2,813.52	0.00	122.19	350.47	1,973.86	2,884.07	3,490.16	3,579.01
Dayton-Springfield, OH	-	x	-	100	0.00	17.92	24.81	150.88	230.52	292.35	320.59	0.00	11.17	35.81	222.77	327.52	397.17	414.38
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	244.76	327.97	986.23	1,398.91	1,718.73	1,880.15	0.00	388.91	695.23	1,557.66	2,051.03	2,389.99	1,657.86
Detroit-Ann Arbor, MI	x	x	100	100	0.00	288.64	388.26	1,308.13	1,885.93	2,333.91	2,554.54	0.00	426.76	792.08	2,037.44	2,745.78	3,228.19	2,495.31
Door Co., WI	x	-	100	-	0.00	0.73	1.01	6.12	9.35	11.86	13.01	0.00	0.45	1.45	9.04	13.29	16.12	16.82
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.03	0.04	0.26	0.39	0.50	0.55	0.00	0.02	0.06	0.38	0.56	0.68	0.71
Evansville, IN	-	x	-	100	0.00	7.68	10.64	64.67	98.80	125.30	137.40	0.00	4.80	15.36	95.49	140.37	170.22	177.58
Greater Connecticut, CT	x	-	100	-	0.00	40.07	55.43	331.90	506.52	642.09	704.08	0.00	26.21	81.15	490.56	719.98	872.59	906.09
Greene	x	-	100	-	0.00	0.88	1.22	7.53	11.52	14.61	16.03	0.00	0.52	1.73	11.11	16.36	19.85	20.81
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	18.13	25.08	150.13	229.11	290.42	318.46	0.00	11.87	36.73	221.90	325.66	394.68	409.80

**Table B1-43
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

VOC 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	16.26	22.51	135.64	207.10	262.58	287.94	0.00	10.43	32.76	200.40	294.33	356.80	371.23
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.11	0.15	0.93	1.42	1.80	1.98	0.00	0.07	0.22	1.37	2.02	2.45	2.55
Hickory, NC	-	x	-	100	0.00	4.31	5.96	35.39	53.97	68.39	75.00	0.00	2.90	8.81	52.34	76.73	92.96	96.25
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	4,260.41	5,637.32	10,126.22	12,887.17	15,017.10	16,357.33	0.00	8,317.27	13,451.38	17,383.34	19,830.84	21,719.21	2,640.35
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	408.28	540.16	962.90	1,222.77	1,423.21	1,550.08	0.00	798.71	1,290.51	1,655.49	1,883.49	2,060.17	225.05
Imperial Co., CA	x	-	100	-	0.00	5.43	7.49	42.69	64.92	82.17	90.10	0.00	4.06	11.44	63.32	92.41	111.79	114.26
Indianapolis, IN	-	x	-	100	0.00	37.26	51.49	303.81	463.16	586.87	643.52	0.00	25.42	76.38	449.51	658.64	797.80	824.62
Jamestown, NY	x	-	100	-	0.00	3.29	4.56	27.76	42.41	53.79	58.98	0.00	2.05	6.58	40.98	60.26	73.07	76.25
Jefferson Co., NY	x	-	100	-	0.00	3.21	4.43	26.11	39.80	50.42	55.29	0.00	2.20	6.59	38.63	56.59	68.55	70.80
Johnstown, PA	-	x	-	100	0.00	2.66	3.69	22.68	34.67	43.99	48.24	0.00	1.60	5.27	33.46	49.25	59.75	62.53
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	3.00	4.12	22.72	34.46	43.57	47.77	0.00	2.42	6.47	33.78	49.11	59.33	59.95
Knoxville, TN	x	x	100	100	0.00	24.99	34.55	205.70	313.80	397.72	436.12	0.00	16.62	50.84	304.16	446.12	540.56	560.31
Lancaster, PA	-	x	-	100	0.00	9.62	13.31	80.06	122.23	154.97	169.93	0.00	6.20	19.39	118.30	173.71	210.58	218.99
Las Vegas, NV	x	-	100	-	0.00	35.36	48.72	272.99	414.58	524.49	575.05	0.00	27.51	75.44	405.40	590.49	713.82	725.44
Libby, MT	-	x	-	100	0.00	0.16	0.22	1.32	2.01	2.55	2.79	0.00	0.10	0.32	1.94	2.85	3.46	3.60
Liberty-Clairton, PA	-	x	-	100	0.00	0.30	0.41	2.55	3.90	4.95	5.43	0.00	0.17	0.58	3.76	5.54	6.73	7.06
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	2,574.76	3,423.26	7,728.67	10,407.86	12,480.51	13,626.26	0.00	4,672.87	7,820.88	12,729.12	15,611.43	17,669.45	7,586.81
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	17.39	24.01	138.89	211.43	267.75	293.58	0.00	12.52	36.22	205.78	300.85	364.14	374.01
Louisville, KY-IN	-	x	-	100	0.00	24.78	34.32	209.30	319.83	405.64	444.82	0.00	15.32	49.41	308.97	454.37	551.05	575.39
Macon, GA	-	x	-	100	0.00	4.62	6.40	39.01	59.61	75.60	82.90	0.00	2.86	9.21	57.59	84.68	102.70	107.23
Manitowoc Co., WI	x	-	100	-	0.00	2.38	3.29	20.01	30.56	38.76	42.51	0.00	1.49	4.76	29.54	43.43	52.66	54.92
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	2.54	3.50	20.02	30.45	38.54	42.26	0.00	1.88	5.33	29.68	43.34	52.43	53.64
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	10.08	13.90	78.67	119.56	151.31	165.89	0.00	7.66	21.34	116.74	170.24	205.88	209.95
Memphis, TN-AR	x	-	100	-	0.00	345.74	458.28	901.03	1,174.88	1,386.43	1,511.73	0.00	657.53	1,076.40	1,520.24	1,787.99	1,986.41	509.47
Milwaukee-Racine, WI	x	-	100	-	0.00	39.33	54.45	329.27	502.85	637.62	699.20	0.00	24.97	79.00	486.34	714.56	866.34	902.33
Nevada (Western Part), CA	x	-	100	-	0.00	2.31	3.19	18.81	28.67	36.33	39.84	0.00	1.58	4.74	27.84	40.78	49.39	51.03
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	895.98	1,204.34	3,975.72	5,715.98	7,065.15	7,732.30	0.00	1,343.38	2,475.01	6,207.18	8,331.94	9,781.03	7,429.69
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	3.47	4.81	29.50	45.10	57.21	62.74	0.00	2.11	6.89	43.54	64.06	77.71	81.29
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	2,288.80	3,034.33	6,012.23	7,854.87	9,278.44	10,117.86	0.00	4,342.49	7,116.75	10,129.51	11,943.36	13,283.87	3,549.01
Phoenix-Mesa	x	-	100	-	0.00	96.32	132.80	754.39	1,146.86	1,451.52	1,591.48	0.00	72.56	203.41	1,119.19	1,632.77	1,974.87	2,016.27

Table B1-43
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

VOC 2025

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	42.97	59.55	365.90	559.42	709.66	778.23	0.00	25.92	85.12	539.86	794.57	963.91	1,008.77
Poughkeepsie, NY	x	x	100	100	0.00	29.34	40.56	240.45	366.69	464.69	509.55	0.00	19.75	59.91	355.64	521.37	631.65	653.86
Providence (All RI), RI	x	-	100	-	0.00	20.57	28.48	172.50	263.47	334.10	366.36	0.00	12.99	41.26	254.76	374.38	453.93	473.01
Reading, PA	-	x	-	100	0.00	8.63	11.93	70.67	107.77	136.57	149.75	0.00	5.82	17.63	104.53	153.23	185.64	192.13
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	19.75	27.14	146.08	221.15	279.42	306.32	0.00	16.77	43.36	217.60	315.40	380.64	381.39
Rochester, NY	x	-	100	-	0.00	28.96	40.08	241.95	369.46	468.45	513.69	0.00	18.49	58.26	357.42	525.04	636.52	662.58
Rome, GA	-	x	-	100	0.00	2.52	3.48	21.12	32.25	40.90	44.85	0.00	1.58	5.04	31.18	45.83	55.57	57.93
Sacramento Metro, CA	x	-	50	-	0.00	51.22	70.72	412.12	627.72	795.08	871.80	0.00	36.16	106.04	610.30	892.97	1,081.14	1,113.06
San Diego, CA	x	-	100	-	0.00	67.59	93.58	567.84	867.40	1,099.97	1,206.22	0.00	42.45	135.35	838.52	1,232.46	1,494.44	1,558.13
San Francisco Bay Area, CA	x	-	100	-	0.00	1,339.03	1,778.86	3,877.96	5,182.47	6,191.34	6,757.68	0.00	2,461.25	4,094.43	6,424.47	7,800.11	8,789.82	3,419.02
San Joaquin Valley, CA	x	x	50	100	0.00	306.54	411.30	1,287.40	1,837.05	2,263.10	2,476.15	0.00	475.61	860.73	2,023.03	2,686.47	3,140.76	2,270.79
Sheboygan, WI	x	-	100	-	0.00	2.70	3.74	22.48	34.32	43.51	47.72	0.00	1.75	5.45	33.22	48.78	59.13	61.48
Springfield (Western MA), MA	x	-	100	-	0.00	20.91	28.93	173.94	265.53	336.63	369.14	0.00	13.51	42.20	257.02	377.38	457.44	475.59
St. Louis, MO-IL	x	x	100	100	0.00	619.10	822.44	1,791.13	2,393.12	2,858.67	3,120.13	0.00	1,138.37	1,893.42	2,967.81	3,602.23	4,058.77	1,573.91
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	38.29	50.76	99.49	129.62	152.90	166.71	0.00	72.90	119.28	167.95	197.34	219.13	55.26
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ventura Co., CA	x	-	100	-	0.00	19.30	26.40	130.42	196.04	246.96	270.68	0.00	19.10	44.74	195.60	280.42	337.15	326.78
Washington, DC-MD-VA	x	x	100	100	0.00	113.12	156.33	922.47	1,406.32	1,781.95	1,953.94	0.00	77.17	231.86	1,364.84	1,999.84	2,422.41	2,503.91
Wheeling, WV-OH	-	x	-	100	0.00	3.73	5.16	31.66	48.40	61.40	67.33	0.00	2.26	7.39	46.72	68.75	83.40	87.23
York, PA	-	x	-	100	0.00	9.27	12.81	75.03	114.32	144.82	158.79	0.00	6.46	19.13	111.06	162.60	196.90	203.04

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

**Table B1-44
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards**

VOC 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Albany-Schenectady-Troy, NY	x	-	100	-	0.00	66.20	92.88	546.05	803.04	989.95	1,094.43	0.00	17.05	133.35	952.08	1,363.65	1,601.05	1,735.67
Allegan Co., MI	x	-	100	-	0.00	7.23	10.15	59.71	87.82	108.26	119.69	0.00	1.85	14.56	104.11	149.13	175.09	189.86
Amador and Calaveras Cos. (Central Mountain Counties), CA	x	-	100	-	0.00	6.98	9.77	55.18	80.95	99.69	110.19	0.00	2.59	14.68	96.36	137.45	161.20	172.57
Atlanta, GA	x	x	100	100	0.00	389.53	543.36	2,987.21	4,373.91	5,382.62	5,949.08	0.00	173.71	841.37	5,221.83	7,426.07	8,702.97	9,231.79
Baltimore, MD	x	x	100	100	0.00	145.77	204.59	1,205.66	1,773.37	2,186.25	2,417.01	0.00	36.51	292.85	2,101.97	3,011.38	3,535.85	3,836.03
Baton Rouge, LA	x	-	100	-	0.00	1,482.82	1,955.73	3,487.13	4,384.58	5,044.67	5,513.65	0.00	3,220.72	5,179.19	6,597.90	7,395.88	8,068.47	894.13
Beaumont/Port Arthur, TX	x	-	100	-	0.00	2,936.62	3,869.18	6,626.47	8,248.48	9,443.00	10,311.94	0.00	6,469.15	10,327.07	12,595.81	13,906.96	15,090.49	556.50
Birmingham, AL	-	x	-	100	0.00	52.58	73.86	439.40	646.68	797.43	881.63	0.00	11.70	104.49	765.79	1,098.16	1,289.74	1,403.29
Boston-Lawrence-Worcester (E. MA), MA	x	-	100	-	0.00	230.67	324.31	1,947.31	2,867.59	3,536.86	3,910.47	0.00	44.96	453.52	3,392.65	4,869.72	5,720.62	6,241.63
Boston-Manchester-Portsmouth, MA-SE. NH	x	-	100	-	0.00	31.77	44.61	264.70	389.50	480.26	530.97	0.00	7.33	63.34	461.36	661.42	776.76	844.44
Buffalo-Niagara Falls, NY	x	-	100	-	0.00	55.04	77.42	467.29	688.34	849.10	938.81	0.00	9.87	107.55	813.96	1,168.95	1,373.39	1,500.79
Canton-Massillon, OH	-	x	-	100	0.00	204.86	271.20	551.86	714.79	834.25	914.04	0.00	422.21	697.97	1,029.59	1,207.33	1,337.49	427.97
Charleston, WV	-	x	-	100	0.00	14.55	20.48	124.71	183.80	226.78	250.75	0.00	2.21	28.12	217.16	312.14	366.82	401.90
Charlotte-Gastonia-Rock Hill, NC-SC	x	-	100	-	0.00	98.62	137.86	777.14	1,139.81	1,403.60	1,551.48	0.00	37.20	207.77	1,357.16	1,935.31	2,269.67	2,427.88
Chattanooga, AL-TN-GA	-	x	-	100	0.00	26.83	37.69	224.86	330.99	408.17	451.28	0.00	5.75	53.15	391.85	562.08	660.18	718.89
Chicago-Gary-Lake Co., IL-IN	x	x	100	100	0.00	2,472.61	3,287.51	7,657.81	10,178.47	12,022.47	13,198.92	0.00	4,772.26	8,174.32	14,106.32	17,211.86	19,312.43	9,496.82
Chico, CA	x	-	100	-	0.00	9.82	13.79	81.48	119.87	147.79	163.40	0.00	2.38	19.67	142.05	203.56	239.03	259.55
Cincinnati-Hamilton, OH-KY-IN	x	x	100	100	0.00	94.43	132.53	781.19	1,149.05	1,416.58	1,566.11	0.00	23.59	189.66	1,361.93	1,951.21	2,291.06	2,485.73
Clearfield and Indiana Cos.	x	-	100	-	0.00	8.49	11.96	72.90	107.46	132.58	146.60	0.00	1.27	16.40	126.94	182.49	214.46	235.04
Cleveland-Akron-Lorain, OH	x	x	100	100	0.00	131.07	184.38	1,114.36	1,641.66	2,025.12	2,239.10	0.00	22.98	255.71	1,941.01	2,787.89	3,275.57	3,580.82
Columbus, OH	x	x	100	100	0.00	90.04	126.20	732.16	1,075.84	1,325.80	1,465.66	0.00	26.64	184.05	1,277.20	1,826.83	2,144.11	2,314.87
Dallas-Fort Worth, TX	x	-	100	-	0.00	383.58	536.00	3,007.94	4,410.33	5,430.39	6,002.40	0.00	149.50	811.87	5,253.83	7,488.31	8,780.96	9,379.05
Dayton-Springfield, OH	-	x	-	100	0.00	39.79	55.97	338.04	497.97	614.27	679.18	0.00	7.06	77.70	588.81	845.65	993.56	1,085.92
Denver-Boulder-Greeley-Ft. Collins, CO	x	-	100	-	0.00	414.98	560.79	1,918.44	2,693.37	3,258.23	3,591.19	0.00	595.36	1,213.16	3,434.05	4,565.08	5,254.00	4,344.55
Detroit-Ann Arbor, MI	x	x	100	100	0.00	501.45	681.89	2,615.01	3,716.35	4,518.62	4,984.49	0.00	623.07	1,391.56	4,649.57	6,302.12	7,292.25	6,539.13
Door Co., WI	x	-	100	-	0.00	1.61	2.27	13.72	20.21	24.93	27.56	0.00	0.28	3.15	23.89	34.32	40.32	44.07
Essex Co., NY (Whiteface Mountain)	x	-	100	-	0.00	0.07	0.10	0.58	0.85	1.05	1.16	0.00	0.01	0.13	1.00	1.44	1.69	1.85
Evansville, IN	-	x	-	100	0.00	17.25	24.25	145.31	213.95	263.87	291.74	0.00	3.48	34.01	253.18	363.33	426.79	465.36
Greater Connecticut, CT	x	-	100	-	0.00	89.27	125.37	744.16	1,095.05	1,350.25	1,492.81	0.00	20.46	177.87	1,297.03	1,859.56	2,183.84	2,374.47
Greene	x	-	100	-	0.00	1.95	2.74	16.86	24.87	30.69	33.93	0.00	0.24	3.72	29.35	42.23	49.64	54.52
Greensboro-Winston Salem-High Point, NC	-	x	-	100	0.00	40.42	56.76	336.67	495.39	610.83	675.32	0.00	9.36	80.62	586.82	841.25	987.93	1,073.90

Table B1-44
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

VOC 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Harrisburg-Lebanon-Carlisle, PA	-	x	-	100	0.00	36.20	50.87	304.06	447.63	552.03	610.34	0.00	7.56	71.56	529.83	760.15	892.86	972.83
Haywood and Swain Cos. (Great Smoky Mountains National Park), NC	x	-	100	-	0.00	0.25	0.35	2.09	3.07	3.79	4.19	0.00	0.05	0.49	3.64	5.22	6.13	6.69
Hickory, NC	-	x	-	100	0.00	9.64	13.53	79.41	116.77	143.94	159.13	0.00	2.53	19.46	138.46	198.28	232.79	252.24
Houston-Galveston-Brazoria, TX	x	-	100	-	0.00	6,236.84	8,236.28	15,394.16	19,572.95	22,642.57	24,770.71	0.00	13,310.49	21,601.68	28,975.83	33,032.42	36,247.63	6,919.22
Huntington-Ashland, WV-KY-OH	-	x	-	100	0.00	596.10	786.97	1,454.87	1,845.11	2,131.85	2,331.73	0.00	1,277.54	2,068.77	2,741.70	3,113.55	3,412.11	589.76
Imperial Co., CA	x	-	100	-	0.00	12.39	17.31	96.35	141.20	173.83	192.13	0.00	5.10	26.44	168.35	239.75	281.07	299.43
Indianapolis, IN	-	x	-	100	0.00	84.04	117.79	683.45	1,004.28	1,237.62	1,368.17	0.00	24.83	171.76	1,192.23	1,705.31	2,001.50	2,160.99
Jamestown, NY	x	-	100	-	0.00	7.32	10.29	62.19	91.61	113.01	124.95	0.00	1.29	14.28	108.32	155.58	182.79	199.81
Jefferson Co., NY	x	-	100	-	0.00	7.20	10.09	58.63	86.17	106.20	117.40	0.00	2.09	14.67	102.28	146.32	171.74	185.54
Johnstown, PA	-	x	-	100	0.00	5.90	8.31	50.78	74.86	92.38	102.14	0.00	0.84	11.36	88.42	127.14	149.42	163.88
Kern Co. (Eastern Kern), CA	x	-	100	-	0.00	6.88	9.57	51.38	75.11	92.37	102.09	0.00	3.50	15.19	89.91	127.52	149.34	157.11
Knoxville, TN	x	x	100	100	0.00	55.86	78.40	461.64	678.98	837.05	925.40	0.00	14.12	112.33	804.86	1,152.98	1,353.76	1,468.34
Lancaster, PA	-	x	-	100	0.00	21.41	30.08	179.48	264.19	325.80	360.21	0.00	4.57	42.39	312.76	448.64	526.95	573.87
Las Vegas, NV	x	-	100	-	0.00	81.72	113.87	618.48	904.83	1,113.14	1,230.22	0.00	39.11	178.57	1,081.66	1,536.18	1,799.70	1,901.07
Libby, MT	-	x	-	100	0.00	0.35	0.50	2.95	4.34	5.35	5.92	0.00	0.08	0.70	5.14	7.37	8.66	9.42
Liberty-Clairton, PA	-	x	-	100	0.00	0.66	0.92	5.71	8.42	10.39	11.49	0.00	0.07	1.25	9.93	14.30	16.81	18.49
Los Angeles South Coast Air Basin, CA	x	x	25	100	0.00	3,994.63	5,326.06	13,416.52	18,069.46	21,469.95	23,594.20	0.00	7,370.59	12,944.06	24,549.52	30,573.01	34,521.68	19,881.77
Los Angeles-San Bernardino Cos. (W. Mojave Desert), CA	x	-	100	-	0.00	39.43	55.15	312.89	459.10	565.44	625.03	0.00	14.18	82.54	546.28	779.52	914.36	980.12
Louisville, KY-IN	-	x	-	100	0.00	55.21	77.67	469.30	691.35	852.83	942.94	0.00	9.72	107.75	817.44	1,174.06	1,379.43	1,507.86
Macon, GA	-	x	-	100	0.00	10.30	14.48	87.47	128.86	158.95	175.75	0.00	1.82	20.10	152.36	218.83	257.10	281.01
Manitowoc Co., WI	x	-	100	-	0.00	5.28	7.42	44.81	66.01	81.43	90.03	0.00	0.94	10.31	78.05	112.10	131.70	143.93
Mariposa and Tuolumne Cos. (Southern Mountain Counties), CA	x	-	100	-	0.00	5.79	8.08	45.16	66.20	81.51	90.09	0.00	2.32	12.30	78.90	112.40	131.79	140.58
Martinsburg, WV-Hagerstown, MD	-	x	-	100	0.00	23.17	32.32	177.93	260.55	320.65	354.40	0.00	10.25	49.98	311.02	442.37	518.46	550.20
Memphis, TN-AR	x	-	100	-	0.00	515.56	683.35	1,448.21	1,891.27	2,215.87	2,429.39	0.00	1,043.26	1,741.63	2,691.15	3,195.67	3,554.77	1,335.10
Milwaukee-Racine, WI	x	-	100	-	0.00	87.52	123.03	738.01	1,086.72	1,340.32	1,481.90	0.00	17.31	172.26	1,285.83	1,845.46	2,167.86	2,364.61
Nevada (Western Part), CA	x	-	100	-	0.00	5.18	7.26	42.25	62.09	76.52	84.59	0.00	1.49	10.56	73.69	105.43	123.75	133.72
New York-N. New Jersey-Long Island, NY-NJ-CT	x	x	100	100	0.00	1,545.20	2,098.97	7,901.49	11,208.22	13,617.24	15,019.30	0.00	1,970.79	4,327.27	14,063.75	19,005.25	21,973.15	19,470.04
Parkersburg-Marietta, WV-OH	-	x	-	100	0.00	7.71	10.85	66.10	97.42	120.20	132.90	0.00	1.17	14.90	115.10	165.44	194.42	213.02
Philadelphia-Wilmington, Atlantic City, PA-DE-MD-NJ	x	x	100	100	0.00	3,424.10	4,539.91	9,718.11	12,716.12	14,912.17	16,351.61	0.00	6,896.46	11,542.08	18,041.37	21,488.21	23,926.19	9,300.43
Phoenix-Mesa	x	-	100	-	0.00	221.23	308.72	1,705.91	2,498.67	3,075.33	3,399.05	0.00	95.60	475.48	2,981.44	4,242.33	4,972.51	5,283.79

Table B1-44
Emission Reductions a/ by Nonattainment Area with Alternative CAFE Standards

VOC 2035

Nonattainment Area	Status <u>b/</u>		General Conformity Threshold <u>c/</u>		Emissions Reductions for Proposed Alternatives (tons/year)							Emissions Reductions for Cumulative Impacts (tons/year)						
	O ₃	PM2.5	O ₃	PM2.5	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
					No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
Pittsburgh-Beaver Valley, PA	x	x	100	100	0.00	95.38	134.30	819.63	1,208.17	1,490.73	1,648.31	0.00	13.90	183.90	1,427.14	2,051.79	2,411.30	2,643.55
Poughkeepsie, NY	x	x	100	100	0.00	65.63	92.06	539.68	793.54	978.17	1,081.39	0.00	17.45	132.63	941.08	1,347.50	1,581.97	1,713.48
Providence (All RI), RI	x	-	100	-	0.00	45.73	64.30	386.54	569.26	702.14	776.32	0.00	8.75	89.78	673.41	966.72	1,135.67	1,239.55
Reading, PA	-	x	-	100	0.00	19.30	27.08	158.62	233.23	287.49	317.82	0.00	5.17	39.04	276.61	396.04	464.94	503.49
Riverside Co., CA (Coachella Valley)	x	-	100	-	0.00	47.24	65.50	334.62	487.42	598.59	661.37	0.00	30.04	108.97	586.69	827.37	967.54	999.45
Rochester, NY	x	-	100	-	0.00	64.44	90.58	542.32	798.48	984.77	1,088.78	0.00	13.12	127.13	944.95	1,355.96	1,592.77	1,736.33
Rome, GA	-	x	-	100	0.00	5.59	7.86	47.31	69.68	85.95	95.03	0.00	1.05	10.95	82.42	118.34	139.03	151.80
Sacramento Metro, CA	x	-	50	-	0.00	115.93	162.26	928.01	1,362.37	1,678.30	1,855.23	0.00	39.03	240.62	1,619.74	2,313.29	2,714.02	2,916.85
San Diego, CA	x	-	100	-	0.00	150.17	211.19	1,272.28	1,873.93	2,311.47	2,555.67	0.00	27.79	294.10	2,216.34	3,182.32	3,738.69	4,083.19
San Francisco Bay Area, CA	x	-	100	-	0.00	2,047.50	2,725.90	6,593.46	8,820.92	10,449.61	11,477.79	0.00	3,869.89	6,705.68	12,105.91	14,920.45	16,793.87	8,959.79
San Joaquin Valley, CA	x	x	50	100	0.00	531.25	719.19	2,545.49	3,587.29	4,346.53	4,791.95	0.00	733.10	1,530.61	4,547.02	6,081.18	7,010.68	5,950.76
Sheboygan, WI	x	-	100	-	0.00	6.01	8.45	50.39	74.18	91.47	101.13	0.00	1.29	11.91	87.81	125.96	147.95	161.11
Springfield (Western MA), MA	x	-	100	-	0.00	46.56	65.42	389.94	573.97	707.80	782.54	0.00	10.09	92.33	679.55	974.69	1,144.78	1,246.31
St. Louis, MO-IL	x	x	100	100	0.00	946.55	1,260.12	3,044.10	4,071.61	4,822.92	5,297.37	0.00	1,790.34	3,101.03	5,589.73	6,886.99	7,750.92	4,124.55
Steubenville-Weirton, OH-WV	-	x	-	100	0.00	57.00	75.54	159.48	208.11	243.74	267.21	0.00	115.56	192.72	296.46	351.62	390.99	144.82
Sutter County (Sutter Buttes), CA	x	-	100	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Ventura Co., CA	x	-	100	-	0.00	38.99	54.16	283.41	413.55	508.23	561.59	0.00	22.44	88.12	496.42	702.04	821.57	856.34
Washington, DC-MD-VA	x	x	100	100	0.00	255.97	358.68	2,076.98	3,051.57	3,760.40	4,157.03	0.00	77.14	524.31	3,623.43	5,181.69	6,081.34	6,561.68
Wheeling, WV-OH	-	x	-	100	0.00	8.27	11.64	70.92	104.53	128.97	142.60	0.00	1.24	15.97	123.49	177.51	208.61	228.60
York, PA	-	x	-	100	0.00	20.84	29.20	168.61	247.69	305.20	337.39	0.00	6.45	42.83	294.19	420.58	493.56	532.07

a/ Reductions are shown as positive values. Negative values are emission increases. Values of less than 0.005 tons/year are rounded to zero.

b/ Pollutants for which the area is designated nonattainment or maintenance as of 2008. Source: 40 CFR 81.

c/ Emissions thresholds in tons/year of: VOC or NO_x in ozone NAAs; primary PM2.5 in PM2.5 NAAs. Source: 40 CFR 51.853. These thresholds are provided for information only; a general conformity determination is not required for the proposed actions. (See section 3.3.1.)

Source: EPA, 2008.

1 **Appendix B-2**

2 **CLIMATE CHANGE MODELING DATA**

3 This appendix accompanies sections 3.4 and 4.4 of the DEIS and presents the results from the
 4 Model for Assessment of Greenhouse Gas-induced Climate Change (MAGICC) for the CAFE
 5 alternatives. The CAFE alternatives use the A1B marker scenario from the Intergovernmental Panel on
 6 Climate Change (IPCC) as a reference case, equivalent to the A1B-AIM scenario in MAGICC. Tables
 7 B2-3 provide the results for the 2011-2015 CAFE alternatives (Section 3.4 of the DEIS) and Tables B2-4
 8 provide the results for the MY 2011-2020 CAFE alternatives (Section 4.4 of the DEIS).

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TABLE B2-1							
Mid Level CO₂ Concentrations from MAGICC for the 2011-2015 CAFE Alternatives (ppm)							
Year	No Action	25 Percent Below Optimized	Optimized	25 Percent Above Optimized	50 Percent Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	353.6	353.6	353.6	353.6	353.6	353.6	353.6
1995	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2000	369.2	369.2	369.2	369.2	369.2	369.2	369.2
2005	379.7	379.7	379.7	379.7	379.7	379.7	379.7
2010	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2015	407.6	407.6	407.5	407.5	407.5	407.5	407.5
2020	423.4	423.4	423.4	423.3	423.3	423.3	423.3
2025	440.3	440.3	440.2	440.2	440.2	440.2	440.2
2030	458.4	458.3	458.2	458.2	458.2	458.1	458.1
2035	477.1	476.9	476.8	476.8	476.8	476.7	476.7
2040	496.1	495.8	495.7	495.6	495.6	495.6	495.5
2045	515.6	515.2	515.1	515.0	515.0	514.9	514.8
2050	535.8	535.3	535.1	535.0	535.0	534.9	534.8
2055	555.8	555.2	555.0	554.9	554.8	554.7	554.6
2060	575.2	574.4	574.2	574.1	574.0	573.9	573.7
2065	594.0	593.1	592.9	592.7	592.6	592.5	592.3
2070	612.4	611.4	611.1	611.0	610.8	610.7	610.5
2075	630.3	629.2	628.9	628.7	628.6	628.4	628.2
2080	647.6	646.4	646.0	645.9	645.7	645.5	645.3
2085	664.2	662.8	662.4	662.2	662.0	661.8	661.6
2090	679.8	678.3	677.9	677.7	677.5	677.2	677.0
2095	694.6	693.0	692.5	692.3	692.1	691.8	691.6
2100	708.6	706.9	706.4	706.1	705.9	705.6	705.4

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Year	No Action	25 Percent Below Optimized	Optimized	25 Percent Above Optimized	50 Percent Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.074	0.074	0.074	0.074	0.074	0.074	0.074
2000	0.151	0.151	0.151	0.151	0.151	0.151	0.151
2005	0.210	0.210	0.210	0.210	0.210	0.210	0.210
2010	0.280	0.280	0.280	0.280	0.280	0.280	0.280
2015	0.375	0.375	0.375	0.374	0.374	0.374	0.374
2020	0.482	0.482	0.482	0.482	0.482	0.482	0.482
2025	0.628	0.628	0.628	0.628	0.627	0.627	0.627
2030	0.789	0.788	0.788	0.788	0.788	0.788	0.788
2035	0.974	0.973	0.973	0.973	0.973	0.972	0.972
2040	1.167	1.165	1.165	1.165	1.165	1.164	1.164
2045	1.329	1.327	1.327	1.327	1.326	1.326	1.326
2050	1.484	1.482	1.481	1.481	1.481	1.480	1.480
2055	1.660	1.657	1.657	1.656	1.656	1.655	1.655
2060	1.837	1.835	1.834	1.833	1.832	1.832	1.831
2065	1.998	1.995	1.994	1.993	1.992	1.992	1.991
2070	2.150	2.147	2.145	2.145	2.144	2.143	2.143
2075	2.280	2.276	2.275	2.274	2.273	2.273	2.272
2080	2.399	2.395	2.393	2.392	2.392	2.391	2.390
2085	2.502	2.497	2.496	2.495	2.494	2.493	2.492
2090	2.596	2.591	2.589	2.588	2.587	2.586	2.585
2095	2.682	2.677	2.675	2.674	2.673	2.672	2.671
2100	2.763	2.757	2.755	2.754	2.753	2.752	2.751

	No Action	25 Percent Below Optimized	Optimized	25 Percent Above Optimized	50 Percent Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2000	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2005	2.6	2.6	2.6	2.6	2.6	2.6	2.6
2010	3.5	3.5	3.5	3.5	3.5	3.5	3.5
2015	4.6	4.6	4.6	4.6	4.6	4.6	4.6
2020	5.8	5.8	5.8	5.8	5.8	5.8	5.8
2025	7.1	7.1	7.1	7.1	7.1	7.1	7.1
2030	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2035	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2040	12.1	12.1	12.1	12.1	12.1	12.1	12.1
2045	14.1	14.1	14.0	14.0	14.0	14.0	14.0
2050	16.0	16.0	16.0	16.0	16.0	16.0	16.0
2055	18.1	18.1	18.1	18.1	18.1	18.1	18.1
2060	20.3	20.3	20.3	20.3	20.3	20.3	20.3
2065	22.5	22.5	22.5	22.5	22.5	22.5	22.5
2070	24.8	24.8	24.7	24.7	24.7	24.7	24.7
2075	27.0	27.0	27.0	27.0	27.0	27.0	27.0
2080	29.3	29.2	29.2	29.2	29.2	29.2	29.2
2085	31.5	31.5	31.4	31.4	31.4	31.4	31.4
2090	33.7	33.6	33.6	33.6	33.6	33.6	33.6
2095	35.8	35.8	35.7	35.7	35.7	35.7	35.7
2100	37.9	37.8	37.8	37.8	37.8	37.8	37.8

TABLE B2-4							
Mid Level CO₂ Concentrations from MAGICC for the 2011-2020 CAFE Alternatives (ppm)							
	No Action	25 Percent Below Optimized	Optimized	25 Percent Above Optimized	50 Percent Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	353.6	353.6	353.6	353.6	353.6	353.6	353.6
1995	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2000	369.2	369.2	369.2	369.2	369.2	369.2	369.2
2005	379.7	379.7	379.7	379.7	379.7	379.7	379.7
2010	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2015	407.6	407.5	407.5	407.5	407.5	407.5	407.5
2020	423.4	423.3	423.3	423.3	423.3	423.3	423.3
2025	440.3	440.2	440.2	440.2	440.1	440.1	440.1
2030	458.4	458.2	458.1	458.1	458.1	458.0	458.0
2035	477.1	476.7	476.6	476.6	476.6	476.5	476.5
2040	496.1	495.5	495.4	495.4	495.3	495.3	495.2
2045	515.6	514.8	514.7	514.6	514.6	514.5	514.5
2050	535.8	534.8	534.6	534.5	534.5	534.4	534.3
2055	555.8	554.6	554.4	554.3	554.2	554.1	554.0
2060	575.2	573.7	573.4	573.3	573.3	573.2	573.0
2065	594.0	592.2	592.0	591.9	591.8	591.6	591.5
2070	612.4	610.4	610.1	610.0	609.9	609.7	609.6
2075	630.3	628.1	627.7	627.6	627.5	627.3	627.1
2080	647.6	645.1	644.8	644.6	644.5	644.3	644.1
2085	664.2	661.4	661.0	660.8	660.7	660.5	660.3
2090	679.8	676.8	676.3	676.2	676.0	675.8	675.6
2095	694.6	691.3	690.8	690.6	690.5	690.2	690.0
2100	708.6	705.1	704.6	704.4	704.2	703.9	703.7

	No Action	25 Percent Below Optimized	Optimized	25 Percent Above Optimized	50 Percent Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.074	0.074	0.074	0.074	0.074	0.074	0.074
2000	0.151	0.151	0.151	0.151	0.151	0.151	0.151
2005	0.210	0.210	0.210	0.210	0.210	0.210	0.210
2010	0.280	0.280	0.280	0.280	0.280	0.280	0.280
2015	0.375	0.375	0.375	0.374	0.374	0.374	0.374
2020	0.482	0.482	0.482	0.482	0.482	0.482	0.482
2025	0.628	0.628	0.628	0.627	0.627	0.627	0.627
2030	0.789	0.788	0.788	0.788	0.787	0.787	0.787
2035	0.974	0.973	0.972	0.972	0.972	0.972	0.971
2040	1.167	1.164	1.164	1.164	1.163	1.163	1.163
2045	1.329	1.326	1.326	1.325	1.325	1.324	1.324
2050	1.484	1.480	1.480	1.479	1.478	1.478	1.478
2055	1.660	1.655	1.654	1.654	1.653	1.653	1.652
2060	1.837	1.832	1.831	1.830	1.829	1.829	1.828
2065	1.998	1.992	1.991	1.990	1.989	1.988	1.988
2070	2.150	2.143	2.142	2.141	2.140	2.139	2.139
2075	2.280	2.272	2.271	2.270	2.269	2.268	2.268
2080	2.399	2.390	2.389	2.388	2.387	2.386	2.385
2085	2.502	2.492	2.491	2.490	2.489	2.488	2.487
2090	2.596	2.585	2.584	2.582	2.582	2.581	2.580
2095	2.682	2.671	2.669	2.668	2.667	2.666	2.665
2100	2.763	2.751	2.749	2.748	2.747	2.746	2.745

	No Action	25 Percent Below Optimized	Optimized	25 Percent Above Optimized	50 Percent Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2000	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2005	2.6	2.6	2.6	2.6	2.6	2.6	2.6
2010	3.5	3.5	3.5	3.5	3.5	3.5	3.5
2015	4.6	4.6	4.6	4.6	4.6	4.6	4.6
2020	5.8	5.8	5.8	5.8	5.8	5.8	5.8
2025	7.1	7.1	7.1	7.1	7.1	7.1	7.1
2030	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2035	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2040	12.1	12.1	12.1	12.1	12.1	12.1	12.1
2045	14.1	14.0	14.0	14.0	14.0	14.0	14.0
2050	16.0	16.0	16.0	16.0	16.0	16.0	16.0
2055	18.1	18.1	18.1	18.1	18.1	18.1	18.1
2060	20.3	20.3	20.3	20.3	20.2	20.2	20.2
2065	22.5	22.5	22.5	22.5	22.5	22.5	22.5
2070	24.8	24.7	24.7	24.7	24.7	24.7	24.7
2075	27.0	27.0	27.0	27.0	27.0	27.0	27.0
2080	29.3	29.2	29.2	29.2	29.2	29.2	29.2
2085	31.5	31.4	31.4	31.4	31.4	31.4	31.4
2090	33.7	33.6	33.6	33.6	33.6	33.5	33.5
2095	35.8	35.7	35.7	35.7	35.7	35.7	35.7
2100	37.9	37.8	37.8	37.8	37.8	37.7	37.7

Table B2-1

Mid Level CO2 Concentrations from MAGICC for the 2011-2015 CAFE Alternatives (ppm)

Year	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	353.6	353.6	353.6	353.6	353.6	353.6	353.6
1995	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2000	369.2	369.2	369.2	369.2	369.2	369.2	369.2
2005	379.7	379.7	379.7	379.7	379.7	379.7	379.7
2010	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2015	407.6	407.6	407.5	407.5	407.5	407.5	407.5
2020	423.4	423.4	423.4	423.3	423.3	423.3	423.3
2025	440.3	440.3	440.2	440.2	440.2	440.2	440.2
2030	458.4	458.3	458.2	458.2	458.2	458.1	458.1
2035	477.1	476.9	476.8	476.8	476.8	476.7	476.7
2040	496.1	495.8	495.7	495.6	495.6	495.6	495.5
2045	515.6	515.2	515.1	515.0	515.0	514.9	514.8
2050	535.8	535.3	535.1	535.0	535.0	534.9	534.8
2055	555.8	555.2	555.0	554.9	554.8	554.7	554.6
2060	575.2	574.4	574.2	574.1	574.0	573.9	573.7
2065	594.0	593.1	592.9	592.7	592.6	592.5	592.3
2070	612.4	611.4	611.1	611.0	610.8	610.7	610.5
2075	630.3	629.2	628.9	628.7	628.6	628.4	628.2
2080	647.6	646.4	646.0	645.9	645.7	645.5	645.3
2085	664.2	662.8	662.4	662.2	662.0	661.8	661.6
2090	679.8	678.3	677.9	677.7	677.5	677.2	677.0
2095	694.6	693.0	692.5	692.3	692.1	691.8	691.6
2100	708.6	706.9	706.4	2.8	705.9	705.6	705.4

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Table B2-2							
Mid Level Global Mean Surface Temperature Increase from 1990 Levels from MAGICC for the 2011-2015 CAFE Alternatives (degrees Celsius)							
Year	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.074	0.074	0.074	0.074	0.074	0.074	0.074
2000	0.151	0.151	0.151	0.151	0.151	0.151	0.151
2005	0.210	0.210	0.210	0.210	0.210	0.210	0.210
2010	0.280	0.280	0.280	0.280	0.280	0.280	0.280
2015	0.375	0.375	0.375	0.374	0.374	0.374	0.374
2020	0.482	0.482	0.482	0.482	0.482	0.482	0.482
2025	0.628	0.628	0.628	0.628	0.627	0.627	0.627
2030	0.789	0.788	0.788	0.788	0.788	0.788	0.788
2035	0.974	0.973	0.973	0.973	0.973	0.972	0.972
2040	1.167	1.165	1.165	1.165	1.165	1.164	1.164
2045	1.329	1.327	1.327	1.327	1.326	1.326	1.326
2050	1.484	1.482	1.481	1.481	1.481	1.480	1.480
2055	1.660	1.657	1.657	1.656	1.656	1.655	1.655
2060	1.837	1.835	1.834	1.833	1.832	1.832	1.831
2065	1.998	1.995	1.994	1.993	1.992	1.992	1.991
2070	2.150	2.147	2.145	2.145	2.144	2.143	2.143
2075	2.280	2.276	2.275	2.274	2.273	2.273	2.272
2080	2.399	2.395	2.393	2.392	2.392	2.391	2.390
2085	2.502	2.497	2.496	2.495	2.494	2.493	2.492
2090	2.596	2.591	2.589	2.588	2.587	2.586	2.585
2095	2.682	2.677	2.675	2.674	2.673	2.672	2.671
2100	2.763	2.757	2.755	2.754	2.753	2.752	2.751

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Table B2-3							
Mid Level Sea Level Rise from 1990 Levels from MAGICC for the 2011-2015 CAFE Alternatives (cm)							
Year	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2000	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2005	2.6	2.6	2.6	2.6	2.6	2.6	2.6
2010	3.5	3.5	3.5	3.5	3.5	3.5	3.5
2015	4.6	4.6	4.6	4.6	4.6	4.6	4.6
2020	5.8	5.8	5.8	5.8	5.8	5.8	5.8
2025	7.1	7.1	7.1	7.1	7.1	7.1	7.1
2030	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2035	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2040	12.1	12.1	12.1	12.1	12.1	12.1	12.1
2045	14.1	14.1	14.0	14.0	14.0	14.0	14.0
2050	16.0	16.0	16.0	16.0	16.0	16.0	16.0
2055	18.1	18.1	18.1	18.1	18.1	18.1	18.1
2060	20.3	20.3	20.3	20.3	20.3	20.3	20.3
2065	22.5	22.5	22.5	22.5	22.5	22.5	22.5
2070	24.8	24.8	24.7	24.7	24.7	24.7	24.7
2075	27.0	27.0	27.0	27.0	27.0	27.0	27.0
2080	29.3	29.2	29.2	29.2	29.2	29.2	29.2
2085	31.5	31.5	31.4	31.4	31.4	31.4	31.4
2090	33.7	33.6	33.6	33.6	33.6	33.6	33.6
2095	35.8	35.8	35.7	35.7	35.7	35.7	35.7
2100	37.9	37.8	37.8	37.8	37.8	37.8	37.8

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Table B2-4 Mid Level CO2 Concentrations from MAGICC for the 2011-2020 CAFE Alternatives (ppm)							
Year	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	353.6	353.6	353.6	353.6	353.6	353.6	353.6
1995	361.2	361.2	361.2	361.2	361.2	361.2	361.2
2000	369.2	369.2	369.2	369.2	369.2	369.2	369.2
2005	379.7	379.7	379.7	379.7	379.7	379.7	379.7
2010	392.8	392.8	392.8	392.8	392.8	392.8	392.8
2015	407.6	407.5	407.5	407.5	407.5	407.5	407.5
2020	423.4	423.3	423.3	423.3	423.3	423.3	423.3
2025	440.3	440.2	440.2	440.2	440.1	440.1	440.1
2030	458.4	458.2	458.1	458.1	458.1	458.0	458.0
2035	477.1	476.7	476.6	476.6	476.6	476.5	476.5
2040	496.1	495.5	495.4	495.4	495.3	495.3	495.2
2045	515.6	514.8	514.7	514.6	514.6	514.5	514.5
2050	535.8	534.8	534.6	534.5	534.5	534.4	534.3
2055	555.8	554.6	554.4	554.3	554.2	554.1	554.0
2060	575.2	573.7	573.4	573.3	573.3	573.2	573.0
2065	594.0	592.2	592.0	591.9	591.8	591.6	591.5
2070	612.4	610.4	610.1	610.0	609.9	609.7	609.6
2075	630.3	628.1	627.7	627.6	627.5	627.3	627.1
2080	647.6	645.1	644.8	644.6	644.5	644.3	644.1
2085	664.2	661.4	661.0	660.8	660.7	660.5	660.3
2090	679.8	676.8	676.3	676.2	676.0	675.8	675.6
2095	694.6	691.3	690.8	690.6	690.5	690.2	690.0
2100	708.6	705.1	704.6	2.7	704.2	703.9	703.7

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Table B2-5							
Mid Level Global Mean Surface Temperature Increase from 1990 Levels from MAGICC for the 2011-2020 CAFE Alternatives (degrees Celsius)							
Year	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1995	0.074	0.074	0.074	0.074	0.074	0.074	0.074
2000	0.151	0.151	0.151	0.151	0.151	0.151	0.151
2005	0.210	0.210	0.210	0.210	0.210	0.210	0.210
2010	0.280	0.280	0.280	0.280	0.280	0.280	0.280
2015	0.375	0.375	0.375	0.374	0.374	0.374	0.374
2020	0.482	0.482	0.482	0.482	0.482	0.482	0.482
2025	0.628	0.628	0.628	0.627	0.627	0.627	0.627
2030	0.789	0.788	0.788	0.788	0.787	0.787	0.787
2035	0.974	0.973	0.972	0.972	0.972	0.972	0.971
2040	1.167	1.164	1.164	1.164	1.163	1.163	1.163
2045	1.329	1.326	1.326	1.325	1.325	1.324	1.324
2050	1.484	1.480	1.480	1.479	1.478	1.478	1.478
2055	1.660	1.655	1.654	1.654	1.653	1.653	1.652
2060	1.837	1.832	1.831	1.830	1.829	1.829	1.828
2065	1.998	1.992	1.991	1.990	1.989	1.988	1.988
2070	2.150	2.143	2.142	2.141	2.140	2.139	2.139
2075	2.280	2.272	2.271	2.270	2.269	2.268	2.268
2080	2.399	2.390	2.389	2.388	2.387	2.386	2.385
2085	2.502	2.492	2.491	2.490	2.489	2.488	2.487
2090	2.596	2.585	2.584	2.582	2.582	2.581	2.580
2095	2.682	2.671	2.669	2.668	2.667	2.666	2.665
2100	2.763	2.751	2.749	2.748	2.747	2.746	2.745

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Year	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7
	No Action	25% Below Optimized	Optimized	25% Above Optimized	50% Above Optimized	Total Costs Equal Total Benefits	Technology Exhaustion
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2000	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2005	2.6	2.6	2.6	2.6	2.6	2.6	2.6
2010	3.5	3.5	3.5	3.5	3.5	3.5	3.5
2015	4.6	4.6	4.6	4.6	4.6	4.6	4.6
2020	5.8	5.8	5.8	5.8	5.8	5.8	5.8
2025	7.1	7.1	7.1	7.1	7.1	7.1	7.1
2030	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2035	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2040	12.1	12.1	12.1	12.1	12.1	12.1	12.1
2045	14.1	14.0	14.0	14.0	14.0	14.0	14.0
2050	16.0	16.0	16.0	16.0	16.0	16.0	16.0
2055	18.1	18.1	18.1	18.1	18.1	18.1	18.1
2060	20.3	20.3	20.3	20.3	20.2	20.2	20.2
2065	22.5	22.5	22.5	22.5	22.5	22.5	22.5
2070	24.8	24.7	24.7	24.7	24.7	24.7	24.7
2075	27.0	27.0	27.0	27.0	27.0	27.0	27.0
2080	29.3	29.2	29.2	29.2	29.2	29.2	29.2
2085	31.5	31.4	31.4	31.4	31.4	31.4	31.4
2090	33.7	33.6	33.6	33.6	33.6	33.5	33.5
2095	35.8	35.7	35.7	35.7	35.7	35.7	35.7
2100	37.9	37.8	37.8	37.8	37.8	37.7	37.7

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	CO2 Concentration (ppm)			Global Mean Surface Temperature Increase (oC)			Sea Level Rise (cm)
	2030	2060	2100	2030	2060	2100	2100
Baseline	458.4	575.2	708.6	0.789	1.837	2.763	37.9
Difference from the Baseline							
Alt 1	-0.2	-1.5	-3.5	-0.001	-0.005	-0.012	-0.1
Alt 2	-0.3	-1.8	-4	-0.001	-0.006	-0.014	-0.1
Alt 3	-0.3	-1.9	-4.2	-0.001	-0.007	-0.015	-0.1
Alt 4	-0.3	-1.9	-4.4	-0.002	-0.008	-0.016	-0.1
Alt 5	-0.4	-2	-4.7	-0.002	-0.008	-0.017	-0.2
Alt 6	-0.4	-2.2	-4.9	-0.002	-0.009	-0.018	-0.2

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Table B2-8 Comparison of Reductions in Temperature, Global Mean Warming, and Sea Level Rise for the 2011-2020 CAFE Alternatives			
	Reduction in Global Mean Surface Temperature in 2100 Mid Level Estimate (°C)	Reduction in Global Mean Warming as share of B1 A1B increase in warming	Mid Range of Sea Level Rise without Scaled up ice sheet discharge (m)
No Action	2.65	0.0%	0.28
Alt 1	2.638	1.4%	0.2791
Alt 2	2.636	1.6%	0.2790
Alt 3	2.635	1.7%	0.2789
Alt 4	2.634	1.8%	0.2788
Alt 5	2.633	1.9%	0.2787
Alt 6	2.632	2.1%	0.2787
Difference from No Action			
Alt 1	0.012	1.4%	0.0009
Alt 2	0.014	1.6%	0.0010
Alt 3	0.015	1.7%	0.0011
Alt 4	0.016	1.8%	0.0012
Alt 5	0.017	1.9%	0.0013
Alt 6	0.018	2.1%	0.0013

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Table B2-9 Global mean rainfall change (scaled, % K-1) for the 2011-2020 CAFE Alternatives			
	2011–2030	2046–2065	2080–2099
A2	1.38	1.33	1.45
A1B	1.45	1.51	1.63
B1	1.62	1.65	1.88

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Table B2-10			
Change in Surface Temperature and Rainfall between Alternatives for the 2011-2020 CAFE Alternatives			
	2011–2030	2046–2065	2080–2099
Global mean rainfall change (scaled, % K-1)	1.45	1.51	1.63
Mid Level Global Mean Surface Temperature			
No Action	0.69	1.75	2.65
Alt 1	0.690	1.745	2.639
Alt 2	0.690	1.744	2.638
Alt 3	0.690	1.744	2.636
Alt 4	0.690	1.743	2.636
Alt 5	0.690	1.743	2.635
Alt 6	0.690	1.742	2.634
Reduction in Global Temperature (oK)			
Alt 1	0.000	0.005	0.011
Alt 2	0.000	0.006	0.012
Alt 3	0.000	0.006	0.014
Alt 4	0.000	0.007	0.014
Alt 5	0.000	0.007	0.015
Alt 6	0.000	0.008	0.016
Mid Level Rainfall			
	1.00%	2.64%	4.32%
Alt 1	1.00%	2.63%	4.30%
Alt 2	1.00%	2.63%	4.30%
Alt 3	1.00%	2.63%	4.30%
Alt 4	1.00%	2.63%	4.30%
Alt 5	1.00%	2.63%	4.30%
Alt 6	1.00%	2.63%	4.29%
Reduction in Global Mean Rainfall Change (%)			
Alt 1	0.00%	0.01%	0.02%
Alt 2	0.00%	0.01%	0.02%
Alt 3	0.00%	0.01%	0.02%
Alt 4	0.00%	0.01%	0.02%
Alt 5	0.00%	0.01%	0.02%
Alt 6	0.00%	0.01%	0.03%

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Table B2-11 Comparison of CO2 Concentrations, Temperature Increase, and Sea Level Rise between Baseline and Alternatives for the 2011-2015 CAFE Alternatives							
	CO2 Concentration (ppm)			Global Mean Surface Temperature Increase (oC)			Sea Level Rise (cm)
	2030	2060	2100	2030	2060	2100	2100
Baseline	458.4	575.2	708.6	0.789	1.837	2.763	37.9
Difference from the Baseline							
Alt 1	-0.1	-0.8	-1.7	-0.001	-0.002	-0.006	-0.1
Alt 2	-0.2	-1	-2.2	-0.001	-0.003	-0.008	-0.1
Alt 3	-0.2	-1.1	-2.5	-0.001	-0.004	-0.009	-0.1
Alt 4	-0.2	-1.2	-2.7	-0.001	-0.005	-0.01	-0.1
Alt 5	-0.3	-1.3	-3	-0.001	-0.005	-0.011	-0.1
Alt 6	-0.3	-1.5	-3.2	-0.001	-0.006	-0.012	-0.1

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Table B2-8 Comparison of Reductions in Temperature, Global Mean Warming, and Sea Level Rise for the 2011-2015 CAFE Alternatives			
	Reduction in Global Mean Surface Temperature in 2100	Reduction in Global Mean Warming as share of B1	Mid Range of Sea Level Rise without Scaled up ice sheet discharge
	Mid Level Estimate (oC)	A1B increase in warming	(m)
No Action	2.65	0.0%	0.28
Alt 1	2.644	0.7%	0.2796
Alt 2	2.642	0.9%	0.2794
Alt 3	2.641	1.0%	0.2793
Alt 4	2.640	1.1%	0.2793
Alt 5	2.639	1.3%	0.2792
Alt 6	2.638	1.4%	0.2791
Difference from No Action			
Alt 1	0.006	0.7%	0.0004
Alt 2	0.008	0.9%	0.0006
Alt 3	0.009	1.0%	0.0007
Alt 4	0.010	1.1%	0.0007
Alt 5	0.011	1.3%	0.0008
Alt 6	0.012	1.4%	0.0009

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Table B2-9 Global mean rainfall change (scaled, % K-1) for the 2011-2015 CAFE Alternatives			
	2011–2030	2046–2065	2080–2099
A2	1.38	1.33	1.45
A1B	1.45	1.51	1.63
B1	1.62	1.65	1.88

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Table B2-10			
Change in Surface Temperature and Rainfall between Alternatives for the 2011-2015 CAFE Alternatives			
	2011–2030	2046–2065	2080–2099
Global mean rainfall change (scaled, % K-1)	1.45	1.51	1.63
Mid Level Global Mean Surface Temperature			
No Action	0.69	1.75	2.65
Alt 1	0.690	1.747	2.645
Alt 2	0.690	1.747	2.643
Alt 3	0.690	1.746	2.642
Alt 4	0.690	1.746	2.641
Alt 5	0.690	1.745	2.640
Alt 6	0.690	1.745	2.639
Reduction in Global Temperature (oK)			
Alt 1	0.000	0.003	0.005
Alt 2	0.000	0.003	0.007
Alt 3	0.000	0.004	0.008
Alt 4	0.000	0.004	0.009
Alt 5	0.000	0.005	0.010
Alt 6	0.000	0.005	0.011
Mid Level Rainfall			
	1.00%	2.64%	4.32%
Alt 1	1.00%	2.64%	4.31%
Alt 2	1.00%	2.64%	4.31%
Alt 3	1.00%	2.64%	4.31%
Alt 4	1.00%	2.64%	4.30%
Alt 5	1.00%	2.63%	4.30%
Alt 6	1.00%	2.63%	4.30%
Reduction in Global Mean Rainfall Change (%)			
Alt 1	0.00%	0.00%	0.01%
Alt 2	0.00%	0.00%	0.01%
Alt 3	0.00%	0.01%	0.01%
Alt 4	0.00%	0.01%	0.01%
Alt 5	0.00%	0.01%	0.02%
Alt 6	0.00%	0.01%	0.02%

Table B2-11
ORIGINAL A1BAIM for the 2011-2015 CAFE Alternatives

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOSO2		CO2USER	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUCH4				
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6				
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6				
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6				
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65				
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73				
2015	0.375	0.254	0.375	0.511	0.486		407.6	402.4	407.6	413.1	1950.9	1928.4	1950.9	1972.3	328	9.79				
2020	0.482	0.328	0.482	0.658	0.631		423.4	416.3	423.4	431	2030.3	1993.8	2030.3	2065.3	331.6	9.86				
2025	0.628	0.429	0.628	0.853	0.774		440.3	431.2	440.3	450	2115.6	2063.8	2115.6	2166	335.2	10.02				
2030	0.789	0.539	0.789	1.072	0.921		458.4	447.1	458.4	470.3	2207.6	2139.5	2207.6	2274.9	338.7	10.18				
2035	0.974	0.665	0.974	1.324	1.063		477.1	463.5	477.1	491.4	2285.7	2202.2	2285.7	2369.1	342.1	10.36				
2040	1.167	0.795	1.167	1.59	1.201		496.1	480.1	496.1	512.8	2338.1	2242.5	2338.1	2435	345.3	10.51				
2045	1.329	0.899	1.329	1.823	1.337		515.6	497.1	515.6	534.8	2374.1	2269	2374.1	2482	348.4	10.62				
2050	1.484	0.998	1.484	2.047	1.47		535.8	514.6	535.8	557.6	2399.7	2287.3	2399.7	2516.5	351.5	10.73				
2055	1.66	1.113	1.66	2.299	1.599		555.8	531.8	555.8	580.4	2404.4	2286.9	2404.4	2527.8	354.3	10.81				
2060	1.837	1.227	1.837	2.555	1.72		575.2	548.3	575.2	602.4	2382.3	2262.6	2382.3	2509.4	357	10.85				
2065	1.998	1.328	1.998	2.793	1.833		594	564.3	594	624	2343.8	2224.4	2343.8	2471.9	359.5	10.86				
2070	2.15	1.422	2.15	3.021	1.938		612.4	579.8	612.4	645.2	2295.7	2178.8	2295.7	2422.4	361.8	10.86				
2075	2.28	1.499	2.28	3.223	2.035		630.3	594.8	630.3	665.9	2242.2	2129.5	2242.2	2365.6	364	10.82				
2080	2.399	1.57	2.399	3.41	2.124		647.6	609.2	647.6	685.9	2185.9	2078.6	2185.9	2304.4	366.1	10.78				
2085	2.502	1.628	2.502	3.578	2.208		664.2	622.8	664.2	705.2	2129.2	2028.1	2129.2	2241.8	368	10.73				
2090	2.596	1.681	2.596	3.732	2.286		679.8	635.5	679.8	723.5	2073.5	1979	2073.5	2179.4	369.8	10.68				
2095	2.682	1.729	2.682	3.877	2.358		694.6	647.4	694.6	740.9	2020.2	1932.4	2020.2	2119.2	371.5	10.65				
2100	2.763	1.774	2.763	4.013	2.425		708.6	658.7	708.6	757.5	1970.1	1888.7	1970.1	2062.2	373.1	10.62				
	MSLUSER	MSLLO	MSLMID	MSLHI		CO2	CH4tot	N2O	HALOtot	TROPOZ	SO4DIR	SO4IND	BIOAER	TOTAL	FOC+FBC	YEAR	CH4-O3	STRATO3	MONDIR	QKYOTO
1990	0	0	0	0		0	0	0	0	0	0	0	0	0	0	1990	0	0	0	0
1995	0.8	0.3	0.8	1.3		0.114	0.012	0.0127	-0.0002	0.0109	0.0048	0.0061	-0.016	0.14308	-0.0012	1995	0.003	-0.0418	0.0373	0.0043
2000	1.7	0.7	1.7	2.7		0.2311	0.0237	0.0257	0.0184	0.0227	0.0073	0.0093	-0.0342	0.30225	-0.0018	2000	0.0061	-0.0468	0.0572	0.0081
2005	2.6	1.1	2.6	4.3		0.3809	0.0423	0.0384	0.048	0.0513	-0.0408	-0.0503	-0.0444	0.43557	0.0102	2005	0.0117	-0.0337	0.0675	0.0142
2010	3.5	1.5	3.5	5.9		0.5617	0.0672	0.0506	0.0761	0.0832	-0.0911	-0.1082	-0.0539	0.60845	0.0228	2010	0.019	-0.0201	0.0733	0.023
2015	4.6	2	4.6	7.7		0.7593	0.0954	0.0622	0.0947	0.1133	-0.1287	-0.149	-0.0266	0.85286	0.0322	2015	0.0272	-0.0065	0.0675	0.0337
2020	5.8	2.6	5.8	9.7		0.9634	0.1249	0.0736	0.1034	0.1432	-0.1624	-0.1839	0.0066	1.10939	0.0406	2020	0.0356	0.0111	0.0463	0.046
2025	7.1	3.2	7.1	11.9		1.1732	0.1559	0.0846	0.112	0.1681	-0.1396	-0.1605	0.0126	1.44119	0.0349	2025	0.0442	0.0316	0.0199	0.0604
2030	8.6	3.9	8.6	14.4		1.3885	0.1886	0.0953	0.1216	0.1926	-0.1118	-0.131	0.0155	1.78733	0.028	2030	0.0531	0.0487	-0.0045	0.0773
2035	10.3	4.7	10.3	17.2		1.6025	0.2158	0.1057	0.1343	0.1999	-0.0514	-0.0628	0.0195	2.17636	0.0128	2035	0.0604	0.0638	-0.0262	0.0967
2040	12.1	5.6	12.1	20.3		1.8113	0.2338	0.1157	0.1505	0.2028	0.0084	0.0108	0.0238	2.55491	-0.0021	2040	0.0652	0.0769	-0.0448	0.1184
2045	14.1	6.5	14.1	23.6		2.0176	0.246	0.1252	0.1684	0.205	0.0244	0.0316	0.0265	2.83863	-0.0061	2045	0.0684	0.0885	-0.062	0.1419
2050	16	7.4	16	27		2.2227	0.2547	0.1343	0.187	0.2064	0.0397	0.0521	0.0292	3.11608	-0.0099	2050	0.0707	0.0991	-0.079	0.1669
2055	18.1	8.3	18.1	30.7		2.4192	0.2563	0.1429	0.2066	0.2032	0.0866	0.1184	0.0336	3.44508	-0.0216	2055	0.0711	0.1089	-0.0944	0.1921
2060	20.3	9.2	20.3	34.5		2.6022	0.2488	0.151	0.2265	0.1972	0.1344	0.192	0.0385	3.75705	-0.0336	2060	0.0691	0.1176	-0.1078	0.2167
2065	22.5	10.2	22.5	38.4		2.7745	0.2358	0.1584	0.2442	0.1902	0.1669	0.2461	0.0404	4.01472	-0.0417	2065	0.0657	0.1254	-0.1196	0.2383
2070	24.8	11.2	24.8	42.5		2.9379	0.2193	0.1654	0.258	0.1822	0.1976	0.3009	0.042	4.2539	-0.0494	2070	0.0614	0.1324	-0.13	0.2556
2075	27	12.1	27	46.6		3.0922	0.2007	0.1718	0.2688	0.1738	0.2124	0.3286	0.0412	4.43647	-0.0531	2075	0.0564	0.1388	-0.1395	0.2694
2080	29.3	13	29.3	50.7		3.2371	0.181	0.1779	0.2768	0.165	0.2259	0.3546	0.0401	4.60186	-0.0565	2080	0.0511	0.1446	-0.1481	0.2803
2085	31.5	13.9	31.5	54.8		3.372	0.1608	0.1835	0.2827	0.1565	0.231	0.3647	0.0404	4.73379	-0.0577	2085	0.0456	0.1498	-0.156	0.2888
2090	33.7	14.7	33.7	58.9		3.4964	0.1407	0.1889	0.2867	0.1479	0.2356	0.374	0.0408	4.85202	-0.0589	2090	0.04	0.1547	-0.1632	0.2953
2095	35.8	15.5	35.8	62.9		3.6115	0.1212	0.1939	0.2893	0.1406	0.2398	0.3825	0.0404	4.95912	-0.0599	2095	0.0345	0.1591	-0.17	0.3002
2100	37.9	16.3	37.9	66.9		3.7184	0.1026	0.1986	0.2905	0.1335	0.2439	0.391	0.0398	5.05755	-0.061	2100	0.0292	0.1631	-0.1763	0.3037

Table B2-12																					
A1BAIM_Alt1_11-15_06_16_08 for the 2011-2015 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.375	0.254	0.375	0.511	0.486		407.6	402.4	407.6	413	1950.9	1928.3	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.4	416.3	423.4	430.9	2030.1	1993.7	2030.1	2065.2	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.628	0.429	0.628	0.853	0.774		440.3	431.1	440.3	449.9	2115.3	2063.5	2115.3	2165.8	335.2	10.01		7.1	3.2	7.1	11.9
2030	0.788	0.539	0.788	1.071	0.92		458.3	447	458.3	470.2	2207.2	2139	2207.2	2274.4	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.973	0.665	0.973	1.323	1.062		476.9	463.3	476.9	491.1	2285.2	2201.8	2285.2	2368.5	342.1	10.36		10.3	4.7	10.3	17.2
2040	1.165	0.794	1.165	1.588	1.2		495.8	479.8	495.8	512.5	2337.7	2242.2	2337.7	2434.4	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.327	0.898	1.327	1.82	1.35		515.2	496.7	515.2	534.4	2373.8	2268.9	2373.8	2481.5	348.4	10.63		14.1	6.5	14.1	23.6
2050	1.482	0.997	1.482	2.045	1.468		535.3	514.1	535.3	557.1	2399.5	2287.3	2399.5	2516	351.5	10.73		16	7.3	16	27
2055	1.657	1.111	1.657	2.296	1.597		555.2	531.2	555.2	579.7	2404.1	2286.9	2404.1	2527.2	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.835	1.225	1.835	2.551	1.717		574.4	547.6	574.4	601.6	2382	2262.5	2382	2508.8	357	10.85		20.3	9.2	20.3	34.5
2065	1.995	1.325	1.995	2.789	1.829		593.1	563.5	593.1	623.1	2343.4	2224.4	2343.4	2471.2	359.5	10.86		22.5	10.2	22.5	38.4
2070	2.147	1.419	2.147	3.016	1.934		611.4	578.9	611.4	644.1	2295.3	2178.7	2295.3	2421.7	361.8	10.86		24.8	11.1	24.8	42.5
2075	2.276	1.497	2.276	3.217	2.03		629.2	593.8	629.2	664.7	2241.7	2129.3	2241.7	2364.7	364	10.82		27	12.1	27	46.6
2080	2.395	1.566	2.395	3.404	2.12		646.4	608	646.4	684.6	2185.4	2078.5	2185.4	2303.6	366	10.78		29.2	13	29.2	50.7
2085	2.497	1.625	2.497	3.571	2.203		662.8	621.6	662.8	703.8	2128.7	2027.9	2128.7	2240.9	368	10.73		31.5	13.8	31.5	54.8
2090	2.591	1.678	2.591	3.725	2.28		678.3	634.2	678.3	721.9	2073	1978.8	2073	2178.5	369.8	10.68		33.6	14.7	33.6	58.8
2095	2.677	1.726	2.677	3.869	2.352		693	646	693	739.2	2019.7	1932.1	2019.7	2118.3	371.5	10.65		35.8	15.5	35.8	62.8
2100	2.757	1.77	2.757	4.005	2.419		706.9	657.1	706.9	755.7	1969.5	1888.4	1969.5	2061.3	373.1	10.63		37.8	16.3	37.8	66.8

Table B2-13																					
A1BAIM_Alt2_11-15_06_16_08 for the 2011-2015 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.375	0.254	0.375	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.3	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.4	416.2	423.4	430.9	2030.1	1993.6	2030.1	2065.1	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.628	0.429	0.628	0.853	0.774		440.2	431.1	440.2	449.9	2115.3	2063.6	2115.3	2165.7	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.539	0.788	1.071	0.92		458.2	446.9	458.2	470.1	2207.4	2139.3	2207.4	2274.5	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.973	0.664	0.973	1.322	1.062		476.8	463.3	476.8	491	2285.5	2202.2	2285.5	2368.7	342.1	10.36		10.3	4.7	10.3	17.2
2040	1.165	0.793	1.165	1.588	1.199		495.7	479.7	495.7	512.4	2337.8	2242.5	2337.8	2434.5	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.327	0.897	1.327	1.82	1.334		515.1	496.6	515.1	534.3	2373.8	2269	2373.8	2481.4	348.4	10.63		14	6.5	14	23.6
2050	1.481	0.996	1.481	2.044	1.467		535.1	513.9	535.1	556.9	2399.3	2287.3	2399.3	2515.8	351.5	10.73		16	7.3	16	27
2055	1.657	1.11	1.657	2.295	1.596		555	531.1	555	579.5	2403.9	2286.7	2403.9	2527	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.834	1.224	1.834	2.55	1.716		574.2	547.4	574.2	601.4	2381.6	2262.2	2381.6	2508.4	357	10.85		20.3	9.2	20.3	34.4
2065	1.994	1.325	1.994	2.787	1.828		592.9	563.2	592.9	622.8	2343	2224	2343	2470.7	359.5	10.86		22.5	10.2	22.5	38.4
2070	2.145	1.418	2.145	3.015	1.932		611.1	578.6	611.1	643.8	2294.8	2178.3	2294.8	2421.1	361.8	10.86		24.7	11.1	24.7	42.4
2075	2.275	1.496	2.275	3.216	2.029		628.9	593.5	628.9	664.3	2241.2	2128.9	2241.2	2364.2	364	10.82		27	12.1	27	46.5
2080	2.393	1.565	2.393	3.402	2.118		646	607.7	646	684.2	2184.9	2078	2184.9	2302.9	366	10.78		29.2	13	29.2	50.7
2085	2.496	1.624	2.496	3.569	2.201		662.4	621.2	662.4	703.3	2128.2	2027.4	2128.2	2240.2	368	10.73		31.4	13.8	31.4	54.7
2090	2.589	1.676	2.589	3.723	2.278		677.9	633.8	677.9	721.4	2072.4	1978.3	2072.4	2177.8	369.8	10.68		33.6	14.7	33.6	58.8
2095	2.675	1.724	2.675	3.867	2.35		692.5	645.6	692.5	738.7	2019.1	1931.6	2019.1	2117.6	371.5	10.65		35.7	15.5	35.7	62.8
2100	2.755	1.768	2.755	4.003	2.417		706.4	656.7	706.4	755.2	1969	1887.9	1969	2060.6	373.1	10.63		37.8	16.2	37.8	66.8

Table B2-14																					
A1BAIM_Alt3_11-15_06_16_08 for the 2011-2015 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1951	1928.4	1951	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.3	1994	2030.3	2065.3	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.628	0.429	0.628	0.852	0.774		440.2	431	440.2	449.9	2115.6	2064	2115.6	2165.9	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.92		458.2	446.9	458.2	470.1	2207.5	2139.5	2207.5	2274.5	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.973	0.664	0.973	1.322	1.061		476.8	463.2	476.8	491	2285.6	2202.6	2285.6	2368.6	342	10.37		10.3	4.7	10.3	17.2
2040	1.165	0.793	1.165	1.587	1.198		495.6	479.6	495.6	512.3	2337.8	2242.8	2337.8	2434.2	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.326	0.897	1.326	1.819	1.333		515	496.5	515	534.2	2373.7	2269.3	2373.7	2480.9	348.4	10.63		14	6.5	14	23.6
2050	1.481	0.995	1.481	2.043	1.466		535	513.8	535	556.8	2399.3	2287.7	2399.3	2515.3	351.5	10.73		16	7.3	16	27
2055	1.656	1.11	1.656	2.293	1.594		554.8	530.9	554.8	579.3	2404	2287.5	2404	2526.5	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.832	1.223	1.832	2.548	1.715		574	547.2	574	601.2	2382	2263.4	2382	2508.1	357	10.86		20.3	9.2	20.3	34.4
2065	1.992	1.324	1.992	2.785	1.826		592.6	563	592.6	622.5	2343.6	2225.4	2343.6	2470.5	359.5	10.87		22.5	10.2	22.5	38.4
2070	2.144	1.417	2.144	3.013	1.93		610.8	578.3	610.8	643.5	2295.6	2179.9	2295.6	2421	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.273	1.495	2.273	3.214	2.027		628.6	593.2	628.6	664	2242.1	2130.6	2242.1	2364.1	364	10.83		27	12.1	27	46.5
2080	2.392	1.564	2.392	3.4	2.116		645.7	607.4	645.7	683.8	2185.8	2079.8	2185.8	2302.9	366	10.79		29.2	13	29.2	50.6
2085	2.494	1.623	2.494	3.567	2.199		662	620.8	662	702.9	2129.1	2029.2	2129.1	2240.2	369.8	10.69		31.4	13.8	31.4	54.7
2090	2.587	1.675	2.587	3.72	2.276		677.5	633.4	677.5	721	2073.4	1980.1	2073.4	2177.8	369.8	10.69		33.6	14.7	33.6	58.8
2095	2.673	1.723	2.673	3.864	2.347		692.1	645.2	692.1	738.2	2020.1	1933.4	2020.1	2117.6	371.5	10.66		35.7	15.5	35.7	62.8
2100	2.753	1.767	2.753	4	2.414		705.9	656.2	705.9	754.6	1969.9	1889.6	1969.9	2060.6	373.1	10.63		37.8	16.2	37.8	66.7

Table B2-15																					
A1BAIM_Alt4_11-15_06_16_08 for the 2011-2015 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.3	1993.9	2030.3	2065.2	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.429	0.627	0.852	0.774		440.2	431	440.2	449.9	2115.6	2064	2115.6	2165.9	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.919		458.2	446.9	458.2	470	2207.6	2139.8	2207.6	2274.5	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.973	0.664	0.973	1.322	1.061		476.8	463.2	476.8	491	2285.6	2202.6	2285.6	2368.6	342	10.37		10.3	4.7	10.3	17.2
2040	1.165	0.793	1.165	1.587	1.198		495.6	479.6	495.6	512.3	2337.8	2242.8	2337.8	2434.2	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.326	0.897	1.326	1.819	1.333		515	496.5	515	534.2	2373.7	2269.3	2373.7	2480.9	348.4	10.63		14	6.5	14	23.6
2050	1.481	0.995	1.481	2.043	1.466		535	513.8	535	556.8	2399.3	2287.7	2399.3	2515.3	351.5	10.73		16	7.3	16	27
2055	1.656	1.11	1.656	2.293	1.594		554.8	530.9	554.8	579.3	2404	2287.5	2404	2526.5	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.832	1.223	1.832	2.548	1.715		574	547.2	574	601.2	2382	2263.4	2382	2508.1	357	10.86		20.3	9.2	20.3	34.4
2065	1.992	1.324	1.992	2.785	1.826		592.6	563	592.6	622.5	2343.6	2225.4	2343.6	2470.5	359.5	10.87		22.5	10.2	22.5	38.4
2070	2.144	1.417	2.144	3.013	1.93		610.8	578.3	610.8	643.5	2295.6	2179.9	2295.6	2421	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.273	1.495	2.273	3.214	2.027		628.6	593.2	628.6	664	2242.1	2130.6	2242.1	2364.1	364	10.83		27	12.1	27	46.5
2080	2.392	1.564	2.392	3.4	2.116		645.7	607.4	645.7	683.8	2185.8	2079.8	2185.8	2302.9	366	10.79		29.2	13	29.2	50.6
2085	2.494	1.623	2.494	3.567	2.199		662	620.8	662	702.9	2129.1	2029.2	2129.1	2240.2	369.8	10.74		31.4	13.8	31.4	54.7
2090	2.587	1.675	2.587	3.72	2.276		677.5	633.4	677.5	721	2073.4	1980.1	2073.4	2177.8	369.8	10.69		33.6	14.7	33.6	58.8
2095	2.673	1.723	2.673	3.864	2.347		692.1	645.2	692.1	738.2	2020.1	1933.4	2020.1	2117.6	371.5	10.66		35.7	15.5	35.7	62.8
2100	2.753	1.767	2.753	4	2.414		705.9	656.2	705.9	754.6	1969.9	1889.6	1969.9	2060.6	373.1	10.63		37.8	16.2	37.8	66.7

Table B2-16																					
A1BAIM_Alt5_11-15_06_16_08 for the 2011-2015 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.2	1993.9	2030.2	2065.2	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.429	0.627	0.852	0.773		440.2	431	440.2	449.8	2115.5	2063.9	2115.5	2165.8	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.919		458.1	446.8	458.1	470	2207.5	2139.7	2207.5	2274.4	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.972	0.664	0.972	1.322	1.061		476.7	463.1	476.7	490.9	2285.5	2202.6	2285.5	2368.4	342	10.37		10.3	4.7	10.3	17.2
2040	1.164	0.793	1.164	1.587	1.198		495.6	479.6	495.6	512.2	2337.9	2243	2337.9	2434.1	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.326	0.897	1.326	1.818	1.332		496.4	496.4	496.4	514.9	2373.8	2269.6	2373.8	2480.9	348.4	10.63		14	6.5	14	23.6
2050	1.48	0.995	1.48	2.042	1.466		534.9	513.7	534.9	556.7	2399.3	2287.9	2399.3	2515.2	351.5	10.73		16	7.3	16	27
2055	1.655	1.109	1.655	2.293	1.594		554.7	530.8	554.7	579.2	2403.9	2287.9	2403.9	2526.2	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.832	1.223	1.832	2.548	1.714		573.9	547.1	573.9	601.1	2381.7	2263.2	2381.7	2507.6	357	10.85		20.3	9.2	20.3	34.4
2065	1.992	1.323	1.992	2.785	1.826		592.5	562.9	592.5	622.4	2343.2	2225.1	2343.2	2470	359.5	10.87		22.5	10.2	22.5	38.4
2070	2.143	1.417	2.143	3.012	1.93		610.7	578.2	610.7	643.4	2295.1	2179.5	2295.1	2420.4	361.8	10.86		24.7	11.1	24.7	42.4
2075	2.273	1.494	2.273	3.213	2.026		628.4	593	628.4	663.8	2241.6	2130.2	2241.6	2363.4	364	10.83		27	12.1	27	46.5
2080	2.391	1.564	2.391	3.399	2.115		645.5	607.2	645.5	683.6	2185.3	2079.3	2185.3	2302.2	366	10.79		29.2	13	29.2	50.6
2085	2.493	1.622	2.493	3.565	2.198		661.8	620.6	661.8	702.7	2128.5	2028.7	2128.5	2239.5	367.9	10.74		31.4	13.8	31.4	54.7
2090	2.586	1.675	2.586	3.719	2.275		677.2	633.2	677.2	720.8	2072.8	1979.6	2072.8	2177.1	369.7	10.69		33.6	14.7	33.6	58.8
2095	2.672	1.722	2.672	3.863	2.346		691.8	644.9	691.8	738	2019.4	1932.9	2019.4	2116.9	371.5	10.66		35.7	15.5	35.7	62.8
2100	2.752	1.766	2.752	3.998	2.413		705.6	656	705.6	754.3	1969.3	1889.1	1969.3	2059.9	373.1	10.63		37.8	16.2	37.8	66.7

Table B2-17																					
A1BAIM_Alt6_11-15_06_16_08 for the 2011-2015 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.2	1993.8	2030.2	2065.1	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.429	0.627	0.852	0.773		440.2	431	440.2	449.8	2115.4	2063.8	2115.4	2165.7	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.919		458.1	446.8	458.1	470	2207.3	2139.5	2207.3	2274.2	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.972	0.664	0.972	1.321	1.061		476.7	463.1	476.7	490.9	2285.3	2202.4	2285.3	2368.2	342	10.37		10.3	4.7	10.3	17.2
2040	1.164	0.792	1.164	1.586	1.198		495.5	479.5	495.5	512.1	2337.6	2242.8	2337.6	2433.8	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.326	0.896	1.326	1.818	1.332		496.3	496.3	496.3	514.8	2373.7	2269.5	2373.7	2480.7	348.4	10.63		14	6.4	14	23.6
2050	1.48	0.995	1.48	2.042	1.465		534.8	513.6	534.8	556.6	2399.4	2288.1	2399.4	2515.1	351.4	10.74		16	7.3	16	27
2055	1.655	1.109	1.655	2.292	1.593		554.6	530.7	554.6	579.1	2404.1	2287.9	2404.1	2526.3	354.3	10.82		18.1	8.3	18.1	30.6
2060	1.831	1.223	1.831	2.547	1.713		573.7	547	573.7	600.9	2382.1	2263.7	2382.1	2507.8	357	10.86		20.3	9.2	20.3	34.4
2065	1.991	1.323	1.991	2.784	1.825		592.3	562.7	592.3	622.2	2343.7	2225.8	2343.7	2470.2	359.5	10.87		22.5	10.2	22.5	38.4
2070	2.143	1.417	2.143	3.011	1.929		610.5	578	610.5	643.2	2295.6	2180.3	2295.6	2420.6	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.272	1.494	2.272	3.212	2.025		628.2	592.8	628.2	663.6	2242.1	2130.9	2242.1	2363.7	364	10.83		27	12.1	27	46.5
2080	2.39	1.563	2.39	3.398	2.114		645.3	607	645.3	683.4	2185.8	2080	2185.8	2302.5	366	10.79		29.2	13	29.2	50.6
2085	2.492	1.622	2.492	3.564	2.197		661.6	620.4	661.6	702.4	2129	2029.5	2129	2239.8	367.9	10.74		31.4	13.8	31.4	54.7
2090	2.585	1.674	2.585	3.718	2.274		677	633	677	720.5	2073.3	1980.3	2073.3	2177.4	369.7	10.69		33.6	14.7	33.6	58.8
2095	2.671	1.722	2.671	3.862	2.345		691.6	644.7	691.6	737.7	2019.9	1933.6	2019.9	2117.1	371.4	10.66		35.7	15.5	35.7	62.8
2100	2.751	1.766	2.751	3.997	2.412		705.4	655.7	705.4	754	1969.8	1889.8	1969.8	2060.2	373.1	10.64		37.8	16.2	37.8	66.7

Table B2-18
ORIGINAL A1BAIM for the 2011-2020 CAFE Alternatives

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.375	0.254	0.375	0.511	0.486		407.6	402.4	407.6	413.1	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.658	0.631		423.4	416.3	423.4	431	2030.3	1993.8	2030.3	2065.3	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.628	0.429	0.628	0.853	0.774		440.3	431.2	440.3	450	2115.6	2063.8	2115.6	2166	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.789	0.539	0.789	1.072	0.921		458.4	447.1	458.4	470.3	2207.6	2139.5	2207.6	2274.9	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.974	0.665	0.974	1.324	1.063		477.1	463.5	477.1	491.4	2285.7	2202.2	2285.7	2369.1	342.1	10.36		10.3	4.7	10.3	17.2
2040	1.167	0.795	1.167	1.59	1.201		496.1	480.1	496.1	512.8	2338.1	2242.5	2338.1	2435	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.329	0.899	1.329	1.823	1.337		515.6	497.1	515.6	534.8	2374.1	2269	2374.1	2482	348.4	10.62		14.1	6.5	14.1	23.6
2050	1.484	0.998	1.484	2.047	1.47		535.8	514.6	535.8	557.6	2399.7	2287.3	2399.7	2516.5	351.5	10.73		16	7.4	16	27
2055	1.66	1.113	1.66	2.299	1.599		555.8	531.8	555.8	580.4	2404.4	2286.9	2404.4	2527.8	354.3	10.81		18.1	8.3	18.1	30.7
2060	1.837	1.227	1.837	2.555	1.72		575.2	548.3	575.2	602.4	2382.3	2262.6	2382.3	2509.4	357	10.85		20.3	9.2	20.3	34.5
2065	1.998	1.328	1.998	2.793	1.833		594	564.3	594	624	2343.8	2224.4	2343.8	2471.9	359.5	10.86		22.5	10.2	22.5	38.4
2070	2.15	1.422	2.15	3.021	1.938		612.4	579.8	612.4	645.2	2295.7	2178.8	2295.7	2422.4	361.8	10.86		24.8	11.2	24.8	42.5
2075	2.28	1.499	2.28	3.223	2.035		630.3	594.8	630.3	665.9	2242.2	2129.5	2242.2	2365.6	364	10.82		27	12.1	27	46.6
2080	2.399	1.57	2.399	3.41	2.124		647.6	609.2	647.6	685.9	2185.9	2078.6	2185.9	2304.4	366.1	10.78		29.3	13	29.3	50.7
2085	2.502	1.628	2.502	3.578	2.208		664.2	622.8	664.2	705.2	2129.2	2028.1	2129.2	2241.8	368	10.73		31.5	13.9	31.5	54.8
2090	2.596	1.681	2.596	3.732	2.286		679.8	635.5	679.8	723.5	2073.5	1979	2073.5	2179.4	369.8	10.68		33.7	14.7	33.7	58.9
2095	2.682	1.729	2.682	3.877	2.358		694.6	647.4	694.6	740.9	2020.2	1932.4	2020.2	2119.2	371.5	10.65		35.8	15.5	35.8	62.9
2100	2.763	1.774	2.763	4.013	2.425		708.6	658.7	708.6	757.5	1970.1	1888.7	1970.1	2062.2	373.1	10.62		37.9	16.3	37.9	66.9

Table B2-19
A1BAIM_Alt1_11-20_06_12_08 for the 2011-2020 CAFE Alternatives

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.375	0.254	0.375	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.3	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.1	1993.6	2030.1	2065.1	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.628	0.429	0.628	0.853	0.774		440.2	431	440.2	449.9	2115.3	2063.5	2115.3	2165.7	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.92		458.2	446.8	458.2	470	2207.2	2139.2	2207.2	2274.4	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.973	0.664	0.973	1.322	1.061		476.7	463.1	476.7	490.9	2285.2	2202	2285.2	2368.5	342.1	10.36		10.3	4.7	10.3	17.2
2040	1.164	0.793	1.164	1.587	1.199		495.5	479.6	495.5	512.2	2337.5	2242.2	2337.5	2434.2	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.326	0.897	1.326	1.819	1.333		514.8	496.3	514.8	534	2373.3	2268.6	2373.3	2481	348.4	10.63		14	6.5	14	23.6
2050	1.48	0.995	1.48	2.042	1.466		534.8	513.6	534.8	556.6	2398.8	2286.8	2398.8	2515.3	351.5	10.73		16	7.3	16	27
2055	1.655	1.109	1.655	2.293	1.594		554.6	530.7	554.6	579	2403.3	2286.1	2403.3	2526.3	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.832	1.223	1.832	2.548	1.714		573.7	546.9	573.7	600.8	2380.9	2261.6	2380.9	2507.7	357	10.85		20.3	9.2	20.3	34.4
2065	1.992	1.323	1.992	2.784	1.826		592.2	562.6	592.2	622.1	2342.2	2223.2	2342.2	2469.9	359.5	10.86		22.5	10.2	22.5	38.4
2070	2.143	1.417	2.143	3.011	1.93		610.4	577.9	610.4	643	2294	2177.5	2294	2420.2	361.8	10.86		24.7	11.1	24.7	42.4
2075	2.272	1.494	2.272	3.212	2.026		628.1	592.7	628.1	663.4	2240.4	2128.1	2240.4	2363.2	364	10.82		27	12.1	27	46.5
2080	2.39	1.563	2.39	3.398	2.115		645.1	606.8	645.1	683.2	2184	2077.2	2184	2302	366	10.78		29.2	13	29.2	50.6
2085	2.492	1.622	2.492	3.564	2.197		661.4	620.2	661.4	702.2	2127.3	2026.6	2127.3	2239.3	368	10.73		31.4	13.8	31.4	54.7
2090	2.585	1.674	2.585	3.718	2.274		676.8	632.7	676.8	720.2	2071.5	1977.5	2071.5	2176.8	369.8	10.68		33.6	14.7	33.6	58.8
2095	2.671	1.721	2.671	3.861	2.346		691.3	644.5	691.3	737.4	2018.2	1930.8	2018.2	2116.6	371.5	10.65		35.7	15.5	35.7	62.8
2100	2.751	1.765	2.751	3.996	2.412		705.1	655.5	705.1	753.7	1968	1887.1	1968	2059.6	373.1	10.62		37.8	16.2	37.8	66.7

Table B2-20

A1BAIM_Alt2_11-20_06_12_08 for the 2011-2020 CAFE Alternatives

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.375	0.254	0.375	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.3	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030	1993.6	2030	2065.1	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.628	0.429	0.628	0.852	0.774		440.2	431	440.2	449.8	2115.2	2063.4	2115.2	2165.6	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.92		458.1	446.8	458.1	470	2207.1	2139.1	2207.1	2274.2	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.972	0.664	0.972	1.322	1.061		476.6	463.1	476.6	490.8	2285	2201.8	2285	2368.2	342.1	10.36		10.3	4.7	10.3	17.2
2040	1.164	0.793	1.164	1.586	1.198		495.4	479.5	495.4	512.1	2337.2	2241.9	2337.2	2433.8	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.326	0.896	1.326	1.818	1.333		514.7	496.2	514.7	533.9	2373.1	2268.4	2373.1	2480.6	348.4	10.63		14	6.4	14	23.6
2050	1.48	0.995	1.48	2.041	1.465		534.6	513.5	534.6	556.4	2398.7	2286.8	2398.7	2515.1	351.5	10.73		16	7.3	16	27
2055	1.654	1.109	1.654	2.292	1.593		554.4	530.5	554.4	578.9	2403.4	2286.5	2403.4	2526.2	354.3	10.81		18.1	8.3	18.1	30.6
2060	1.831	1.222	1.831	2.546	1.713		573.4	546.7	573.4	600.6	2381.1	2262	2381.1	2507.6	357	10.85		20.3	9.2	20.3	34.4
2065	1.991	1.322	1.991	2.783	1.825		592	562.4	592	621.9	2342.5	2223.8	2342.5	2469.9	359.5	10.86		22.5	10.2	22.5	38.4
2070	2.142	1.416	2.142	3.01	1.928		610.1	577.7	610.1	642.7	2294.3	2178.1	2294.3	2420.3	361.8	10.86		24.7	11.1	24.7	42.4
2075	2.271	1.493	2.271	3.21	2.024		627.7	592.4	627.7	663.1	2240.7	2128.7	2240.7	2363.3	364	10.83		27	12.1	27	46.5
2080	2.389	1.562	2.389	3.396	2.113		644.8	606.5	644.8	682.8	2184.4	2077.8	2184.4	2302.1	366	10.78		29.2	13	29.2	50.6
2085	2.491	1.621	2.491	3.562	2.196		661	619.9	661	701.8	2127.6	2027.2	2127.6	2239.3	368	10.73		31.4	13.8	31.4	54.7
2090	2.584	1.673	2.584	3.715	2.272		676.3	632.4	676.3	719.8	2071.9	1978.1	2071.9	2176.9	369.8	10.68		33.6	14.6	33.6	58.7
2095	2.669	1.72	2.669	3.859	2.344		690.8	644.1	690.8	736.9	2018.5	1931.4	2018.5	2116.7	371.5	10.65		35.7	15.4	35.7	62.7
2100	2.749	1.764	2.749	3.994	2.41		704.6	655	704.6	753.2	1968.4	1887.6	1968.4	2059.7	373.1	10.63		37.8	16.2	37.8	66.7

Table B2-21

A1BAIM_Alt3_11-20_06_12_08 for the 2011-2020 CAFE Alternatives

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.3	1993.9	2030.3	2065.2	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.429	0.627	0.852	0.773		440.2	431	440.2	449.8	2115.5	2063.9	2115.5	2165.8	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.788	0.538	0.788	1.07	0.919		458.1	446.8	458.1	470	2207.4	2139.6	2207.4	2274.3	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.972	0.664	0.972	1.321	1.06		476.6	463	476.6	490.8	2285.3	2202.4	2285.3	2368.3	342	10.37		10.3	4.7	10.3	17.2
2040	1.164	0.792	1.164	1.586	1.197		495.4	479.4	495.4	512	2337.6	2242.7	2337.6	2433.8	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.325	0.896	1.325	1.817	1.332		514.6	496.2	514.6	533.8	2373.5	2269.3	2373.5	2480.5	348.4	10.63		14	6.4	14	23.6
2050	1.479	0.994	1.479	2.04	1.464		534.5	513.4	534.5	556.3	2399.1	2287.8	2399.1	2514.9	351.4	10.73		16	7.3	16	27
2055	1.654	1.108	1.654	2.29	1.592		554.3	530.4	554.3	578.8	2403.8	2287.6	2403.8	2525.9	354.3	10.82		18.1	8.3	18.1	30.6
2060	1.83	1.222	1.83	2.545	1.712		573.3	546.6	573.3	600.5	2381.7	2263.4	2381.7	2507.4	357	10.86		20.3	9.2	20.3	34.4
2065	1.99	1.322	1.99	2.782	1.823		591.9	562.3	591.9	621.7	2343.2	2225.4	2343.2	2469.7	359.5	10.87		22.5	10.2	22.5	38.4
2070	2.141	1.415	2.141	3.008	1.927		610	577.5	610	642.6	2295.2	2179.9	2295.2	2420.2	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.27	1.492	2.27	3.209	2.023		627.6	592.3	627.6	663	2241.6	2130.5	2241.6	2363.2	364	10.83		27	12.1	27	46.5
2080	2.388	1.562	2.388	3.395	2.111		644.6	606.4	644.6	682.7	2185.3	2079.6	2185.3	2302	366	10.79		29.2	12.9	29.2	50.6
2085	2.49	1.62	2.49	3.561	2.194		660.8	619.7	660.8	701.6	2128.6	2029.1	2128.6	2239.3	367.9	10.74		31.4	13.8	31.4	54.7
2090	2.582	1.672	2.582	3.714	2.271		676.2	632.2	676.2	719.6	2072.8	1979.9	2072.8	2176.9	369.7	10.69		33.6	14.6	33.6	58.7
2095	2.668	1.72	2.668	3.857	2.342		690.6	643.9	690.6	736.7	2019.5	1933.2	2019.5	2116.6	371.5	10.66		35.7	15.4	35.7	62.7
2100	2.748	1.763	2.748	3.992	2.408		704.4	654.8	704.4	753	1969.3	1889.4	1969.3	2059.6	373.1	10.63		37.8	16.2	37.8	66.7

Table B2-22																					
A1BAIM_Alt4_11-20_06_16_08 for the 2011-2020 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.2	1993.8	2030.2	2065.1	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.429	0.627	0.852	0.773		440.1	431	440.1	449.8	2115.5	2063.9	2115.5	2165.7	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.787	0.538	0.787	1.069	0.919		458.1	446.8	458.1	469.9	2207.5	2139.8	2207.5	2274.3	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.972	0.664	0.972	1.321	1.06		476.6	463	476.6	490.8	2285.6	2202.8	2285.6	2368.3	342	10.37		10.3	4.7	10.3	17.2
2040	1.163	0.792	1.163	1.585	1.197		495.3	479.4	495.3	512	2337.9	2243.2	2337.9	2433.9	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.325	0.896	1.325	1.817	1.331		514.6	496.1	514.6	533.8	2373.8	2269.9	2373.8	2480.6	348.4	10.63		14	6.4	14	23.6
2050	1.478	0.994	1.478	2.04	1.464		534.5	513.3	534.5	556.3	2399.4	2288.4	2399.4	2514.8	351.4	10.74		16	7.3	16	27
2055	1.653	1.108	1.653	2.29	1.591		554.2	530.3	554.2	578.7	2404	2288.1	2404	2525.8	354.3	10.82		18.1	8.3	18.1	30.6
2060	1.829	1.221	1.829	2.544	1.711		573.3	546.6	573.3	600.4	2381.9	2263.9	2381.9	2507.2	357	10.86		20.2	9.2	20.2	34.4
2065	1.989	1.321	1.989	2.781	1.823		591.8	562.2	591.8	621.6	2343.3	2225.8	2343.3	2469.4	359.5	10.87		22.5	10.2	22.5	38.4
2070	2.14	1.415	2.14	3.008	1.926		609.9	577.4	609.9	642.5	2295.2	2180.3	2295.2	2419.8	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.269	1.492	2.269	3.208	2.022		627.5	592.2	627.5	662.8	2241.6	2130.9	2241.6	2362.8	364	10.83		27	12	27	46.5
2080	2.387	1.561	2.387	3.394	2.11		644.5	606.2	644.5	682.5	2185.3	2080	2185.3	2301.5	366	10.79		29.2	12.9	29.2	50.6
2085	2.489	1.619	2.489	3.56	2.193		660.7	619.6	660.7	701.4	2128.5	2029.4	2128.5	2238.8	367.9	10.74		31.4	13.8	31.4	54.7
2090	2.582	1.671	2.582	3.713	2.27		676	632	676	719.4	2072.7	1980.2	2072.7	2176.4	369.7	10.69		33.6	14.6	33.6	58.7
2095	2.667	1.719	2.667	3.856	2.341		690.5	643.7	690.5	736.5	2019.4	1933.5	2019.4	2116.1	371.4	10.66		35.7	15.4	35.7	62.7
2100	2.747	1.763	2.747	3.991	2.407		704.2	654.7	704.2	752.8	1969.2	1889.7	1969.2	2059.1	373	10.64		37.8	16.2	37.8	66.6

Table B2-23																					
A1BAIM_Alt5_11-20_06_12_08 for the 2011-2020 CAFE Alternatives																					
	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.9	2030.1	1993.8	2030.1	2065.1	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.429	0.627	0.852	0.773		440.1	431	440.1	449.8	2115.4	2063.8	2115.4	2165.6	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.787	0.538	0.787	1.069	0.919		458	446.7	458	469.9	2207.3	2139.7	2207.3	2274.1	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.972	0.663	0.972	1.321	1.06		476.5	463	476.5	490.7	2285.3	2202.6	2285.3	2368	342	10.37		10.3	4.7	10.3	17.2
2040	1.163	0.792	1.163	1.585	1.197		495.3	479.3	495.3	511.9	2337.5	2242.9	2337.5	2433.5	345.3	10.51		12.1	5.6	12.1	20.3
2045	1.324	0.896	1.324	1.816	1.331		514.5	496.1	514.5	533.7	2373.4	2269.5	2373.4	2480.1	348.4	10.63		14	6.4	14	23.6
2050	1.478	0.994	1.478	2.04	1.463		534.4	513.3	534.4	556.2	2398.9	2288	2398.9	2514.2	351.4	10.73		16	7.3	16	27
2055	1.653	1.107	1.653	2.289	1.591		554.1	530.3	554.1	578.6	2403.5	2287.8	2403.5	2525.2	354.3	10.82		18.1	8.3	18.1	30.6
2060	1.829	1.221	1.829	2.544	1.71		573.2	546.5	573.2	600.3	2381.6	2263.8	2381.6	2506.7	357	10.86		20.2	9.2	20.2	34.4
2065	1.988	1.321	1.988	2.78	1.822		591.6	562.1	591.6	621.5	2343.2	2226	2343.2	2469.1	359.5	10.87		22.5	10.2	22.5	38.3
2070	2.139	1.414	2.139	3.007	1.925		609.7	577.3	609.7	642.3	2295.2	2180.6	2295.2	2419.5	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.268	1.491	2.268	3.207	2.021		627.3	592	627.3	662.7	2241.7	2131.3	2241.7	2362.6	364	10.84		27	12	27	46.5
2080	2.386	1.561	2.386	3.393	2.109		644.3	606.1	644.3	682.4	2185.5	2080.4	2185.5	2301.4	366	10.79		29.2	12.9	29.2	50.6
2085	2.488	1.619	2.488	3.558	2.192		660.5	619.4	660.5	701.3	2128.7	2029.9	2128.7	2238.7	367.9	10.74		31.4	13.8	31.4	54.7
2090	2.581	1.671	2.581	3.711	2.268		675.8	631.9	675.8	719.2	2073	1980.7	2073	2176.3	369.7	10.69		33.5	14.6	33.5	58.7
2095	2.666	1.718	2.666	3.855	2.34		690.2	643.5	690.2	736.3	2019.6	1934	2019.6	2116.1	371.4	10.66		35.7	15.4	35.7	62.7
2100	2.746	1.762	2.746	3.99	2.406		703.9	654.5	703.9	752.5	1969.5	1890.2	1969.5	2059.1	373	10.64		37.7	16.2	37.7	66.6

Table B2-24

A1BAIM_Alt6_11-20_06_12_08 for the 2011-2020 CAFE Alternatives

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.151	0.103	0.151	0.203	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.21	0.142	0.21	0.287	0.238		379.7	378.2	379.7	381.3	1811.9	1808.8	1811.9	1814.8	320.4	9.65		2.6	1.1	2.6	4.3
2010	0.28	0.189	0.28	0.384	0.353		392.8	389.5	392.8	396.3	1876.4	1865.3	1876.4	1886.8	324.3	9.73		3.5	1.5	3.5	5.9
2015	0.374	0.254	0.374	0.511	0.486		407.5	402.4	407.5	413	1950.9	1928.4	1950.9	1972.3	328	9.79		4.6	2	4.6	7.7
2020	0.482	0.328	0.482	0.657	0.63		423.3	416.2	423.3	430.8	2030.1	1993.8	2030.1	2065	331.6	9.86		5.8	2.6	5.8	9.7
2025	0.627	0.428	0.627	0.852	0.773		440.1	431	440.1	449.8	2115.3	2063.7	2115.3	2165.5	335.2	10.02		7.1	3.2	7.1	11.9
2030	0.787	0.538	0.787	1.069	0.919		458	446.7	458	469.9	2207.2	2139.5	2207.2	2274	338.7	10.18		8.6	3.9	8.6	14.4
2035	0.971	0.663	0.971	1.32	1.059		476.5	462.9	476.5	490.7	2285.2	2202.5	2285.2	2367.8	342	10.37		10.3	4.7	10.3	17.2
2040	1.163	0.792	1.163	1.585	1.196		495.2	479.3	495.2	511.9	2337.6	2243.1	2337.6	2433.4	345.3	10.52		12.1	5.6	12.1	20.3
2045	1.324	0.895	1.324	1.816	1.33		514.5	496	514.5	533.6	2373.6	2270	2373.6	2480.2	348.4	10.63		14	6.4	14	23.5
2050	1.478	0.993	1.478	2.039	1.463		534.3	513.2	534.3	556.1	2399.3	2288.6	2399.3	2514.4	351.4	10.74		16	7.3	16	27
2055	1.652	1.107	1.652	2.289	1.59		554	530.2	554	578.5	2403.9	2288.3	2403.9	2525.3	354.3	10.82		18.1	8.3	18.1	30.6
2060	1.828	1.221	1.828	2.543	1.71		573	546.4	573	600.2	2381.6	2264	2381.6	2506.6	357	10.86		20.2	9.2	20.2	34.4
2065	1.988	1.32	1.988	2.779	1.821		591.5	562	591.5	621.4	2343	2225.9	2343	2468.7	359.5	10.87		22.5	10.2	22.5	38.3
2070	2.139	1.414	2.139	3.006	1.924		609.6	577.2	609.6	642.2	2294.8	2180.3	2294.8	2419	361.8	10.87		24.7	11.1	24.7	42.4
2075	2.268	1.491	2.268	3.206	2.02		627.1	591.9	627.1	662.5	2241.2	2130.9	2241.2	2361.9	364	10.83		27	12	27	46.5
2080	2.385	1.56	2.385	3.392	2.108		644.1	605.9	644.1	682.1	2184.9	2080	2184.9	2300.7	366	10.79		29.2	12.9	29.2	50.6
2085	2.487	1.618	2.487	3.557	2.191		660.3	619.2	660.3	701	2128.1	2029.4	2128.1	2237.9	367.9	10.74		31.4	13.8	31.4	54.6
2090	2.58	1.67	2.58	3.71	2.267		675.6	631.7	675.6	719	2072.3	1980.2	2072.3	2175.5	369.7	10.69		33.5	14.6	33.5	58.7
2095	2.665	1.718	2.665	3.853	2.338		690	643.3	690	736	2019	1933.5	2019	2115.2	371.4	10.66		35.7	15.4	35.7	62.7
2100	2.745	1.761	2.745	3.988	2.405		703.7	654.2	703.7	752.2	1968.8	1889.7	1968.8	2058.2	373	10.63		37.7	16.2	37.7	66.6

Table B2-25

A2ASF

	CO2	CH4tot	N2O	HALOtot	TROPOZ	SO4DIR	SO4IND	BIOAER	TOTAL	FOC+FBC	YEAR	CH4-O3	STRATO3	MONDIR	QKYOTO
1990	0	0	0	0	0	0	0	0	0	0	1990	0	0	0	0
1995	0.114	0.012	0.0127	-0.0002	0.0109	0.0048	0.0061	-0.016	0.14308	-0.0012	1995	0.003	-0.0418	0.0373	0.0043
2000	0.2311	0.0237	0.0257	0.0184	0.0227	0.009	0.0115	-0.0342	0.3058	-0.0023	2000	0.0061	-0.0468	0.0572	0.0081
2005	0.371	0.0412	0.0392	0.0479	0.0487	-0.006	-0.0076	-0.0406	0.49524	0.0015	2005	0.0113	-0.0337	0.0675	0.0141
2010	0.5254	0.0631	0.0538	0.0758	0.0773	-0.0248	-0.0309	-0.0458	0.7002	0.0062	2010	0.0178	-0.0201	0.0733	0.0226
2015	0.699	0.088	0.0697	0.0931	0.1165	-0.0918	-0.109	-0.0551	0.83347	0.023	2015	0.025	-0.0065	0.0675	0.0322
2020	0.8948	0.1143	0.0873	0.0992	0.1571	-0.1599	-0.1814	-0.0651	0.98624	0.04	2020	0.0326	0.0111	0.0463	0.0418
2025	1.1062	0.1431	0.106	0.1032	0.1984	-0.1984	-0.2195	-0.0668	1.22182	0.0496	2025	0.0407	0.0316	0.0199	0.0517
2030	1.3294	0.1749	0.1255	0.106	0.2403	-0.2329	-0.2523	-0.0673	1.48191	0.0582	2030	0.0494	0.0487	-0.0045	0.0618
2035	1.5556	0.2081	0.1453	0.1098	0.2674	-0.2251	-0.2451	-0.0643	1.80796	0.0563	2035	0.0584	0.0638	-0.0262	0.0723
2040	1.779	0.242	0.1651	0.1152	0.2927	-0.2151	-0.2356	-0.0605	2.13666	0.0538	2040	0.0674	0.0769	-0.0448	0.0831
2045	2.0016	0.2761	0.1848	0.1212	0.318	-0.2051	-0.226	-0.0562	2.46565	0.0513	2045	0.0762	0.0885	-0.062	0.0947
2050	2.224	0.3101	0.2045	0.1275	0.343	-0.1933	-0.2146	-0.0516	2.79802	0.0483	2050	0.0848	0.0991	-0.079	0.1074
2055	2.4486	0.3446	0.2244	0.1358	0.3669	-0.1503	-0.1716	-0.04	3.196	0.0376	2055	0.0934	0.1089	-0.0944	0.1214
2060	2.6774	0.3799	0.2447	0.1467	0.3907	-0.1057	-0.1243	-0.027	3.6089	0.0264	2060	0.102	0.1176	-0.1078	0.1369
2065	2.9099	0.4157	0.2653	0.1594	0.4142	-0.061	-0.074	-0.0132	4.03151	0.0152	2065	0.1106	0.1254	-0.1196	0.1535
2070	3.1457	0.4516	0.2863	0.1734	0.4375	-0.0173	-0.0217	0.0014	4.46127	0.0043	2070	0.119	0.1324	-0.13	0.171
2075	3.3872	0.4872	0.3075	0.189	0.4706	0.0091	0.0117	0.0113	4.87137	-0.0023	2075	0.1272	0.1388	-0.1395	0.1897
2080	3.636	0.5223	0.3289	0.2063	0.5045	0.0336	0.0439	0.021	5.28806	-0.0084	2080	0.1351	0.1446	-0.1481	0.2098
2085	3.8934	0.5567	0.3504	0.2255	0.5474	0.0408	0.0536	0.0257	5.68319	-0.0102	2085	0.1428	0.1498	-0.156	0.2317
2090	4.1601	0.5902	0.3719	0.2468	0.591	0.047	0.0621	0.0299	6.0873	-0.0118	2090	0.1501	0.1547	-0.1632	0.2554
2095	4.4347	0.6231	0.3936	0.2691	0.6345	0.0532	0.0706	0.0341	6.49965	-0.0133	2095	0.1571	0.1591	-0.17	0.28
2100	4.7158	0.6553	0.4152	0.2918	0.6779	0.0594	0.0793	0.0383	6.91811	-0.0149	2100	0.1639	0.1631	-0.1763	0.3049

Table B2-26
B1IMAGE

	TEMUSER	TEMLO	TEMMID	TEMHI	TEMNOS O2		CO2USE R	CO2LO	CO2MID	CO2HI	CH4USER	CH4LO	CH4MID	CH4HI	N2O	MIDTAUC H4		MSLUSER	MSLLO	MSLMID	MSLHI
1990	0	0	0	0	0		353.6	353.6	353.6	353.6	1704.8	1704.8	1704.8	1704.8	308.4	9.6		0	0	0	0
1995	0.074	0.051	0.074	0.1	0.07		361.2	361.2	361.2	361.2	1734.7	1734.7	1734.7	1734.7	312.3	9.6		0.8	0.3	0.8	1.3
2000	0.152	0.103	0.152	0.204	0.143		369.2	369.2	369.2	369.2	1764.4	1764.4	1764.4	1764.4	316.4	9.6		1.7	0.7	1.7	2.7
2005	0.232	0.158	0.232	0.315	0.232		378.9	377.4	378.9	380.5	1798.5	1797.2	1798.5	1799.7	320.5	9.53		2.6	1.1	2.6	4.3
2010	0.321	0.218	0.321	0.436	0.333		389.5	386.3	389.5	392.9	1829	1824.7	1829	1833	324.7	9.46		3.6	1.6	3.6	6
2015	0.42	0.286	0.42	0.572	0.437		401.1	396.2	401.1	406.4	1859.5	1851.2	1859.5	1867.3	329.1	9.41		4.7	2.1	4.7	7.9
2020	0.522	0.354	0.522	0.714	0.543		413.6	407	413.6	420.8	1891.5	1878.4	1891.5	1904.1	333.5	9.37		5.9	2.6	5.9	9.9
2025	0.623	0.421	0.623	0.855	0.653		426.5	418.1	426.5	435.6	1915.1	1897.6	1915.1	1932.3	337.9	9.28		7.2	3.2	7.2	12.1
2030	0.724	0.486	0.724	0.998	0.763		439.4	429.1	439.4	450.4	1925	1904.3	1925	1945.6	342.2	9.17		8.5	3.8	8.5	14.4
2035	0.825	0.552	0.825	1.144	0.869		452.3	440.2	452.3	465.3	1924.4	1902	1924.4	1947.2	346.4	9.12		9.9	4.4	9.9	16.8
2040	0.926	0.617	0.926	1.29	0.973		465.5	451.5	465.5	480.5	1915.9	1892.9	1915.9	1939.6	350.4	9.05		11.4	5	11.4	19.3
2045	1.036	0.688	1.036	1.447	1.065		478.3	462.4	478.3	495.3	1899.9	1878.2	1899.9	1922.6	354.3	9.06		12.9	5.6	12.9	22
2050	1.143	0.756	1.143	1.604	1.148		490.4	472.5	490.4	509.5	1877	1858.9	1877	1896.4	358	9.06		14.4	6.3	14.4	24.7
2055	1.254	0.827	1.254	1.766	1.224		501.3	481.4	501.3	522.4	1853.4	1840.3	1853.4	1868	361.4	9.09		16	7	16	27.6
2060	1.362	0.895	1.362	1.927	1.292		510.4	488.7	510.4	533.6	1832.5	1825.2	1832.5	1841.5	364.3	9.13		17.6	7.6	17.6	30.6
2065	1.461	0.956	1.461	2.077	1.35		518.1	494.5	518.1	543.2	1813	1811.9	1813	1815.8	366.8	9.18		19.3	8.3	19.3	33.6
2070	1.553	1.011	1.553	2.219	1.4		524.3	498.9	524.3	551.2	1794.2	1799.5	1794.2	1790.4	369.1	9.23		20.9	8.9	20.9	36.7
2075	1.634	1.058	1.634	2.347	1.443		529.1	502.1	529.1	557.8	1769.7	1781.4	1769.7	1759.3	371.1	9.24		22.6	9.5	22.6	39.8
2080	1.706	1.099	1.706	2.465	1.479		532.7	504.3	532.7	563	1736.1	1754.3	1736.1	1718.9	372.8	9.24		24.2	10.1	24.2	42.8
2085	1.767	1.133	1.767	2.568	1.508		535.1	505.4	535.1	567	1697.9	1722.7	1697.9	1673.9	374.2	9.23		25.8	10.7	25.8	45.9
2090	1.82	1.16	1.82	2.66	1.527		536.5	505.6	536.5	569.8	1657.8	1689.1	1657.8	1627.1	375.2	9.21		27.3	11.2	27.3	48.9
2095	1.858	1.177	1.858	2.735	1.537		537	505.1	537	571.5	1614.7	1652.5	1614.7	1577.3	375.8	9.17		28.8	11.7	28.8	51.9
2100	1.889	1.19	1.889	2.798	1.54		536.8	503.9	536.8	572.4	1568.2	1612.6	1568.2	1524.1	376	9.12		30.3	12.1	30.3	54.8
	CO2	CH4tot	N2O	HALOtot	TROPOZ	SO4DIR	SO4IND	BIOAER	TOTAL	FOC+FBC	YEAR	CH4-O3	STRATO3	MONDIR	QKYOTO						
1990	0	0	0	0	0	0	0	0	0	0	1990	0	0	0	0						
1995	0.114	0.012	0.0127	-0.0002	0.0109	0.0048	0.0061	-0.016	0.14308	-0.0012	1995	0.003	-0.0418	0.0373	0.0043						
2000	0.2311	0.0237	0.0257	0.0184	0.0227	0.0091	0.0117	-0.0342	0.30603	-0.0023	2000	0.0061	-0.0468	0.0572	0.0081						
2005	0.3687	0.0371	0.0388	0.0477	0.0355	-0.0037	-0.0047	-0.0254	0.49505	0.0009	2005	0.0101	-0.0337	0.0675	0.014						
2010	0.5171	0.049	0.0521	0.0753	0.0477	-0.0168	-0.0211	-0.0127	0.69467	0.0042	2010	0.0136	-0.0201	0.0733	0.0221						
2015	0.6741	0.0607	0.0656	0.092	0.0602	-0.0193	-0.0242	-0.0054	0.90852	0.0048	2015	0.0171	-0.0065	0.0675	0.0311						
2020	0.8387	0.073	0.0794	0.0973	0.0728	-0.0217	-0.0271	0.0016	1.11954	0.0054	2020	0.0207	0.0111	0.0463	0.04						
2025	1.0028	0.0819	0.0931	0.1005	0.0776	-0.0313	-0.0389	0.0354	1.32896	0.0078	2025	0.0233	0.0316	0.0199	0.0489						
2030	1.1615	0.0857	0.1063	0.1021	0.0802	-0.041	-0.0505	0.074	1.52857	0.0102	2030	0.0244	0.0487	-0.0045	0.0578						
2035	1.3168	0.0855	0.1189	0.1046	0.0797	-0.0425	-0.0523	0.0993	1.72077	0.0106	2035	0.0243	0.0638	-0.0262	0.067						
2040	1.4702	0.0823	0.1311	0.1087	0.0781	-0.0421	-0.0519	0.124	1.91101	0.0105	2040	0.0234	0.0769	-0.0448	0.0766						
2045	1.6157	0.0762	0.1428	0.1138	0.0656	-0.0164	-0.0205	0.1285	2.10976	0.0041	2045	0.0216	0.0885	-0.062	0.0873						
2050	1.7493	0.0674	0.1539	0.1196	0.0512	0.0113	0.0145	0.1304	2.29475	-0.0028	2050	0.0191	0.0991	-0.079	0.0994						
2055	1.8665	0.0584	0.164	0.1249	0.0362	0.0478	0.0632	0.1374	2.48644	-0.012	2055	0.0164	0.1089	-0.0944	0.1105						
2060	1.9636	0.0503	0.1726	0.129	0.0214	0.0846	0.1155	0.145	2.6609	-0.0212	2060	0.014	0.1176	-0.1078	0.1192						
2065	2.0431	0.0428	0.1802	0.1321	0.0062	0.1174	0.1649	0.1487	2.80605	-0.0293	2065	0.0118	0.1254	-0.1196	0.1262						
2070	2.1064	0.0354	0.1869	0.1343	-0.0089	0.1494	0.2165	0.1518	2.93449	-0.0374	2070	0.0096	0.1324	-0.13	0.1319						
2075	2.1555	0.0258	0.1928	0.1357	-0.0232	0.1728	0.2563	0.1645	3.03704	-0.0432	2075	0.0067	0.1388	-0.1395	0.1364						
2080	2.1917	0.0125	0.1978	0.1364	-0.0384	0.1955	0.2969	0.1786	3.12208	-0.0489	2080	0.0027	0.1446	-0.1481	0.14						
2085	2.2162	-0.0028	0.2018	0.1365	-0.0532	0.2136	0.3308	0.1931	3.18249	-0.0534	2085	-0.002	0.1498	-0.156	0.1426						
2090	2.23	-0.0191	0.2047	0.1359	-0.0683	0.2312	0.3653	0.1996	3.22157	-0.0578	2090	-0.007	0.1547	-0.1632	0.1445						
2095	2.235	-0.0367	0.2065	0.1347	-0.0844	0.2453	0.3939	0.1996	3.23262	-0.0613	2095	-0.0125	0.1591	-0.17	0.1457						
2100	2.2328	-0.0561	0.2072	0.133	-0.1012	0.2592	0.4232	0.1996	3.23287	-0.0648	2100	-0.0187	0.1631	-0.1763	0.1462						